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May 29, 2019

Re: MND for PRMD File No. MNS 12-0004 (245 Paula Lane, Petaluma, California) - Response to Biological Resources Comments

Dear Members of the Board,

This letter responds to the following three comment letters on the 245 Paula Lane Project (Project) PRMD File No. MNS 12-0004:

1) Susan Kirks, Chair of the Board of Directors, Paula Lane Action Network dated November 8, 2018;
2) Amy Bricker and Aaron Stanton, Attorneys, Shute, Mihaly & Weinberger LLP dated October 26, 2018; and
3) Kim Fitts, Wildlife Biologist, BioConsultant Environmental Consulting dated October 22, 2018.

Comments in these letters related to biological resources are addressed below. The comments are numbered in the original letters (see Attachments 1, 2, and 3) and correspond to the numbered comments below. Each comment is paraphrased and addressed below in the corresponding numbered responses.

Comment Letter 1 – From Susan Kirks, Chair Board of Directors, Paula Lane Action Network

Comment 1-1: *Project development would negate the conservation easement on the adjacent Paula Lane Nature Preserve Property (Preserve). Project impacts to the Preserve were not considered in the Project Mitigated Negative Declaration (MND). It is implied that the terms of the Conservation Easement are not being upheld by allowing the minor subdivision.*

Response 1-1 – Project consistency with conservation easement: Potential impacts to the Preserve were evaluated in detail in connection with the proposed Project. Project development will not negate or affect the conservation easement, because there are no significant impacts to the Preserve associated with the Project. The MND does consider impacts of Project activities to the Preserve, as evidenced by the extensive discussion and development of mitigation measures and mitigation monitoring (MM) BIO-1 through BIO-11 in part (a) of the Biology section; see pages 12 through 17 of the MND. These measures will reduce any impacts to a less-than-

significant level and will ensure that the Project will be in compliance with the spirit and intent of the adjacent conservation easement, and to reduce edge effects resulting from Project actions to less than significant levels.

The Preserve was established in 2012 as an independent 11-acre grassland preserve to protect and preserve wildlife habitat and to provide educational opportunities, including passive wildlife viewing. As stated in the Project and Restoration Management Plan for the Paula Lane Nature Preserve (Management Plan), the Conservation Easement Policy states that "use of the Property is restricted solely to natural resource protection, habitat restoration and enhancement, recreational and educational, agricultural and residential uses as defined in this Section 5.2." The proposed Project is consistent with the Management Plan approved by the Sonoma County Agricultural Preservation and Open Space District in January 29, 2013, which permits agricultural and residential activities on the Preserve property. Two residences, plus parking are currently located and occupied on the eastern portion of the Preserve. Similar to the Preserve layout, the two planned residences on the Project site are in line with these Preserve structures along the eastern portion of the property line, allowing for wildlife to continue to move about freely from north to south between the Preserve and the set-aside Badger Habitat Area located on the western portion of the Project property consistent with the terms of the Conservation Easement Section 5.4.7. See also MM BIO-12 in the MND for details on pass-thru fencing around the Badger Habitat Area. The current Conservation Easement does not restrict development on neighboring sites and the proposed development is consistent with surrounding development and lower in density than the existing neighborhoods directly adjacent to the Preserve. Vegetation management on the Project Site is also consistent with Preserve management guidelines, County vegetation management specifications, and recommendations from the State Department of Fish and Wildlife for managing sensitive habitat areas for fire prevention (see Attachment 4, Correspondence from CDFW).

In summary, all impacts on the Preserve were considered in the MND, and the Project will have no significant impacts on the Preserve.

Comment 1-2: *Biologist for the property owner (Dana Riggs) concluded that the Project site does not contain a wildlife corridor. This is contradicted by Susan Kirk's comments at the November 1, 2018 hearing discussing a badger natal territory on the Project site and the larger heavily traversed West Petaluma wildlife corridor that includes the Project site. A matching grant was recommended to preserve a property south of the Project site as part of the wildlife corridor.*

Response 1-2a – **Wildlife Corridors:** Ms. Kirks claims that evidence of movement between the Preserve and the Project site by way of trails is evidence of a wildlife corridor, and therefore this area would be considered to be environmentally sensitive. However, this analysis is flawed. Corridors, by definition, provide connectivity to allow movement between habitat fragments or "patches" otherwise devoid of preferred habitat (Hilty et al., 2019, NRCS 2004). This means that to qualify as a corridor, the landscape element must enhance movement beyond what is possible, or it must permit the animal to cross some barrier. Based on well-established biological standards, there is no wildlife corridor on these sites. The property does not connect patches otherwise devoid of preferred habitat, and there is no "barrier" on site for the badgers to cross.

The Project site and Preserve provide contiguous habitat to one another, but they do not form a wildlife corridor that would be considered environmentally sensitive. A single female American badger can have a home range of between 130 and 1790 acres, with an average home range size of 400 acres (Newhouse and Kinley 2000, Zeiner 1990; Goodrich and Buskirk 1998; Messick and Hornocker 1981); density reportedly averages one per square mile in open areas (Long 1973). Within this framework there may be numerous corridors that allow a single badger to move between patches of habitat. Some common examples of wildlife corridors include long driveways (not blocked by fencing or other hardscape), railway crossings, drainage ditches, culverts, riparian habitats, windbreaks, hedgerows, shelterbelts, etc. Existing movement corridors in the vicinity of the Project site are shown in Figure 1 (Attachment 5). These corridors connect various habitat patches in the vicinity of the Project Site but do not otherwise contain preferred contiguous habitat due to some barrier such as fencing or roadways. The proposed Project will not affect these existing corridors nor will it result in the removal of preferred habitat on the Project Site.

Ms. Kirks claims that the site is part of a larger heavily traversed corridor, but there is no *scientific* evidence supporting this claim. To the contrary, this issue is thoroughly addressed in the 2014 Biological Resources Assessment Report (2014 WRA Report), which describes barriers to dispersal between the Preserve and lands to the south, including: impenetrable fences (abutting concrete that prevent burrowing), large structures with outdoor lighting (including an apartment complex, shopping complex, and an industrial building), and indirect lighting (including a bright gaslight located immediately south of the project area that brightly illuminates potential habitat to the south). Figure 1 attached to this response (Attachment 5) depicts the location of dispersal barriers relative to Project Site and Preserve and/or evidence of use [based on reported occurrences in the California Natural Diversity Database (CNDDB) [1] and findings from the 2014 WRA Report.] Land immediately south of the Project site represents the southeastern limit of habitat due to these barriers. Movement corridors between the property to immediate south of the Project site and lands south of Bodega Avenue are located to the west of both properties and will not be affected by development at the Project site.

The current proposed minor subdivision and location of building envelopes will not create any significant barrier to wildlife movement between the Preserve and lands to the south as shown in Attachment 5, Figure 1. See also Response 1-1 for discussion about consistency with adjacent conservation easement and pass-thru fencing around Badger Habitat Area in the northwestern portion of the site.

Response 1-2b – Natal Territory: Ms. Kirks states that there is currently a badger natal territory on the Project site, and that the area is environmentally sensitive because it supports a reproducing pair of badgers. However, review of the statewide database, review of museum records, and a Project site evaluation by licensed qualified biologists yielded absolutely no evidence of badgers reproducing on the Project site. In other words, there is no scientific peer-reviewed evidence to support to this claim.

[1] The California Natural Diversity Database (CNDDB) is an inventory of the status and locations of rare plants and animals in California, maintained by the California Department of Fish and Wildlife. It is the primary resource for wildlife biologists evaluating whether species are currently present, or have historically been present, in a particular area.

Ms. Fitts claims that she has submitted numerous reports to the CNDDB documenting continuous use on the Project Site since 2003. And yet, the CNDDB database includes no corresponding entries. In fact, there is only one documented occurrence in the CNDDB database, comprised of three entries: two entries from 2003 citing only "foraging habitat, trails, and dens" on an 11-acre parcel (which includes the Preserve and the northwestern corner of the Project Site) and a single entry from 2009 at the corner of Bodega Avenue and Paula Lane reporting "an adult female was found emaciated and had an abscess on her right hip". [2] There are no entries citing evidence of natal activity, nor of any activity anywhere on the Project Site other than the northwest corner, and no documented occurrences anywhere in the vicinity in the last 10 years. In fact, Ms. Fitts states in her own report that "although badger use extends onto adjacent properties [to the 11-acre Preserve], the denning /use is concentrated on the proposed project site" [the Preserve] (Fitts 2004). A copy of the current database (CNDDB) report for this site is provided in Attachment 7.

CDFW visited the site in 2012 and concluded there was no evidence of natal activity. Prior studies done by Dr. Kucera (2004) and WRA (2014) also found no evidence of natal activity on the Project site. In 2014, WRA wildlife biologists found evidence of foraging habitat in the northwest corner of the Project site as evidenced by "active digs" or reasonably-sized burrows, but no recent tracks or scat were found and no evidence of a natal den was observed; natal dens are more complex than day-use dens, with the mound of soil excavated more than twice the size of a day-use den mound (Huck 2010, Weir and Hoodicoff 2002; Lindzey 1976). At least one burrow was observed in 2013 to be occupied by red fox (WRA 2014). In addition, a single badger may dig a new burrow nightly and therefore, the presence of multiple burrows is not evidence of a population of badgers, nor a natal area and may simply be a single foraging badger (Zeiner 1990). The 2014 WRA Report recognizes potential foraging habitat on the Project Site but contravenes any claim that the Project Site is a natal area.

Regardless, MM BIO-4 in the MND will ensure that any impacts to badger are less than significant, by providing adequate setbacks from noise and other temporary disturbances associated with construction during the breeding/pupping/rearing season should an active den be discovered in the future. Therefore, even if Ms. Kirks' claim of natal activity were correct—and there is no evidence that it is—these measures would reduce any impacts to a less-than-significant level.

