4.3 BIOLOGICAL RESOURCES

4.3.1 Issues

Implementation of the Downtown Specific Plan will induce population growth and development which may impact sensitive plant or animal species or regulated waters known from the area. In this section only of Chapter 4, the Methodology discussion (4.3.2) precedes the Setting discussion because the methodology establishes how the setting was determined and provides definitions of special status species.

4.3.2 Methodology

This biological resources analysis was prepared by Monk & Associates, Inc. (Monk) under contract with the City of Cotati. Monk researched the most recent version of the California Department of Fish and Game (CDFG) Natural Diversity Database, RareFind 3.1 application (CNDDB 2005) for historic and recent records of special-status plant and animal species known to occur in the region of the DSP area. In addition, Monk researched the California Native Plant Society's (CNPS) electronic version of their Inventory (CNPS 2001, as annually updated) which lists special-status plant species known from the DSP area's U.S. Geological Survey quadrangles. Monk examined all known record locations for special-status species to determine if these species had the potential to occur in the habitats present within the DSP area or if any of these species had been recorded within the DSP area. Monk also reviewed the Sonoma County Breeding Bird Atlas (Burridge 1995). Finally, Monk examined the Santa Rosa Plain Conservation Strategy (Conservation Strategy) (U.S. Fish and Wildlife Service [USFWS] et al. 2005, with Figure 3 updated on April 17, 2007) and the USFWS 2007 Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers (Corps) Permitted Projects that Affect the California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain (USFWS 2007). The Conservation Strategy was co-developed by the USFWS, CDFG, and the affected cities. The Programmatic is a biological opinion prepared by the USFWS that is based upon the Conservation Strategy.

To address the potential presence of special-status plant species within the DSP area, focused surveys for special-status plants were completed by Monk on the Saint Joseph's Church property (assessor's parcel 144-170-009) in 2003 and 2004. In 2005, Monk biologists also conducted focused surveys for special-status plants in all other natural habitats within the DSP area on April 11, 13, 22, May 23, and June 27, 2005.

To address the potential presence of Corps jurisdictional "waters of the United States," including wetlands, on specific parcels within the DSP area, Monk was retained by Saint Joseph's Church to complete a preliminary wetland delineation of their property. In 2003, Monk completed a preliminary wetland delineation of the St. Joseph's Church property (assessor's parcel 144-170-009) and had the delineation verified by the Corps.

To address the potential presence of California tiger salamander within the DSP area, Monk was retained by two landowners within the DSP area, Saint Joseph's Church and R&O Rentals, to conduct protocol surveys for California tiger salamander on their properties. Protocol level surveys for California tiger salamander were conducted on both properties (assessor's parcels 144-170-009 and -004) during the winter and spring of 2002, 2003, and 2004.

Finally, on October 18, 2005 Monk conducted a field reconnaissance of the entire DSP area to characterize plant communities, wildlife habitats, and to look for areas that support potential "waters of the United States," including wetlands. Monk did not have permission to enter all properties within the DSP area at the time of the October 2005 reconnaissance; therefore, this field visit was only cursory. Monk was able to view all properties from street locations and other vantage points. It should be noted that all inaccessible properties supported single-family homes in an area that has been urbanized for many years. The results of the literature search and field research are presented in this analysis. It should be noted that the analysis includes an assessment of the potential for impacts to regulated waters but does not provide the level of detail required for a formal delineation of waters suitable for submittal to the Corps for the entire DSP area.

Definitions of Special-Status Species

For purposes of this analysis, special-status species are plants and animals that are legally protected under the California and Federal Endangered Species Acts (CESA and FESA, respectively) or other regulations, and species that are considered rare by the scientific community, such as the California Native Plant Society (CNPS). Plants on CNPS' Lists 1B and 2 meet the California Environmental Quality Act (CEQA) definition of "rare," see definitions below. Special-status species are defined as:

- Plants and animals that are listed or proposed for listing as threatened or endangered under CESA (Fish and Game Code §2050 *et seq.*; 14 CCR §670.1 *et seq.*) or FESA (50 CFR 17.12 for plants; 50 CFR 17.11 for animals; various notices in the Federal Register [FR] for proposed species);

- Plants and animals that are candidates for possible future listing as threatened or endangered under FESA (50 CFR 17; FR Vol. 64, No. 205, pages 57533-57547, October 25, 1999); and under CESA (California Fish and Game Code §2068);

- Plants and animals that meet the definition of endangered, rare, or threatened under CEQA (14 CCR §15380) that may include species not found on either State or Federal Endangered Species lists (for example, the burrowing owl, the loggerhead shrike, plants on CNPS List 1B or List 2);

- Plants occurring on Lists 1A, 1B, 2, 3, and 4 of CNPS Electronic Inventory (2001). The CDFG recognizes that Lists 1A, 1B, and 2 of the CNPS inventory contain plants that, in the majority of cases, would qualify for State listing, and CDFG requests their inclusion in EIRs. Plants occurring on CNPS Lists 3 and 4 are "plants about which more information is necessary," and "plants of limited distribution," respectively (CNPS 2001). Such plants may be included as special-status species on a case by case basis due to local significance or recent biological information;

- Migratory nongame birds of management concern listed by USFWS (Migratory Nongame Birds of Management Concern in the United States: The list 1995, Office of Migratory Bird Management, Washington D.C., Sept. 1995);

- Animals that are designated as "species of special concern" by CDFG (2006);

- Animal species that are "fully protected" in California (Fish and Game Codes 3511, 4700, 5050, and 5515).

The paragraphs below provide further definitions of legal status as they pertain to the special-status species discussed in this section; see Appendix 4.3 for more detailed tables on species.

Federal Endangered or Threatened Species. A species listed as Endangered or Threatened under FESA is protected from unauthorized "take" (that is, harass, harm, pursue, hunt, shoot, trap) of that species. If it is necessary to take a federally listed Endangered or Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from the USFWS prior to initiating the take.

State Threatened Species. A species listed as Threatened under the State Endangered Species Act (§2050 of California Fish and Game Code) is protected from unauthorized "take" (that is, harass, pursue, hunt, shoot, trap) of that species. If it is necessary to "take" a State listed Threatened species as part of an otherwise lawful activity, it would be necessary to receive permission from CDFG prior to initiating the "take."

California Species of Special Concern. These are species in which their California breeding populations are seriously declining and extirpation from all or a portion of their range is possible. This designation affords no legally mandated protection; however, pursuant to the CEQA Guidelines (14 CCR §15380), some species of special concern could be considered "rare." Pursuant to its rarity status, any unmitigated impacts to rare species could be considered a "significant effect on the environment" (§15382). Thus, species of special concern must

be considered in any project that will, or is currently, undergoing CEQA review, and/or that must obtain an environmental permit(s) from a public agency.

CNPS List Species. The CNPS maintains an inventory of special status plant species. This inventory has four lists (List 1, List 2, List 3, and List 4) of plants with varying rarity. Although plants on these lists have no formal legal protection (unless they are also State or Federal listed species), CDFG requests the inclusion of List 1 species in environmental documents. In addition, other state and local agencies may request the inclusion of species on other lists as well. List 1 species have the highest priority: List 1A species are thought to be extinct, and List 1B species are known to still exist but are considered "rare, threatened, and endangered in California and elsewhere." List 2 species are rare in California, but more common elsewhere. Lists 3 and 4 contain species about which there is some concern, and are review and watch lists, respectively. Additionally, in 2006 CNPS updated their lists to include "threat code extensions" for each list. For example, List 1B species would now be categorized as List 1B.1, List 1B.2, or List 1B.3. These threat codes are defined as follows: 1.B.1 is considered "seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);" 1B.2 is "fairly endangered in California (20-80% of occurrences threatened);" 1B.3 is "not very endangered in California (less than 20% of occurrences threatened or no current threats known)."

Under the CEQA review process, only CNPS List 1 and 2 species are considered since these are the only CNPS species that meet CEQA's definition of "rare" or "endangered" (14 CCR §15380). Impacts to List 3 and 4 species are not regarded as significant pursuant to CEQA. Further explanation of the protected status of List 1 and 2 plants is provided below.

All of the plants constituting List 1A meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

All of the plants constituting List 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.
All of the plants constituting List 2 meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code, and are eligible for State listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

Fully Protected Birds. Fully protected birds, such as the white-tailed kite and golden eagle, are protected under California Fish and Game Code (§3511). Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time.

Protected Amphibians. Under Title 14 of the California Code of Regulations (14 CCR 41), protected amphibians, such as the California tiger salamander, may only be taken under special permit from the CDFG issued pursuant to Sections 650 and 670.7 of these regulations.

4.3.3 Setting

General

The Cotati area is bounded by the Sonoma Mountains to the east; this mountain range separates the Petaluma/Santa Rosa and Sonoma valleys. The DSP area is relatively flat, with grasslands, horse pastures, and ranchettes dominating the open areas. Drainages, both ephemeral and intermittent, traverse Cotati. In the undeveloped, rural areas of Cotati, tree cover is sparse and ruderal (weedy) grassland/herbaceous cover dominates.

Upland Plant Communities and Associated Wildlife Habitats

Historically the low lying areas of Cotati were likely dominated by a valley oak (*Quercus lobata*) savannah. True dense oak woodland likely never developed in these low lying areas due to the presence of extensive wetland habitats which suppressed root development of oaks in areas that remained saturated or inundated for several to many months each year. Steeper and north-facing slopes likely supported a canopy cover of valley oaks and black oaks (*Quercus kelloggii*). Oak woodland/ savannah vegetation still occurs in rare locations in the Santa Rosa Plain, although in the Cotati area persists only in remnant stands. Development and agricultural practices eliminated most oak dominated habitats in the Cotati area many years ago. Plant communities that occur within the DSP area are discussed below.

Ruderal Non-native Annual Grassland. Prior to the settlement of Europeans in California, California grasslands and savannahs were dominated by native, perennial bunchgrasses. When the Europeans settled California, woodland vegetation was cleared for settlement to allow for grazing opportunities, and for commercial purposes. At the same time a variety of Mediterranean grasses and forbs (broad-leaved plants) were brought to California and introduced as crops or ornamental species, or inadvertently were transported to California grassland communities in the fur and digestive systems of livestock. Land use changes including land clearing, planting to livestock-friendly grasses, and heavy domestic animal grazing changed the landscape and the oak savannah/ grassland communities. The highly palatable native grassland plants and forbs were out-competed by the introduced exotic species. Today, introduced species tolerant of grazing pressure, particularly annual grasses of Eurasian ancestry, have mostly displaced the native grasses, creating a non-native annual grassland community.

Grasslands that remain within the DSP area are an example of how livestock grazing and other man-induced activities can greatly change the vegetative composition of the landscape. Remaining grasslands in the DSP area have been grazed by livestock over the past century. Parcels that are limited to "backyards," paddocks, and/or corrals, typically do not support non-native annual grassland, rather only remnants of this habitat. Hence, this can be defined as a ruderal (or weedy) grassland habitat.

Grassland communities within the DSP area are limited to a few areas in the northern part of the plan area. Such grasslands provide habitat for common, graniverous (seed-eating) birds such as mourning dove (*Zenaida macroura*), house finch (*Carpodacus mexicanus*), savannah sparrow (*Passerculus sandwichensis*), and lesser goldfinch (*Carduelis psaltria*). These grasslands also provide habitat for common insectivorous birds such as western meadowlark (*Sturnella neglecta*), western bluebird (*Sialia mexicana*), Say's phoebe (*Sayornis saya*), American pipit (*Anthus rubescens*), and northern mockingbird (*Mimus polyglottos*), among others. Other common animals that likely occur in the remnant grassland habitats include black-tailed hare (*Lepus californicus*), brush rabbit (*Sylvilagus bachmani*), Botta's pocket gopher (*Thomomys bottae*), California meadow vole (*Microtus californicus*), and western harvest mouse (*Reithrodontomys megalotis*), and raptors such as American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) which prey on the smaller birds and mammals. Oak trees scattered in the remnant grassland community provide perching opportunities and vantage points for raptors in search of their prey. Larger mammals such as European red fox (*Vulpes vulpes*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*) can be expected in the grasslands within the DSP area.

Ruderal. Roadsides, vacant lots, and other disturbed, open areas within the DSP area are dominated by ruderal plant species. Ruderal communities are assemblages of plants that thrive in waste areas and similar disturbed sites in towns and cities (Holland and Keil 1995). Ruderal habitats are the dominant habitats within the DSP outside of already developed conditions. Ruderal habitats are dominated by introduced grasses and forbs that eventually out-compete and replace the original native grassland species. Examples of ruderal plant species found within the DSP area are yellow star thistle (Centaurea solstitialis), filarees (Erodium botrys, E. brachycarpum, E. cicutarium, E. moschatum), sow's ear (Sonchus oleraceus, S. asper), four-leaved allseed (Pollycarpon tetraphyllum), prickly lettuce (Lactuca serriola), sweet fennel (Foeniculum vulgare), and poison hemlock (Conium maculatum).

Animals found in ruderal habitats are typically those species adapted to man and man-induced disturbance such as house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), northern mockingbird, rock dove (*Columba livia*), Virginia opossum, raccoon (*Procyon lotor*), and feral cat (*Felis cattus*).

Eucalyptus Groves. Various species of Eucalyptus trees have been planted in California for windbreaks, wood, pulp, ornamental, and other uses. These areas constitute a plantation community (Holland and Keil 1995) and are usually composed of a single species in a very dense planting. In the DSP area, blue gum eucalyptus trees (*Eucalyptus globulus*) are commonly observed planted in single rows or in clumps, probably as windbreaks. Blue gum trees tower over all of the species native to the area. The trees shade the ground and litter the soil surface with fallen branches, leaves, fruits, and bark. Rainwater passing through the leaves and branches carry dissolved chemicals that add to the substances leached from the fallen litter producing a significant allelopathic (growth inhibiting) effect on understory vegetation. The net result is that very few other plant species are able to grow around or under the blue gum trees. Consequently, the understory is often sparse if present at all. Thus, in areas where blue gum trees have been planted, they have almost completely replaced the native vegetation (Holland and Keil 1995).

Eucalyptus do, however, provide suitable nesting habitats for many bird species, ranging from passerine birds (perching birds) such as northern mockingbirds (*Mimus polyglottos*) to larger birds such as hawks and owls (collectively known as raptors). In the highly urbanized setting, the eucalyptus trees within the DSP area could be expected to support nesting red-tailed hawks, red shouldered hawks (*Buteo lineatus*), American kestrels, great horned owls (*Bubo virginianus*), barn owls (*Tyto alba*), and western screech owls (*Otus kennicottii*). The great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), and black-crowned night heron (*Nycticorax nycticorax*) are also known to establish rookery sites (i.e., colonial nest sites) in Eucalyptus groves, but such rookeries do not occur in the Cotati DSP area.

Aquatic Plant Communities and Associated Wildlife Habitats

Aquatic plant communities and associated wildlife habitats within the DSP area are described below.

Seasonal Wetlands. Seasonal wetlands are habitats that may appear dry in the summer and fall months, but by the first winter rains become inundated and hold water for a period of several weeks to months at a time. Unlike vernal pools, most of which were naturally formed, seasonal wetlands in the Cotati DSP area were created inadvertently by humans. Owing to soils with high clay content or that otherwise are mostly or partially impervious, in any instance where depressional topography occurs or was inadvertently created through human activities, such areas perch seasonal rainfall over short to long durations of the winter and spring. Such areas eventually colonize are dominated by seasonal wetland plants and otherwise persist as seasonal wetlands.

Seasonal wetlands typically remain inundated or saturated for several months or longer in the winter and spring months. These wetlands are characterized by hydric soils and confining topography such as topographic low areas. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic (absence of free oxygen) conditions within the upper part of the soil profile. Seasonal wetland habitats are not as specialized as vernal pool habitats, and do not support as specialized a floral component. Vernal pool habitats, regarded as having very high ecological value, are not found in the DSP area.

Seasonal wetlands can provide many of the same important functions as vernal pool habitats including ground water recharge and discharge, pollutant filtration, and serving as an aquatic habitat for a variety of wildlife species ranging from invertebrates and insects to amphibians, reptiles, birds, and mammals. Seasonal wetlands in the DSP area support cosmopolitan wetland species such as umbrella sedge, hyssop loose strife (*Lythrum hyssopifolium*), curly dock (*Rumex crispus*), and rabbit's foot grass (*Polypogon monspilensis*) among others. Rare wetland plants are not known to occur in seasonal wetlands found within the DSP.

Seasonal wetlands provide a seasonal water source for wildlife. These temporary aquatic habitats typically saturate after the first winter rains and after there has been sufficient rainfall may inundate. Typically, seasonal wetlands in the DSP remain saturated or inundated through March, or in an above normal rainfall year, may stay inundated as late as mid-May. This inundation period allows many amphibian and invertebrate species the

opportunity to lay their eggs, hatch, and develop to metamorphosis. Western toads (*Bufo boreas*) and Pacific tree frogs (*Hyla regilla*), and invertebrates such as may flies (*Ephemeroptera*), damselflies (*Odonata*), and predaceous diving beetles (*Dytiscidae*), are common in the DSP area seasonal wetlands.

Stream Channels and Drainages. Two drainages flow through the DSP area. Laguna de Santa Rosa, which is regarded by the Corps as a Relatively Permanent Water (RPW), crosses north to south through the very northern tip of the DSP area. Cotati Creek, an intermittent to perennial creek that runs west to east through the southern portion of the DSP area and also would be regarded by the Corps as an RPW (Figure 4.3-1).[1]

[1] Note: Figures in this section have a more generalized boundary.

