

ENVIRONMENTAL COLLABORATIVE

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MEMORANDUM

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DATE: 13 September 2021

FROM: Jim Martin
ENVIRONMENTAL COLLABORATIVE

SUBJECT: Results of Floristic Surveys and Wildlife Habitat Assessment
Scott Ranch Site
Petaluma, California

This memo presents the results of systematic floristic surveys and wildlife habitat assessment conducted in spring and summer of 2021 for the Scott Ranch site in Petaluma, California. The site consists of 58.66 acres at the southern city limit along the west side of D Street. The site supports a mosaic of grassland and oak-dominated woodlands. Woodlands occur along the Kelly Creek corridor and hillside slopes in the southwestern portion of the site. A small stand of woodland occurs north of Windsor Drive in the northeastern portion of the site. A thicket of willow occurs along the drainage that feeds into the stock pond that is used for breeding by the federally-threatened California red-legged frog (*Rana draytonii*) south of the Kelley Creek corridor. A grove of blue gum eucalyptus (*Eucalyptus globulus*) occurs near the confluence of the tributary drainage that parallels D Street, and other non-native species are scattered around the former ranch residence and outbuildings (barn complex).

Mr. Martin is intimately familiar with conditions on the site, having served as the City's independent biological consultant since environmental review of the original project application by Davidon was initiated in 2004, and having conducted field reconnaissance surveys of the site between 2004 and 2019 as part of the California Environmental Quality Act (CEQA) review. This includes preparation of the Biological Resources section of the Revised Draft Environmental Impact Report (RDEIR) that was circulated by the City in December of 2021. As described on page 4.3-2 of the RDEIR, biological resources on the site were identified through the compilation and review of available information and then conducting reconnaissance-level field surveys to confirm field conditions and assess potential impacts of the proposed project. Information reviewed include records from the California Natural Diversity Data Base (CNDDDB) maintained by the California Department of Fish and Wildlife (CDFW), the California Native Plant Society *Inventory of Rare and Endangered Plants of California*, among other available background information, together with detailed surveys and mapping of resources on the project site. The detailed surveys and mapping prepared for the site extend over the past 18 years and were prepared by consultants retained by the project applicant.

A number of individuals and organizations commenting on the RDEIR expressed concern over the length of time that has passed since systematic surveys had been conducted, particularly regarding special-status plants, possible presence of American badger (*Taxidea taxus*), and updated surveys for California red-legged frog. The City subsequently confirmed with representatives of the U.S. Fish and Wildlife Surveys (USFWS) that additional surveys regarding California red-legged frog were not necessary given the known occupation of the site based on past survey efforts. However, the City decided that additional surveys updating information on special-status plants, native grasslands and potential presence of American badger would be useful given concerns raised in comments on the RDEIR. Environmental Collaborative (EC) oversaw conduct of these updated surveys and this memo provides a report of findings on this effort. This includes a summary of methods, findings, and conclusions regarding the need for any additional survey efforts, as described below.

Methods

Updated surveys were conducted in spring and summer of 2021. These include systematic surveys for special-status plant species, refinement of the mapping of native grasslands, and an update of the wildlife habitat assessment. Methods used in performing this survey and mapping effort are summarized below.

Special-Status Plant Surveys. No special-status plant species have been reported from the site, based on surveys conducted in 2003 and 2004¹ and again in 2013.² But given the length of time since they were last conducted, updated systematic surveys for special-status plant species were performed following the latest *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* of the CDFW. Lists of special-status plant species suspected to possibly occur on the site were prepared as part of previous biological assessments conducted by the applicant's consultants and the previous DEIRs for earlier versions of the Davidon application. The dated of the field surveys was determined based on flowering periods and phenology of special-status plants suspected to possibly occur on the site.

Systematic surveys for special-status plants were conducted on April 2 and 8, May 13, and July 1, 2021 by consulting botanist Zoya Akulova Barlow. Transects were made across the entire site at intervals necessary to inspect vegetative cover and distinguish individual plants. All plant species encountered were identified to the degree necessary to determine possible rarity, and a list of species encountered during the surveys was prepared (see attached **Table 1**).

Native Grasslands. Stands of native grasslands, generally with a native species component of 10 percent or higher, are considered a sensitive natural community type by the CDFW. As indicated in **Figure 4.3-2** of the RDEIR, an estimated 11.3 acres of native grasslands were reported to occur on the site based on mapping prepared by Zentner and Zentner in 20015.³ These stands had a native component of from 15 to 65 percent scattered throughout the site,

¹ Zander Associates, 2004. Focused Special-Status Plant Survey, UOP Petaluma Property, letter to Jeff Thayer, Vice President, Land Acquisition, Davidon Homes, from Leslie Zander. June 8.

² Zentner and Zentner, 2013. Special Status Plant Species Assessment. Prepared for Davidon Homes. October.

³ Zentner and Zentner, 2016. Scott Ranch Native Grassland Survey. Prepared for Davidon Homes. February. Revised March.

but predominantly on north and northeast-facing hillside slopes. Native purple needlegrass (*Stipa pulchra*) was consistently the dominant native grass observed, interspersed with California melic (*Melica californica*) and stands of wild rye (*Elymus* spp.), among other native grasses and forbs. The respective cover class composition in the grasslands most likely varies somewhat on an annual basis and changes to some degree as the growing season progresses, depending on rainfall, grazing intensity and other factors.

An assessment of the current distribution of native grasslands was performed by Mr. Martin during surveys conducted on April 2 and 19, and May 10, 2021. Species composition was inspected during the field surveys and compared to the 2015 mapping of native grassland stands. Adjustments were made through comparison of mapped limits of native grasslands, with estimates of native grass and forb composition made as necessary to define current boundaries. These were then mapped as AutoCAD layers for comparison to areas on native grassland observed in 2015 as depicted in **Figure 4.3-2**, to allow for a determination on changes in acreages of native grassland cover. An updated map of native grasslands and their acreage was prepared (see attached **Updated Figure 4.3-2**).