The absence of a natal area and wildlife corridor within the Project site are important to note, because these are the thresholds for determining impact significance for special status species. In other words, actions that would substantially reduce the habitat or range of a species, cause a population to drop below self-sustaining levels[3], or create a permanent barrier to dispersal constitutes a significant impact. Since none of these things will occur, and all other potential

[2] There are no entries to support evidence that there is breeding on the Project site. While the entry regarding an emaciated female with an abscess is suggestive that it recently weaned pups, the recorded location of that female was neither the Project site nor the Preserve. Further, there is an article in the Press Democrat archives that a female matching the entry's description was taken to a local wildlife rescue center and found to be a juvenile (not an adult) with distemper and was later euthanized.

[3] Such as directly impacting a natal area.

impacts to foraging habitat have been mitigated, the project will not result in significant impacts to the American badger as defined under CEQA.

Comment 1-34: *The 2012 correspondence from Regional Manager Wilson of the California Department of Fish and Wildlife (CDFW) regarding American Badger and Burrowing Owl was not sufficiently addressed.*

Response 1-3 – Avoidance, Minimization, and Mitigation Measures (AMMs) for American badger and burrowing owls: CDFW conducted a site visit in 2012 and concluded that, while evidence of badger use was found on the site, no evidence of a natal area or pupping was reported (see Response 1-2b), nor was there evidence of use by burrowing owl. The December 27, 2012 CDFW letter concluded these species may be present and provided standard recommendations for performing an impact evaluation, including habitat assessment, surveys, and impact assessment and that such information should inform any "subsequent avoidance, minimization, and mitigation measures to avoid take and minimize habitat destruction." Following impact assessment, the letter recommended working with DFG (now CDFW) to 1) maintain the size and distribution of extant badger and burrowing owl populations; 2) increase these populations where possible and appropriate, and 3) minimize or prevent unnatural causes of decline (e.g. burrow destruction, chemical controls of rodents, etc.).

WRA performed a complete habitat assessment, surveys, and impact assessment in 2014 as described in the 2014 WRA Report, and according to the standard recommendations provided by CDFW. Following this, WRA contacted CDFW to work with the Department to establish appropriate AMMs as directed in the 2012 letter. In March 2014, Mr. McKannay of CDFW walked the site with the WRA Project biologist (Dana Riggs) to examine the site for evidence of use, and to confirm the limits of the extant population. It was concluded that only a small area of the site is currently used by badger (as of March 2014 and consistent with the findings from WRA's review of the site in 2013 and the records in the CNDDB). At CDFW's direction, WRA prepared draft measures for CDFW to review; these measures were submitted to CDFW on June 3, 2014. CDFW provided an email response on July 18, 2014 approving all of the proposed measures with the addition of four added measures to include grading restrictions, environmental training, restrictions on disking, and limitations of fire protection activities. CDFW prepared a formal response approving the mitigation measures the biological impacts analysis and submitted the response to the County. Email correspondence between the biologist and CDFW described above is provided in Attachment 4.

Comment 1-4*: The Project must receive sufficient environmental review. Was adequate environmental review conducted for bird species for the Project? The property owner's biologist (Dana Riggs) assessment of the American Badger is contradicted in the findings of Susan Kirks and of Kim Fitts who conducted a study in 2004 and has been monitoring the property intermittently. The Naturalist, Susan Kirks, with 19 years of direct field study possesses expertise the owner's biologist does not possess.*

Response 1.4a – Standard Scientific Practices and Agency Review: "Section 3.0 – Methodology" of the 2014 WRA Report addresses Ms. Kirks' comment regarding adequate environmental review. The 2014 WRA Report followed standardized guidelines and requirements, as recommended by CDFW, for evaluating habitats for special status species, utilizing scientific

principles. The application recognizes that Ms. Kirks is familiar with the site, generally, but it is also important to note that she does not hold the requisite academic background or qualifications to be considered an expert on biological and habitat issues. It is important to note that the findings of the Project biologist, Dana Riggs, have been affirmed by CDFW, the state agency tasked with oversight of all issues related to protected species and their habitat.

Response 1.4b – Birds: The Project biologist performed a complete review for special status birds in conformance with established scientific protocols and determined that as many as seven special status bird species may be present on the Project site. However, in accordance with CEQA Guidelines Section 15065, biologists determined that there were no potentially significant impacts to avian foraging habitat due to the relatively small size of the proposed development area compared with larger tracts of more suitable foraging habitat available on adjacent properties, which would ensure none of these populations would drop below self-sustaining levels. Furthermore, implementation of specific measures outlined in the MND Mitigation Measure BIO-13 will ensure impacts to nesting birds are avoided. The biological assessment was circulated to state agencies, including the California Department of Fish and Wildlife. without further comment from the agencies regarding nesting birds.

Response 1-4c – Documentation and Peer Review: While Ms. Kirks' time and effort spent observing American badger in Sonoma County over the past 19 years is appreciated, her findings have not been published or documented as per standardized guidelines and thus, those finding have not been peer-reviewed and verified by the larger scientific community. Peer review is perhaps the most critical piece of modern scientific protocol; without peer review, it is impossible to substantiate Ms. Kirks' allegations regarding badger activity in the area, particularly with regard to the species' behavior, population ecology, and distribution. Without proper documentation and scientific peer review, the information provided by Ms. Kirks cannot be regarded as substantial evidence pursuant to CEQA. Information obtained from citizen scientists can be useful in contributing to the general knowledge of a species within a particular region, but it is not a substitute for habitat assessments performed by a qualified biologist[4] using standardized guidelines and practices within the context of evaluating potential impacts under CEQA.

It should be noted that Tom Kucera, Ph.D., a certified wildlife biologist with more than 35 years of experience in wildlife biology and mammalogy, also evaluated the Project area in 2004 and found no evidence of natal activity (Attachment 6). Dr. Kucera stated that "developing some 8-10 acres of habitat in an already fragmented landscape is unlikely to have a significant adverse impact on an animal that is of low density by nature and has a home range of hundreds or thousands of acres." A full copy of this letter and Dr. Kucera's credentials is provided as Attachment 6. Dr. Kucera's findings are consistent with that of the WRA biologists, as documented in the 2014 WRA Report which concluded the total amount of foraging habitat on the Project Site is likely less than 1% based on home range estimates within the literature and availability of more suitable (and less fragmented) habitat in the surrounding areas[5].

[4] An individual with a degree in biology or related field of science, with knowledge of the survey protocols relevant to the species

[5] Such as Helen Putnam Park and rural open space to the south and west of Petaluma.

Comment 1-5: *At the November 1, 2018 hearing, a question about American Badger activity south of the Project site was not adequately answered. The response should have been that the area south of the Project site has documented American Badger activity and is part of a wildlife corridor that includes the Project site.*

Response 1-5 – Extent of American badger activity at Project site: See Response 1.2a regarding what constitutes a wildlife corridor. Ms. Kirks' letter mentions about badger observations from neighbors residing south of the Project Site and project opposition. However, she provides no additional evidence of badger activity south of the Project Site, other than a single reported CNDDB occurrence of a badger near the intersection of Paula Lane and Bodega Avenue (Attachment 7). See Response 1-4c for further discussion on documentation and scientific peer review.

Surveys of the entire site were conducted in March 2013 by WRA and no evidence of recent use by badgers was found outside the northwest portion of the Property. A few inactive burrows (where no fresh dirt was present, mounds were grown over and/or cobwebs over the entrance were present) were found on the southwest corner of the site prior to current site development. A site walk conducted with Mr. Adam McKannay at CDFW confirmed that badgers were only present in the northwest corner of the Property, and that soil compaction (from historic uses) precluded badger activity elsewhere on the Property.

Nonetheless, the Project will not result in any permanent barrier to these areas; in particular, to Cleveland Lane (which Ms. Kirks claims is a wildlife corridor and, which is located nearly 1000 feet west of the Project site.) The badgers may still access the properties to the south of the project Site via pathways located west of the Site (see Attachment 5, Figure 1).

Comment 1.6: *The Project is not consistent with the Petaluma General Plan, Sonoma County General Plan, and Paula Lane Nature Preserve Conservation Easement.*

Response 1-6 – Consistency with local plans: The Project is consistent with the above stated plans, as described in preceding comments. The Project site is not currently designated as an important Biotic Habitat Area in either the Sonoma County or Petaluma General Plan, and therefore most of the plan policies do not apply to this property. The designation of the Badger Habitat Area will ensure connectivity between natural habitat areas on the Preserve with areas to the south and the wildlife corridor located to the southwest of the site. Furthermore, the Project will avoid foraging habitat on the site and seek to mitigate potentially significant effects to foraging habitat through measures developed in consultation with and at the direction of CDFW, which is also consistent with the Sonoma County and Petaluma General Plans.

Comment Letter 2 – From Shute, Mihaly & Weinberger

Comments related to biological resources are addressed below. Comments not directly related to biology will be addressed under separate cover.

Section III. The MND's Description of the Project Setting is Inadequate

Comment 2.1: *Address cumulative projects that will be carried out in the area while the Project is under construction.*

Response 2.1: There are currently no projects planned in the immediate vicinity of the Project Site. The nearest planned project is located several miles to the west on Bodega Avenue.

Comment 2.2: *Address Project compliance with Sonoma County General Plan, Petaluma General Plan, and the West Petaluma Area Plan with respect to biological resources.*

Response 2.2: See Response 1.6 regarding the Project's general compliance with Sonoma County and Petaluma General Plans policies, and incorporation of mitigation measures, in consultation with CDFW, to minimize the Project's significant impact to biological resources to less than significant levels. Attachment 8 provides a list of Local Plan Policies Regarding Biological Issues for informational purposes.

Comment 2.3: *Address environmentally sensitive and significant nature of Project's surroundings including the adjacent Preserve. In particular, discuss the habitat in the Project site that is contiguous with habitat on the Preserve.*

Response 2.3: See Response 1.2a and 1.2b.