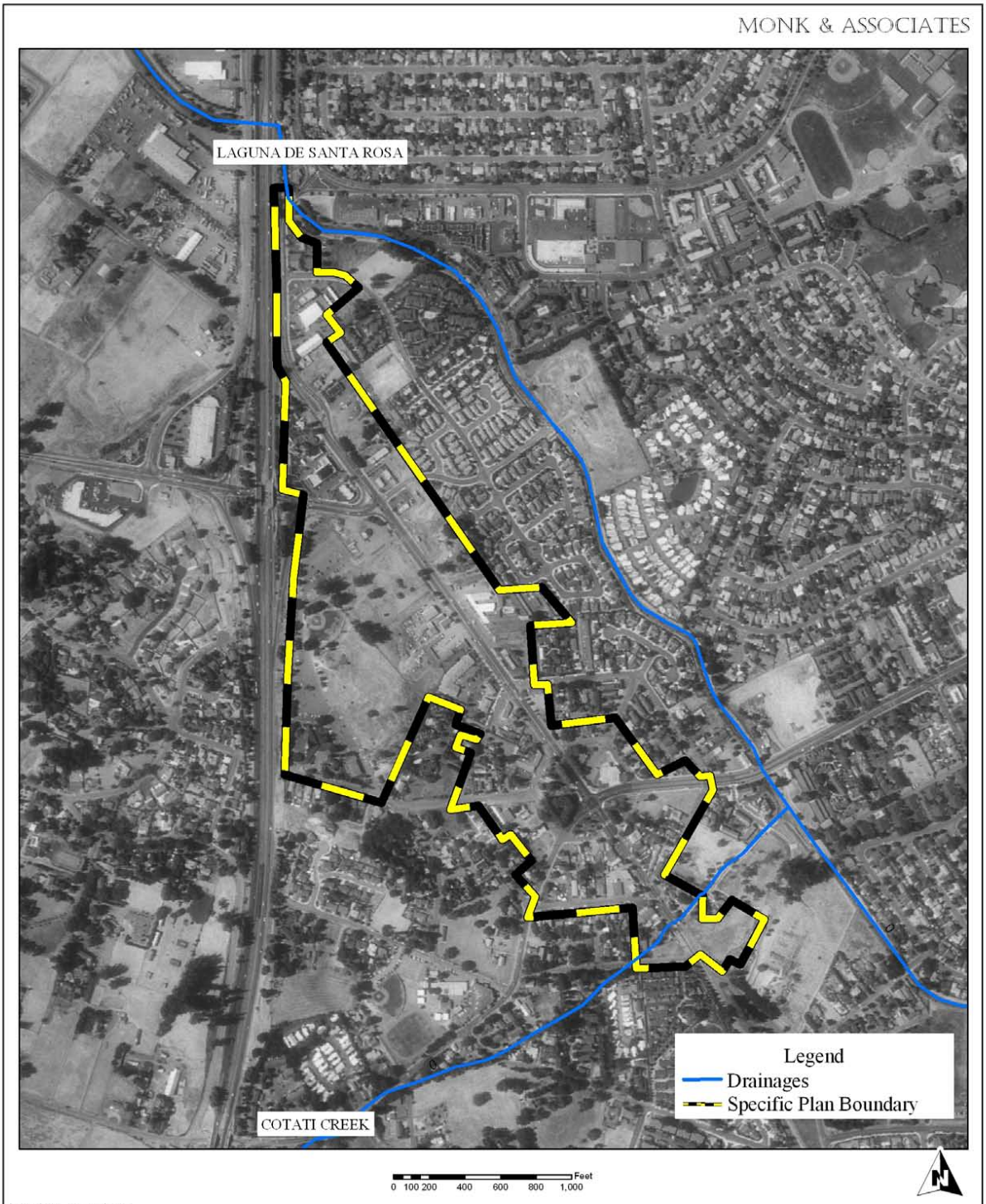

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Figure 4.3-1. Streams & Drainages
City of Cotati Specific Plan Area
Cotati, California

Map Preparation Date: November 9, 2005
Source: California Spatial Information Library
Digital Orthophoto (Quarter) Quads - DOQQs
Aerial Photograph Date: 1999

These two drainages transport stormwater during the winter and spring months of the year. They may continue flowing all year owing to contributions of water from human activities associated with irrigation and other urban runoff contributions. These drainages provide a water source for wildlife. Where the drainages support wetland or riparian vegetation, either herbaceous or woody, they also provide wildlife with cover, food, resting and nesting habitat.

Willow Scrub Riparian. Riparian scrubs generally grow along stream courses where less water is available and a riparian woodland community cannot develop. Scrubby riparian habitats usually support shrubs or low trees and a less complex vegetative structure than other riparian habitats. Sections of Cotati Creek within the DSP area support willow scrub habitat. Red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*) are dominant tree species in willow scrub riparian habitats. Himalayan blackberry (*Rubus discolor*) is a non-native shrub that dominates the shrub stratum within the DSP area. Cattails (*Typha spp.*) and bulrushes (*Schoenoplectus spp.*) are common where there is a break in the tree canopy and the channel is open and exposed to sunlight. Various other herbaceous species associated with creeks and wetlands also grow along the channel.

Willow scrub riparian habitat is associated with drainages. Drainages within the DSP area provide a water source for birds, mammals, amphibians, and reptiles, as well as providing breeding habitat for common amphibian species such as Pacific tree frog, western toad, and California newt (*Taricha torosa*). Within the DSP area, a myriad of invertebrates and insects complete their life cycle in drainages as well. Mallards (*Anas platyrhynchos),* raccoons, Columbian black-tailed deer, and opossums all can be expected to be found using such drainages. The vegetation and sap of red willows and arroyo willows typically attracts numerous insects to their branches. These insects, in turn, attract common insectivorous bird species such as ruby-crowned kinglet (*Regulus calendula*), bushtit (*Psaltriparus minimus*), yellow-rumped warbler (*Dendroica coronata*), and less common species such as Neotropical migrants like the yellow warbler (*Dendroica petechia*), among others.

Special-Status Species

A review of CDFG's Natural Diversity Database (CNDDB) (RareFind 3.1) and the CNPS electronic Inventory (CNPS 2001) generated lists of special-status plant and animal species (that is, those species federally or state listed as endangered or threatened, or considered species of special concern, or locally rare) known from the region of the DSP area. A brief discussion on special-status species with potential to occur in the DSP area is provided below.

Plants. Most of the DSP area is developed or is very disturbed within an urbanized setting. Such areas would not be expected to support special-status plants (or animals). There are remnant grassland areas that conceivably could support some special-status plant species known from Sonoma County. Hence, to address these remnant grassland areas, special-status plant surveys were conducted within the DSP area.

The majority of the DSP area is outside the geographic area referred to by the resource agencies (i.e., the Corps, CDFG, and USFWS) as the Santa Rosa Plain. Only a few developed parcels in the northern portion of the DSP area have Highway 101 frontage, and a portion of these parcels are included within the Santa Rosa Plain (see Figure 4.3-2). These developed parcels do not provide suitable habitat for special-status plants that are known from the Santa Rosa Plain.

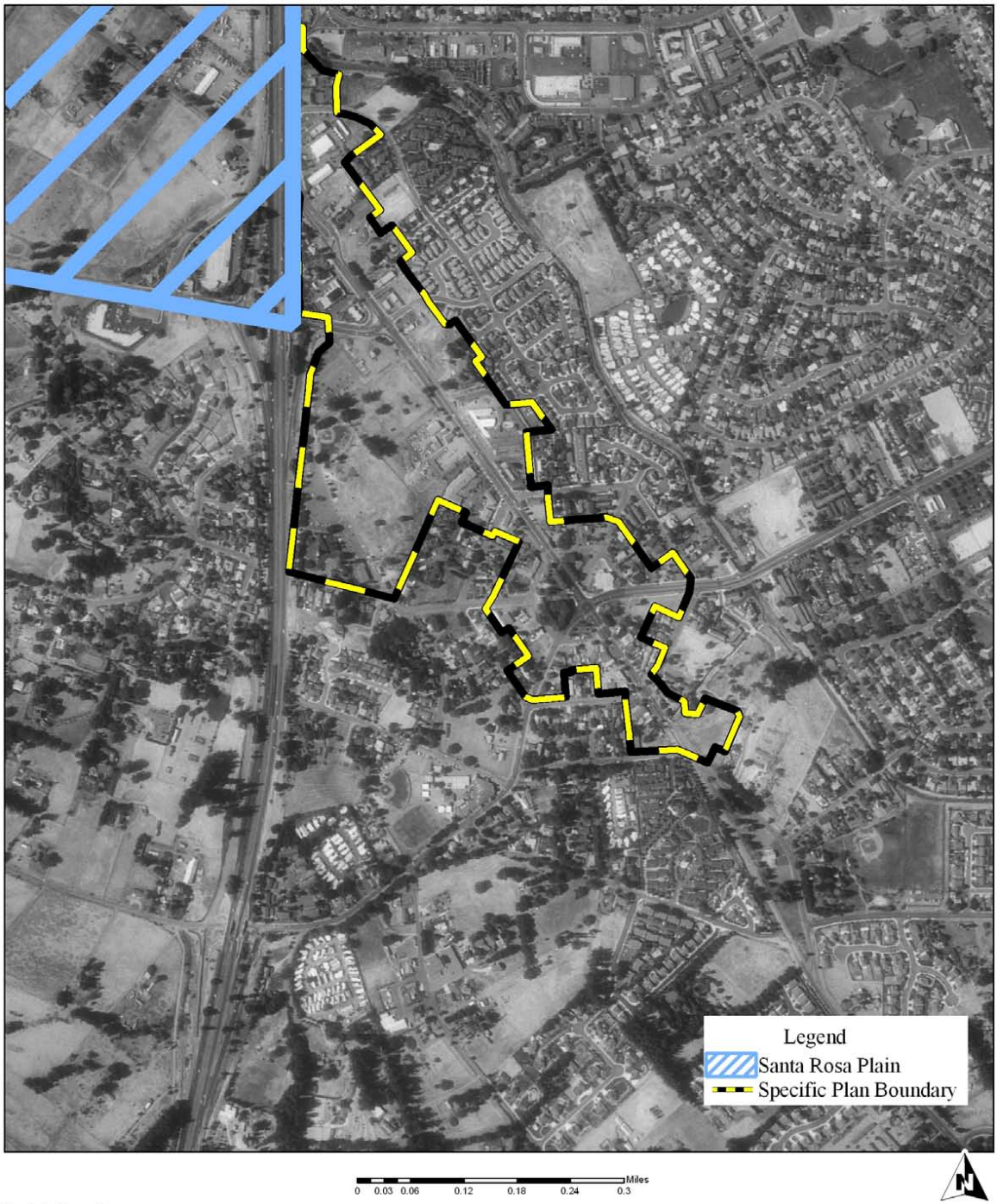

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Figure 4.3-2. Extent of Santa Rosa Plan Within Cotati Specific Plan Area Cotati, California

Map Preparation Date: May 18, 2006
Source: California Spatial Information Library
Digital Orthophoto (Quarter) Quads - DOQQs
Aerial Photograph Date: 1999

Typically, in the Santa Rosa Plain, if there are seasonal wetlands or habitats that could remotely support special-status plant species, prior to obtaining a Corps permit, pursuant to Special Regional Conditions that the Corps has published for the Santa Rosa Plain, two years of special-status plant surveys are required prior to the time the Corps would authorize a permit for the project site. Since all natural habitats within the DSP area are located south, and outside of, the Santa Rosa Plain, only one year of appropriately timed special-status plant surveys would be necessary to meet the survey requirements prescribed by CDFG and CNPS (CDFG 2000, CNPS 2001) and to otherwise meet the standards of care required by CEQA. Surveys were completed for all undeveloped parcels in the DSP area (see discussion below).

A search of the CNPS Inventory (electronic version, 2005) (CNPS 2001) for the U.S. Geological Survey's Cotati 7.5 minute quadrangle and the eight surrounding quadrangles returned 47 special-status plant species that have potential to occur within the region of the DSP area. These 47 special-status plant species are further discussed in Appendix 4.3, Table 1. Most of these 47 plant species are not expected to occur within the Cotati DSP area due to an absence of suitable habitats (for example, absence of chaparral and coastal scrub) or substrates (for example, volcanic mud flow, alkaline soils). Those species that cannot be dismissed based on an absence of suitable habitat have to be addressed in the DSP area through appropriately timed surveys. Monk botanists conducted appropriately timed, focused surveys for special-status plants on properties within the DSP area. Surveys were conducted where non-native annual grassland habitats or other ruderal habitats occur. Surveys were conducted on the Saint Joseph's Church property on March 24, April 22, May 15, 2003 and April 19, 2004. Surveys for special-status plants in other ruderal and remnant grassland habitats within the DSP area occurred on April 11, 13, 22, May 23, and June 27, 2005. No special-status plants were found during the surveys (see list of plants observed in Appendix 4.3, Table 2).

The Santa Rosa Plain Conservation Strategy map (Figure 3, revised on April 17, 2007) depicts one parcel within the DSP area as "presence of CTS not likely but mitigation for listed plants may be required." See Figure 4.3-3 for a depiction of the Conservation Strategy map in the DSP area. Focused spring and early summer surveys were conducted on this parcel in 2005 and demonstrated that special-status plants are not present (the surveys were timed during the flowering periods of the four federal listed species known to occur on the Santa Rosa Plain (*Lasthenia burkei, Blennosperma bakeri, Navarretia leucocephala* ssp. *plieantha* and *Limnanthes vinculans*). The survey months would also be suitable for detecting other special-status plant species known from the Santa Rosa Plain and Sonoma County in grassland habitats. As no rare plants were found during appropriately timed surveys, and since the areas that were surveyed are not within the Santa Rosa Plain (most of the DSP area is outside the Santa Rosa Plain), no further discussion of rare plants is required within the DSP area.

Animals. The CNDDB identified 17 special-status animal species that are known from Sonoma County; each of these species was considered for their potential to occur in the DSP area. To determine if special-status animals could be impacted by redevelopment or new development within the DSP area, Monk relied on its knowledge of special-status species distributions in Sonoma County and within the City of Cotati, and on the results of focused surveys conducted for California tiger salamander on specific parcels within the DSP area. The legal status and brief habitat descriptions for the 17 special-status animal species that are known from the Cotati area and Sonoma County are provided below. These special-status animals are also discussed in Appendix 4.3, Table 3. Animals observed within the DSP area are listed in Appendix 4.3, Table 4.

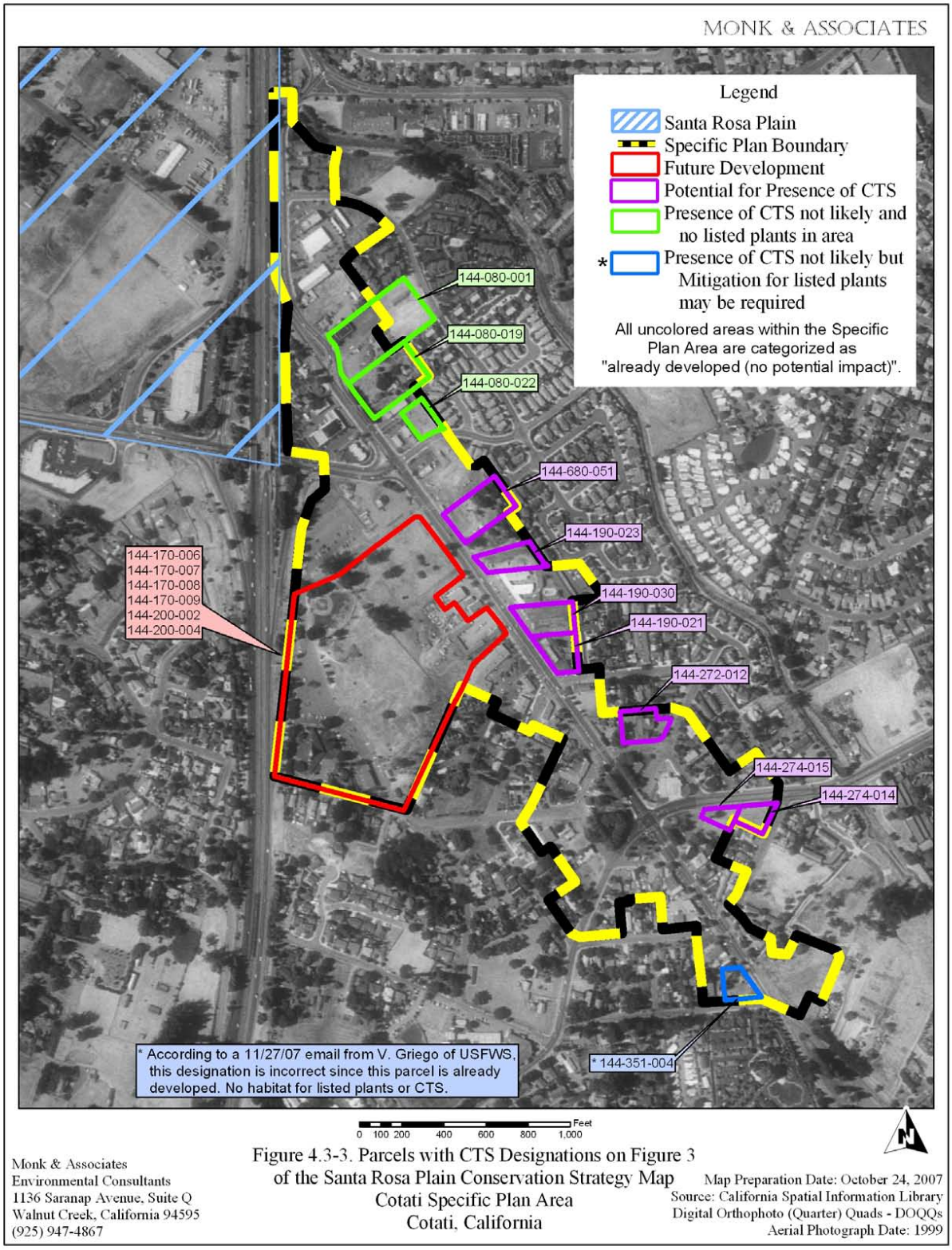

Figure 4.3-3. Parcels with CTS Designations on Figure 3 of the Santa Rosa Plain Conservation Strategy Map
Cotati Specific Plan Area
Cotati, California

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Map Preparation Date: October 24, 2007
Source: California Spatial Information Library
Digital Orthophoto (Quarter) Quads - DOQQs
Aerial Photograph Date: 1999

Special-Status Fish Known From Sonoma County

Steelhead (*Oncorhynchus mykiss*) – The steelhead is federally listed as threatened. It has no state status. The Cotati DSP area is not located within designated critical habitat of the steelhead. The closest known designated critical habitat is defined as the Central California Coast Evolutionary Significant Unit (ESU). This ESU is found from the Russian River south to Soquel Creek and to the Pajaro River. It is also found in San Francisco and San Pablo Bay Basins.