Wildlife Habitat Assessment. An assessment of wildlife habitat conditions and species use of the site was conducted by Mr. Martin. Surveys were conducted on April 2 and 19, May 10, July 6, and August 9, 2021. The initial survey on April 2, 2021 was conducted from 8:20 AM until 4:30 PM and involved an inspection over the entire site. Subsequent surveys were performed at varied times to allow for observation of wildlife during morning, mid-day and late afternoon/evening conditions, and to inspect specific features such as pools in Kelly Creek, the stock pond, and observed nests. Where needed, binoculars were used to identify wildlife from a distance. All wildlife species observed were noted, including individuals or conspicuous signs of presence such as characteristic pellets, feathers, nests and other indicators. The ground surface was inspected for openings of ground dwelling birds and mammals and signs of digging by American badger. A list of wildlife observed on the site during the surveys was prepared (see attached **Table 2**).

Results

The following provides a summary of the results of the updated surveys on special-status plants, native grasslands, and wildlife use of the site.

Special-Status Plants. No occurrences of any plant species considered to be of special-status were observed during systematic field surveys of the site conducted through the 2021 spring and summer flowering period. Over 240 plant species were observed on the site (see **Table 1**) but none have any special-status. These negative results are consistent with the negative results of previous survey efforts conducted in 2003/2004 and 2013. Special-status plant species are not expected to occur on the site given the negative findings from the systematic surveys conducted at three different time periods over the past 18 years.

Native Grasslands. Minor shifts in the extent of native grasslands were observed during the updated mapping effort performed in 2021, as indicated in the **Updated Figure 4.3-2**. Stands of native grasslands receded in a few locations in the southwestern portion of the site (see stands 10,12,13), but for the most part they expanded somewhat since mapping was done in 2015. These include expansion of several original polygons (see stands 6, 10, 11, and 13) and several new stands (see stands A through F). Between 2015 and 2021, the total acreage of native grasslands increased from 11.292 acres to 12.312 acres, a net increase of 1.02 acres. Most of

these stands are located in the vicinity of other native grasslands in the southwestern portion of the site. The one exception to this was a sparse stand of native grassland (stand E) occupying about 0.059 acre on the south-facing hillside above Kelly Creek near the western edge of the site. For the most part the extent of native grasslands remains relatively stable over the past six years, although stands have expanded on the north-facing slopes in the southern portion of the site. This portion of the site would be preserved under the proposed Scott Ranch project.

Wildlife Habitat. Observations made during the updated assessment of wildlife use and habitat on the site was consistent with characterizations documented in the RDEIR and past biological assessments. A total of 101 different species were observed during the updated assessment, consisting of 60 bird species, 12 mammals, one marsupial, 4 reptiles, 5 amphibians, and 19 insects. Although this is not a comprehensive list of every animal species that likely occurs on or frequents the site, it does provide a reasonable representation of wildlife use of the site, which is dominated by bird species. While all native birds are protected under the federal Migratory Bird Treaty Act and State Fish and Game Code, including nests when in active use, no new species considered to be of special-status under the CEQA criteria described in the RDEIR were identified during the 2021 updated wildlife assessment.

The only special-status species of particular note observed during the updated assessment was tadpoles of California red-legged frog observed in the stockpond where breeding activity by this species has been observed in the past. Numerous California red-legged frog and western toad were observed in the stock pond during surveys conducted on April 2 and 19, but by the time of the inspection on May 10, 2021 the pond had completely dried. Young western toads were observed moving on the surface of the dried pond near large cracks that had opened up as the underlying sediments continued to dry, but no California red-legged frog individuals were observed, and it seems unlikely they could have completed metamorphosis within such a short period of time. Of note is the absence of western pond turtle and other aquatic special-status species. The stock pond represents the only feature on the site that typically retains water long enough to provide critical escape refugia for western pond turtle. Adult California red-legged frog are capable of surviving summer dry periods away from aquatic habitat, moving into dense duff, under logs, and into burrows and cracks where moisture levels allow them to escape desiccation. While the possible loss of this year's young California red-legged frog in the stock pond is an unfortunate occurrence, the occasional drying out of the pond likely precludes establishment and occupation by predatory introduced bull frog, which would otherwise likely decimate this occurrence of California red-legged frog.

Also of note is the absence of any sign of presence by American badger or burrowing owl (*Athene cunicularia*) on the site. No signs of diggings characteristic of American badger were observed, and all of the fossorial mammals burrow openings were too small to be used by either of these species. The absence of California ground squirrel (*Spermophilus beecheyi*) on the site is likely critical limitation to suitability of the grasslands on the site for either of these species. These findings are consistent with the findings of the detailed surveys conducted in 2013 as part of the *Burrowing Owl, Badger and Fossorial Mammal Survey Results* by Zentner and Zentner.⁴ The 2013 survey noted signs of possible digging on the south side of Kelly Creek near the western edge of the site suspected to be a fox or possibly badger. This area was

⁴ Zentner and Zentner, 2013. *Burrowing Owl, Badger and Fossorial Mammal Survey Results*. Prepared for Davidon Homes. October.

inspected carefully and no signs of any large mammal den or digging were observed here or elsewhere on the site, other than the small openings of gopher and trails and openings of vole.