Section IV. The County Must Prepare an EIR that Analyzes the Potentially Significant Effects of the Project

Comment 2.4: *The Project would result in less than significant impacts to the American Badger with mitigation measures incorporated. The MND's conclusions rely on a 2014 biological assessment by Dana Riggs that found no evidence of badger use outside of the northwestern portion of the project site. This finding is contradicted by previous studies including the 2004 biological assessment and 2012 observations by Kim Fitts, the 2012 observation of 5 burrows on the Project site by CDFW, and the 2013 letter by Dana Riggs discussing the presence of new badger burrows on areas outside of the northwest portion of the project site. This evidence potentially undermines the MND conclusions and adequacy of the mitigation measures.*

Response 2.4: See Response 1-4c, Response 1.5, and supplemental response below.

As discussed above, a review of the Fitts 2004 report and reported 2012 observations lends no additional credible evidence for badger use outside the northwestern area. The December 2012 letter from CDFW reports observing five burrows near the ridgeline; but it does not inform regarding the location of the burrows on the property. The biologist did map burrows in the northwestern portion of the property near the ridgeline and presumably these are the same burrows. A site walk conducted with CDFW staff confirmed presence in the northwest corner of the property alone and that soil compaction (from historic uses) precluded badger activity elsewhere on the property.

The 2013 letter by Dana Riggs specifically states that "very few digs were observed on the southwestern portion of the property (less than 5), and none showed evidence of recent use." In the next paragraph there is reference to "three old badger digs" referring to evidence found prior to activity, not after. The statement in the last paragraph "evidence of recent digs overlapping older digs in the same general area" was again in reference to the northwestern portion of the

site (though not specifically stated), which is the only portion of the site where active digs were ever observed. Therefore, the conclusion that current badger range is limited to the northwest portion of the property is supported by direct evidence and the conclusions and mitigation measures included in the MND are adequate.

Comment 2.5: *The MND mischaracterizes existing threats to badger habitat. The MND asserts that feral cats in the Preserve are the primary threats to badger habitat and that the presence of a watering bucket may have a substantial adverse effect on the badger. Susan Kirks and Adam KcKannay, CDFW, contradict this finding and concur that cats on the Preserve are domestic and not feral and do not pose a threat to badger habitat. Primary threats are to be barking dogs at the project site and the unpermitted grading and fencing at the project site that was acknowledged in the MND.*

Response 2.5: Cats do pose a threat to badger habitats, and there is nothing to indicate that CDFW thinks otherwise**.** Mr. McKannay indicated that both feral/house (aka domestic) cats and barking dogs present throughout the existing neighborhood in the vicinity of the Preserve would result in an impact on badger habitat. Domestic cats have the same potential to impact native wildlife populations as feral cats, and there is little to no difference between the two in terms of hunting capabilities. Advocates argue that well-fed domestic cats do not hunt to the extent their feral counterparts do. However, numerous studies dispute this argument, and state that even when fed daily, domestic cats continue to hunt and kill a large number of native wildlife (see Attachment 9, Citations from Studies on the effects of domestic cats). Unlike barking dogs, which are usually restricted to their fenced-in yards, domestic cats roam freely and, without controls, are responsible for the extinction of numerous mammals, reptiles, and bird species (see Attachment 9). Another often overlooked effect is competition. Primary prey sources for the badger include the California vole (*Microtus californicus*) in Sonoma County. The California vole, also an easy target for domestic cats, is roughly equivalent in size to the common house mouse. On March 8, 2013, Project biologist Dana Riggs witnessed and recorded in her field notes nearly a dozen cats (either domestic or feral) surrounding what appeared to possibly be a feeding bowl (next to a watering bucket) on the adjacent Preserve property, close to and visible from Paula Lane. This observation was reported in the 2014 WRA Report as anecdotal and it is her professional opinion that cats (both domestic and feral) and invasive species (including the red fox) continues to be a considerable threat to badgers and their habitat, both on the Project site and in the adjacent Preserve.

CDFW concurs with this WRA finding that pets present a conservation risk to wildlife. As stated in CDFW staff correspondence submitted by Shute & Mihaly (Exhibit E), "I assume this risk [from barking dogs and feral/house cats] was known, and accepted by the purchasing entity, when establishing the Preserve in a rural residential area with variable land uses and housing densities surrounding it." Thus, the addition of two single-family residences is not likely to significantly increase this threat from existing levels, or conditions.

Comment 2.6: *Address habitat and wildlife corridor loss in the MND. Per the 2004 Fitts Report, the Project site is partially composed of open annual grassland that provides excellent habitat for the American Badger and is part of a larger wildlife corridor that includes the Preserve and*

adjacent open space lands. Per the Fitts Report, construction impacts such as noise and vibration are highly likely to cause the badger to move from the Project site.

Response 2.6: See Response 1.2b regarding badger natal area and Response 1.2a regarding wildlife corridors.

Construction impacts such as noise and vibration are temporary in nature and may cause badgers to avoid the site during the construction period. However, this is not considered a significant impact due to the large home ranges of this species and availability of suitable habitat for the badger to move in project vicinity, if necessary. Furthermore, mitigation measures approved by CDFW (Attachment 4) will ensure that any occupied dens are avoided utilizing setbacks between 100 feet and 300 feet depending on time of year and/or the animals will be excluded using one-way doors in consultation with CDFW to minimize any impact.

Comment 2.7: *Mitigation measures BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-12 are inadequate because they are based on the assumption that the American Badger range is limited to the northwest portion of the property.*

Response 2.7: See Response 1.5 and 2.4.

Comment 2.8. *The explanation for mitigation measure BIO-5 that light from the project will not affect the Preserve because the Preserve is at a higher elevation than the Project site doesn't make sense.*

Response 2.8: The Preserve is located on a north facing slope, while the Project site is located on a south facing slope. Because of topography, only lighting along the ridge between the two sites would result in impacts. Because no lighting is proposed on the ridgeline, no impacts from lighting to the Preserve will occur (see updated Staff Report).

Comment 2.9: *Mitigation measures BIO-7, BIO-8, BIO-9, and BIO-10 address the potential mortality to burrowing owl during construction but do not address permanent habitat loss to the burrowing owl likely to be caused by the Project. In 2012, CDFW recommend "adequate mitigation to protect and restore existing habitat of badger and burrowing owls should be required."*

Response: As cited in the 2014 WRA Report, the Project site does not provide habitat for burrowing owl. The 2012 letter by CDFW recommends performing a habitat assessment to determine if burrowing owl is present. Because burrowing owl was not present and no sign of the species was observed on the Project Site, no loss of habitat will occur. In addition, leading research on special status birds in a CDFW publication "California Bird Species of Special Concern" concludes that burrowing owl occurs "only sparingly in Sonoma County" and that the County is not within the current breeding range for this species (Shuford and Gardali 2008). Therefore, it is highly unlikely that burrowing owl would ever be present on the site and thus, the project will not result in loss of habitat for this species. For additional discussion on burrowing owl, please refer to Response 1-3.

Comment 2.10: *The MND does not adequately address the potential for permanent impacts to special-status bird species due to loss of habitat. In addition, many species named in the conservation easement document for the adjacent Preserve are not mentioned in the MND. The conservation easement document names: Allen's and Rufous Hummingbirds, Sharp-shinned*

Hawk, White-tailed Kite, Cooper's Hawk, Nuttall's Woodpecker, Oak Titmouse, Red-breasted Sapsucker, Snowy Egret, Great Egret, Great Blue Heron, Black-crowned Night Heron and Long-billed Curlew.

Response 2.10: See Response 1.4b regarding loss of habitat for special status birds. All of the species listed above are common in the Petaluma area and are present both in open space and urban areas, with the exception of long-billed curlew which is predominantly a wetland species and not likely to occur on the project site due to absence of wetlands. Removal of approximately 3 acres of grassland habitat with limited forage area (due to compacted soils) will not result in the elimination of any of the above listed species' local populations or cause these populations to drop to less than self-sustaining levels. Mitigation Measure BIO-13 requires pre-construction nesting bird surveys and appropriately-sized no disturbance buffers which will ensure no direct mortality or impact to any breeding birds. Therefore, no significant impacts to these species are likely to occur as a result of the proposed project.

Comment 2.11: *Though the MND states that the project will comply with the Sonoma County Tree Protection and Replacement Ordinance in mitigation measure BIO-14, there is evidence that significant impacts to protected trees have already been sustained because of unpermitted construction and grading at the project site.*

Response: No evidence has been put forth to substantiate the claim that significant impacts to protected trees have already been sustained. A review of aerial photographs before (5/2012) and after initial grading (10/2013 and later) show no change in canopy cover with the exception of those trees growing immediately adjacent to the house (and according to the landowner through the eaves of the house, which is visible on aerial photographs). Impacts to trees located along the driveway were authorized by the permit department (Encroachment permit ENC 16-0127) and recommendations from the arborist were incorporated as encroachment permit's conditions.

Comment Letter 3 – From Kim Fitts, Wildlife Biologist, October 22, 2018, Review of WRA Biological Resources Assessment Report

Comment 3.1: *The proposed mitigation measures are inadequate to avoid Take or to mitigate adverse effects caused by the Project including disruption or impedance of dispersal patterns to badgers, reduction and fragmentation of a documented landscape scale movement corridor, changes in land use from rural low-density development, and loss of access to foraging habitat."*

Response 3.1: The U.S. Endangered Species Act (ESA) and California Endangered Species Act (CESA) prohibit the "take" of protected species. Both statutes define the word "take" differently. As Ms. Fitts points out, under the ESA, "Take is defined as kill, harass, or otherwise harm" [a species]; this definition is limited to federal listed species only. Take as defined under CESA does not include the words "harm" or "harass.""