Steelhead are the anadromous (i.e., fish species born in the stream that migrate to the ocean for their adult phase) form of rainbow trout, a salmonid species native to western North America and the Pacific Coast of Asia. Steelhead are similar to some Pacific salmon in their life cycle and ecological requirements. They are born in fresh water streams, where they spend their first 1-3 years of life. They then emigrate to the ocean where most of their growth occurs. After spending between one to four growing seasons in the ocean, steelhead return to their native fresh water stream to spawn. Unlike Pacific salmon, steelhead do not necessarily die after spawning, and are able to spawn more than once. In California, most steelhead spawn from December through April in small streams and tributaries where cool, well oxygenated water is available year round. The major factor causing steelhead population decline is freshwater habitat loss and degradation. This has resulted from three main factors: 1) inadequate stream flows, 2) blocked access to historic spawning and rearing areas due to dams, and 3) human activities that discharge sediment and debris into waterways (McEwan and Jackson 1996).

Steelhead are known from parts of Copeland Creek in Cotati. Copeland Creek is located outside the DSP area yet within the Cotati General Plan Area. Within the DSP area, Cotati Creek is channelized, i.e., it is concrete-lined on the banks and bottom of the creek; it is not a "natural" creek. Monk biologists contacted National Marine Fisheries Service (NMFS) biologists for information on steelhead within the Cotati DSP area. NMFS is "unaware of any fish surveys conducted in Cotati Creek." NMFS contacted several fisheries biologists and ichthyologists in the area to try to determine if steelhead are known from this creek. The biologists contacted had no information about steelhead in Cotati Creek. However, steelhead are known to migrate along Laguna de Santa Rosa (D. Logan, NMFS, pers. comm. with S. Lynch, Monk & Associates, December 28, 2005, January 4, 2006, and November 26, 2007). While most of Laguna de Santa Rosa is outside the DSP area, this creek crosses through the northern tip of the DSP Area.

Formal surveys for steelhead have been conducted in other nearby creek channels where steelhead have been reported over the years. The absence of records for steelhead in Cotati Creek is a good indication that the creek likely does not provide suitable habitat for steelhead. The channelized condition of Cotati Creek may indicate that there are downstream impediments constructed into the channel that would prohibit use of this channel by steelhead. Regardless, most development in the City of Cotati would not significantly modify or affect the Cotati Creek channel. However, to reduce the effects of development on steelhead in other creeks downstream of Cotati, or in Laguna de Santa Rosa, existing regulations require that any new development proposed along Cotati Creek or the Laguna would have to follow Best Management Practices (BMPs) and ensure that all site runoff is treated to the specifications of the RWQCB. See the Impacts and Mitigations Section (Watercourses and Riparian Areas) for details. Any development activity that would affect the banks/sides of this creek would require a permit from CDFG pursuant to Section 1602 of the Fish and Game Code. Any project that would impact below the ordinary high water marks of this creek would require permits from CDFG (pursuant to Section 1602 of California Fish and Game Code), the Corps (pursuant to Section 404 of the Clean Water Act), and the RWCQB (Section 401 of the Clean Water Act), and may require an Incidental Take permit from NMFS pursuant to Section 7 of FESA (please see the discussion on FESA, Section 4.3.4, below, for more information).

Amphibians Known From Sonoma County

The California red-legged frog and California tiger salamander are discussed in this section. Other special-status amphibians considered for the DSP area and dismissed from consideration due to an absence of suitable habitat are listed in Table 3 at Appendix 4.3. Those amphibians are not discussed below.

California red-legged frog (*Rana aurora draytonii*) – The California red-legged frog is a federal listed threatened species. This frog is also a California species of special concern. The California red-legged frog is typically found in slow-flowing portions of perennial streams, and in ephemeral streams and hillside seeps that maintain pool environments or saturated soils throughout the summer months. It has been recorded in ponds and streams in Sonoma County (CNDDB records), yet it is unknown in the DSP area. Cotati Creek and Laguna de Santa Rosa within the DSP area do not provide suitable habitat for this frog species since these creeks are channelized, have high fast winter flows which would disrupt egg masses, and both creeks are perennial and support red-legged frog predators (for example, bullfrogs and crayfish). The Laguna de Santa Rosa has larger fish species that would preclude use of this water body by the California red-legged frog. The channelized condition of Cotati Creek and the absence of emergent aquatic vegetation would preclude use of this creek by California red-legged frogs. It should be noted that the flat, concrete bottom of Cotati Creek also does not provide pools that could be used by the California red-legged frog to breed in or otherwise escape predators such as the raccoon. Hence, no impacts to the California red-legged frog are expected from development within the DSP area.

California Tiger Salamander (*Ambystoma californiense*) – The California tiger salamander is listed as an endangered species in Sonoma County pursuant to the FESA. The California tiger salamander is also designated as a California species of special concern. This California status affords the California tiger salamander no legally mandated state protection; however, pursuant to CEQA (14 CCR §15380), this species must be considered in any project that will undergo, or is currently undergoing CEQA review, and/or any project that must obtain an environmental permit(s) from a public agency (e.g., the Corps). The California tiger salamander is also protected under Title 14, CCR 41 (1996); under those regulations, California tiger salamander is a protected amphibian that may only be taken or possessed under a special permit issued by CDFG pursuant to sections 650 and 670.7 of these regulations, or Section 2081 of the Fish and Game Code.

Regulatory Requirements for the California Tiger Salamander Within the DSP Area – The USFWS, the CDFG and other participating agencies, the County of Sonoma, and cities have developed and are implementing a Conservation Strategy for the California tiger salamander and other federal and state listed plant species that occur in or adjacent to the Santa Rosa Plain within Sonoma County. As noted above, the Santa Rosa Plain Conservation Strategy was prepared by the Conservation Strategy Team, composed of staff from the USFWS, CDFG, the Corps, U.S. Environmental Protection Agency (EPA), RWQCB, and participating cities including the City of Cotati. The Conservation Strategy provides maps that designate how particular areas within Sonoma County will be preserved or protected for the California tiger salamander (and other listed species), and provides guidance for each management directive.

According to the April 17, 2007 update to Figure 3 of the Conservation Strategy, most of the parcels within the DSP area have no special designation and thus are regarded as "already developed (no potential for impact)." (These parcels are gray, or uncolored, on Figure 3 of the Conservation Strategy which is replicated as Figure 4.3-3 of this document). There are no requirements for addressing potential impacts to California tiger salamander on these parcels. It should be noted that three of the gray-colored parcels (assessor's parcels 144-070-026, 144-060-014, and 144-170-002) have already received "no effect" letters from the USFWS regarding the California tiger salamander and, thus, USFWS has acknowledged that there would be no impact to this salamander from development of these parcels.

Six parcels within the DSP area are categorized as "future development" on Figure 3 of the Conservation Strategy. These parcels are the St. Joseph's Church property and the R&O Rentals property. These six parcels support non-native annual grassland and seasonal wetland habitats. Monk conducted USFWS-approved protocol California tiger salamander surveys (drift fence surveys and larval dip-netting surveys). No tiger salamanders were found after two years of appropriately timed surveys. In a recent conference call with USFWS Sacramento Field Office, Ms. C. Goude of USFWS explained that once a project application is submitted to the USFWS for these parcels (either via Section 7 or Section 10 of FESA), provided that the protocol level surveys were conducted correctly, development of these parcels would be regarded as having "no effect" on the California tiger salamander (January 8, 2008 telephone conference call with Mr. G. Monk, Monk & Associates, Ms. D. Thompson and Ms. M. Lustig, City of Cotati, and Ms. C. Goude and Mr. V. Griego of USFWS).

Three parcels (assessor's parcels 144-080-001, 144-080-019, and 144-080-022) within the DSP area are designated on Figure 3 of the Conservation Strategy as "presence of CTS not likely and no listed plants in area." During a conference call with Mr. V. Griego and Ms. C. Goude of USFWS Sacramento Field Office on January 8, 2008, Monk was told that these three parcels received this designation because applicants had completed formal California tiger salamander protocol assessments and/or surveys, and had received "letters of no effect" from the USFWS. USFWS also stated that they no longer issue "no effect" letters in this manner; rather, they wait until an application is under formal review at the USFWS offices (either via Section 7 or Section 10 of FESA) (January 8, 2008 telephone conference call with Mr. G. Monk, Monk & Associates, Ms. D. Thompson and Ms. M. Lustig, City of Cotati, and Ms. C. Goude and Mr. V. Griego of USFWS).

One parcel (assessor's parcel 144-351-004) is designated on Figure 3 of the Conservation Strategy as "presence of CTS not likely but mitigation for listed plants may be required." However, Enclosure 1 of the Programmatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects That May Affect CTS and Three Endangered Plants on the Santa Rosa Plain, California (Corps File Number 223420N), prepared by the USFWS and released November 9, 2007 (herein referred to as the Programmatic Biological Opinion), designates this same parcel as "may affect CTS, but no effect to listed plants." Per an email from Mr. V. Griego of USFWS on November 27, 2007, these designations are incorrect as this parcel is already developed and does not support habitat for California tiger salamander or listed plants.

Finally, seven different parcels within the DSP area are considered by the Conservation Strategy to have "potential for presence of California tiger salamander" (see Figure 4.3-3). These seven assessor's parcels are APN 144-680-051, 144-190-023, 144-190-030, 144-190-021, 144-272-015, 144-274-014, and 144-274-015. These parcels provide degraded grassland or ruderal upland habitats that could provide California tiger salamander with over-summering habitat. Breeding habitat does not occur on these parcels. In order for the landowner (and the City of Cotati) to remain in compliance with the Conservation Strategy, and/or the USFWS and CDFG joint survey protocol, which were prepared to ensure protection of this federal listed species, a "site assessment" following the requirements of the USFWS survey protocol (USFWS 2003) for California tiger salamander for each of these individual parcels (or one assessment for a collective development proposal for all parcels) would have to be completed and submitted to the USFWS. Upon review of this assessment, the USFWS would then determine if a FESA "incidental take" permit and mitigation compensation would be required for development of these parcels.

Until the Conservation Strategy is adopted, the USFWS will continue to allow applicants the opportunity to prove absence of the California tiger salamander by implementing the two-year survey protocol. In lieu of completing a protocol survey, applicants could "assume presence" of the California tiger salamander, and thus, de facto agree to mitigation compensation following the "interim mitigation guidelines" prescribed in the Conservation Strategy. Once the Conservation Strategy is adopted, protocol surveys likely will no longer be allowed by the USFWS and tiered mitigation ratios will no longer be an option (G. Monk pers. comm. with C. Goude January 8, 2008). Rather, applicants will

be required to implement a 2:1 mitigation ratio for project sites within 1.3 miles of a known breeding site.

Under the mitigation option, an Incidental Take permit from the USFWS would be required prior to the time the parcel could be developed. It should be emphasized that applicants cannot mitigate without first conducting a site assessment, submitting it to the USFWS, and obtaining an Incidental Take permit from the USFWS pursuant to FESA. More information on how to obtain an Incidental Take permit is provided in the FESA section of this document (Section 4.3.4). Further discussion of mitigation and mitigation ratios is provided in the Impacts and Mitigations section.

California Tiger Salamander Life History – California tiger salamanders occur in grasslands and open oak woodlands that provide suitable summer retreats and/or breeding habitats. California tiger salamanders spend the majority of their lives underground. They typically only emerge from their subterranean refugia for a few nights each year during the rainy season to migrate to breeding ponds. In Sonoma County, where there is a very small California ground squirrel (*Spermophilus beechyi*) population, and thus very few burrows, it is unclear where the California tiger salamander spends its summers. Most biologists now believe this salamander spends its summers living in Botta's pocket gopher burrows, or beneath cracks in the soil or in debris piles.

The tiger salamander emerges during the first heavy, warm rains of the year, typically in late-November and early December and migrates to its breeding pools. California tiger salamander larvae need ponded water for a minimum of 10 weeks in order for larvae to fully metamorphose.

California tiger salamanders are known to occur in numerous locations west of Highway 101 along Helman Avenue, Highway 116, and westward to Stony Point Road in the western areas of the City of Cotati. They were also known from a breeding pool located east of the DSP area along Eucalyptus Avenue. This breeding pool was filled and it is unknown if the salamander still is present in this area. At this time there are no confirmed sightings of California tiger salamander in the DSP area.

Birds Known From Sonoma County

Raptors (birds of prey) and other special-status birds that are known to occur in Sonoma County and that could nest within the DSP area are discussed below. Figure 4.3-4 shows parcels within the DSP area with potential for presence of nesting raptors.

Western burrowing owl (*Athene cunicularia hypugaea*) – The western burrowing owl is a California species of special concern. Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, §3800, and §3513). The burrowing owl is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Burrowing owl habitat is usually found in annual and perennial grasslands, characterized by low-growing vegetation. Often the burrowing owl utilizes rodent burrows, typically ground squirrel burrows, for nesting and cover.

According to the Sonoma County Breeding Bird Atlas (Burridge 1995), the burrowing owl no longer breeds in Sonoma County. The paucity of California ground squirrel burrows in the flatter areas of the County could be one explanation, since this owl is mostly dependent upon the burrows of other animals for nesting. In 1991, an extensive census of burrowing owls was begun by Dave DeSante of the Institute for Bird Populations and, as a result, the burrowing owl has become one of the most carefully studied birds in the Breeding Bird Atlas. Although this owl is not known to breed in the County, it would not be implausible to observe the western burrowing owl in the more open areas of the DSP area in fall months when this owl is dispersing from its breeding habitats. However, based upon available information, this owl is not resident and likely will not become resident in the DSP area.

Red shouldered hawk (*Buteo lineatus*) – The red shouldered hawk is protected under the Migratory Bird Treaty Act (50 CFR 10.13) and under California Fish and Game Code Sections 3503, 3503.5, 3800, and 3513 which protect nesting raptors and their eggs/young. Blue gum eucalyptus (*Eucalyptus*

globulus) trees have become favorite nesting trees for this species in California. This medium-sized raptor prefers the largest trees in a particular area for nest construction. A stick nest is constructed and usually two to four eggs are laid in the spring. Incubation lasts about 27 days. Usually two or three nests are built over a several year period by a nesting pair and then are reused year after year. Prey consists of reptiles and small rodents.

Based on the field reconnaissance of the DSP area, the DSP area was determined to provide suitable habitat for red shouldered hawks to nest. The term "suitable habitat" does not infer that the species nests within the DSP area, but that the habitat (that is, trees) within the DSP area is appropriate for this raptor to nest. Surveys would need to be conducted to determine this species' nesting status within the DSP area.

Figure 4.3-4. Parcels within the Downtown Specific Plan Area with Potential for Nesting Raptors.

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Map Preparation Date: November 28, 2007
Source: California Spatial Information Library
Digital Orthophoto (Quarter) Quads - DOQQs
Aerial Photograph Date: 1999

Red-tailed hawk (*Buteo jamaicensis*) – The red-tailed hawk is protected under the Migratory Bird Treaty Act (50 CFR 10.13) and under California Fish and Game Code §3503, 3503.5, 3800, and 3513 which protect nesting raptors and their eggs/young. This raptor species has an extremely wide tolerance for habitat variation, which can be attributed to its very broad spectrum of prey (Johnsgard 1990). Some clear habitat preferences do exist, however, and have been analyzed by a variety of studies. Habitat preferences in the winter for both sexes are oriented toward upland pasture, grassland, and hardwood habitats, with females also using lowland hardwoods and males using marsh–shrub communities. In the spring, females continue to use mainly upland and lowland hardwoods, probably as a reflection of their orientation toward a nest site. Monk has observed red-tailed hawks nesting in a variety of tree species including eucalyptus, coast live oak, and valley oak trees. The optimal time to survey for nesting red-tailed hawks is between April 15 and May 15.

Based on Monk's field reconnaissance of the DSP area, it has been determined that the DSP area provides suitable habitat for red-tailed hawks to nest. As noted above, the term "suitable habitat" does not infer that the species nests within the DSP area, but that the habitat within the DSP area is appropriate for this raptor to nest. Surveys would need to be conducted to determine this species' nesting status.

Cooper's hawk (*Accipiter cooperi*) – The Cooper's hawk is a California species of special concern. This raptor is also protected under the federal Migratory Bird Treaty Act (50 CFR 10.13). Its nest, eggs, and young are also protected under California Fish and Game Code (§3503, §3503.5, and §3800). The Cooper's hawk is a yearlong resident of Sonoma County that typically nests along unimproved roadways or other openings in heavily wooded areas along streams, rivers, or in proximity to springs or seeps. Based on Monk's field reconnaissance of the DSP area, the DSP area does not provide suitable habitat for Cooper's hawks to nest. Thus, no impacts would occur to this species.

White-tailed kite (*Elanus caeruleus*) – The white-tailed kite is fully protected pursuant to the California Fish and Game Code. Fully protected birds may not be "taken" or possessed (i.e., kept in captivity) at any time (§3511). It is also protected under the Federal Migratory Bird Treaty Act (50 CFR 10.13). The white-tailed kite is typically found foraging in grassland, marsh, or cultivated fields where there are dense-topped trees or shrubs for nesting and perching. They nest in a wide variety of trees of moderate height and sometimes in tall bushes, such as coyote bush (*Baccharis pilularis*). There are several confirmed nesting records for this raptor in the Cotati General Plan Area (Burridge 1995), yet none within the DSP area. Regardless, suitable habitat exists within the Cotati DSP area.