A previously unreported red-tailed hawk nest was observed in a large eucalyptus on the north side of Kelly Creek (see **Update Figure 4.3-2**). This sizable stick nest was occupied by an adult red-tailed hawk during site surveys in April and May, and young were presumably fledged by the time of the visit to the site in July. Red-tailed hawk is a common resident of the Petaluma area and has no special-status, but individuals and nests in active use are protected under the federal Migratory Bird Treaty Act and State Fish and Game Code. No other raptor nests were encountered during the surveys, though numerous nests of passerines were found in various locations on the site. **Mitigation Measure BIO-1c** in the RDEIR would serve to protect any nests of raptors or other birds when in active use, ensuring compliance with federal and state regulations. Because red-tailed hawk and the other common passerine bird species observed nesting on the site have no legal protective status, permanent protection of these nest locations is not warranted. Based on a review of the latest plans, the red-tailed hawk nest would not be directly affected by the proposed project. The blue gum eucalyptus is not slated for removal and construction-related disturbance would be limited to rehabilitation of the existing structures in the ranch complex to the east and construction of the infiltration basin along Windsor Drive where grading would be restricted over 200 feet to the northeast of the nest location. If the nest is occupied in the future, appropriate restrictions would be developed as called for in **Mitigation Measure BIO-1c** to prevent abandonment when in active use. This could include restrictions on timing of grading for the infiltration basin and rehabilitation of the ranch structures.

Conclusions

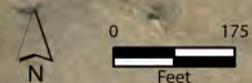
The updated systematic surveys and wildlife habitat assessment confirmed the previous findings of biological assessments conducted for the site over the past 18 years, as reported in the Biological Resources section of the RDEIR. No special-status plant species were encountered and no new occurrences of special-status animal species was observed on the site during the 2021 surveys. Some refinement of the extent of native grasslands was mapped, which is not terribly surprising given the dynamics of native grasslands and changes in the distribution and abundance of component species. The mapping of the extent of native grasslands in **Updated Figure 4.3-2** should be used to refine the analysis of potential impacts of the proposed Project on native grasslands contained in the Biological Resources section of the RDEIR. **Mitigation Measure BIO-1c** in the RDEIR would serve to protect any nests of raptors or other birds when in active use, including the red-tailed hawk if the nest encountered in 2021 is in use again when project construction is initiated, ensuring compliance with federal and state regulations. No other revisions to the RDEIR are considered necessary in response to the systematic surveys and mapping effort conducted in spring and summer of 2021.

Please feel free to contact me at 510-393-0770 if you have any questions regarding the above results of the floristic surveys and wildlife habitat assessment for the Scott Ranch site.

LEGEND



NATIVE GRASSLAND		
AREA	2015 ACRES	2021 ACRES
1	0.028	0.028
2	0.030	0.030
3	0.190	0.190
4	0.580	0.580
5	3.980	3.980
6	0.260	0.425
7	0.130	0.130
8	0.690	0.690
9	0.240	0.240
10	2.790	2.845
11	0.490	0.706
12	0.510	0.450
13	0.280	0.266
14	0.016	0.016
15	0.014	0.014
16	0.018	0.018
17	0.303	0.303
18	0.004	0.004
19	0.045	0.045
20	0.035	0.035
21	0.100	0.100
22	0.209	0.209
23	0.231	0.231
24	0.008	0.008
25	0.010	0.010
26	0.101	0.101
A	-	0.370
B	-	0.052
C	-	0.019
D	-	0.146
E	-	0.059
F	-	0.012
	11.292	12.312



* Red Tail Hawk (RTH) Nest

TABLE 1

Plant Species Observed on Scott Ranch Site

Surveys Conducted on April 2 and 8, May 13, July 1, 2021

Scientific Name	Common Name	Native
<i>Achillea millefolium</i>	Yarrow	yes
<i>Achyrachaena mollis</i>	Blow wives	yes
<i>Acmispon americanus</i>	Spanish lotus	yes
<i>Adiantum jordanii</i>	Maidenhair fern	yes
<i>Aesculus californica</i>	California buckeye	yes
<i>Agoseris grandiflora</i>	Mountain dandelion	yes
<i>Aira caryophylla</i>	Hair grass	no
<i>Alisma lanceolatum</i>	Water plantain	no
<i>Amaryllis belladonna</i>	Pink ladies	no
<i>Amsinckia menziesii</i>	Fiddleneck	yes
<i>Anthriscus caucalis</i>	Chervil	no
<i>Aphanes occidentalis</i>	Western lady's mantle	yes
<i>Artemisia douglasiana</i>	California mugwort	yes
<i>Arum italicum</i>	Italian arum	no
<i>Athyrium filix-femina</i> var. <i>cyclosum</i>	Western lady fern	yes
<i>Avena barbata</i>	Slender wild oats	no
<i>Avena fatua</i>	Wild oats	no
<i>Baccharis pilularis</i> ssp. <i>consanguineus</i>	Coyote brush	yes
<i>Bellardia trixago</i>	Mediterranean linseed	no
<i>Brachypodium distachyon</i>	False brome	no
<i>Briza maxima</i>	Rattlesnake grass	no
<i>Briza minor</i>	Little quacking grass	no
<i>Brodiaea elegans</i> ssp. <i>elegans</i>	Harvest brodiaea	yes
<i>Bromus diandrus</i>	Ripgut brome	no
<i>Bromus hordeaceus</i>	Soft chess	no
<i>Calystegia subacaulis</i>	Hillside false bindweed	yes
<i>Capsella bursa-pastoris</i>	Shepherd's purse	no
<i>Cardamine californica</i>	Milkmaids	yes
<i>Cardamine oligosperma</i>	Little western bittercress	yes
<i>Carduus pycnocephalus</i>	Italia thistle	no
<i>Carex densa</i>	Dense sedge	yes
<i>Carthamus creticus</i>	Smooth distaff thistle	no
<i>Castilleja attenuata</i>	Valley tassels	yes
<i>Centaurea calcitrapa</i>	Purple star thistle	no
<i>Centaurea solstitialis</i>	Yellow star thistle	no
<i>Cerastium glomeratum</i>	Sticky mouse-ears	no
<i>Chlorogalum pomeridianum</i>	Soap plants	yes
<i>Cinnamomum camphora</i> (planted)	Camphor tree	no
<i>Cirsium vulgare</i>	Bull thistle	no
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	Miner's lettuce	yes
<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	Miner's lettuce	yes
<i>Conium maculatum</i>	Poison hemlock	no
<i>Convolvulus arvensis</i>	Bindweed	no

TABLE 1 (cont.)