But the "take" definition is not relevant to this Project, because the American Badger is not listed or otherwise protected under the ESA or CESA. The American Badger is listed as a "species of

concern" by CDFW[6] and a species of "least concern" by the IUCN. As discussed above, the Project will not modify Badger habitat or otherwise result in a substantial adverse effect on American Badger.

As previously described, CDFW, the Trustee agency responsible for ensuring adequacy of measures under CEQA as they relate to biological resources, approved and/or provided all of the proposed mitigation measures and indicated that the measures are adequate (Attachment 4); see Response 1-3. Finally, the Project site will remain rural low-density development following this minor subdivision, and as described in Response 1.1, will be consistent with overall characteristics of the surrounding environment, including the Preserve.

Comment 3.2: *Mitigation measures do not address DFW recommended mitigation including to protect and restore existing habitat that can support badger and burrowing owls.*

Response 3.2: See Response 1.3.

Comment 3.3: *Mitigation measures do not address the significant diurnal noise and vibration likely to cause the displacement of badger from the Project site and Preserve.*

Response 3.3: See Response 1.2a, 1.2b, and 2.6.

Comment 3.4: *The WRA report incorrectly states that: 1) badger have only used a small portion of the Project Site (outside of proposed building envelopes) and that (1) one percent of foraging habitat would be lost to development, 2) barriers to the south and west indicate the majority of the site is not part of any viable corridor, 3) the Project Site likely represents the southeastern extent of a single territory for one badger pair, and 4) compatible uses are proposed in the Badger Habitat Area.*

Response 3.4: Ms. Fitts claims that the above statements are incorrect but offers no evidence to the contrary. Figure 1 from Ms. Fitts' 2004 report, which reportedly depicts the extent of badger activity on the Project site, was omitted from the documentation submitted as part of the record; thus, no counter evidence was offered to depict badger activity outside the 1.0-acre Badger Habitat Area. Furthermore, the 2009 CNDDB occurrence submitted by Ms. Fitts supports that badger activity on the Project site is limited to the northwest corner of the property (Attachment 7). Lastly, uses proposed in the Badger Habitat Area including recreation and small shade structures are consistent with uses proposed on the Preserve, including both recreation and a

[6] "Species of Special Concern" is an administrative designation and carries no formal legal status. Section 15380 of the CEQA Guidelines clearly indicates that species of special concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein. Sections 15063 and 15065 of the CEQA Guidelines, which address how an impact is identified as significant, are particularly relevant to SSCs. Project-level impacts to listed (rare, threatened, or endangered species) species are generally considered significant thus requiring lead agencies to prepare an Environmental Impact Report to fully analyze and evaluate the impacts. In assigning "impact significance" to populations of non-listed species, analysts usually consider factors such as population-level effects, proportion of the taxon's range affected by a project, regional effects, and impacts to habitat features.

barn and garden, and both are bordered by development on one side; see Response 1.1. The Project's biological impacts will be less than significant with existing mitigation.

Comment 3.5: *The impact analysis does not adequately address potential impediment/disruption of dispersal patterns, loss of foraging habitat, or that the contiguous land represents a natal area within a special status species home range.*

Response 3.5: See Responses 1.2a, 1.2b, and 1.5

Comment 3.6: *Impacts resulting from human/pet encroachment, and increased risk of mortality from forced displacement are not adequately mitigated for and would negate the Preserve's primary conservation value.*

Response 3.6: See Responses 1.1, 2.5, and 2.6.

Please do not hesitate to contact me should you have questions concerning any of the above responses.

Respectfully,

Dana Riggs, Principal Biologist

Attachments: 1 – Letter from Susan Kirks, Chair of the Board of Directors, Paula Lane Action Network dated November 8, 2018
2 – Letter from Amy Bricker and Aaron Stanton, Attorneys, Shute, Mihaly & Weinberger LLP dated October 26, 2018
3 – Letter from Kim Fitts, Wildlife Biologist dated October 22, 2018
4 – Email Correspondence from Adam McKannay, CDFW in 2014
5 – Wildlife Corridor and Dispersal Barriers Map
6 – Letter from Tom Kucera, 2004
7 – CNDDB Report
8 – Summary of Local Plan Policies Regarding Biological Issues
9 – Citations from studies on the effects of domestic cats

References:

California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA. Most recently accessed: February 2019.

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Attachment 1

Planning Commission/Board of Zoning Adjustments
Appeal Form
PJR-021

To: Board of Supervisors
County of Sonoma, State of California

File # MNS 2012-004

Appeal is hereby made by: Paula Lane Action Network (501c3 nonprofit org.)
Please Print

Mailing Address: P.O. Box 2903
Petaluma, CA 94953

Phone: (707) 241-5548 Email: info@paulalaneactionnetwork.org

The Sonoma County (Planning Commission) / Board of Zoning Adjustments (circle one) on

November 1, 2018, (approved) / denied (circle one) a request by

Gardner for minor subdivision at 245 Paula Lane in Petaluma.

located at (see above)

APN 019-080-003 Zoned ARP RR2 Supervisorial District 2

This appeal is made pursuant to Sonoma County Code Chapter 26 Section 26-92-160 for the following specific reasons:

Inadequate environmental review under CEQA; no review or discussion of SMW correspondence or expert biological opinion of Kim Fitts. Significant negative impacts, not adequately mitigated to special status species and to the Conservation Easement and property at 431 Paula Lane.

Date: 11-8-2018 Appellant: Susan Kirks for P.L.A.N.
Signature

Appeal Fee: See current PRMD Project Review Fee Schedule

---------- ∪ DO NOT WRITE BELOW THIS LINE - To Be Completed by PRMD Staff ∪ ----------

This appeal was filed with the Permit and Resource Management Department on the 8th day of November, 2018, receipt of which is hereby acknowledged.

PRMD Staff

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue ❖ Santa Rosa, CA ❖ 95403-2829 ❖ (707) 565-1900 ❖ Fax (707) 565-1103

Please note: Many of our friends & colleagues lost everything in the Oct. 2017 fires. We are empathetic to the County's circumstances and long term recovery.

Paula Lane Action Network (P.L.A.N.)

Open Space & Habitat Conservation...Paula Lane Nature Preserve

November 8, 2018

Permit and Resource Management Department
2550 Ventura Ave.
Santa Rosa, CA 95403

Re: APPEAL REQUEST – PLANNING COMMISSION DECISION NOVEMBER 1, 2018

245 Paula Lane Subdivision Proposal/Mitigated Negative Declaration – MNS 2012-004

To Whom It May Concern:

Please refer to the recently submitted biological opinion of Kim Fitts (10/22/2018) and correspondence with exhibits submitted by Shute, Mihaly & Weinberger (10/26/2018) on behalf of our nonprofit organization. This, with PLAN's additional correspondence, were part of the record for the proposal considered and voted upon, but not reviewed or commented upon, at all, in the November 1, 2018 hearing by Commissioners.

In the 3-minute public comment by Susan Kirks, representing PLAN, a nonprofit organization with 300 supporting members in the Bay Area, including Petaluma, and the Madrone Audubon Society, a nonprofit organization with approximately 3000 members in Sonoma County, including many in Petaluma, opposition to the proposal was expressed and clarification of mis-statements by the property owner's biologist were also provided. The Commission also received numerous letters of opposition to the subdivision proposal.

This information in the record was not discussed or even referenced at the Planning Commission hearing. Substantial evidence regarding negative environmental impacts of the proposal, the inadequacy of the environmental review process, and inconsistency with the Petaluma General Plan and the Sonoma County General Plan et al. were provided for review and consideration.

The 245 Paula Lane property is within the UGB of the City of Petaluma. Additional communication related to the City's approval or disapproval is needed.

The 245 Paula Lane subdivision proposal was approved by a Planning Commission vote with 1 dissenting vote. The Commissioner who dissented commented she could not conceive that this proposal would not have impact on the habitat. She was correct in her assessment.

Approval of this proposal, with comments by Commissioners such as the applicant being willing to participate in a design review process and being willing to plant a hedge row, was inappropriate and did not consider submitted information about the American Badger or negative impacts to the contiguous habitat and immediately adjacent property of the Paula Lane Nature Preserve.

The Paula Lane Nature Preserve is the name of the Project and overall property protected in perpetuity by a 1.1
Conservation Easement, placed and held by the Sonoma County Ag and Open Space District. The property was acquired by the City of Petaluma and PLAN, Grantees, in 2012 with a grant of over $1,000,000 in public funds. One Commissioner queried County Counsel, "Would the City have to return the million dollars?" County Counsel responded no. This was the essence of the minimal discussion, along with a question about the City of Petaluma input into the process of subdivision proposal review and the Open Space District as well. Vague

P.O. Box [illegible]
Petaluma, CA [illegible]
(707) [illegible]
[illegible]
[illegible]

responses were provided by the County Planner who had framed presentation of the proposal to include multiple code violations and illegal activity in construction and grading on the property, described as activity, as if this was "business as usual" as PRMD, with permits then subsequently issued. The inference was the City of Petaluma and Open Space District had no additional input. Because of the issues involved and substantial correspondence submitted to the Commission, responsible Commissioners should have requested the Planner return to both the City of Petaluma and the Open Space District to obtain clarification and input, given the serious nature of the identified negative impacts.

PLAN's correspondence clearly stated the Open Space District does not comment on proposals such as the one before the Commission; however, PLAN's correspondence clearly delineated the pathway toward a conservation easement application to the District existed, instead of proceeding with the attempt to develop on the 245 Paula Lane property. This was never referenced, nor discussed. 1.1

Such a discussion would also directly relate to the inadequacy of the environmental review for the project and the resultant mitigated negative declaration.

Approval of this proposal, should it go forward, would negate the Conservation Easement on the Paula Lane Nature Preserve Property. This is directly related to the reason the over $1,000,000 grant was provided to acquire and conserve this property. This is a serious issue, and the negative impacts to the Paula Lane Nature Preserve property were not even minimally reviewed and certainly not adequately considered.