Based on Monk's field reconnaissance of the DSP area, the DSP area was determined to provide suitable habitat for white-tailed kites to nest, i.e., the habitat within the DSP area is appropriate for white-tailed kites to nest. Surveys would need to be conducted to determine this species' nesting status.

Northern Harrier (*Circus cyaneus*) – The northern harrier is a California species of special concern. This raptor is also protected under California Fish and Game Code §3503.5, 3800, 3513 that protects nesting raptors and their eggs/young. The northern harrier is also protected from direct take under the Migratory Bird Treaty Act (50 CFR 10.13). Northern harriers build grass-lined nests on the ground within dense, low-lying vegetation in a variety of habitats, though they are typically found nesting in grassland or marsh habitats. They usually nest on level to near level ground. According to the Sonoma County Breeding Bird Atlas, this species is a common visitor to the DSP area (that is, it hunts within the DSP area); there are several possible nest sites in the general vicinity of Cotati (Burridge 1995). This hawk typically is very wary of disturbance, preferring to nest away from routine disturbances. In consideration of the developed nature of the DSP area, and the high levels of ground disturbance associated with remnant ruderal/grassland habitats that remain, it would be most unlikely that this raptor would nest in the DSP area.

Loggerhead shrike (*Lanius ludovicianus*) – The loggerhead shrike is a California species of special concern. It is also protected under the federal Migratory Bird Treaty Act and California Fish and Game Code (§3503 and 3800) that protect birds, their nests, eggs, and young. This small, predaceous bird of

open and often arid habitats prefers areas with scattered shrubs, trees, posts, fences, utility lines, and other acceptable perching locations. It typically constructs a stick nest on a stable branch in a densely foliated tree or shrub. This small, predaceous bird is known from the Cotati area, with several confirmed nesting locations scattered east of Highway 101 between Cotati and Rohnert Park (Burridge 1995). Due to the small scale of the map in the Sonoma County Breeding Bird Atlas, it is not possible to confirm from this map that this bird nests within the DSP area. It should be noted that this shrike typically does not nest in areas that are developed and it is not a species that has done well side-by-side with man. Thus, this species would be unlikely to nest in DSP area.

Mammals Known From Sonoma County
Pallid bat and American badger are discussed below. Other special-status mammals considered for the DSP area and dismissed from consideration due to an absence of suitable habitat are listed in Table 3 of Appendix 4.3. Those mammals are not discussed below.

Pallid bat (*Antrozous pallidus*) – The pallid bat is a California species of special concern. It has no federal status. This bat is a locally common species of low elevations in California. It occurs in a wide variety of habitats. It is most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roosts must protect bats from high temperatures. Night roosts may be in more open sites such as porches and open buildings. This species may use old buildings in the DSP area for roost sites. Before any building is removed/remodeled a focused survey would need to be conducted to determine its presence or absence.

American Badger (*Taxidea taxus*) – The badger is a California species of special concern. It is found in a variety of habitats, especially in open habitats such as oak-savannah and grasslands. In the region, this animal is uncommon; there are two reported records of badger within 10 miles of downtown Cotati (CNDDB 2005). As the badger requires wide open lands to forage and otherwise survive, this animal is not expected to occur within the DSP area which is a developed, urban area.

4.3.4 Regulatory Setting

This section provides a discussion of those laws and regulations that are in place to protect native wildlife, fish, and plants. These laws would have a certain effect on any proposal for development within the DSP area. Under each law, its pertinence to the DSP, and development which could occur pursuant to the DSP, is discussed.

Federal Endangered Species Act
The primary focus of the FESA is that all federal agencies must seek to conserve threatened and endangered species through their actions. The FESA contains three key sections. Section 4 (16 USCA §1533) outlines the procedure for listing endangered plants and wildlife. Section 7 (§1536) imposes limits on the actions of federal agencies that might impact listed species. Section 9 (§1538) prohibits the "taking" of a listed species by anyone, including private individuals, and State and local agencies. In the case of salt water fish and other marine organisms, the requirements of the FESA are enforced by the National Marine Fisheries Service (NMFS). The USFWS enforces all other cases. Sections 7, 9, and 10 of FESA are discussed below since they are the sections most relevant to the proposed project.

Section 9 of FESA, as amended, prohibits the "take" of any fish or wildlife species listed under FESA as endangered. Under Federal regulation, "take" of fish or wildlife species listed as threatened is also prohibited unless otherwise specifically authorized by regulation. "Take," as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes not only the direct taking of a species itself, but the destruction or modification of the species' habitat resulting in the potential injury of the species. As such, "harm" is further defined to mean "an act which actually kills or injures wildlife; such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 CFR 17.3)." Section 9 applies not only to federal agencies but also to any local or State agency, and to any individual. If "take" of a listed species is necessary to complete an otherwise lawful activity, this

triggers the need for consultation under Section 7 of FESA (for Federal agencies and projects with a federal "nexus" i.e., authorized, funded, or carried out by a federal agency), or requires preparation of a Habitat Conservation Plan (HCP) pursuant to Section 10 of FESA (for State and local agencies, or individuals and projects without a federal nexus).

Section 7(a)(2) of the Act requires that each Federal agency shall, in consultation with and with the assistance of the USFWS, ensure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat. Critical habitat identifies specific areas, both occupied and unoccupied, that are essential to the conservation of a listed species and that may require special management considerations or protection. Section 4 of the Act requires USFWS to consider economic and other relevant impacts of specifying any particular area as critical habitat.

Federal actions include permitting, funding, and entitlements for both federal projects, as well as private projects facilitated by federal actions (for example, a private landowner applying to the Corps for a permit). As an example, if a federally listed endangered species is present in waters of the United States on a project site, prior to authorizing impacts to waters of the United States, the Corps (who administers the Clean Water Act) would be required to initiate formal consultation with USFWS pursuant to Section 7 of FESA. As part of the formal consultation, the USFWS would then be required to prepare a Biological Opinion based on a review and analysis of the project applicant's avoidance and mitigation plan. The Biological Opinion will either state that the project will or will not result in "take" or threaten the continued existence of the species (not just that population). If an endangered species could be harmed by a proposed project, USFWS is required to be in complete concurrence with the proposed avoidance and mitigation plan. If USFWS is not in complete concurrence with the mitigation plan, they will submit a Biological Opinion to the Corps containing a "jeopardy decision" and stating that a Corps' permit should not be issued for the pending project. The applicant would then have an opportunity to submit a revised mitigation plan that provides greater protection for the species.

In the 1982 amendments to FESA, Congress established a provision in Section 10 that allows for the "incidental take" of endangered and threatened species of wildlife by non-federal entities (for example, project applicants, state and local agencies). "Incidental take" is defined by FESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Under Section 10 of FESA, the applicant for an "incidental take permit" is required to submit a conservation plan to USFWS or NMFS that specifies, among other things, the impacts that are likely to result from the taking, and the measures the permit applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps.

Applicability DSP Area. One anadromous fish, steelhead, is known to migrate through Laguna de Santa Rosa within the DSP area (D. Logan, NMFS. pers. comm. with S. Lynch of Monk & Associates). Laguna de Santa Rosa crosses the very northern tip of the DSP area. In order to avoid impacting this fish and its habitat in Laguna de Santa Rosa, BMPs (i.e., those measures taken to ensure that fill, sediment, and other contaminants do not enter waters of the U.S.) will have to implemented and maintained during construction or earth-moving work on those parcels in the DSP area that border Laguna de Santa Rosa. If it would be necessary to impact Laguna de Santa Rosa directly (for example, install an outfall structure in this drainage) within the DSP area, prior authorization from the NMFS would be required. No other federally listed fish are known to occur within the DSP area.

Surveys for special-status plants and the federally listed California tiger salamander have been conducted within all natural or ruderal (weedy) habitats within the DSP area. Specifically, surveys for special-status plants were conducted on all parcels within the DSP area that support any type of ruderal or grassy habitat. The only parcels not surveyed within the DSP area were those parcels that were 100 % paved or that were otherwise developed. No special-status plants were identified during the appropriately timed spring and early summer surveys (the surveys were timed during the flowering periods of known federally listed species in the Santa Rosa Plain. The survey window was also suitable for detecting other special-status plant species known from Sonoma County).

While no special-status plant species were found within the DSP area, and none are likely to become established over time due to an absence of suitable habitat, as noted above the Conservation Strategy map (Figure 3 of the

Conservation Strategy) shows one parcel within the DSP area (144-351-004) as a parcel that "presence of CTS is not likely but mitigation for listed plants may be required" (see Figure 4.3-3). However, Enclosure 1 of the Programmatic Biological Opinion designates this same parcel as "may affect CTS, but no effect to listed plants." The USFWS Sacramento Field Office has stated that these designations are incorrect since this parcel is already developed. Hence, no further surveys for special-status plants should be necessary within the DSP area to demonstrate an absence of potentially significant adverse impacts pursuant to CEQA. It should be noted that any site where a permit from the Corps could be required may still be required to conduct rare plant surveys pursuant to the Corps' regional guidelines, and prospective applicants need to check on their requirements at the time a project application is in preparation.

Specific parcels within the DSP area are discussed below regarding the California tiger salamander. As noted above, all parcels within the DSP area that are uncolored (gray) on the Conservation Strategy Figure 3 (as shown on Figure 4.3-3) are regarded as being "already developed (no potential for impact)." Thus, there would be no potential impacts to the California tiger salamander from development/redevelopment of such designated parcels. Similarly, Enclosure 1 of the Programmatic Biological Opinion uses a gray color for parcels in which a development proposal would have "no effect" on the California tiger salamander and listed plants (see Figure 4.3-5 for a replica of Enclosure 1).

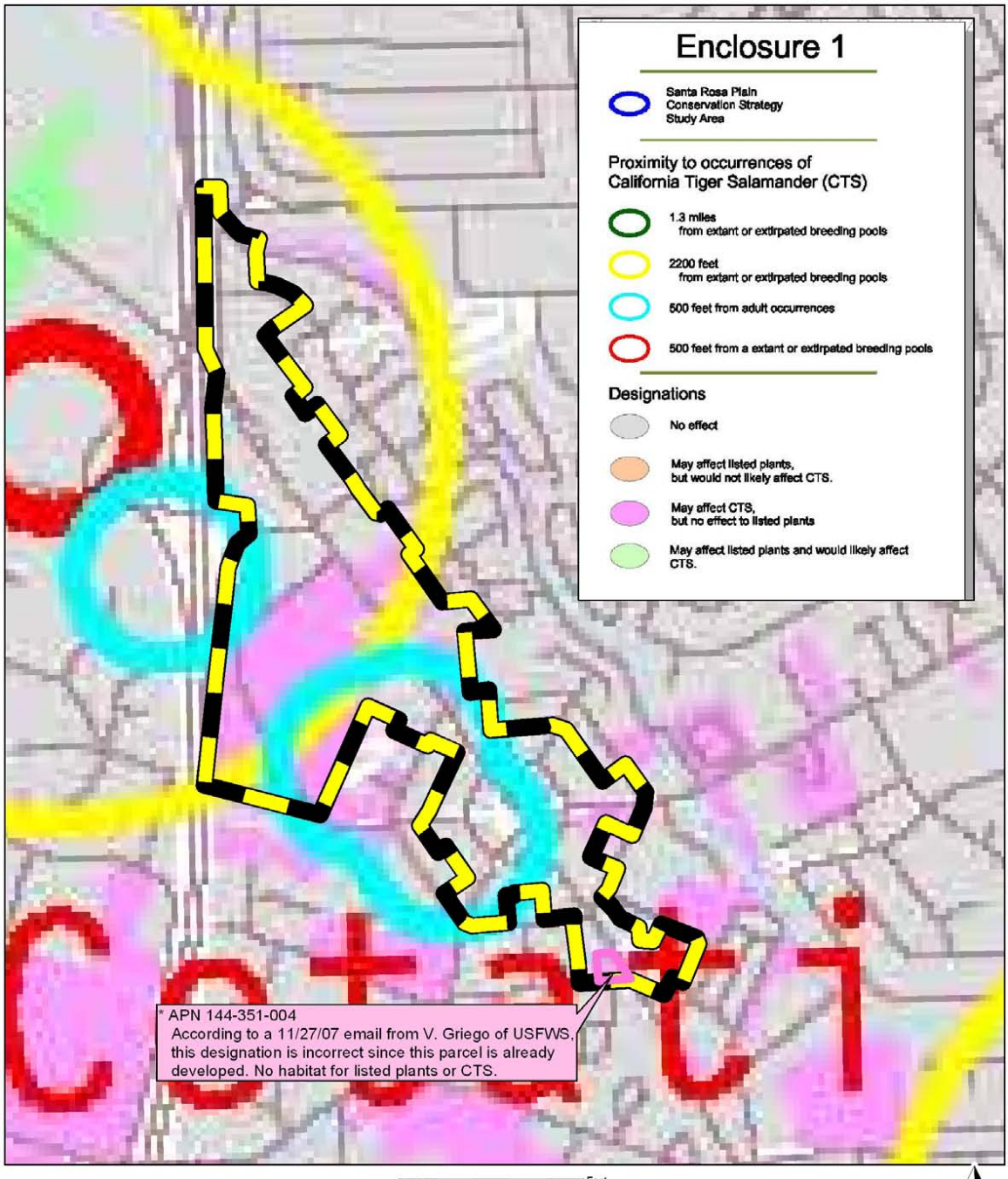

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Figure 4.3-5. Enclosure 1 of Programatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects that May Affect CTS and 3 Endangered Plants on the Santa Rosa Plain, CA.

Map Preparation Date: November 28, 2007

There are three parcels within the DSP area that if developed or redeveloped would not impact the California tiger salamander or listed plants. These three parcels are designated on Figure 3 of the Conservation Strategy as: "presence of CTS not likely and no listed plants in area." The USFWS Sacramento Field Office has indicated that these three parcels received this designation because applicants had completed formal California tiger salamander assessments and/or completed protocol surveys and had received "letters of no effect" from the USFWS for those parcels. USFWS also stated that they no longer issue "no effect" letters in this manner but now wait until an application is under formal review at the USFWS' offices (either via Section 7 or Section 10 of FESA).

Potential impacts to California tiger salamander must be addressed on all parcels in the DSP area that are designated in the Conservation Strategy as: 1) Future Development; 2) Potential for Presence of CTS; 3) Presence of CTS not likely and no listed plants in area; and 4) Presence of CTS not likely but mitigation for listed plants may be required (see Figure 4.3-3). Potential impacts to the California tiger salamander must also be considered on all parcels designated in Enclosure 1 of the Programmatic Biological Opinion as: 1) May affect CTS, but no effect to listed plants; and 2) may affect listed plants and would likely affect CTS (see Figure 4.3-5).

Some parcels within the DSP area still require applicant actions. In 2002 Monk received USFWS approval to conduct protocol surveys on assessor's parcels 144-170-006, -007, -008, -009; 144-200-002, and -004. The California tiger salamander was not identified during appropriately timed protocol surveys. Thus, no impacts are expected to occur to this species on these parcels. The USFWS Sacramento Field Office has explained that once a project application is submitted to the USFWS for these parcels (either via Section 7 or Section 10 of FESA), provided that the protocol level surveys were conducted correctly, development of these parcels would be regarded as having "no effect" on the California tiger salamander.

Seven assessor's parcels (144-680-051, 144-190-023, 144-190-030, 144-190-021, 144-272-012, 144-274-015, and 144-274-014) within the DSP area are designated in the Conservation Strategy as "potential for presence of California tiger salamander" and biologists have not completed assessments/surveys to date for this species on these parcels. The USFWS requires that the potential presence of this salamander be assessed on these parcels. The applicant's biological consultant (or the City's biological consultant) would have to prepare a site assessment for California tiger salamander following the methodology outlined in the CDFG and USFWS joint protocol (USFWS 2003). The site assessment would then need to be submitted to the USFWS for their review and determination of whether further actions are required. At that point, the USFWS could determine that no impacts would occur to the California tiger salamander from development of the parcel in question and would not, therefore, require further actions with respect to this salamander. USFWS could also state that development of the parcel would impact this salamander and require that a formal Incidental Take permit be acquired. Or, if a proposed project would also impact waters of the U.S., the USFWS may allow the project to be appended to the Programmatic Biological Opinion (USFWS 2007). At the time it becomes known that an incidental take permit is required, applicants would have the option of conducting formal protocol level surveys following the CDFG and USFWS joint survey protocol or, assuming that the California tiger salamander is present on the parcel in question, implementing the interim mitigation guidelines presented in the Conservation Strategy and the Santa Rosa Plain Programmatic Biological Opinion.

If a formal protocol survey is completed and no California tiger salamanders are found, typically USFWS has no further requirements for the project with respect to the California tiger salamander. If surveys are not conducted and the applicant assumes presence of the California tiger salamander, mitigation would be necessary. Mitigation ratios that must be followed are presented below under the Impacts and Mitigation section. Once the Conservation Strategy is adopted, protocol surveys likely will no longer be allowed by the USFWS and the interim mitigation guidelines will no longer apply. Instead, a 2:1 mitigation ratio will be adopted (C. Goude, USFWS, pers. comm. with G. Monk of Monk & Associates, January 8, 2008). The mitigation guidelines allow use of a CDFG/USFWS approved California tiger salamander mitigation bank to compensate for impacts to this species. Under this scenario, applicants would pay a fee to the mitigation bank commensurate with the acreage of impact to suitable habitat on their respective parcel. Use of a mitigation bank would likely shorten the USFWS incidental take permitting timeline.

The most expedient method for obtaining an Incidental Take permit would be via Section 7 of FESA; however, project applicants must have a "nexus" to the Corps, as could occur when the Corps is authorizing a discretionary permit for impacts to waters of the United States on a project site. While typically a nexus with any federal agency would result in Section 7 consultation with the USFWS if a project "may effect" a federal listed species, owing to the Programmatic Biological Opinion published by the USFWS on November 9, 2007, this agency has made it clear that the Section 7 consultation must be initiated with the USFWS by the Corps.