<i>Cotoneaster franchetii</i>	Cotoneaster	no
<i>Crassula connata</i>	Sand pygmyweed	yes
<i>Crassula tillaea</i>	Mediterranean pygmy weed	no
<i>Crypsis schoenoides</i>	Cowpond grass	no
<i>Cynodon dactylon</i>	Bermuda grass	no
<i>Cynosurus echinatus</i>	Dog's tail	no
<i>Dactylis glomerata</i>	Orchard grass	no
<i>Danthonia californica</i>	California oat grass	yes
<i>Dipsacus sativus</i>	Teasel	no
<i>Dipterostemon capitatum</i>	Blue dicks	yes
<i>Eleocharis macrostachya</i>	Spike rush	yes
<i>Elymus caput-medusae</i>	Medusa head	no
<i>Elymus glaucus</i>	Blue wildrye	yes
<i>Elymus triticoides</i>	Creeping wildrye	yes
<i>Erodium botrys</i>	Broadleaf filaree	no
<i>Erodium cicutarium</i>	Redstem filaree	no
<i>Erodium moschatum</i>	White stem filaree	no
<i>Eschscholzia californica</i>	California poppy	yes
<i>Eucalyptus globulus</i>	Blue gum	no
<i>Euonymus japonicus</i> (planted)	Golden euonymus	no
<i>Euphorbia peplus</i>	Petty spurge	no
<i>Festuca bromoides</i>	Brome fescue	no
<i>Festuca idahoensis</i>	Idaho fescue	yes
<i>Festuca perennis</i>	Italian ryegrass	no
<i>Foenicullum vulgare</i>	Sweet fennel	no
<i>Galium aparine</i>	Stickywilly	yes
<i>Geranium dissectum</i>	Cutleaf geranium	no
<i>Geranium mole</i>	Woodland geranium	no
<i>Geranium purpureum</i>	Herb robert	no
<i>Glyceria leptostachya</i>	Narrow manna grass	yes
<i>Grindelia camporum</i>	Gumplant	yes
<i>Helminthotheca echioides</i>	Prickly ox-tongue	no
<i>Hemizonia congesta</i> ssp. <i>lutescens</i>	Hayfield tarweed	yes
<i>Hesperocyperus macrocarpa</i> (planted)	Monterey cypress	yes
<i>Hirschfeldia incana</i>	Shortpod mustard	no
<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley	no
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Lepor barley	no
<i>Hypochaeris glabra</i>	Smooth cat's ears	no
<i>Hypochaeris radicata</i>	Rough cat's ears	no
<i>Juglans</i> sp.	Black walnut	yes
<i>Juncus balticus</i>	Baltic rush	yes
<i>Juncus bufonius</i>	Toa rush	yes
<i>Juncus patens</i>	Common rush	yes
<i>Juncus tenuis</i>	Poverty rush	yes
<i>Juncus xiphioides</i>	Iris-leaf rush	yes
<i>Lactuca saligna</i>	Willowleaf lettuce	no
<i>Lactuca serriola</i>	Prickly lettuce	no
<i>Lagophylla ramosissima</i>	Common hareleaf	yes
<i>Lamium purpureum</i>	Red dead nettle	no

TABLE 1 (cont.)

<i>Lathyrus vestitus</i>	Pacific pea	yes
<i>Leontodon saxatilis</i> ssp. <i>saxatilis</i>	Hawkbit	no
<i>Lepidium strictum</i>	Prostrate peppergrass	no
<i>Ligustrum lucidum</i> (planted)	Chinese privet	no
<i>Linum bienne</i>	Flax	no
<i>Lithophragma affine</i>	Common woodland star	yes
<i>Lomatium caruifolium</i>	Alkali parsnip	yes
<i>Lonicera hispidula</i>	California honeysuckle	yes
<i>Lotus corniculatus</i>	Bird's foot trefoil	no
<i>Lupinus bicolor</i>	Miniature lupine	yes
<i>Lupinus formosus</i> var. <i>formosus</i>	Summer lupine	yes
<i>Luzula comosa</i>	Common wood rush	yes
<i>Lysimachia arvensis</i>	Scarlet pimpernel	no
<i>Lythrum hyssopifolium</i>	Hyssop loosestrife	no
<i>Madia sativa</i>	Coast tarweed	yes
<i>Medicago polymorpha</i>	California bur-clover	no
<i>Melianthus mayor</i> (planted)	Honeybush	no
<i>Melica californica</i>	California melic	yes
<i>Melica torreyana</i>	Torrey melic	yes
<i>Mentha pulegium</i>	Pennyroyal	no
<i>Micropus californicus</i>	Slender cottonweed	yesyes
<i>Monardella villosa</i> ssp. <i>villosa</i>	Coyote mint	yes
<i>Montia fontana</i>	Water blinks	yes
<i>Narcissus</i> sp.	Narcissus	no
<i>Nasturtium</i>	Water cress	yes
<i>Parentucellia latifolia</i>	Broadleaf parentucellia	no
<i>Parentucellia viscosa</i>	Yellow glandweed	no
<i>Pentagramma triangularis</i>	Silverback fern	yes
<i>Phalaris aquatica</i>	Herding grass	no
<i>Phalaris paradoxa</i>	Hood canary grass	no
<i>Photinia x fraseri</i> (planted)	Red Robin	no
<i>Plantago erecta</i>	Hill plantain	yes
<i>Plantago lanceolata</i>	English plantain	no
<i>Platanus orientalis</i>	Sycamore	no
<i>Pleuropogon californicus</i>	Semaphore grass	yes
<i>Poa annua</i>	Annual bluegrass	no
<i>Polypodium calirhiza</i>	Licorice fern	yes
<i>Polypogon monspeliensis</i>	Rabbitfoot grass	no
<i>Primula hendersonii</i>	Henderson's shooting star	yes
<i>Prunus cerasifera</i>	Wild plum	no
<i>Psilocarpus brevissimus</i> var. <i>brevissimus</i>	Woolly heads	yes
<i>Pyracantha</i> sp.	Firethorn	no
<i>Pyrus</i> sp. (planted)	Pear	no
<i>Quercus agrifolia</i>	Coast live oak	yes
<i>Quercus kelloggii</i>	Black oak	yes
<i>Quercus lobata</i>	Valley oak	yes
<i>Ranunculus murictus</i>	Prickly-pod buttercup	no
<i>Ranunculus aquatilis</i>	Aquatic buttercup	yes
<i>Ranunculus californica</i>	California buttercup	yes