Jokes made by two Commissioners with the biologist representing the property owner about a cat and fox were also inappropriate and dismissive related to the serious nature of the proposal before the Commission for review.

The 245 Paula owner's biologist endeavored to communicate to the Commission that wildlife corridors must be carefully considered with many criteria to identify the "patches" of land or habitat that are connected for wildlife movement.

Relevant to this appeal request and the discussion on November 1, the biologist's comments about the wildlife corridor were based on her apparent observation of the 245 Paula Lane property and the area, with claims of a nearby heavily traveled street, possibly dangerous for wildlife movement, nearby residential development and night lighting. She concluded in the report as well as in the hearing that there just was no wildlife corridor evident related to 245 Paula Lane.

In fact, the 245 Paula Lane property is centrally located in a heavily traversed wildlife corridor in West Petaluma. This corridor connects to 2 additional corridors extending to the Marin and Sonoma coasts, all three of which are relevant for American Badger and other species. Recently, an additional Matching Grant was recommended for a property south of Paula Lane, to be conserved, and this land will protect an additional component of the wildlife corridor, connecting that land to the Paula Lane area, including the 245 Paula and the 431 Paula Lane properties (latter open space). That was a sustained effort for almost 15 years. The Paula Lane conservation effort was the result of 12 years of diligent perseverance to ensure conservation of important, sensitive, longstanding habitat and protection of property within the wildlife corridor. 1.2

The biologist for the 245 Paula owner also commented "three biologists" walked around, looking for a female badger area or dens and they just could not find any. In the 3 minute comment allowed for Naturalist Susan Kirks who was representing Paula Lane Action Network and Madrone Audubon Society, clarified the existence of a natal territory on the 245 Paula property and the adjacent conserved open space property.

The applicant also made several comments during the rather informally conducted hearing process, including, "I don't even think there are any PLAN members on Paula Lane." Also, "We couldn't even cut our grass without the County being called." In addition, the applicant submitted additional information in an effort to portray Susan Kirks as a "stalker" and on a "personal mission" against them. Factual information has been submitted to the public record for clarification about any interaction with the 245 Paula owners. The issue here is not about an attempt to portray Susan Kirks negatively or otherwise. The issue is intense attempted, intentional habitat destruction on a property with longstanding, documented, sensitive habitat, as well as a subdivision proposal that would permanently harm what remains of the habitat on the 245 Paula Lane property and negate the Conservation Easement of the Paula Lane Nature Preserve open space property. The 2012 correspondence from Regional Manager Wilson of the CA Department of Fish and Wildlife also did not result in sufficiently following the Department's discussion and requests related to the sensitive habitat, American Badger and Burrowing Owl. 1.2 1.3

The issue to be considered related to the Open Space District, also, is not about "giving back a million dollars" to the District. The issue relates to ensuring protection of conservation values protected by the Conservation Easement on the Paula Lane Nature Preserve open space property and, in addition, that requirements of the Matching Grant Agreement are able to be fulfilled and sustained - public access, education and volunteering, a carefully planned and implemented project, with wildlife protective and wildlife friendly features.

The Board of Directors of the Sonoma County Ag and Open Space District will need to issue a statement of negating the Conservation Easement and loss of the over $1,000,000 investment in the Paula Lane Nature Preserve property, with approval of this proposal for development, and as such, this will establish a negative precedent in Sonoma County related to investment of open space sales tax dollars and requiring terms of Conservation Easements be upheld. When there is an alternative that would provide benefits to the 245 Paula owners as well as ensure the public funds investment is protected and no further habitat destruction occurs, with protection of the existing open space Conservation Easement – and such an alternative does exist – this should be discussed, considered, and reviewed. 1.1

The severe negative impacts of the 245 Paula Lane subdivision proposal, regardless of whether it is 1 lot, 2 lots, or 50 lots, also must be considered in the context of CEQA and actual impacts that would occur from the proposal.

The 245 Paula owner casually commented during the hearing, from her seat, she saw birds all the time and there are so many birds on the 245 Paula property. This does not constitute a biological resource assessment. In addition, the 245 Paula owner's biologist who presented information to the Planning Commission, including the repeated comment of how she couldn't locate a CNDDB entry for any adult female badger or natal territory (therefore, it must not exist) - conducted an inadequate assessment, which is addressed in the expert mammal biologist's response and opinion – submitted for the public record and never mentioned or discussed by the Commission. Biologist Fitts conducted the habitat survey of both 431 Paula and 245 Paula in 2004 and has periodically monitored the area and properties for several years. The Naturalist, Susan Kirks, with 19 years of direct field study and observation of American Badger, including these 2 properties, also possesses expertise the owner's biologist does not possess. 1.4

This appeal is filed by Paula Lane Action Network. Within 72 hours, the $1,174 appeal fee was raised from nonprofit supporters, 5 of whom live in the immediate area of the 245 Paula Lane property.

Lastly, a dismissive comment about letters that had been received opposing the subdivision proposal from several apartment dwellers of the Price Drive Apartments, from the dais, did not go unnoticed. The comment was made with a tone as if these were just letters from the apartment residents, inferring these comments somehow carried

less meaning or significance. Those who live at the Price Drive Apartments are directly already impacted by the 245 Paula owners' activities and would be further seriously negatively impacted by the additional habitat destruction and development proposal. The two property owners most seriously impacted by the 245 Paula Lane subdivision proposal are the Price Drive Apartments west of the 245 Paula Lane property (strong opposition to the proposal) and the Paula Lane Nature Preserve open space property immediately to the north.

During the hearing, a question was raised, with no answer given, regarding American Badger activity south of the 245 Paula Lane property. Be advised that historically, year-round, the habitat and corridor within which the 245 Paula Lane property exists, badger activity of foraging and burrowing occurs on the properties south of the 245 Paula Lane property, observed and documented over several years' time, to Bodega Avenue. The corridor continues south of Bodega over to Cleveland Lane and area, and to the Kelly Creek Property just east of Helen Putnam Regional Park, which is now being funded and conserved. 1.5

An appeal hearing is requested to further consider significant negative environmental impacts of the 245 Paula Lane subdivision proposal, the inadequate environmental review, the inconsistency with the Petaluma General Plan and Sonoma County General Plan et al, and the resultant negating of a public funds investment and Conservation Easement protecting sensitive conservation values on the Paula Lane Nature Preserve open space property. 1.6

Sincerely,

Susan Kirks

Susan Kirks, Chair, Board of Directors
Naturalist – American Badger
Paula Lane Action Network

Enc.: Appeal Form, Check for Appeal Fee

permit SONOMA

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403-2829
(707) 565-1900 FAX (707) 565-1103

Application Fees / Invoice # 337941 on 11/08/2018 for: MNS12-0004

Site Address: 245 PAULA LN Petaluma [PET]
Activity Type: Minor Subdivision
APN: 019-080-003
Initialized By: MGROSCH
Fire District: Wilmar VFC
Insp Area:
Valuation: $0.00
Ag/Comm/Res:

Description: MINOR SUBDIVISION CREATING TWO LOTS
REQUEST FOR A MINOR SUBDIVISION OF 6.06 ACRES RESULTING IN TWO LOTS OF 1.53 ACRES IN SIZE EACH AND A DESIGNATED REMAINDER OF 3.0 ACRES.

PETITION PURSUANT TO CODE SECTION 25-43 TO INCREASE LENGTH TO WIDTH RATIO LIMITATION REQUIRED PER SECTION 25-42(B).

11/8/2018: Appeal received of Planning Commission decision 11/1/2018

Owner:

Applicant: GARDNER KIM
245 PAULA LANE
PETALUMA, CA 94952
415 637 6456

Fee Item	Description	Account Code	Total Fee
1011-000	Appeal	26010121-45061-10005	$1,164.00
		Invoiced Fees:	**$1,164.00**
When validated below, this is your receipt		**Total Paid:**	**$33,807.40**
		Project Balance Due:	**$3,783.50**

3183.50 cg

Refunds of fees paid may be made pursuant to Section 108.6 of Appendix 1 of the California Building Code and adopted model codes, subject to the following:
1) 100% of a fee erroneously paid or collected.
2) 90% of the plan review fee when an application for a permit is withdrawn or cancelled or expires or becomes void before any plan review effort has been expended. No portion of the plan review fee shall be refunded when any plan review effort has been expended.
3) 90% of the building, plumbing, electrical, and/or mechanical fee may be refunded when a permit is withdrawn, or cancelled or expires or becomes void before any work was done and before any inspections are performed. No portion of these fees shall be refunded when any work was done and/or any inspections have been performed.
4) Application for refund must be made within one year.

Attachment 2

SHUTE, MIHALY & WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

AMY J. BRICKER
Attorney
bricker@smwlaw.com

October 26, 2018

Via FedEx

Georgia McDaniel
Project Planner
County of Sonoma Permit & Resource
Management Department
2550 Ventura Avenue
Santa Rosa, CA 95403 -2859

Re: 245 Paula Lane: Initial Study and Mitigated Negative Declaration
PRMD File No. MNS 12-0004

Dear Ms. McDaniel:

On behalf of the Paula Lane Action Network ("PLAN"), we have reviewed the Initial Study and Notice of Intent to Adopt a Mitigated Negative Declaration ("MND") prepared in connection with the proposed subdivision located at 245 Paula Lane ("Project") in Sonoma County. We submit this letter to express our legal opinion that: (1) the MND for the proposed Project fails to comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq. ("Guidelines"), and (2) the County must prepare an environmental impact report ("EIR") before proceeding with the Project.

The MND fails to include the information and analysis necessary to evaluate the Project's impacts, and it does not provide sufficient evidence or analysis to support its conclusions concerning many environmental impacts. Similarly, many of the mitigation measures proposed in the MND are inadequate and will not address the Project's significant environmental impacts.