If a project applicant does not have a federal nexus, USFWS has stated that the applicant could combine the proposed development project with an applicant that has a federal nexus to ensure that both projects would have a nexus to the Corps and Section 7 consultation. The regulatory timeframe for the Corps and the USFWS to complete a Section 7 consultation, provided both the USFWS and the Corps have complete permit applications, is 135 days. If it is not possible to obtain an incidental take permit pursuant to Section 7 of the FESA, project applicants must use Section 10 of FESA to obtain the Incidental Take permit from the USFWS. Section 10 does not have a regulatory time limit for completion.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712, July 3, 1918, as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989) makes it unlawful to "take" any migratory bird listed in Title 50 of the Code of Federal Regulations, Section 10.13, including their nests, eggs, or young. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, swallows, etc.).

Applicability to DSP Area. The Federal Migratory Bird Treaty Act requires that preconstruction nesting surveys be conducted prior to removing any trees within the DSP area, if tree removal would occur between the dates of February 1 and August 31. Surveys would have to be conducted by a qualified biologist and a report submitted to the City of Cotati. If birds were identified nesting in any tree proposed for removal, appropriate nesting buffers would have to be established around the nest tree(s) until the eggs had hatched and the young had fledged. The fledging date would need to be determined by a qualified biologist. Once the young had fledged, the tree(s) could be removed without further regard for nesting birds.

Santa Rosa Plain Conservation Strategy

The federal listing of the Sonoma County Distinct Population Segment of the California tiger salamander in 2002, and the resulting 2004 federal listing of the California tiger salamander throughout its entire range caused a level of uncertainty for local jurisdictions, land owners, and developers about how the listing would affect their activities. Private and local public interests met with the USFWS to discuss possible cooperative approaches to protecting the species, while allowing planned land uses to occur within the range of the animal. The result of these discussions was the formation of the Santa Rosa Plain Conservation Strategy Team (Team). This Team consisted of representatives of the appropriate government agencies and interested parties to develop a conservation strategy for the Santa Rosa Plain to conserve and enhance the habitat for the California tiger salamander and listed plants, while considering the need for development pursuant to the general plans of the local jurisdictions.

The Team released the Santa Rosa Plain Conservation Strategy in December 2005. The purpose of the Conservation Strategy is threefold: 1) to establish a long-term conservation program sufficient to mitigate potential adverse effects of future development on the Plain; 2) to accomplish the preceding in a fashion that protects stakeholders' (both public and private) land use interests; and 3) to support issuance of an authorization for incidental take of California tiger salamander and listed plants that may occur in the course of carrying out project activities within the strategy area.

Once adopted, the Conservation Strategy will be a coordinated mechanism for processing permits for projects that are in the potential range of listed species within the area covered by the Conservation Strategy to provide consistency, timeliness, and certainty. The Conservation Strategy will establish the mitigation that will be required in areas of potential impact, and will designate conservation areas where mitigation should occur. The

City of Cotati has three conservation areas where the Team believes mitigation and conservation should occur. None of these areas include the DSP area.

Interim California Tiger Salamander Mitigation. Prior to the execution of the Memorandum of Understanding (MOU) that will be executed between the appropriate regulatory state and federal agencies and the local jurisdictions for the Conservation Strategy, the following mitigation guidelines are currently being, and will continue to be, implemented. Unless otherwise noted by the Conservation Strategy, mitigation for the California tiger salamander will be required for all projects within 1.3 miles of known breeding sites. Thus, it does not matter what color or category was assigned to a parcel; mitigation for impacts to California tiger salamander habitat is still required (unless applicants otherwise choose to perform USFWS-approved presence/absence surveys and have negative findings).

Interim mitigation can be achieved on a sliding scale because the most impacted habitat, specifically that closest to breeding ponds, will mitigate at a higher ratio, ensuring that modification or destruction of a breeding site(s) will be adequately replaced. To address these short-term actions, the following mitigation ratios will be applied by USFWS and CDFG:

- Mitigation of 3:1 (mitigation to impacts) – For projects with impact on breeding habitat (that is, those that are within 500 feet of a known breeding site).

- Mitigation of 2:1 – For projects with an impact on upland habitat (that is, those that are greater than 500 feet and within 2,200 feet of a known breeding site(s) or within 500 feet of an adult occurrence.[2]

- Mitigation of 1:1 – For projects with an impact on dispersal habitat (that is, those that are greater than 2,200 feet and within 1.3 miles of a known breeding site(s)). Also, projects beyond 1.3 miles from known breeding sites which have potential habitat could mitigate at 1:1 or implement other appropriate mitigation measures; for example, a project proponent could make a monetary contribution to a species fund.

Applicability to DSP Area. See the applicability section of FESA above to see how the Conservation Strategy applies to the DSP area. Since the Conservation Strategy works in concert with FESA, a detailed discussion of the Conservation Strategy and its applicability to the DSP area was provided in the FESA applicability section.

Programmatic Biological Opinion for California Tiger Salamander and Three Endangered Plants on the Santa Rosa Plain, California

On November 9, 2007, the USFWS released a Programmatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects That May Affect CTS and Three Endangered Plants on the Santa Rosa Plain, California (Corps File Number 223420N) (USFWS 2007) (herein referred to as the Programmatic Biological Opinion). The Conservation Strategy is the biological framework upon which this Programmatic Biological Opinion is based. However, because the local agencies with interested stakeholders are currently developing mechanisms to implement the Conservation Strategy, the Programmatic Biological Opinion will be based on the interim mitigation ratios described in the Conservation Strategy. This Programmatic Biological Opinion will replace the July 17, 1998 programmatic biological opinion (USFWS 1998) prepared for listed plants in the Santa Rosa Plain. This Programmatic Biological Opinion may be amended or a new one may be written after an Implementation Plan for the Conservation Strategy is completed by the local jurisdictions.

The Programmatic Biological Opinion was issued by the USFWS to the Corps for use when this agency authorizes discretionary permits, initiates enforcement actions, or authorizes mitigation banks (project(s)) that are

[2] This mitigation requirement is specific to areas where known breeding sites have been extirpated in the last five years. "All known breeding sites in the Cotati area have now been destroyed. The remaining sites in the Cotati area where the animals can mate and develop are roadside ditches and other suboptimal habitat during years of above average rainfall"….(As a result, in Cotati) "There are scattered records of adult salamanders crossing roads during the fall and winter rains, and also sporadic instances of breeding in roadside ditches and low-quality pools. However, these roadside ditches and low-quality pools likely do not represent viable breeding sites because they either do not have sufficient ponding duration and/or associated uplands for estivation." (Federal Register: March 19, 2003 (Volume 68, Number 53) [Rules and Regulations][Page 13497-13520]

under their jurisdiction. Projects that are appended to this Programmatic Biological Opinion will be provided individual take authorization. The Programmatic Biological Opinion does not cover the many-flowered navarretia because of its limited distribution. Also, projects that will impact occupied sites supporting Burke's goldfields and Sonoma sunshine, where surveys have documented 2,000 plants or greater in any year in the past 10 years, may not be appended to the Programmatic Biological Opinion but will be evaluated on a case by case basis. The number for 2,000 plants was derived from comments provided by numerous technical experts and the USFWS' review of projects impacting plant populations. This Programmatic Biological Opinion will expedite the process for project approval provided all information listed in the next section is provided by the project applicants. The Programmatic Biological Opinion provides the framework for mitigation, conservation, translocation, and appropriate minimization measures. The USFWS and CDFG will track project impacts, mitigation and other pertinent information.

Procedures for Appending Projects to the Programmatic Biological Opinion. To evaluate whether a project can be appended to the Programmatic Biological Opinion, applicants must submit the following information:

1) A Corps Permit Application including Assessors Parcel Number(s), UTM coordinates, and street address of the project;
2) A Corps-verified jurisdictional determination;
3) A Biological Assessment including USFWS survey protocols results, if needed, and proposed mitigation consistent with the ratios in the Programmatic Biological Opinion;
4) Listed plant occurrence information on the project and mitigation sites from the CDFG California Natural Diversity Database and the Seasonal Wetland Baseline Report for the Santa Rosa Plain, Sonoma County (Patterson et al. 1994); and,
5) Mitigation proposal including acres and location, credit sale receipt and any other pertinent information. If the proposed mitigation is a new preserve, then the Preserve Establishment and Evaluation Criteria (Enclosure 3 of the Programmatic Biological Opinion) will be used by the applicants to provide the preliminary determination for the Preserve selection.

The Corps will make one of the following determinations of effect (for the California tiger salamander or listed plants) for a project by reviewing Enclosure 1, Enclosure 2 and other information provided by the applicant:

- Will make a "no effect" determination. No consultation with the USFWS is required for areas on Enclosure 1 identified as "No Effect."

- Will make a "may affect" determination for listed plants, but a "not likely to affect" determination for California tiger salamander. The Corps would consult with the USFWS for concurrence for areas on Enclosure 1 and Enclosure 2 identified as "May affect listed plants and would likely affect California tiger salamander." The Corps will forward to the USFWS all biological and other pertinent information and a letter requesting that the proposed project be appended to the Programmatic Biological Opinion.

- Will make a "may affect" California tiger salamander, but would have "no effect" on listed plants. The Corps would consult with the USFWS for concurrence for areas on Enclosure 1 and identified as "May affect California tiger salamander, but no effect to listed plants." The Corps will forward to the USFWS all biological and other pertinent information and a letter requesting that the proposed project be appended to the Programmatic Biological Opinion.

The USFWS will review a proposed project to evaluate whether it is appropriate to append the project to the Programmatic Biological Opinion based on the level of impacts, avoidance, minimization, and mitigation measures. The USFWS may determine some projects require separate Section 7 Consultation and will not be appended to the Programmatic Biological Opinion. If the USFWS does not concur the project is appropriate to be appended to the Programmatic Biological Opinion, the USFWS will notify the Corps in writing. Applicants who have had consultation initiated by the Corps prior to November 9, 2007 (the date of the Programmatic

Biological Opinion) may continue with that consultation or may request their project be appended to the Programmatic Biological Opinion.

Mitigation. Mitigation requirements will apply to the entire project area; however, qualified "hardscapes" will be removed from the mitigation requirement. Hardscape may include parking lots, compacted gravel surfaces, buildings, or other structures. In some cases, hardscapes may provide some recognizable benefit to the species. Where the hardscape currently functions as a movement corridor between existing and/or proposed preserve habitat, measures must be included in the design of future development to maintain this function. For each project, the USFWS and CDFG will determine if hardscape provides benefit to the species and if any mitigation is required.

Mitigation ratios and the Conservation Strategy are dependent on current information on both California tiger salamander distribution and development that is currently proposed. Reinitiation of the Programmatic Biological Opinion may be required if the land use changes or if new information is discovered regarding the distribution of tiger salamander or listed plants with the Study Area, then Enclosure 1 would be revised accordingly. Enclosure 1 will be updated at least annually by the USFWS and CDFG and will be provided to the Corps and posted on the USFWS web page.

Mitigation for California tiger salamander or listed plants must be achieved at a Preserve which could include purchasing appropriate credits at a USFWS-approved bank or another type of Preserve as described in the Programmatic Biological Opinion.

California tiger salamander mitigation ratios are consistent with the mitigation ratios prescribed under the Interim Mitigation Guidelines provided in the Conservation Strategy, which has not been formally adopted yet, with the addition of one other mitigation ratio:

- Mitigation of 0.2:1 – For projects that are greater than 1.3 miles from a known breeding site and greater than 500 feet from an adult occurrence, but excluding the "No Effect" areas shown on Enclosure 1.

Applicability to DSP *Area*. See the applicability section of FESA and the Impacts and Mitigations Measures section below to see how the Programmatic Biological Opinion applies to the DSP area.

State Endangered Species Act

Section 2081 of the State Endangered Species Act. The California Endangered Species Act (CESA) (Fish and Game Code §2050) was enacted in 1984. The basic policy of CESA is to conserve and enhance endangered species and their habitats. State agencies will not approve private or public projects under their jurisdiction that would jeopardize threatened or endangered species if reasonable and prudent alternatives are available.

CESA requires that all state lead agencies (as defined under CEQA) conduct an endangered species consultation with CDFG if their actions could affect a state listed species. The state lead agency and/or project applicants must provide information to CDFG on the project and its likely impacts. CDFG must then prepare written findings on whether the proposed action would jeopardize a listed species and would result in the direct take of a listed species. Because CESA does not have a provision for "harm" (see discussion of FESA, above), CDFG considerations pursuant to CESA are limited to those actions that would result in the direct take of a listed species.

If CDFG determines that a proposed project could impact a State listed threatened or endangered species, CDFG will provide recommendations for "reasonable and prudent" project alternatives. The CEQA lead agency can only approve a project if these alternatives are implemented, unless it finds that the project's benefits clearly outweigh the costs, reasonable mitigation measures are adopted, there has been no irreversible or irretrievable commitment of resources made in the interim, and the resulting project would not result in the extinction of the species. In addition, if there would be threatened or endangered species impacts, the lead agency typically

requires project applicants to demonstrate that they have acquired incidental take permits from CDFG and/or USFWS (if it is a Federal listed species) prior to allowing/permitting impacts to such species.

If proposed projects would result in impacts to a State listed species, an incidental take permit pursuant to §2081 of the Fish and Game Code would be necessary (versus a Federal incidental take permit for Federal listed species). CDFG will issue an incidental take permit only if:

1) The authorized take is incidental to an otherwise lawful activity.

2) The impacts of the authorized take are minimized and fully mitigated.

3) The measures required to minimize and fully mitigate the impacts of the authorized take:
   a) are roughly proportional in extent to the impact of the taking on the species;
   b) maintain the project applicant's objectives to the greatest extent possible; and,
   c) capable of successful implementation.

And,

4) Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with, and the effectiveness of, the measures.

If an applicant is preparing a habitat conservation plan (HCP) as part of the Federal 10(a) permit process, the HCP might be incorporated into the §2081 permit if it meets the substantive criteria of §2081(b). To ensure that an HCP meets the mitigation and monitoring standards in Section 2081(b), an applicant should involve CDFG staff in development of the HCP. If a final Biological Opinion (federal action) has been issued for the project pursuant to Section 7 of the federal Endangered Species Act, it might also be incorporated into the §2081 permit if it meets the standards of §2081(b).

No §2081 permit may authorize the take of a species for which the Legislature has imposed strict prohibitions on all forms of "take." These species are listed in several statutes that identify "fully protected" species and "specified birds." See Fish and Game Code §§ 3505, 3511, 4700, 5050, 5515, and 5517. If a project is planned in an area where a "fully protected" species or a "specified bird" occurs, an applicant must design the project to avoid all take.

Assembly Bill 21 (Fish and Game Code §2080.1) was passed in September 1997. This bill allows an applicant who has obtained a "non-jeopardy" federal Biological Opinion pursuant to Section 7, or who has received a Federal 10(a) permit (Federal incidental take permit), to submit the federal opinion or permit to CDFG for a determination as to whether the federal document is "consistent" with CESA. If after 30 days CDFG determines that the federal incidental take permit is consistent with state law, and that all state listed species under consideration have been considered in the federal Biological Opinion, then no further permit or consultation is required under CESA for the project. However, if CDFG determines that the federal opinion or permit is not consistent with CESA, or that there are state listed species that were not considered in the federal Biological Opinion, then the applicant must apply for a state permit under Section 2081(b). The process provided in Fish and Game Code §2080.1 (Assembly Bill 21) may be of use when the incidental take would occur to species that are listed under both the federal and state endangered species acts.

State and federal incidental take permits are issued on a discretionary basis, and are typically only authorized if applicants are able to demonstrate that impacts to the listed species in question are unavoidable, and can be mitigated to an extent that the reviewing agency can conclude that the proposed impacts would not jeopardize the continued existence of the listed species under review. Typically, if there would be impacts to a listed species, mitigation that includes habitat avoidance, preservation, and creation of endangered species habitat is necessary to demonstrate that projects would not threaten the continued existence of a species. In addition, management endowment fees are usually collected as part of the agreement for the incidental take permit(s). The endowment is used to manage any lands set-aside to protect listed species, and for biological mitigation monitoring of these lands over (typically) a five-year period.

Applicability to DSP Area. No plant, animal, or fish species that is protected under the State Endangered Species Act is known to occur or expected to occur within the DSP area due to an absence of suitable habitat. Hence, no impacts to state listed species are expected from development within the DSP area.

California Fish and Game Code § 3503, 3503.5, 3511, 3800

California Fish and Game Code §3503, 3503.5, and 3800 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act).

All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5). Additionally, "fully protected" birds, such as the white-tailed kite (*Elanus leucurus*) and golden eagle (*Aquila chrysaetos*), are protected under California Fish and Game Code (§3511). "Fully protected" birds may not be taken or possessed (that is, kept in captivity) at any time.

Applicability to DSP Area. In order to protect nesting birds that are protected pursuant to California Fish and Game Code, preconstruction nesting surveys would have to be conducted prior to removing any trees within the DSP area if tree removal would occur between February 1 and August 31. These surveys would have to be conducted by a qualified biologist and a report submitted to CDFG and the City of Cotati prior to allowing any tree removal. If birds were identified nesting in any tree proposed for removal, appropriate nesting buffers would have to be established around the nest tree(s) until the eggs had hatched and the young had fledged (that is, left the nest). The fledging date would need to be determined by a qualified biologist. Once the young had fledged the tree(s) could be removed without further regard for nesting birds.

Protected Amphibians

Under Title 14 of the California Code of Regulations (CCR 14, Division 1, Subdivision 1, Chapter 5, §41 Protected Amphibians), protected amphibians, such as the California tiger salamander may only be taken under special permit from CDFG issued pursuant to Sections 650 and 670.7 of these regulations.

Applicability to DSP Area. The California tiger salamander is a "protected amphibian" that may occur within the DSP area. In order to address the potential presence of this protected amphibian on the parcels designated in the Conservation Strategy as providing "potential for presence of California tiger salamander" or "future development" area or "potential for presence of California tiger salamander is not likely and there are no listed plants in this area," a site assessment would have to be completed and submitted to the USFWS so that this agency may determine whether or not an "incidental take" permit is warranted for development of that particular parcel. If the USFWS determines that development of the particular parcel in question could result in "take" of the California tiger salamander and would require a federal incidental take permit, then a permit from CDFG pursuant to Title 14 would be necessary. Please also see the section on California tiger salamander in the "special-status species" section above.