TABLE 1 (cont.)

<i>Raphanus sativus</i>	Wild radish	no
<i>Rosa californica.</i>	Rose	yes
<i>Rubus armeniacus</i>	Himalayan blackberry	no
<i>Rumex acetosella</i>	Sheep sorrel	no
<i>Rumex pulcher</i>	Fiddle dock	no
<i>Salix laevigata</i>	Red willow	yes
<i>Salix lasiolepis</i>	Arroyo willow	yes
<i>Sanicula bupinnatifida</i>	Purple sanicle	yes
<i>Sanicula crassicaulis</i>	Pacific sanicle	yes
<i>Scandix pecten-veneris</i>	Shepherd's needle	no
<i>Senecio vulgaris</i>	Common groundsel	no
<i>Sherardia arvensis</i>	Blue field madder	no
<i>Sidalcea malviflora</i>	Checker bloom	yes
<i>Silybum marianum</i>	Milk thistle	no
<i>Sinapis arvensis</i>	Field mustard	no
<i>Sisymbrium officinale</i>	Hedge mustard	no
<i>Sisyrinchium bellum</i>	Blue-eyed grass	yes
<i>Soliva sessilis</i>	Soliva	no
<i>Sonchus asper ssp. asper</i>	Prickly sow thistle	no
<i>Spergula arvensis</i>	Stickwort	no
<i>Spergularia rubra</i>	Red sandspurry	no
<i>Stachys rigida var. quercetorum</i>	Hedge nettle	yes
<i>Stellaria media</i>	Chickweed	no
<i>Stipa pulchra</i>	Purple needle grass	yes
<i>Symphoricarpos albus var. laevigatus</i>	Snowberries	yes
<i>Taraxacum officinale</i>	Dandelion	no
<i>Taraxia ovata</i>	Sun cups	yes
<i>Torilis arvensis</i>	Spreading hedge parsley	no
<i>Toxicodendron diversilobum</i>	Poison oak	yes
<i>Trifolium depaupertatum var. depauperatum</i>	Dwarf sac clover	yes
<i>Trifolium dubium</i>	Little hop clover	no
<i>Trifolium fragiferum</i>	Strawberry clover	no
<i>Trifolium hirtum</i>	Rose clover	no
<i>Trifolium subterraneum</i>	Subterranean clover	no
<i>Trifolium willdenovii</i>	Tomcat clover	yes
<i>Triglochin scilloides</i>	Flowering quillwort	yes
<i>Triphysaria pusilla</i>	Dwarf owl's clover	yes
<i>Triteleia laxa</i>	Ithuriel's spear	yes
<i>Typha sp.</i>	Cattails	yes
<i>Umbellularia californica</i>	California bay tree	yes
<i>Urtica urens</i>	Annual nettle	no
<i>Vicia sativa ssp. nigra</i>	Common vetch	no
<i>Vicia sativa ssp. sativa</i>	Common vetch	no
<i>Vicia villosa</i>	Hairy vetch	no
<i>Vinca major</i>	Periwinkle	no
<i>Wyethia angustifolia</i>	Narrowleaf mule ears	yes

TABLE 2

Animal Species Observed on Scott Ranch Site during Surveys Conducted in 2021

BIRDS

band-tailed pigeon (*Patagioenas fasciata*)

Canada goose (*Branta canadensis*)

mallard (*Anas platyrhynchos*)

California quail (*Callipepla californica*)

wild turkey (*Meleagris gallopavo*)

rock pigeon (*Columba livia*)

mourning dove (*Zenaida macroura*)

Anna's hummingbird (*Calypte anna*)

Allen's hummingbird (*Selasphorus sasin*)

killdeer (*Charadrius vociferus*)

Western gull (*Larus occidentalis*)

great blue heron (*Ardea herodias*)

turkey vulture (*Cathartes aura*)

white-tailed kite (*Elanus leucurus*)

Cooper's hawk (*Accipiter cooperii*)

sharp-shinned hawk (*Accipiter striatus*)

red-shouldered hawk (*Buteo jamaicensis*)

red-tailed hawk (*Buteo jamaicensis*)

barn owl (*Tyto alba*)

great horned owl (*Bubo virginianus*)

Western screech owl (*Megascops kennicottii*)

acorn woodpecker (*Melanerpes formicivorus*)

downy woodpecker (*Picoides pubescens*)

Nuttall's woodpecker (*Picoides nuttalli*)

northern flicker (*Colaptes auratus*)

American kestrel (*Falco sparverius*)

TABLE 2 (cont.)