At the same time, what information the MND does provide makes clear that there is a fair argument that the Project—a subdivision to be located in the habitat area of the American Badger, a California species of special concern—will have significant impacts on the environment. Indeed, the MND admits that the Project area shows signs of

recent use by the American Badger, including as a wildlife corridor, and acknowledges that habitat loss and residential development can threaten the badger and its movement. MND at 13, 18-19. Further, the Project will add to cumulatively significant environmental impacts—in particular, the erosion of the conservation values that the neighboring Open Space Preserve at 431 Paula Lane ("the Preserve") was established to protect—resulting from past, present, and future projects in the region.

The Project is also fundamentally inconsistent with the County General Plan, the City General Plan, and the West Petaluma Area Plan. Tellingly, the County General Plan calls for the "preservation of important biotic resource areas and scenic features" and the protection of special status species and areas of habitat connectivity. Goal LU-10; Goal OSRC-7; Objective OSRC-7.1. As a residential subdivision sited in a habitat for American Badger, the Project clearly conflicts with this mandate. It also runs afoul of numerous other provisions in the land use plans designed to protect the region's unique aesthetic and recreational resources. Thus, approval of the Project and adoption of the MND would violate not only CEQA, but the State Planning and Zoning Law, Government Code section 65000 *et seq*, as well. For all of these reasons, the County cannot approve the Project as currently proposed.

I. CEQA Legal Standard

It is well settled that CEQA establishes a "low threshold" for initial preparation of an environmental impact report ("EIR"), especially in the face of conflicting assertions concerning the possible effects of a proposed project. *Pocket Protectors v. City of Sacramento*, 124 Cal. App. 4th 903, 928 (2005).

CEQA provides that a lead agency may issue a negative declaration and avoid preparing an EIR only if "[t]here is no substantial evidence, in light of the whole record before the lead agency, that the Project may have a significant effect on the environment." Pub. Res. Code § 21080(c)(1) (emphasis added). A lead agency may adopt a mitigated negative declaration only when all potentially significant impacts of a project will be avoided or reduced to insignificance. Pub. Res. Code § 21080(c)(2); Guidelines § 15070(b). A mitigated negative declaration will also be set aside if the proponent's conclusions are not based on substantial evidence in the record. *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296, 311 (1988).

An initial study must provide the factual basis, with analysis included, for making the determination that no significant impact will result from the project. Guidelines § 15063(d)(3). In making this determination, the agency must consider the

direct and indirect impacts of the project as a whole, Guidelines § 15064(d), as well as the project's cumulative impacts. *See City of Antioch v. City Council of Pittsburg*, 187 Cal. App. 3d 1325, 1333 (1986).

An agency must prepare an EIR whenever it is presented with a "fair argument" that a project may have a significant effect on the environment, even if there is also substantial evidence to indicate that the impact is not significant. *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68, 75 (1974); *Friends of B St. v. City of Hayward*, 106 Cal. App. 3d 988, 1002 (1980); Guidelines § 15064(f)(1). Where there are conflicting opinions regarding the significance of an impact, the agency must treat the impact as significant and prepare an EIR. *Stanislaus Audubon Soc'y v. County of Stanislaus*, 33 Cal. App. 4th 144, 150-51 (1995) (an EIR is required if a project will result in reasonably foreseeable indirect physical changes that may have a significant adverse effect on the environment); Guidelines § 15064(f)(1).

II. The MND's Description of the Project is Inadequate.

The MND must adequately describe the Project. "An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus*, 27 Cal. App. 4th 713, 727 (1994) (quoting *County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 193 (1977)). "The negative declaration is inappropriate where the agency has failed to provide an accurate project description or to gather information and undertake an adequate environmental analysis." *City of Redlands v. County of San Bernardino*, 96 Cal. App. 4th 398, 406, 410 (2002). Courts have found that, even if an environmental review document is adequate in all other respects, the use of a "truncated project concept" violates CEQA and mandates the conclusion that the lead agency did not proceed in a manner required by law. *San Joaquin Raptor*, 27 Cal. App. 4th at 729-30. Furthermore, "[a]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *Id.* at 730 (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable.

Here, the Initial Study barely describes the Project at all. Indeed, it only provides one paragraph of text, and even this limited discussion is cursory and vague. Any reasonably complete description of the Project would give the public and decision-makers a sense of what this subdivision would look like, how it would work, and how it would fit into the West Petaluma community. The purported project description does none of this; it merely describes the acreage of the three lots to be created out of the

current parcel. This failure echoes throughout the document: because the Project is incompletely described, none of its impacts can be fully analyzed.

The closest that the Initial Study comes to providing a sense of the Project is its references to the proposed lot sizes, to an American Badger habitat area on the west side of the property, and to designated building envelopes. Merely describing building envelopes is not sufficient, however; the document should provide information about what the subdivision will look like. For example, what are the development standards and guidelines? What plan can the public and decision makers consult in order to verify that the subdivision will be well-planned and that the homes would be compatible with other development in the area? Where are the photo simulations showing how this subdivision would appear from Bodega Avenue, Paula Lane, and the Preserve bordering the property? At this point, the County should be providing focused direction to the applicant regarding her vision for the Project, taking into account the nature and ambience of West Petaluma. Yet, because the County released this Initial Study without pressing for critical Project details, it appears the County may be attempting to satisfy the needs of the applicant at the expense of the community.

The flaws in the Initial Study's project description extend beyond its failure to contain a more developed land use plan; the document lacks sufficient plans for how the development will function. For example, how will residents of the two new proposed lots access their property? Where will the driveways, if any, be located? They are not shown on the map provided. MND at 6. The map as a whole is so small as to compromise its legibility. A member of the public lacking a magnifying glass would be excluded from reviewing the proposed subdivision.

As a final example of the problems with the insufficient project description, the anticipated drainage features are inadequately described. The MND requires that the Project applicant submit grading and drainage plans to the Permit and Resource Management Department ("PRMD") for review, and it references best practices for storm water management that can be incorporated. MND 35-36. But the eventual plan for the site remains a mystery (will it be terraced or maintain the natural slope? Where will the referenced drainage and landscaping features be located?).[1] Unless and until the applicant

[1] Drainage is a particular concern regarding the Project design. Previous grading and vegetation removal on the Project site has lead to increased stormwater runoff downhill from the property. The proposed Project threatens to make an existing problem even worse.

prepares a more detailed land use plan for the Project, and one which grapples with these basic planning and design considerations, the Initial Study will remain incapable of addressing and analyzing the Project's important environmental effects.

III. The MND's Description of the Project Setting Is Inadequate.

CEQA provides that one of the required components of an initial study is a description of the environmental setting of a project. Guidelines § 15063(d)(2). "[W]ithout such a description, analysis of impacts, mitigation measures and project alternatives becomes impossible." County of Amador v. El Dorado County Water Agency, 76 Cal. App. 4th 931, 953 (1999). Decision-makers must be able to weigh the project's effects against "real conditions on the ground." City of Carmel-by-the-Sea v. Board of Supervisors, 183 Cal. App. 3d 229, 246 (1986). One initial study's "environmental setting" section that was held to be adequate set forth the existing site conditions, facilities, and recreational uses, and contained a description of the existing physical conditions, including the topography and types of habitats and vegetation. Lighthouse Field Rescue v. City of Santa Cruz , 131 Cal. App. 4th 1170, 915-17 (2005). According to the court, the initial study's several-pages-long environmental setting discussion "met the minimum requirements of the Guidelines." Id. at 917.

In contrast to this type of thorough description of the environmental context in which a project is proposed, the environmental setting discussion in the proposed MND omits essential information and thus fails to meet CEQA's requirements. In order for the public and decision-makers to be able to fully understand the environmental impacts of this Project, more information about the Project setting is needed. Such information includes, but is not limited to, a detailed description of the following:

> The visual character and appearance of the community and the proposed Project site, including existing development and open space in the Project vicinity. This would necessarily include photographs of the Project site and its surroundings.
>
> The site's proximity to Bodega Avenue, a road designated as a "scenic route" by the West Petaluma Area Plan. West Petaluma Area Plan at 31.
>
> The ridgeline near the Project site (textual and photographic).
>
> The existing hydrological and hydraulic conditions of drainages in the vicinity of the Project.

Cumulative projects, including major construction projects, that will be carried out in the area during the period when the Project will be under construction. 2.1

Sonoma County's General Plan, the City of Petaluma's General Plan, and the West Petaluma Area Plan, including the goals and policies relevant to the Project site (going beyond maximum densities, the only information currently included about the surrounding land uses). 2.2

Noise levels existing at and around the Project site.

Existing transportation infrastructure around the Project site, including the existing accident rates on roadways, availability of public transportation, and line-of-sight information for proposed subdivision access points (when these access points are ultimately included).

The environmentally sensitive and significant nature of the Project's surroundings, which include an open space preserve. The Project area includes habitat for sensitive species that is contiguous with habitat in the open space preserve. 2.3

Any other relevant regional and local setting information necessary to evaluate project and cumulative impacts.

As noted above, the Project site is immediately adjacent to an open space preserve. And the broader Project area has been the subject of longstanding efforts to protect and preserve the rural character of this part of the County. The Project's goal of subdividing land to make way for two additional houses threatens to completely and permanently change the rural and open space nature of this area. Given the inadequacies of the Project setting and description, however, a member of the public would not be made aware of this looming threat to important environmental, aesthetic, and community values.

IV. The County Must Prepare an EIR That Analyzes the Potentially Significant Effects of the Proposed Project.

An agency must prepare an EIR for a proposed project whenever substantial evidence in the administrative record supports a "fair argument" that the project may have significant impacts on the environment. Guidelines §§ 15064(a)(1),

(f)(1). A fair argument can be made that the Project, which will replace open space with a subdivision, will have potentially significant impacts on biological resources, aesthetics, and land use. Furthermore, the Project will add to cumulatively significant environmental impacts resulting from a number of past, present, and future projects in the region. For all of these reasons, as discussed below, the County is required to prepare an EIR.