Regulatory Requirements Pertaining to Waters of the United States and the State

This section presents an overview of the regulatory requirements related to waters of the U.S. in general and specific to the DSP area.

U.S. Army Corps of Engineers Jurisdiction and General Permitting. Pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344), the Corps regulates the discharge of dredged or fill material into waters of the United States (33 CFR Parts 328 through 330). This requires project applicants to obtain authorization from the Corps prior to discharging dredged or fill materials into any water of the United States. In the Federal Register "waters of the United States" are defined as "...all interstate waters including interstate wetlands...intrastate lakes, rivers, streams (including intermittent streams), wetlands, [and] natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce..." (33 CFR Section 328.3).

The Corps normally provides two alternatives for permitting impacts to the type of waters of the United States found in the DSP area. The first alternative is reserved for projects with minor impacts to waters of the U.S. For such projects, the use of a Corps Nationwide Permit(s) (NWP) may be applicable. Projects with greater than minimal effects must apply to the Corps for an Individual Permit (33 CFR Section 235.5(2)(b)). The application process for Individual Permits is extensive and includes public interest review procedures (i.e., public notice and receipt of public comments) and must contain an alternatives analysis that is prepared pursuant to Section 404(b) of the Clean Water Act (33 U.S.C. 1344(b)). The alternatives analysis is also typically reviewed by the federal Environmental Protect Agency (EPA), and thus brings another resource agency into the permitting framework.

Applicability to DSP Area. Some of the parcels within the DSP area have seasonal wetlands that may be regulated by the Corps pursuant to the Clean Water Act. Based on Monk's field work within the DSP area, seasonal wetlands and other waters are known to occur on assessor's parcels 144-200-004, 144-170-009, -002, -003, -007, and -008 (see Figure 4.3-6 for a map of potential Corps jurisdictional areas). In 2003, a Corps wetland delineation was completed by Monk for Saint Joseph's Church (assessor's parcel 144-170-009) and was confirmed by the Corps. Hence, the confirmed wetland delineation map for this property may be relied upon for project planning purposes. In 1999, a Corps wetland delineation was completed on the American Stores Properties, Inc. (assessor's parcels 144-170-006, -007, and -008). The Corps confirmed the wetlands delineation (L. Zander of Zander Associates, memorandum to G. Monk of Monk & Associates, February 2, 2005).

Santa Rosa Plain Regional U.S. Army Corps of Engineers Conditions. Often the Corps publishes Regional or General Conditions which affect or modify permitting requirements in defined geographic areas. As noted previously, a portion of the Cotati DSP area falls within a mapped area defined by the Corps as the Santa Rosa Plain. This plain extends between Highway 116 in Cotati, north to include Windsor. It extends roughly east to the flat terrain immediately east of Santa Rosa in line with Petaluma Hill Road, and west to Sebastopol. The Corps provides the following paragraph to describe why it has published special regional conditions for the Santa Rosa Plain:

> "During the past 40 years, the Santa Rosa Plain has been transformed from an area which was a rural residential, agricultural area with large expanses of open space to a more urbanized and intensely agricultural area with less open space. This change in land use has resulted in a substantial loss of seasonal wetland habitat, especially vernal pools. This loss of seasonal wetlands has become so severe that several plant species which are adapted to live in vernal pools in the Santa Rosa Plain have been listed as federally protected endangered species by the USFWS. These endangered plant species are Sonoma sunshine (*Blennosperma bakeri*), Burke's goldfields (*Lasthenia burkei*), Sebastopol meadowfoam (*Limnanthes vinculans*), and many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*)."

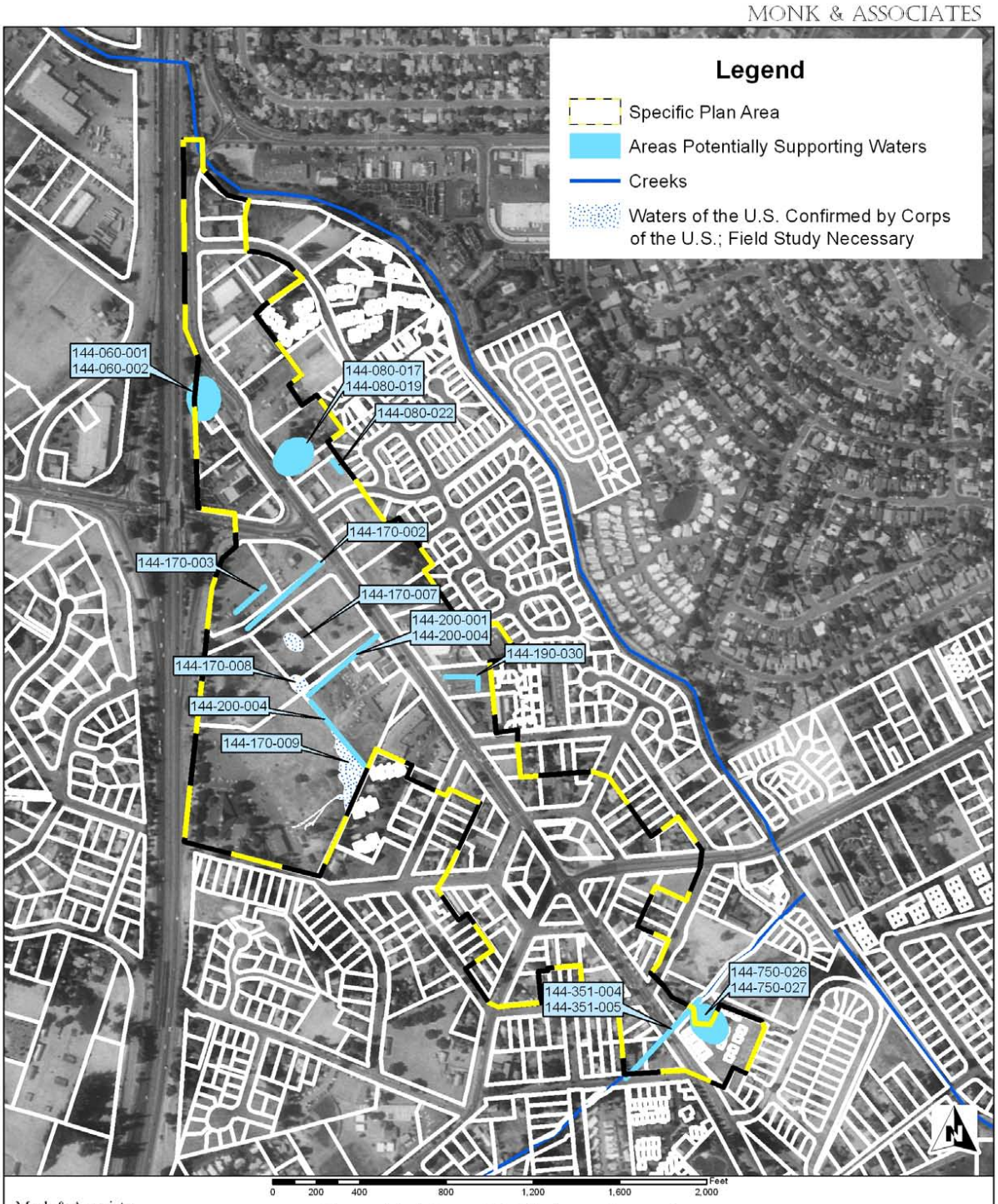

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Figure 4.3-6. Potential U.S. Army Corps of Engineers Jurisdictional Areas
Specific Plan Area
Cotati, California

Map Preparation Date: October 30, 2007
Source: California Spatial Information Library
Digital Orthophoto (Quarter) Quads - DOQQs
Aerial Photograph Date: 1999

The General Condition that applies to the Santa Rosa Plain is uniquely different than all other regulatory districts of the Corps. In the Santa Rosa Plain, to evaluate impacts to wetlands the Corps requires that applicants prepare a Habitat Quality Evaluation (HQE) prepared according to a published Training Manual to Evaluate Habitat Quality of Vernal Pool Ecosystem Sites in Santa Rosa Plain (CH2M HILL 1998). The purpose of the HQE is to provide a uniform assessment for ranking the relative quality of vernal pool ecosystem sites in the Santa Rosa Plain. In general terms, the HQE requires rare plant surveys over a two-year period. Also, an analysis of plant composition must be completed that distinguishes those wetlands that function as vernal pools and those wetlands that may just otherwise be considered perennial or seasonal wetlands. The HQE must be submitted with all permit applications where impacts will be considered greater than minimal. In affect this is a discretionary Corps permitting requirement.

Applicability to DSP Area. The Cotati DSP area is almost entirely outside of the Santa Rosa Plain. Only a few parcels with frontage along the eastern side of Highway 101 fall within the Santa Rosa Plain (Figure 4.3-2). These parcels are developed, do not support natural communities, and do not provide either special-status plant habitat or support wetlands. Hence, two years of special-status plant surveys would not be necessary within the DSP area. Additionally, an HQE would not need to be prepared before a Section 404 permit would be issued because those parcels with wetland areas are located well outside (south of) the Santa Rosa Plain.

State Water Resources Control Board/Regional Water Quality Control Board. The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) regulate activities in waters of the State (which includes wetlands) through Section 401 of the Clean Water Act. While the Corps administers permitting programs that authorize impacts to waters of the United States, including wetlands and other waters, any Corps permit authorized for a proposed project would be invalid unless it is a NWP that has been certified for use in California by the SWRCB, or if the RWQCB has issued a project specific certification or waiver of water quality. Certification of NWPs requires a finding by the SWRCB that the activities permitted by the NWP will not violate water quality standards individually or cumulatively over the term of the issued NWP (the term is typically for five years). Certification must be consistent with the requirements of the federal Clean Water Act, the California Environmental Quality Act, the California Endangered Species Act, and the SWRCB's mandate to protect beneficial uses of waters of the State. Any denied (i.e., not certified) NWPs, and all Individual Corps permits, would require a project specific RWQCB certification or waiver of water quality.

Applicability to DSP Area. The DSP area supports seasonal wetlands that would likely be regulated by the RWQCB pursuant to the Clean Water Act and the Porter Cologne Water Quality Act (see next section). Seasonal wetlands occur on Parcels 144-170-009, -008, and -007. A U.S. Army Corps of Engineers wetland delineation was completed by Monk & Associates for Saint Joseph's Church (parcel 144-170-009) and confirmed by the Corps. A Corps wetland delineation should be completed on other properties in the DSP area to determine the extent of impacts to regulated waters of the state, and to further ascertain DSP RWQCB permitting requirements.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act, Water Code § 13260, requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through an application for waste discharge (Water Code Section 13260(a)(1). The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (Water Code § 13050(e)). It should be noted that pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB also regulates "isolated wetlands," or those wetlands considered to be outside of the Corps' jurisdiction.
The RWQCB considers any fill in waters of the State to constitute "pollution." Pollution is defined as an alteration of the quality of the waters of the state, which unreasonably affects its beneficial uses (Water Code §13050(1)). The RWQCB litmus test for determining if a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act is if the action could result in any "threat" to water quality.

Applicability to DSP Area. If the Corps determines there are waters of the U.S. within the DSP area, which it has on the Saint Joseph's Church parcel (parcel 144-170-009), the RWQCB would also exert its jurisdiction over these areas pursuant to the Porter-Cologne Water Quality Control Act. Note that any isolated wetlands defined

by the Corps within the DSP area that are not regulated by the Corps would still be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act.

Since any threat to water quality could conceivably be regulated by the RWQCB pursuant to the Porter-Cologne Water Quality Control Act, adequate pre- and post-construction BMPs will be required for projects within the DSP area. Preconstruction requirements would need to be consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES). A Stormwater Pollution Prevention Plan (SWPPP) would need to be developed prior to the time any property was graded (see NPDES section below). In addition, a post construction BMPs plan, or a Stormwater Management Plan (SWMP,) would have to be developed and incorporated into the site development plan. It should also be noted that prior to issuance of any permit from the RWQCB, this agency will require submittal of a Notice of Determination from the City of Cotati indicating that the proposed project has completed a review conducted pursuant to CEQA.

National Pollutant Discharge Elimination System (NPDES). The Clean Water Act was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p) which establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES program. In 1990, the EPA published final regulations that establish stormwater permit application requirements for specified categories of industries. The regulations provide that discharges of stormwater to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations that became final in December 1999 expand the NPDES program to address stormwater discharges from construction sites that disturb land equal to or greater than one acre.

While federal regulations allow two permitting options for stormwater discharges (individual permits and General Permits), the SWRCB has elected to adopt only one statewide General Permit at this time that will apply to all stormwater discharges associated with construction activity, except from those on Tribal Lands, in the Lake Tahoe Hydrologic Unit, and those performed by the California Department of Transportation (Caltrans). This General Permit requires all dischargers where construction activity disturbs one acre or more, to:

1. Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.

2. Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation.

3. Perform inspections of all BMPs.

The General Permit is implemented and enforced by the nine RWQCBs. The General Permit regulates stormwater runoff from construction sites. Dischargers are required to submit a Notice of Intent (NOI) to obtain coverage under this General Permit.

Applicability to DSP Area. Projects within the DSP area that fall within the jurisdiction of the NPDES will be required to comply with its provisions prior to and during construction.

California Department of Fish and Game Protections. Pursuant to Section 1602 of the California Fish and Game Code, CDFG regulates activities that divert, obstruct, or alter stream flow, or substantially modify the bed, channel, or bank of a stream or its riparian vegetation. Any proposed activity in a natural stream channel that would substantially adversely affect an existing fish and/or wildlife resource would require entering into a Streambed Alteration Agreement (SBAA) with CDFG prior to commencing with work in the stream. However, prior to authorizing such permits, CDFG typically reviews an analysis of the expected biological impacts, any proposed mitigation plans that would be implemented to offset biological impacts, and engineering and erosion control plans.

Applicability to DSP Area. Cotati Creek and Laguna de Santa Rosa run through the DSP area. Any proposed modifications to these creeks, their bed, bank, or channel, or their riparian vegetation, would require prior authorization from CDFG. An SBAA would need to be issued by CDFG prior to allowing work in the creek.

Applicable CEQA Regulations to Biological Resources. Section 15380 of the CEQA Guidelines defines endangered species as those whose survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. Rare species are defined by CEQA as those who are in such low numbers that they could become endangered if their environment worsens; or the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered threatened as that term is used in the FESA. The CEQA Guidelines also state that a project will normally have a significant effect on the environment if it will "substantially affect a rare or endangered species of animal or plant or the habitat of the species." The significance of impacts to a species under CEQA, therefore, must be based on analyzing actual rarity and threat of extinction to that species despite its legal status or lack thereof.

Applicability to DSP Area. Any CEQA review prepared for properties within the DSP area would have to address potential impacts to special-status species and other sensitive resources. Regarding the properties within the DSP area, a CEQA document would likely disclose that there may be potentially significant adverse impacts to waters of the State and United States, nesting raptors, nesting passerine birds, and depending upon which parcel is being considered for development, possibly California tiger salamander.

City of Cotati Watercourse and Riparian Resource Protection. The City of Cotati's Land Use Code dedicates a chapter to the "protection of watercourses and riparian resources." Under Article 5, Resource Management, Chapter 17.50 of the Land Use Code provides standards for "the protection of watercourse and riparian resources within the City, including provisions for adequate buffer areas between watercourses and adjacent development, to retain the watercourses as valuable natural, scenic, and recreational amenities as appropriate." The provisions of the Chapter apply to "proposed development on any site adjacent to or crossed by Copeland, Cotati, or Washoe Creeks, and/or Laguna de Santa Rosa." According to subsection 17.50.040 (Development Standards) of this chapter, structures proposed near these creeks "shall be set back from the top of the bank of a watercourse by a minimum distance of 2.5 times the height of the bank or 30 feet, whichever is greater." Additional setbacks may be required to preserve existing vegetation or other significant environmental resources along the watercourse. Also, the Review Authority may grant an exception to this setback requirement: a) where a watercourse has been previously channelized; or b) In the NU, CD, and CE zones, where an existing structure is being replaced and is not in an area subject to flooding, and/or where the setback would be inconsistent with the urbanized character of the site and adjacent parcels. Finally, a watercourse setback adjacent to a path or open spaces shall be measured from the outside boundary of the path or open space. This subsection also provides requirements pertaining to alteration of natural features, design of drainage improvements, and bank stabilization, among other natural resource issues.

Applicability to DSP Area. *Cotati Creek runs through the DSP area. The Laguna de Santa Rosa crosses through the northern tip of the DSP area. According to the Watercourse Protection Ordinance, any buildings proposed on properties adjacent to these waterways must be set back by a minimum distance of 2.5 times the height of the bank or 30 feet, whichever is greater. An exception to this setback requirement may be granted if there are reaches of either of these creeks that have been previously channelized.* Since both Cotati Creek and the reach of Laguna de Santa Rosa that traverse the DSP area are channelized, the setback requirement exception applies.

City of Cotati Tree Preservation and Protection. The City of Cotati's Land Use Code dedicates a chapter to the protection and preservation of trees. Under Article 5, Resource Management, Chapter 17.54 states that "the provisions of this Chapter shall apply in all zoning districts to the removal or relocation of any tree with a circumference of 12 inches or more (3.82 inches or greater in diameter) measured 54 inches above natural grade." A tree permit shall be required prior to: a) the relocation, removal, cutting-down, or other act that causes the destruction of a tree; b) prior to any grading, paving, or other ground-disturbing activity within the protected zone of a tree; and c) the approval of a Use Permit, Minor Use Permit, Variance, Minor Variance, or Subdivision, hereafter referred to as "discretionary projects."

Native oaks – The exception to these provisions involves native oak trees. The removal of native oak trees with a trunk circumference of 12 inches or more (3.82 inches or greater in diameter) measured 54 inches above natural grade shall be prohibited, except where approved by the City Council after a public hearing in compliance with Chapter 17.88 (Public Hearings), in conjunction with the approval of a subdivision or other specific development project.