Western king bird (*Tyrannus verticalis*)
ring-necked pheasant (*Phasianus colchicus*)
black phoebe (*Sayornis migricans*)
Say's phoebe (*Sayornis saya*)
California scrub-jay (*Aphelocoma californica*)
American crow (*Corvus brachyrhynchos*)
violet-green swallow (*Tachycineta thalassina*)
barn swallow (*Hirundo rustica*)
chestnut-backed chickadee (*Poecile rufescens*)
oak titmouse (*Baeolophus inornatus*)
bushtit (*Psaltriparus minimus*)
white-breasted nuthatch (*Sitta carolinensis*)
Western bluebird (*Sialia mexicana*)
American robin (*Turdus migratorius*)
northern mockingbird (*Mimus polyglottos*)
European starling (*Sturnus vulgaris*)
house sparrow (*Passer domesticus*)
house finch (*Haemorhous mexicanus*)
lesser gold finch (*Carduelis psaltria*)
American goldfinch (*Carduelis tristis*)
California towhee (*Pipilo crissalis*)
spotted towhee (*Pipilo maculatus*)
song sparrow (*Melospiza melodia*)
savannah sparrow (*Passerculus sandwichensis*)
white-crowned sparrow (*Zonotrichia leucophrys*)
golden crowned sparrow (*Zonotrichia atricapilla*)
wrenit (*Chamaea fasciata*)
dark-eyed junco (*Junco hyemalis*)
Western meadowlark (*Sturnella neglecta*)
Bullock's oriole (*Icterus bullockii*)

TABLE 2 (cont.)

red-winged blackbird (*Agelaius phoeniceus*)
brewer's blackbird (*Euphagus cyanocephalus*)
ruby-crowned kinglet (*Regulus calendula*)
yellow-rumped warbler (*Dendroica coronate*)

MAMMALS

jack rabbit (*Lepus californicus*)
stripped skunk (*Mephitis mephitis*)
raccoon (*Procyon lotor*)
black-tailed deer (*Odocoileus hemionus hemionus*)
Botta pocket gopher (*Thomomys bottae*)
grey fox (*Urocyon cinereoargenteus*)
red fox (*Vulpes vulpes*)
deer mouse (*Peromyscus maniculatus*)
house mouse (*Mus musculus*)
black rat (*Rattus rattus*)
California vole (*Microtis californicus*)

MARSUPIAL

Virginia opossum (*Didelphis virginiana*)

REPTILES

Pacific ring-necked snake (*Diadophis punctatus amabilis*)
Western fence lizard (*Sceloporus occidentalis*)
Southern alligator lizard (*Elgaria multicarinata*)
Common garter snake (*Thamnophis sirtalis*)

AMPHIBIANS

Pacific chorus frog (*Pseudacris regilla*)
California red-legged frog (*Rana draytonii*)

TABLE 2 (cont.)

Western toad (*Anaxyrus boreas*)

Entatina (*Ensatina eschscholtzii*)

California slender salamander (*Batrachoseps attenuatus*)

INSECTS

monarch butterfly (*Danaus plexippus*)

anise swallowtail (*Papilio zelicaon*)

honey bee (*Apis mellifera*)

Western bumble bee (*Bombus occidentalis*)

orange skipper butterfly (*Carterocephalu* ssp.)

painted lady (*Vanessa cardui*)

aphrodite fritillary butterfly (*Speyeria aphrodite*)

damselfly (*Argi* asp.)

common green darner (*Anax junius*)

Argentinian ant (*Linepithema humile*)

Pacific velvet ant (*Dasymutilla aureola*)

potato bug (*Stenopelmatus fuscus*)

field cricket (*Gryllus* sp.)

California Yellowjacket (*Vespula sulphurea*)

morning cloak butterfly (*Nymphalis antiopa*)

seven-spotted lady beetle (*Coccinella septempunctata*)

dentate stink beetle (*Eleodes dentipes*)

California oak moth (*Phryganidia californica*)

water strider (*Gerridae* sp.)



September 16, 2021

Steve Abbs
 Davidon Homes
 1600 S. Main St. #150,
 Walnut Creek, CA 94596

Via e-mail

**RE: Scott Ranch – Revised 28-Lot Layout
 Updated Biological Analysis**

Steve,

As requested, we have analyzed the Original 28-lot development plan with the newly Revised 28-lot layout for potential impacts to biological resources. A summary table (**Table 1**) is provided below, along with additional discussion. The Old 66-lot plan is included for comparison purposes.

Table 1

Impacted Habitats	Residential Old 66 Lot Plan Impacts	Residential Original 28-lot Plan Impacts	Residential Revised 28-Lot Plan Impacts	Kelly Creek Protection Project (KCPP) Impacts (Unchanged)
CRLF Impacts				
Temporary	5.17 ac	5.9 ac	5.761 ac	2.443
Permanent	25.17 ac	11.7 ac	7.09 ac	2.069 ac
Total:	30.34 ac	17.6 ac	12.851 ac	4.512 ac
Jurisdictional Wetlands/Waters				
Wetlands	0.17	0	0	0.039

Tributaries	344 lf (.026 ac)	minor (outfall)	10.5 lf (0.002 ac) (95 sf)	100 lf (0.088 ac) (3,833 sf)
Outfalls	6	1	1	NA
Total:	0.196 ac	minor (outfall)	0.002 ac (10.5 lf)	0.127 ac (100 lf)
Native Grassland	3.491 ac	0.85 ac	0.631 ac	0.129 ac
Water Quality Treatment	Within D St. Tributary	Outside of all channels	Outside of all channels	Outside of all Channels

Primary Direct Impacts

CRLF Impacts: All of the land within the property is considered CRLF movement habitat, which requires 3:1 mitigation.