A. The Project Will Result in Significant Adverse Impacts to Biological Resources.

1. The Project Will Have Significant Adverse Impacts on the American Badger, a California Species of Special Concern.

The MND incorrectly concludes that the Project would result in less than significant impacts to the American Badger with mitigation measures incorporated. MND at 13. On the contrary, the Project will result in significant adverse impacts to this special status species that will not be addressed by the mitigation measures described in the MND.

a. Substantial Evidence in the Record Undermines the MND's "Less Than Significant Impact" Conclusion.

The MND rests on faulty assumptions and inaccurate observations concerning the presence of American Badgers on the Project site. Relying on a 2014 biological assessment by Dana Riggs, the MND asserts that "no evidence of badger use" was found beyond the northwestern portion of the Project area. MND at 13. As a result, the MND's conclusions regarding the Project's effects on the badger population and its proposed mitigation measures—including especially the American Badger Habitat Area (see MND at 14)—are based on the assumption that the badger habitat is confined to the northwestern corner of the property. 2.4

There is substantial evidence in the record that the Riggs Report and the MND significantly underestimate the extent of the American Badger's presence on the Project site. Biologist Kim Fitts completed her own assessment of the badger population at 245 Paula Lane and 431 Paula Lane, the property adjacent to the Project site, in 2004 (the 431 property forms a continuous open space and habitat with the 245 Paula Lane property, including the Project site). Kim Fitts, American Badger Habitat Survey (2004), attached as Exhibit A. Fitts counted 25 badger dens and observed that "badger use extends onto adjacent properties[]." Fitts returned to the site in 2012. She observed

three to four recently created burrows on the Project site (245 Paula Lane) and several older burrows that she had mapped on her previous visits. Letter from Kim Fitts to Misti Harris, July 24, 2013, attached as Exhibit B. Most recently, Fitts drafted a letter in October of 2018 confirming that the grassland habitat covering the Project site and the adjacent open space preserve is a movement corridor for badgers and hosts badger trails and burrows. The undersigned have reviewed the October 2018 Fitts letter and hereby incorporate it by reference into this document. The letter will be sent under separate cover.

The California Department of Fish and Wildlife (then Fish and Game) also observed numerous burrows on the project site in 2012. The Department sent a letter to PRMD Planner Misti Harris on December 27, 2012, recounting its observation of "approximately five badger burrows . . . on the neighboring Project site at 245 Paula Lane." Letter from Department of Fish and Game to Misti Harris, December 27, 2012, attached as Exhibit C. 2.4

Finally, the Applicant's own biological consultant contradicted the conclusions relied upon by the MND in a letter to the Applicant in 2013. In that letter, Riggs informed the Applicant that "three old badger digs were observed" on the southern portion of the site, where there had been unauthorized grading activity. Letter from Dana Riggs to Kim Gardner, July 5, 2013, attached as Exhibit D. " Evidence of recent digs overlapping older digs in the same general area on the site suggests current site activities have not deterred badger use at the site." Id. (emphasis added). This letter acknowledges what the MND denies—that American Badgers have been active recently on areas of the site extending beyond the northwestern corner. This evidence undermines the MND's conclusions concerning the Project's impacts on the American Badger and the adequacy of the proposed mitigation measures.

The MND also incorrectly asserts that feral cats in the adjacent Preserve are "the primary threats" to badger habitat. The MND goes as far as to claim that the presence of a watering bucket—and not the construction of two residential buildings, with all of the associated impacts (noise, dust, night-time lighting, loss of open space, etc.)—is "the activity that may have a substantial adverse effect" on the American Badger. 2.5

The assertion about the feral cats and water bucket is as ridiculous as it is inaccurate. These claims were first made in the Riggs biological report. In 2014, Susan Kirks, a member of the PLAN Board of Directors, discussed this report with Adam

McKannay of the California Department of Fish and Wildlife. E-mail Exchange between Susan Kirks and Adam McKannay, September 17-18, 2014, attached as Exhibit E. Kirks explained that there are domestic—not feral—cats living near the property, and that these cats do not compete with badgers for habitat. Id. Instead, she wrote, "What is negatively impacting the American Badger in the area are the barking dogs on-site at 245 Paula, the intensive and extensive illegal grading, obstructive fencing, and structures the owners placed in the habitat[.]" Id. McKannay concurred with Kirks's "observations of barking dogs and feral/house cats in the vicinity of the Preserve." Id. The unpermitted grading and fencing was the subject of numerous complaints from neighbors and is acknowledged in the MND. E-mail from Kim Fitts to Misti Harris, January 28, 2014, attached as Exhibit F; Letter from Kim Fitts, Exhibit B; Letter from Amy Bricker to T. Wick and M. Grosch, May 17, 2016, attached as Exhibit G; MND at 2. This evidence shows that the proposed development and the concomitant structures and human activity, and not a watering bucket on the adjacent Preserve, is the primary threat to the badger habitat. 2.5

The evidence above reveals that the MND significantly underestimates the presence of American Badger on the Project site and misunderstands the nature of the threats to their habitat. As a result, the MND's conclusions concerning the impact of the Project and the adequacy of the proposed mitigation measures are suspect. The evidence creates a fair argument that the Project will result in significant impacts to the American Badger that will not be mitigated by the proposed measures.

b. The Project Will Destroy and Compromise Badger Habitat and Wildlife Movement Corridors.

Habitat loss and fragmentation "are the greatest threats to badgers" in the state. 2012 Department of Fish and Game Letter, Exhibit C. American Badgers require significant home ranges and travel widely within them due to their efficiency as hunters. They must travel from place to place to allow prey populations to recover from their presence. Their need to travel means that badgers are vulnerable when their habitats are fragmented by development. 2004 Fitts Report. Exhibit A. Badgers are unlikely to remain in areas where agricultural land has given way to urbanization. 2012 Department of Fish and Game Letter, Exhibit C. 2.6

The Project site is partially composed of open annual grassland. This grassland provides "excellent habitat" for both the small mammals that form the major part of the American Badger's diet and for the badger itself. 2004 Fitts Report, Exhibit A. Further, the Project site is contiguous with a larger wildlife movement corridor that

includes the open space preserve to the north of the property and other open space lands. 2013 Fitts Letter, Exhibit B. PLAN has identified and documented this important wildlife corridor in which both the Project site and the open space preserve exist.

The Project will destroy badger habitat or make further occupation of the area by badgers untenable. Noise and vibrations from construction would disrupt the badgers while they are in their burrows underground. 2004 Fitts Report, Exhibit A ("The development of this property would create significant diurnal noise and vibration, highly likely to cause the badger to move from the site."). Further, bright night lighting "may . . . disrupt breeding on or adjacent to the Project Area." Dana Riggs, WRA, Biological Resources Assessment Report, attached as Exhibit H. Finally, the conversion of open space to residential development will result in habitat fragmentation and the disruption of the wildlife movement corridor of which the Project site forms a part. 2.6

c. The Mitigation Measures are Inadequate.

As explained above, the mitigation measures—which are based on the incorrect assumption that the American Badger's range is limited to the northwestern portion of the property—are inadequate to address the significant adverse impacts that the Project will have on the American Badger. For example, mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4 concern land uses and activities that may be conducted on or adjacent to the designated American Badger Habitat Area. MND at 14-15. But since the Badger's actual habitat extends beyond that small corner of the site, these mitigation measures are inherently inadequate to protect the badger. Similar defects affect mitigation measures BIO-5, BIO-6, and BIO-12. MND at 15-16, 19. Since the badger habitat extends across larger portions of the Project site, even downcast lighting will affect the badgers. And pass-thru fencing around the designated badger habitat is also inadequate: the badgers' range extends well beyond those areas, and pass-thru fencing cannot mitigate the replacement of open space with residential development and the habitat disruption that comes with it. 2.7

With respect to mitigation measure BIO-5, the MND states that "existing topography will prevent lighting impacts from affecting wildlife use in the Open Space Preserve to the north." MND at 15. The property is sloped from the north to the south, with the Preserve at a higher elevation than the Project site. The two new proposed residences are slated to occupy the northern portion of the site, adjacent to the Preserve. Light from the residences will affect the Preserve despite existing topography. Mitigation measure BIO-5's explanation makes no sense: light is not discouraged by an uphill slope. 2.8

To address these inadequate mitigation measures, the County could consider requiring the creation of a conservation easement on the subject property. A conservation easement that protected the environmental and open space values of the badger habitat area would more meaningfully address the Project's negative impacts.

2. There is a Fair Argument that the Project Will Have A Significant Impact on Other Species of Special Concern.

The MND contains four mitigation measures concerning the burrowing owl, another California Species of Special Concern (BIO-7, BIO-8, BIO-9, and BIO-10). MND at 16-17. These mitigation measures require pre-construction surveys to locate burrowing owl and subsequent measures to avoid disturbing any owls that are so located. Id. None of the measures, however, affirmatively address the habitat loss likely to be caused by the Project.

There is substantial evidence in the record that the mitigation measures described above are inadequate to address the significant impacts to the burrowing owl likely to result from habitat disruption. According to a letter from the Department of Fish and Game in 2012, burrowing owl have been highly correlated with American Badger burrows in Sonoma County. 2012 Department of Fish and Game Letter, Exhibit C. The Department goes on to express concern that burrowing owl populations, like populations of American Badger, have taken a drastic hit as a result of habitat fragmentation. Id. Finally, the letter recommends that, if the Project will impact burrowing owls or their habitat, "adequate mitigation to protect and restore existing habitat that can support badger and burrowing owls should be required." Id. 2.9

None of the mitigation measures focused on the burrowing owl will protect or restore existing habitat. Instead, the measures would only prevent the accidental take of a burrowing owl as a result of active construction activities. While this is a step in the right direction, it is insufficient. The Project would result in the permanent conversion of burrowing owl habitat to residential development. The mitigation measures do not prevent this habitat loss, nor do they make any provision for the restoration of lost habitat. The mitigation measures are thus insufficient to address the significant impacts to burrowing owls.