Timing of removal of large-stature trees – The removal of a tree with a height of 50 feet or more shall not occur between April 15 and June 15 of any year, to provide for the nesting and stopover patterns of raptors, migratory birds, and other bird species.

This chapter further discusses the protection of trees to be retained, the permit application requirements, and tree planting and replacement. Tree replacement is dependent upon the circumference of the tree to be removed. The larger the tree, the greater the number of replacement trees required. For example, for any oak removed between 12 and 49 inches in circumference, five 15-gallon oaks of the same species that is removed must be replanted. For oaks between 50 and 79 inches in circumference, ten 15-gallon oaks of the same species that is removed must be replanted. This chapter also discusses trenching procedures, cutting roots, irrigation systems, plant materials under oaks, grading and protective fencing.

Applicability to DSP Area. Any projects within the DSP area affecting trees covered under the City's Tree Preservation and Protection Ordinance will be required to comply with the provisions of the ordinance.

City of Cotati Wetland Protection and Avoidance. The City of Cotati's Land Use Code dedicates a chapter to the protection and avoidance of wetlands. Chapter 17.56 applies to all lands within the City that support wetlands as identified through site and project-specific environmental documents (that is, in compliance with CEQA or NEPA), and/or delineated by the Corps under provisions of the Clean Water Act. The standards of this Chapter do not apply to treatment wetlands (for example, sewage treatment ponds) or drainages considered "other waters" under the Clean Water Act. This Chapter stresses compliance with the requirements of the Clean Water Act and preparing wetland delineations following these requirements. Additionally, the City has a no net loss policy for wetland areas consistent with similar policies maintained by the Corps of Engineers, the RWQCB, and CDFG. Chapter 17.56 of the Land Use Code addresses mitigation options to achieve no net loss of wetlands, and Use Permit application requirements to be authorized to fill a wetland within the City's jurisdiction. Use Permit applications must include a wetland delineation and a Wetlands Management Plan prepared by a qualified wetlands expert.

Applicability to DSP Area. Any projects within the DSP area affecting wetlands covered under the City's Wetland Protection and Avoidance provisions in the Land Use Code will be required to comply with those provisions.

Draft DSP Policies Related to Biological Resources

The DSP contains the following policies related to biological resources.

Open Space Policies

3. *The landscape shall consist of elements consistent with the character, climate and soils of Cotati. As practical, plant materials shall be indigenous to Cotati, or similar in character and habitat to indigenous materials*

6. *Indigenous trees such as Sycamore, Oaks, and Redwoods shall be used to provide sustainable habitat and reinforce the existing natural aesthetics of the open space framework. These trees are tolerant of stress created during periods of drought, and are receptive to eco-friendly integrated pest management;*

The DSP proposes a Wetland Interpretive Center. The Wetland Interpretive Center would be a living resource that provides a broad range of opportunities to learn about and participate in preserving wetland habitats. Additionally, under the DSP the portion of Cotati Creek within the planning are will continue to be maintained.

Cotati Creek

The engineered creek should continue to be planted with native species providing for habitat maintenance, improvement of stormwater runoff and overflow storm water detention."

Stormwater Management

A. Conservation Development – Establish a Plan that identifies and preserves natural features, greenways, existing parks and greens. La Plaza Park and its stormwater linkage to nearby Cotati Creek should be emphasized within the context of the plan.
E. Stormwater Management Actions

a) Cotati Creek - Remove escaped exotics currently distorting flow and replace with native species. Install interpretive signage describing watershed context and function.

4.3.4 Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project would normally have a significant biological impact if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

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 CDFG or USFWS.

c) Have a substantial adverse effect 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 established native 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 Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.6 Impacts and Mitigation Measures

Less than Significant Impacts

There are no established native resident or migratory wildlife corridors within the DSP area (threshold d). Therefore, no impacts to these corridors would occur under the DSP. Implementation of the DSP would affect ruderal, non-native annual grassland. Impacts include loss of herbaceous species due to grading for building, driveways, and possibly roads (also threshold d). Since the plants that would be affected are common species, and most of them are not native to California, these impacts would be considered less than significant at the project level. However, since the cumulative loss of non-native annual grassland may be significant on a state-wide basis, and will cumulatively result in the loss of open area available for wildlife species to move through,

the DSP's contribution to this cumulative loss would be considered a potentially significant impact. This is discussed further under Section 4.3.7.

Significant Impacts

Development of the DSP could result in eight significant impacts to biological resources, as described below.

Impact BIO-1. Implementation of the DSP has the potential to impact the California tiger salamander, a federally listed endangered species (threshold a).

The potential presence of the California tiger salamander has not yet been ascertained for seven parcels within the DSP area; therefore, potential impacts are considered significant. These seven parcels are color coded in purple on Figure 4.3-3 of this document. The six parcels that are color coded in red on Figure 4.3-3, which stands for "future development," have already been surveyed in accordance with the USFWS/CDFG joint protocol currently in effect. No California tiger salamanders were found on those six parcels, but measures are still warranted.

Mitigation BIO-1a. For the seven parcels (APNs 144-680-051, 144-190-023, 144-190-030, -021, 144-272-015, 144-274-014, and 144-274-015) identified in the FESA applicability section above that must address the potential presence of the California tiger salamander, the following measures apply:

> Conduct a site assessment in accordance with the CDFG and the USFWS joint survey protocol (USFWS 2003) and submit this site assessment to the Sacramento Endangered Species Office of the USFWS. If after reviewing the site assessment the USFWS states that the proposed property provides habitat for the California tiger salamander, the applicant's mitigation options are:
>
> (a) Until the Conservation Strategy is formally adopted by Sonoma County and the participating cities, project applicants have the option to conduct protocol level surveys for the California tiger salamander in accordance with the joint protocol prepared by the CDFG and the USFWS. If the California tiger salamander is not detected, then no further mitigation is warranted as there would not be significant adverse impacts to the California tiger salamander pursuant to CEQA. If the California tiger salamander is detected, applicants would be required to mitigate impacts to this salamander as prescribed in the Interim Guidelines as detailed in (b) and (c) below. Once the Conservation Strategy is formally adopted, surveys may no longer be an option, the USFWS has not yet made a final decision; or,
>
> (b) in lieu of conducting surveys that have negative findings, project applicants may append the proposed project to the Programmatic Biological Opinion published on November 9, 2007 (if the project qualifies, see discussion on the Programmatic in Section 4.3.3 above); or,
>
> (c) applicants may assume the tiger salamander's presence onsite and mitigate in accordance with the Interim Mitigation as prescribed in the Santa Rosa Plain Conservation Strategy. The Interim Mitigation shall be followed until such time that the implementing agencies have executed a Memorandum of Understanding, formally adopting the Conservation Strategy. These interim guidelines are as follows:
>
> Implement a Mitigation Ratio of 3:1 for projects with impact on breeding habitat; that is, those project sites that are within 500 feet of a known breeding site. This means that applicants would have to preserve three square feet of habitat for each square foot of habitat impacted as extrapolated to the project site acreage, minus qualified hardscapes as approved by USFWS. Preservation can be achieved through purchase of credits at a USFWS qualified California tiger salamander mitigation bank commensurate with impacts, or by buying and preserving land in perpetuity that is known to support the California tiger

salamander as permitted by the USFWS. Currently, no properties within the DSP area are known to be within 500 feet of a known breeding site, so at the present time, this mitigation does not apply to the DSP area. This mitigation ratio is presented herein, however, in case new California tiger salamander populations are discovered within the DSP area or in the immediate surrounding area, in which case a 3:1 mitigation ratio would have to be implemented by affected project applicants.

Implement a Mitigation Ratio of 2:1 for projects with an impact on upland habitat; that is, those that are greater than 500 feet, and within 2,200 feet of a known breeding site(s), or within 500 feet of an adult occurrence.[3]

Implement a Mitigation Ratio of 1:1 for projects with an impact on dispersal habitat; that is, those that are greater than 2,200 feet, and within 1.3 miles of a known breeding site(s). Also, projects beyond 1.3 miles from known California tiger salamander breeding sites which have potential California tiger salamander habitat could mitigate at 1:1 or implement other appropriate mitigation measures; for example, a project proponent could make a monetary contribution to a species fund. This mitigation measure would apply to the seven affected parcels in the DSP area.

Implement a Mitigation Ratio of 0.2:1 for projects that are greater than 1.3 mile from a known breeding site and greater than 500 feet from an adult record.

Once the Conservation Strategy is formally adopted, the mitigation ratio for all projects that may affect the California tiger salamander goes to a 2:1 ratio, regardless of a project site's distance from a known breeding site or adult record.

According to the USFWS, "hardscape analyses" are allowed to refine mitigation acreage requirements on a project basis. Therefore, hard-packed graveled surfaces, paved areas, sidewalks, and existing buildings would not be subject to the California tiger salamander mitigation requirements. The acreage of hardscape areas on a project site would be subtracted from the total project site acreage to determine the mitigation acreage calculation. All areas that are not hardscape would be subject to the mitigation ratios in effect at the time the USFWS reviewed the development application.

If mitigation onsite is not an option (that is, there is not enough available open space within the DSP area), the applicant shall contribute funds to a USFWS approved mitigation bank in Sonoma County.

If the USFWS determines that an Incidental Take permit for California tiger salamander is necessary for a proposed project (i.e., if protocol surveys are not conducted on the seven affected parcels proving absence of the California tiger salamander), project applicants will need to consult with the USFWS either via Section 7 (in which case a federal agency such as the Corps consults directly with the USFWS on behalf of the applicant) or Section 10 of FESA. In order to obtain an Incidental Take permit pursuant to Section 7 of the FESA, project applicants will need to have a "federal nexus" such as when the Corps is authorizing/considering a discretionary permit for a proposed project that would impact waters of the United States. If a project applicant does not have a federal nexus agency considering a discretionary permit, USFWS has stated that applicants may combine parcels that would impact waters of the U.S. with other parcels that would not into a single project. If combining project sites to obtain a federal nexus agency authorizing a discretionary permit for the project is not possible, then the applicant must use Section 10 of FESA to obtain an Incidental Take permit from the USFWS.

[3] This mitigation requirement is specific to areas where known breeding sites have been extirpated in the last five years. "All known breeding sites in the Cotati area have now been destroyed. The remaining sites in the Cotati area where the animals can mate and develop are roadside ditches and other suboptimal habitat during years of above average rainfall (USFWS et. al. 2005)."

Mitigation BIO-1b: For the six parcels where surveys have been completed that demonstrate absence of the California tiger salamander (APNs 144-170-006, -007, -008, 144-170-009, 144-200-002, and 144-200-004), the following mitigation measures apply.

> Project applicants shall seek and obtain concurrence from the USFWS that proposed development on the six parcels would have "no effect" on the California tiger salamander. USFWS has stated it will not formally weigh in on the effects of proposed projects on the California tiger salamander on these parcels until such time it reviews a formal application for development of these parcels. Thus, at the time there is a formal project application for these parcels, a qualified biologist should prepare a formal assessment summarizing the findings of the surveys and should request that the USFWS make a "no effect determination." Upon receiving a "no effect" determination from the USFWS, no further mitigation would be warranted. If the USFWS fails to make a "no effect" determination, but rather determines that the proposed project would impact the California tiger salamander, the mitigation as prescribed above (Mitigation BIO-1A) for the seven affected parcels must be implemented as prescribed.

Significance after Mitigation: Implementation of the mitigation measures above would reduce impacts on the California tiger salamander to a less than significant level.

Impact BIO-2: The pallid bat could be impacted by the renovation or destruction of older, unoccupied buildings located within the Downtown Specific Plan Area (threshold a).

The pallid bat is a California species of special concern. It has no federal status. In Sonoma and Marin Counties this bat has been found in old buildings where it typically resides in the roof or on rafters (CNDDB records 2005). The pallid bat could be impacted by the renovation or destruction of older, unoccupied buildings located within the DSP area. This would be considered a significant and adverse impact.

Mitigation BIO-2: Prior to the removal or extensive renovation of any building (e.g., old barns, houses, or sheds) within the DSP area, surveys shall be conducted to determine if any special-status bat species reside in the proposed impacted features. Surveys shall be conducted by a biologist with experience surveying for and identifying bat species. Any special-status bats identified in trees or buildings to be impacted shall be evicted in a manner that does not harm the bats. Eviction methods would need to be coordinated with CDFG. In addition, bat houses shall be constructed in open space areas outside any proposed development envelope. The number of bat houses established should be commensurate with the approximate number of bats that are evicted. California Native Species forms would be completed and sent to CDFG's Natural Diversity Database office in Sacramento for each special-status bat species identified.

Significance after Mitigation: Implementation of this mitigation measure would reduce impacts to pallid bat or other special-status bat species to a level considered less than significant.

Impact BIO-3: Implementation of the Downtown Specific Plan has the potential to adversely impact tree-nesting raptors (threshold a).

The DSP area supports a wide variety of tree species. Many of these trees provide suitable nesting habitat for raptors such as the white-tailed kite, red-tailed hawk, and red shouldered hawk. California Fish and Game Code §3503, §3503.5, §3800, §3513 prohibit the "take, possession, or destruction of birds, their nests or eggs." Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." Such a take would also violate federal law protecting migratory birds (Migratory Bird Treaty Act). Any impact to nesting raptors would be regarded as a significant adverse impact.

Mitigation BIO-3: A nesting survey shall be conducted prior to commencing with earth-moving, construction work, or tree removal if this work would commence between March 15th and August 31st. The raptor nesting surveys shall include examination of all trees within 500 feet of the subject property, not just trees slated for

removal. This would ensure that raptors nesting outside the project site would not be disturbed by noise and vibrations. Nesting surveys shall be conducted in the spring the year of construction of the project and again 30 days prior to tree removal and/or breaking ground at the project site. The optimal time to survey for nesting raptors is between April 15th and May 15th.

If nesting raptors are identified during the surveys, a 300-foot non-disturbance radius around the nest tree must be staked with orange construction fencing. This 300-foot buffer may be reduced on a site-by-site basis if a qualified raptor biologist determines that the nesting raptors on a particular site are acclimated to people and disturbance and would not be adversely affected by earthmoving nearby. At a minimum, however, the non-disturbance buffer shall be a radius of 100 feet around the nest tree. If the nest site is on an adjacent property, the portion of the buffer that occurs on the project site shall be fenced with orange construction fencing. When construction buffers are reduced in size, the raptor biologist shall monitor distress levels of the nesting birds for one week after project disturbance occurs. If at any time the nesting raptors show levels of distress that could cause nest failure or abandonment, the raptor biologist shall have the right to re-implement the full 300 foot buffer. Instances when the buffer could be reduced in size would be if the raptors were well acclimated to disturbance and/or if there were physical barriers between the nest site and the construction project that would ameliorate disturbance to the nesting raptors. No construction or earth-moving activity shall occur within the non-disturbance buffer until it is determined by a qualified raptor biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by July 1st. Regardless, the resource agencies consider August 1st the end of the nesting period unless otherwise determined by a qualified raptor biologist. Once the raptors have completed the nesting cycle, that is, the young have reached independence of the nest, no further regard for the nest site shall be required. The nest tree may be removed. No other compensatory mitigation is required.

Significance after Mitigation: Implementation of this mitigation measure would reduce the significance of impacts to nesting raptors to a level regarded as less than significant pursuant to CEQA.

Impact BIO-4: Implementation of the Downtown Specific Plan has the potential to impact western burrowing owl (threshold a).

The western burrowing owl is a state species of special concern. This owl is protected pursuant to the Federal Migratory Bird Treaty Act and the California Fish and Game Code §3503, 3503.5, 3800, 3513. While the western burrowing owl is not known to nest within the DSP area, based on this species' legal status and protections, impacts to western burrowing owl would be regarded as a potentially significant adverse impact.

Mitigation BIO-4: To prevent take of burrowing owls on a project site, surveys shall be conducted in the winter and spring the year prior to construction of the project and again 30 days prior to construction of the project. The purpose for conducting the surveys the year prior to the commencement of construction is to provide the land owner/applicant time to address any mitigation requirements that would be necessary to offset a proposed project's impact on this species. Burrowing owl surveys shall be conducted according to the methodologies prescribed by CDFG in their 1995 Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Consortium in their 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines.

To mitigate impacts to burrowing owls, CDFG requires 6.5 acres of replacement habitat be set-aside (i.e., protected in perpetuity) per pair of burrowing owls, or unpaired resident bird. Such a set-aside would offset permanent impacts to burrowing owl habitat. The protected lands should be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFG. Land identified to offset impacts to burrowing owls must be protected in perpetuity either by a conservation easement or via fee title acquisition. A Mitigation Plan and Mitigation Agreement must be prepared and submitted to CDFG for their approval. The City of Cotati must receive copies of the Mitigation Plan and Mitigation Agreement by and between the applicant and CDFG prior to issuing a grading permit for the proposed project.

The Mitigation Plan shall identify the mitigation site and any activities necessary to enhance the site, including the construction of artificial burrows and maintenance of California ground squirrel populations in the mitigation

preserve. For each pair of burrowing owls found in the construction area, three artificial nesting burrows must be created at the preserve site. The Plan shall also include a description of monitoring and management methods proposed at the mitigation site. Monitoring and management of any lands identified for mitigation purposes would be the responsibility of the applicant for at least five years. An annual report must be prepared for submittal to CDFG by December 31 of each monitoring year. Contingency measures for any anticipated problems shall be identified in the plan.

Significance after Mitigation: Implementation of this mitigation measure would reduce impacts to the western burrowing owl to a level considered less than significant.

Impact BIO-5: Development under the Downtown Specific Plan has the potential to impact other nesting birds including special-status birds such as the loggerhead shrike (threshold a).