The Original 28-lot plan decreased the amount of permanently impacted CRLF movement habitat from 25.17 acres to 11.7 acres. The Revised 28-lot plan decreases this impact even further down to just 7.90 acres or nearly one-third of the Original 28-lot plan (**Figure 1**). Also as shown in Table 1, the Kelly Creek Protection Project (KCPP) will result in some additional impacts, primarily from trail and restoration work. The temporary impacts total 2.443 acres, while the permanent impacts total 2.069 acres.

The amount of mitigation required, as confirmed by resource agency staff, is three acres for every acre of permanent impacts. Under the Original 28-lot plan, a total of 36.09 acres of land would have been required to be permanently protected with a Conservation Easement. Under the Revised 28-lot plan, a total of 23.70 acres will be required to be protected under a Conservation Easement. When the KCPP project is included a total of 9.159 acres of permanent impacts will result from both projects requiring 27.477 acres of mitigation. A total of approximately 36 acres south of Kelly Creek will be left undisturbed by the development; more than enough to cover the required Conservation Easement to CRLF movement habitat.

Based upon the favorable response of the USFWS and other resource agencies to the Original 28-lot plan, this plan should be looked upon even more favorably given the significant reduction in permanently impacted acreage. However, the area south of Kelly Creek has been looked upon by state and federal resource agency staff as the most critical acreage to preserve. This area would be preserved by both the Original 28-lot plan and the Revised 28-lot plan.

Jurisdictional Impacts: The Original 28-lot Plan had eliminated all of the creek outfalls from the Old 66-lot plan, except for one, which would outfall into Kelly Creek. Rock slope protection around the outfall would have resulted in approximately 95 square feet (sf) of impacts to the tributary along the creeks northern bank.

No changes in the outfall design or location are proposed as part of the Revised 28-lot plan and, therefore, the proposed impacts to the jurisdictional area will be the same. As with the Original 28-lot plan, the Revised 28-lot plan will preserve all of the remaining wetlands and waters on the property, and, therefore, these proposed jurisdictional impacts are very minor. In addition, these impacts from the outfall are expected to be minor in regards to potential CRLF impacts, as no potential breeding habitat will be impacted and only 95 sf of CRLF movement habitat will be impacted.

The KCPP project includes rock step pools and other restoration measures within the jurisdictional wetlands and tributaries. A total of 0.039 acres of wetlands and 0.088 acres (100 lf) of tributaries will be impacted by this work, with no impacts to potential CRLF breeding habitat (**Figure 2**). There is more than sufficient space to mitigate for these impacts within the KCPP portion of the site south of Kelly Creek.

Native Grassland Impacts: The Original 28-lot Plan had significantly reduced impacts to native grasslands from 3.49 acres as a result of the Old 66-lot plan to just 0.85 acres as part of the Original 28-lot plan. The Revised 28-lot plan, however, will reduce these impacts even further to 0.631 acres, or a reduction in 0.22 acres of native grassland impacts. A nearly a quarter-acre reduction in native grassland impacts is a significant reduction and will be looked upon favorably by regulatory agency staff.

The KCPP work would impact an additional 0.129 ac of native grasslands. Together, the Revised 28-lot plan and the KCPP work, totals 0.76 acres of impacts to native grasslands, which is still well below the 0.85 acres of impacts from the Original 28-lot plan.

Under the Revised 28-lot plan, there is plenty of space both along Kelly Creek and south of Kelly Creek that is available for native grassland mitigation, which are the most optimal locations for onsite mitigation.

Other Jurisdictional Impacts

Riparian Woodland Impacts: Under the Old 66-lot plan, a number of large, native oaks within the riparian woodland habitats of Kelly Creek and the D Street tributary would have been removed. Therefore, the DEIR found that the Old 66-lot plan would have a significant impact on the riparian woodland habitats of Kelly Creek and the D Street tributary. Under the Original 28-lot Plan, however, no trees are planned for removal along either Kelly Creek or the D Street tributary. No changes to the tree removal plan are included as part of the Revised 28-lot plan. The trees that will be removed are street trees, which are nearly all non-native.

The KCPP project would remove 11 additional trees including a few live-oak trees adjacent to Kelly Creek in order to install the trail and trail crossing.

CDFW Jurisdiction: The Original 28-lot plan included impacts within CDFW jurisdiction as a result of proposed project grading and placement of the multi-use trail. The permanent impacts from the trail totaled approximately 0.16 acres, while the temporary impacts totaled 0.23 acres. Under the Revised 28-lot plan, the grading has significantly reduced the temporary impacts to just 0.01 acres, while the permanent impacts from the trail have remained essentially the same at approximately 0.15 acres. This includes both top of bank impacts and impacts that extend to the edge of the riparian canopy. Given these reductions, the Revised 28-lot plan should continue to be viewed favorably by agency staff.

The KCCP plan includes development of the trails, picnic tables, bathrooms as well as the historic barn area and other features. The total permanent impacts of the KCCP work within CDFW jurisdiction are 0.765 acres, while the temporary impacts are 0.700 acres (**Figure 2**).

Water Quality: With the exception of the outfall, the water quality treatment in the Original 28-lot Plan was placed completely outside of Corps/Regional Water Board and CDFW jurisdiction.

The treatment basin and the outfall remain the same as part of the Revised 28-lot plan and the KCCP project. The placement of stormwater treatment outside of federal and state jurisdictions is the preferred method of water quality treatment from a local, state, and federal agency standpoint.

Overall, the Revised 28-lot plan includes fewer acres of impacts to the biological resources of the site, which will be viewed favorably by resource agency staff. The primary concern of agency staff has mainly revolved around any development that is proposed south of Kelly Creek, which the Scott Ranch project has avoided since the Original 28-lot plan.

Please let me know if you need any additional information.

Thank you,

Sean Micallef

Partner/Chief Ecologist

FIGURE 1

CRLF IMPACTS:
SCOTT RANCH &
KELLY CREEK
PROTECTION PLAN

SCOTT RANCH
PETALUMA, CALIFORNIA



0 75' 150'

1" = 150'

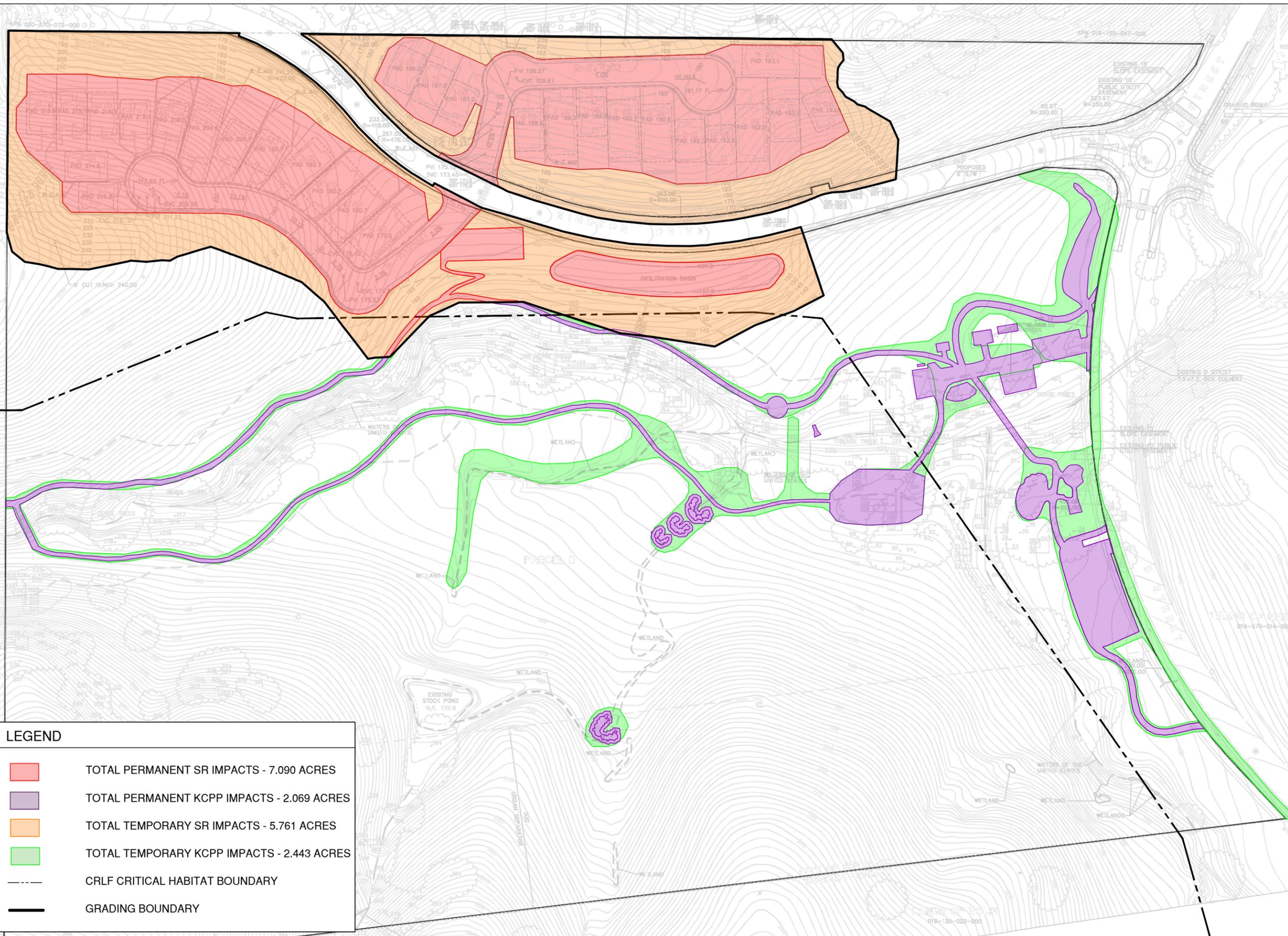
BASE: DAVIDON HOMES
ALTERNATIVE GRADING 6/17/2021

PROJECT NO. 1116

FILE:
D:\GRAPHIC DESIGN\MY
DOCUMENTS\PROJECTS\1100-1199\1116 SCOTT
RANCH\AUTOCAD\CRLFIMPACTS_V2.DWG

BY: SLW

DATE: 08/24/2021



LEGEND

- TOTAL PERMANENT SR IMPACTS - 7.090 ACRES
- TOTAL PERMANENT KCPP IMPACTS - 2.069 ACRES
- TOTAL TEMPORARY SR IMPACTS - 5.761 ACRES
- TOTAL TEMPORARY KCPP IMPACTS - 2.443 ACRES
- CRLF CRITICAL HABITAT BOUNDARY
- GRADING BOUNDARY

APN 019-080-011-000

FIGURE 2
CORPS/CDFW
IMPACTS:
SCOTT RANCH &
KELLY CREEK
PROTECTION PLAN

SCOTT RANCH
PETALUMA, CALIFORNIA



0 75' 150'
1" = 150'

BASE: DAVIDON HOMES
ALTERNATIVE GRADING 6/17/2021

PROJECT NO. 1116

FILE:
D:\Graphic Designer\My Documents\PROJECTS\1100-1199\1116 Scott Ranch\AutoCAD\CDFW_withTrailImpacts.dwg

BY: SLW

DATE: 09/15/2021

LEGEND

-  APPROXIMATE GRADING BOUNDARY
-  TOP OF CREEK BANK
-  CORPS/CDFW PERMANENT IMPACTS - 0.127 ACRES
-  CDFW PERMANENT IMPACTS - 0.638 ACRES
-  CDFW TEMPORARY IMPACTS - 0.700 ACRES
-  WOODLAND