The loggerhead shrike is a California species of special concern. It is also protected pursuant to the Migratory Bird Treat Act and California Fish and Game Code §3503, §3800, and §3513. Though uncommon in the DSP area, the loggerhead shrike is known to nest north and south of Sonoma County, and possibly could nest within the DSP area in the future. Other birds, such as passerine birds (perching birds), could nest on properties within the DSP area and may be disturbed to an extent that eggs and/or young would be lost. All passerine birds are protected under California Fish and Game Code sections (§3503 and §3800) that protect nesting birds, their eggs, and young, and most are protected under the Migratory Bird Treaty Act. Impacts to the loggerhead shrike and other nesting bird species during the nesting season would be regarded as a significant adverse impact.

Mitigation BIO-5: A nesting survey shall be conducted prior to commencing with construction work if this work would commence between March 15th and August 31st. If special-status birds, such as loggerhead shrike are identified nesting within the area of affect, a 100-foot non-disturbance radius around the nest must be fenced. No construction or earth-moving activity shall occur within this 100-foot staked buffer until it is determined by a qualified ornithologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by July 1st. This date may be earlier than July 1, or later, and would have to be determined by a qualified ornithologist. Similarly, the qualified ornithologist could modify the size of the buffer based upon site conditions and the bird's apparent acclimation to human activities. If the buffer is modified, the ornithologist would be required to monitor stress levels of the nesting birds for at least one week after construction commences to ensure that project activities would not cause nest site abandonment or loss of eggs or young. At any time the ornithologist shall have the right to implement the full 100-foot buffer if stress levels are elevated to the extent that could cause nest abandonment and/or loss of eggs or young.

If common passerine birds (i.e., perching birds such as northern mockingbirds, scrub jays) are identified nesting in the trees proposed for removal, tree removal shall be postponed until it is determined by a qualified ornithologist that the young have fledged and have attained sufficient flight skills to leave the study area. Typically, most passerine birds can be expected to complete nesting by July 1st, with young attaining sufficient flight skills by this date to avoid project construction zones. Unless otherwise prescribed for special-status bird species, upon completion of nesting no further protection or mitigation measures would be warranted for nesting birds.

Significance after Mitigation: Implementation of the measures identified above would reduce potentially significant impacts to nesting birds to levels regarded as less than significant pursuant to CEQA.

Impact BIO-6. Development within the vicinity of Cotati Creek and Laguna de Santa Rosa may have significant impacts on the watercourses and riparian area, and may adversely affect the water quality of these creeks (thresholds b and c).

Cotati Creek and Laguna de Santa Rosa are within the DSP area. While both of these creeks are channelized within the DSP area, development within the vicinity of these creeks without regard for their riparian vegetation or without adequate setbacks from these creeks would be regarded as a potentially significant impact pursuant to CEQA.

Mitigation BIO-6: Buildings and associated structures shall be setback from the top of a creek bank a minimum distance of 2.5 times the height of the bank or 30 feet, whichever is greater ("creek setback zone"). This mitigation measure is consistent with the City of Cotati's watercourse ordinance and is also consistent with CDFG's typical setback requirement of 25 feet from the top of bank or the outside edge of riparian vegetation.

The one exception to this requirement is if the building is proposed within a previously channelized reach of the creek, or in a previously urbanized area, then it can be a smaller setback distance. This smaller setback distance would be determined as agreed upon by City of Cotati staff and CDFG. While the City can make exceptions to the standard setback requirement, CDFG typically does not grant exceptions to their standard 25-foot setback requirement. Hence, if the standard required creek setback distance cannot be achieved, i.e., if buildings or other infrastructure encroach five feet or more into the creek setback zone, then these proposed activities must be approved by CDFG through issuance of a Streambed Alteration Agreement (Section 1602 Agreement) or CDFG's written concurrence that no Streambed Alteration Agreement is required for the proposed activities. The applicant would also need approval from the City to encroach within this setback. Finally, if both CDFG and the City agree to modifications to the creek setback zone, a vegetation planting plan must be prepared and native trees and shrubs must be planted along the watercourse in the remaining setback area(s) within the vicinity of the impact. The number of trees and shrubs that shall be planted will be three trees and/or shrubs planted for each 20-foot reach of stream channel that is encroached upon (regardless of whether or not vegetation was removed). Or, if trees and shrubs must be removed, they shall be replaced at a 3:1 ratio. All species planted must be native California trees and shrubs that are native to the Cotati area (for example, oaks, willows, alders). Replacement trees shall be 15 gallon container plants or larger. Weed mats shall be installed over the cleared planting areas and anchored to the ground with landscape staples. The weed mat will function to reduce competition for light, water, and nutrients. All planted trees and shrubs shall be protected from rodent and deer browsing by installing protective UV-collars around the trees. Finally, a drip irrigation system with automatic timers will be installed and operated over a minimum of three years while the trees and shrubs become established.

If a property does not have enough room to plant replacement trees and shrubs, these replacement trees and shrubs may be planted in a designated open space area within the City of Cotati or Sonoma County, as approved by the City and the jurisdiction that is responsible for the open space area (for example, a regional park). Trees and shrubs planted in another jurisdiction shall still be monitored in accordance with the monitoring condition stipulated below.

Any installed mitigation trees and shrubs shall be monitored annually by a qualified restoration ecologist or biologist for a period of five years. This will prevent large-scale unanticipated losses of establishing trees and shrubs. Monitoring will be initiated one year after plants are planted, and will continue each fall until the end of the five-year monitoring program. During each annual monitoring visit the number of planted trees and shrubs will be tallied to determine if there have been any tree losses within the last year. Health and vigor of the plants will also be noted. Annual monitoring reports shall be submitted to the City by December 31 of each year, and if a Streambed Alteration Agreement was issued by CDFG, the reports shall also be submitted to this agency as well. It is expected that five years after planting, the trees and shrubs will be well-established, self-sustaining, and that survivorship will be high. However, if at the end of the five-year monitoring period mortality of the planted trees and shrubs is greater than 20 percent, they shall be replanted. Monitoring of replacement trees and shrubs shall then continue annually for an additional five years until all trees and shrubs are healthy and self-sustaining. The applicant is responsible for supplemental planting and all monitoring costs.

Finally, to protect the water quality of Cotati Creek, Laguna de Santa Rosa and downstream creeks, BMPs will be in place during all site construction. All site runoff during construction and following construction shall be directed into existing stormwater systems. A Stormwater Management Plan (SWMP) shall be prepared by the applicant's engineer and submitted to the City prior to receiving a grading permit or building permit.

Significance after Mitigation: This mitigation measure will reduce the project's impact to protected watercourses and riparian vegetation to a level considered less than significant pursuant to CEQA.

Impact BIO-7: Implementation of the Downtown Specific Plan has the potential to adversely impact waters of the United States and State (including wetlands) (threshold c).

As described above, at least 18 parcels within the DSP area support potential waters of the United States/State (see Figure 4.3-6). Impacts to waters of the United States and/or to waters of the State on a project site are considered potentially significant and adverse.

Mitigation BIO-7: Impacts to waters of the United States and/or State shall be avoided to the greatest extent feasible. If impacts cannot be avoided completely, impacts shall be reduced to less-than-significant levels through various means including partial avoidance/ minimization of impacts, and mitigation compensation. Those parcels identified in Figure 4.3-6 as supporting potential Corps jurisdictional area shall complete a wetland delineation. The wetland delineation shall be conducted according to the 1987 Corps Wetland Delineation Manual (U.S. Army Corps of Engineers 1987) and the Arid West Interim Regional Supplement to the 1987 Wetland Delineation Manual (U.S. Army Corps of Engineers 2006). Once the map is confirmed by the Corps, the full extent of waters of the U.S. on a particular property would be known and the extent of impacts to regulated areas could be ascertained. Since the RWQCB does not have a formal method for technically defining what constitutes waters of the state, this agency typically remains consistent with the Corps' determination. No Corps or RWQCB jurisdictional wetland or other waters shall be impacted by a project without first obtaining a permit from the respective agency for the proposed impacts.

The City of Cotati, like the Corps and the RWQCB, has a "no net loss" policy for wetlands. Hence, based on a Corps confirmed map, jurisdictional wetland areas shall be avoided on a project site wherever feasible. Impacts shall also be minimized by the use of Best Management Practices to protect preserved wetlands and ensure water quality in wetlands and other waters within the watershed. These practices shall include construction period protections such as installing orange construction fencing, hay or gravel waddles, and other protective erosion control measures. If wetlands or creeks occur on a project site, a biological monitor shall be on-site during project grading to monitor the integrity of preserved wetlands and other waters.

If wetlands must be impacted by a proposed project, the loss of wetland (or other waters) must be compensated for through purchase of mitigation credits in a Corps and RWQCB approved wetlands mitigation bank with a service area that includes the project site. Prior permission shall be obtained from both the Corps and the RWQCB for the proposed project prior to the time mitigation credits are purchased. Proof of credit purchase in accordance with issued permit conditions from the Corps (and to the extent possible the RWQCB) shall be provided to the City.

If wetland mitigation credits are unavailable for the project, and mitigation compensation wetlands must be created by the applicant, they shall be created on-site only if a meaningful wetland avoidance preserve is established as part of the project. Any wetland preserve established on or offsite shall be permanently protected through fee title transfer to a qualified conservation organization, or through recordation of a conservation easement deed or other permanent Grant Deed recorded over the protected property.

Any created wetlands shall emulate those wetlands affected by the project (known as in-kind replacement). If wetlands cannot be created in-kind and on-site, other alternatives would need to be explored with the Corps and RWQCB, and approvals would be required from these agencies for use of an offsite wetland mitigation site.

Both the Corps and the RWQCB require a minimum of 2:1 mitigation for impacts. That is, for every acre of waters of the U.S. and/or State impacted, or fraction thereof, two acres must be created. In many cases, the Corps and RWQCB will allow purchase of creation/enhancement credits at a 1:1 ratio in addition to the purchase of preservation credits at a 1:1 ratio to make a combined mitigation ratio of 2:1. These agencies' policies require creation of wetland habitats on portions of a project site that would be unaffected by the proposed project or preservation and creation of offsite wetland habitat, or a combination of both. The specifics of wetland creation and preservation are determined by these agencies on a project by project basis.

If stream channels (Corps jurisdictional "other waters") would be impacted by a project, as part of the mitigation it shall be necessary to restore/enhance existing stream channels that would not be impacted by the project. Stream restoration/enhancement shall be arranged with Corps, RWQCB, and CDFG personnel at the time authorizations/ agreements are applied for with these agencies. Stream restoration/enhancement mitigation shall include:

- Replacement tree and shrub planting as specified at Mitigation BIO-2.

- Creation of stream pool environments through installation of native rock barriers (check dams) that have vertical drops on the downstream edge that are, if possible, a minimum of 36 inches high. At the base of vertical drops, native rock armoring shall be installed to protect the rock barriers and to create an environment that can be scoured of silt deposits without damaging the rock barriers. After installation of check dams, pool environments would initially form upstream of the rock barriers. Over time, these pools would silt in. However, providing that large rock has been installed (greater than 24" in diameter), the vertical drop on the downstream side of the rock barrier should result in pools that do not silt in. Hydrologic scouring would maintain the integrity of these pools over the long term.

- The vertical drop below native rock barriers must be greater than 36 inches in order for water scouring to create pool environments.

If wetlands/ponds/perennial seeps would be impacted by a project, wetland plant/animal populations shall be relocated from the pools that would be impacted to recreated wetland/pond habitats. Topsoils shall be removed from ponds/wetlands that would be impacted, and placed into the recreated wetlands/ponds. These topsoils would contain a seed bank of the impacted wetland plant species which would germinate with fall/winter hydration of the recreated pond/wetland habitats. Recreated wetland habitats shall:

- remain inundated or saturated for sufficient duration to support a prevalence of hydrophytic vegetation.

- exhibit plant and invertebrate species richness comparable to the impacted wetlands.

- be monitored annually to document hydrology, plant colonization, and use by wildlife over a minimum five-year period, or until mitigation is considered successful. All mitigation and monitoring requirements shall be coordinated with the Corps, USFWS, and CDFG.

- Monitoring reports shall be prepared annually and submitted to the Corps, CDFG, USFWS, and the City of Cotati Planning Department.

- The mitigation site(s) shall be protected in perpetuity by a conservation easement, other easement, or by Fee Title transfer of the property to a suitable conservation organization.

No impacts shall occur to Corps jurisdictional pools/wetlands until a Corps permit is obtained that authorizes impacts to these features pursuant to Section 404 of the Clean Water Act. Similarly, no impacts shall occur to RWQCB jurisdictional areas until the RWQCB has issued a certification of water quality, or waiver thereof, pursuant to Section 401 of the Clean Water Act.

In lieu of creating compensation wetlands, as approved by the Corps and RWQCB, the applicant may purchase mitigation credits from an approved mitigation bank at a 2:1 ratio or as otherwise required by the Corps and RWQCB.

Aside from the minimum replacement ratio and in perpetuity protection, various regulatory agencies may provide additional conditions and stipulations for permits. Any other conditions that are stipulated for wetland/waters impacts by the Corps and/or RWQCB shall also become conditions of project approval.

Significance after Mitigation: Implementation of the measures described above would reduce potentially significant impacts to waters of the United States/State to a level considered less-than-significant pursuant to CEQA.

Impact BIO-8: Implementation of the Downtown Specific Plan has the potential to impact native trees located outside of watercourses and riparian zones (threshold e).

Mature valley oak and black oak trees are scattered throughout the DSP area. According to the City of Cotati's Land Use Code, removal of native oak trees with a trunk circumference of 12 inches or more (3.82 inches or greater in diameter) measured 54 inches above natural grade, shall be prohibited, except where approved by the City Council after a public hearing in conjunction with the approval of a subdivision or other specific development project. Hence, unauthorized impacts to trees within the DSP area are considered a potentially significant impact.

Mitigation BIO-8: A tree permit shall be obtained from the City of Cotati for any trees protected by City ordinance within the DSP area. In order to obtain a tree permit, a bond must be posted with the City to guarantee that replacement trees are planted. The bond amount shall be approved by the City and it shall be based upon the cost of purchasing replacement trees, planting, and monitoring the trees' survival for a five-year period. Replacement trees shall be the same species as the ones removed and shall be a minimum of 15-gallon size. Mitigation numbers shall be based on the City of Cotati's Land Use Code which states that the larger the tree removed, the greater the number of replacement trees required. This mitigation measure also includes compensation for any tree that is injured during grading or construction (e.g., if some roots are cut). Any tree that is injured will be compensated for by planting replacement trees at a 1:1 ratio. The trees' health shall be monitored annually for five years by a qualified biologist or arborist. Annual monitoring reports shall be submitted to the City of Cotati. Specifics of the tree replacement requirements are provided below.

> *Tree Planting Methodology*. If a landowner would remove multiple trees on a project site, a planting plan shall be prepared that details where all replacement trees would be planted on the project site. The methods used to plant trees shall also be specified. All planted trees shall be protected from rodent and deer browsing by installing protective UV-collars around the trees.
>
> *Irrigation*. All planted trees shall be provided with a buried irrigation system that would be maintained over a minimum 3-year establishment period. At the end of the 3-year period the irrigation system could be removed. The irrigation system shall be placed on automatic timers so that trees are automatically watered during the dry months of the establishment period.
>
> At the end of a 5-year monitoring period, at least 80 percent of planted trees must be in good health. If the numbers of planted trees falls below an 80 percent survival rate, additional trees shall be planted to bring the total number of planted trees up to 100 percent of the original number of trees planted. Irrigation and follow-up monitoring shall be established over an additional three-year period after any replanting occurs. Any follow-up monitoring shall be reported annually to the City of Cotati.

Significance after Mitigation: Implementation of this mitigation measure would reduce impacts to trees to a level considered less than significant pursuant to CEQA.

4.3.7 Cumulative Impacts

Impact BIO-9: Implementation of the DSP may contribute to the cumulative loss of non-native annual grassland, which could result in the loss of foraging/nesting/denning habitat for many common wildlife species, forcing these species to relocate and move into other animals' territories. (thresholds a & d).

Relocating into another animal's territory typically results in an adverse impact to the relocating animal because the territory is already occupied and there is no room in this territory for the relocating animal. Impacts to this plant community also potentially include loss of special-status animal species and their habitats. While impacts to common plant and animal species found in non-native annual grassland habitat do not constitute a significant project impact pursuant to CEQA, the cumulative loss of non-native annual grassland may be significant on a state-wide basis. Thus, cumulative impacts to grassland habitats in the DSP area must be considered potentially significant and recommendations are provided below to offset impacts to this plant community.

Mitigation BIO-9. To mitigate impacts to ruderal, non-native annual grassland habitats in the DSP area, grassland areas that are outside of proposed grading activities should be enhanced. Enhancing grassland areas would ensure stability of slopes and would promote the growth of native species. Enhancement of this plant community should include broadcast seeding of native grasses and forbs, and/or planting plugs of native California grass species in proposed open space areas and on graded pads and/or slopes that are created due to land moving activity associated with development. Prior to the time a site (or portion of a site) is graded, a native seed mix will be obtained and incorporated into the erosion control measures associated with grading. All project grading plans and erosion control plans shall specify the native seed mixture and/or native grass plugs and shall designate where it will be broadcast onto the proposed grading site.

Impact BIO-10: Construction of development projects within the DSP area would result in cumulative impacts to "waters of the United States" and stream channels that are regulated by the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Game. (threshold c).

On a regional basis, these impacts would add to other development related losses of waters of the United States and stream channels. In addition, by altering drainage patterns and water flow, downstream aquatic life could be affected as well. With adequate, general plan-mandated setbacks and other protections, impacts to wetland resources should be minimized. Mitigation that includes re-creation of impacted waters of the U.S. would also offset this cumulative impact.

Other cumulative considerations. The seasonal wetlands, riparian scrub, oak trees, and creek channels in the DSP area may also be important for several special-status animal species (see Impacts and Mitigations Section above). There are other proposed projects in Sonoma County that would/are impacting similar resources to those that would be impacted by projects within the DSP area. Project-related impacts would be considered cumulative with other projects in the region. The mitigation measures prescribed in the sections above would offset these cumulative impacts to special-status species, wetlands, trees, and plant communities/wildlife habitats.

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