Finally, the MND inadequately addresses the potential significant impacts of the Project on special-status bird species. The MND states, quoting the 2014 Riggs Report: "Golden eagle, white-tailed kite, Nuttall's woodpecker, loggerhead shrike, and 2.10

grasshopper sparrow are special-status bird species with potential to occur and nest in the Project Area or immediate surrounds. Although many of the mature trees will be retained, Project activities have the potential to result in indirect nest abandonment, which would be considered take under the Migratory Bird Treaty Act." MND at 19. To address this, the MND proposes mitigation measure BIO-13, requiring preconstruction surveys during certain times of year. MND at 19-20. The MND and the mitigation measure significantly understate the potential for significant harm to these bird species and others. The conservation easement affecting the Preserve adjacent to the Project site states that Allen's and Rufous Hummingbirds, Sharp-shinned Hawk, White-tailed Kite, Cooper's Hawk, Nuttall's Woodpecker, Oak Titmouse, Red-breasted Sapsucker, Snowy Egret, Great Egret, Great Blue Heron, Black-crowned Night Heron and Long-billed Curlew all use the Preserve. Deed and Agreement By and Between the City of Petaluma and the Sonoma County Agricultural Preservation and Open Space District Conveying a Conservation Easement and Assigning Development Rights, Recorded May 14, 2012, as Doc. 2012046059, Official Records of Sonoma County, § 2.1, attached as Exhibit I. Several of these special-status species are not even discussed by the MND or addressed by the mitigation measures. Impacts to these species could include, among other things, loss of adequate food sources caused by the decreased availability of prey species due to the destruction of open space. But the MND does not address these impacts. There is a fair argument that the Project will have a significant impact on these species that will not be addressed by the proposed mitigation measures. 2.10

3. There is a Fair Argument that the Project Will Have a Significant Impact on Protected Trees.

The MND states that the Project site "contains several protected oak trees, which will remain," and proposes a mitigation measure (BIO-14) requiring compliance with the Sonoma County Tree Protection and Replacement Ordinance. MND at 20-21. There is, however, substantial evidence in the record that significant impacts to protected trees havealready been sustained as a result of unpermitted construction and grading activities. In 2016, this firm submitted a report by certified arborist Sherby Sanborn to PRMD. The report stated that grading activities associated with roadway construction had "already impacted the root systems" of protected trees including "a Valley Oak, Coast Live Oaks, and a Monterey Cypress." Letter from Sherby Sanborn to PLAN, May 17, 2016, attached as Exhibit J. 2.11

Mitigation measure BIO-14 states that trees damaged during construction activities "must be replaced in accordance with the Tree Protection ordinance." MND at

20. To our knowledge, however, restoration activities related to the roadway construction in 2016 have never been completed. There is thus a fair argument that the mitigation measures are only words on paper and insufficient to address the Project's already significant adverse impacts on protected trees, not to mention potential significant impacts in the future. 2.11

B. There is a Fair Argument that the Project Will Have Significant Aesthetic Impacts.

Under CEQA, it is the state's policy to "[t]ake all action necessary to provide the people of this state with . . . enjoyment of aesthetic, natural, scenic, and historic environmental qualities." Pub. Res. Code § 21001(b) (emphasis added). Thus, courts have recognized that aesthetic issues "are properly studied in an EIR to assess the impacts of a project." The Pocket Protectors, 124 Cal. App. 4th at 937 (overturning a mitigated negative declaration and requiring an EIR where proposed project potentially affected street-level aesthetics). "Any substantial negative effect of a project on view and other features of beauty could constitute a significant environmental impact under CEQA." Ocean View Estates Homeowners Assn., Inc. v. Montecito Water District, 116 Cal. App. 4th 396, 401 (2004). As explained by the court in Quail Botanical Gardens Foundation, Inc. v. City of Encinitas , 29 Cal. App. 4th 1597, 1606 (1994), it is "self-evident" that replacing open space with a subdivision will have an adverse effect upon "views and the beauty of the setting." Projects that are aesthetically incompatible with surrounding uses have also been required to prepare EIRs. Protect Niles v. City of Fremont, 25 Cal. App. 5th 1129, 1145-49 (2018) (holding that neighbors' objections to a project's aesthetic incompatibility with its surroundings constituted substantial evidence of a fair argument that the project would have a significant impact on the environment).

The proposed project is located in close proximity to Bodega Avenue, a corridor designated by the West Petaluma Area Plan as a scenic route. The MND recites the aesthetic policies of the Area Plan (e.g., "Policy 2.3.1: Protect visually vulnerable landscapes, such as ridgelines, unique scenic areas, and areas essential for defining the form of development in Petaluma") and attempts to address them. MND at 7. For example, the MND's mitigation measure AES-1 requires that building occur within building envelopes to reduce the impact on the view from Bodega Avenue. MND at 7-8. The building envelopes are situated behind the existing house and barn if viewed from certain places on Bodega Avenue.

As an initial matter, the MND's analysis is inadequate. It does not contain a full view-shed analysis or any pictures showing the views from Bodega Avenue. The

public is unable to analyze the Project's potential impacts on the view, and one is left to wonder about the completeness of PRMD's own review.

Additionally, the proposed mitigation measure is insufficient to protect the view from Bodega Avenue: it says nothing about the appearance of the homes that may eventually be built on the lot and, critically, does not limit their height. It is all well and good to place a new home behind an existing barn—but the view will not be spared if the home towers over the existing structure. This issue is compounded by the fact that the ground underneath the building envelopes is approximately 20 feet higher than the ground beneath the barn and the existing house. Finally, considering the lack of a height limitation, the topography of the site, the lack of photographs from Bodega Avenue, and the presence of a ridgeline just up-slope from the proposed building envelopes, the MND does not adequately explain how the view of the ridgeline will remain uninterrupted from Bodega Avenue. See West Petaluma Area Plan Policy 2.3.1 ("Protect visually vulnerable landscapes, such as ridgelines . . . .").

The MND also entirely fails to consider the aesthetic impact of the development with respect to the view from the neighboring Open Space Preserve. The conservation easement over the adjacent Preserve states that the property "will continue to be a public preserve in perpetuity." Conservation Easement, § 5.6, Exhibit I. It further acknowledges that the property's "primarily undeveloped character is an important open space resource, contributing to the county's rural character." *Id.*, § 2.2. Opportunities for "recreational enjoyment" of the site's "natural features" is enshrined as one of the conservation values of the easement. *Id.*, § 2.3

The Project will have a significant adverse impact on the aesthetics of the area, as viewed and appreciated by the public from the Preserve. The Project will replace scenic open space on the southern boundary of the Preserve with two new houses and, presumably, parking areas, vehicles, and other features of residential development. This will negatively impact the Preserve's ambience and scenic open space qualities and decrease the opportunities for recreational enjoyment of the site's natural features. The MND has not explained, as it must, how the Project's impact on the view from the Preserve is less than significant. See Ocean View Estates Homeowners Ass'n, Inc., 116 Cal. App. 4th at 402 (requiring an agency to prepare an EIR because the petitioner presented "evidence from which a fair argument can be made that the [project] will be visible from public trails."); Protect Niles, 25 Cal. App. 5th at 1145-49. The open space preserve represents a substantial investment—including one million dollars in public funds (see October 2018 letter by Kim Fitts, submitted under separate cover)—in protecting the rural character and aesthetics of this area. The addition of two homes in

close proximity to the Preserve would forever change the rural nature of the site.

Further, the MND does not even attempt to mitigate the Project's aesthetic impact on the Preserve. The Preserve is located up-slope of the Project site, so the topography will make Project features fully visible. And the building envelopes, which PRMD positioned to reduce the visual impact on Bodega Avenue, are situated so that both houses will be visible from the Preserve. Not even trees will obstruct the view. Mitigation measures that could reduce the impact—e.g., context-specific limits on building heights; required plantings, including trees, etc.—are absent.

C. There is a Fair Argument that the Project Will Have Significant Recreational Impacts.

The City of Petaluma General Plan 2025 (which applies to the Project site because it lies within the Urban Growth Boundary) calls for the City to "[r]etain and expand city-wide park and recreation assets," including by encouraging and supporting collaboration with "non-profit organizations and private parties in the use of public lands for outdoor education opportunities such as . . . wildlife study/protection areas." Goal 6-G-1; Policy 6-P-1(G).

The MND incorrectly concludes that the Project will not have significant recreational impacts because it would not lead to the degradation of parks or recreational facilities. In reaching this conclusion, the MND completely ignores the presence of a recreational facility adjacent to the Project site. One of the conservation values that the Preserve is intended to protect includes opportunities for "recreational enjoyment" of the site's natural features. In keeping with the General Plan policies above, the Preserve currently provides opportunities for non-profit organizations to use public lands for outdoor education activities and wildlife study. By disrupting American Badger habitat and the habitat of other special-status species and making the adjacent Preserve less attractive to these animals and birds, the Project will significantly diminish the opportunities available for wildlife study and education in the Preserve. As such, the Project conflicts with the recreational policies and goals of the City's General Plan, and there is a fair argument that the Project will have significant recreational impacts.

D. There is a Fair Argument that the Project Will Have Significant Land Use Impacts.

Evidence that a project is inconsistent with land use standards adopted to mitigate environmental impacts supports a fair argument that a project will have a

significant adverse effect.Pocket Protectors, 124 Cal. App. 4th 903 (2004); Lighthouse Field Beach Rescue, 131 Cal. App. 4th 1170 (2005). Since the Project is inconsistent with the General Plan as shown below, a fair argument exists that the Project would cause significant land use impacts. Thus, PRMD cannot rely on the MND and must prepare an EIR.

The MND concludes that the Project does not conflict with any land use plan or policy. MND at 38. In reaching this conclusion, the MND discusses the zoning designation applicable to the Project site and the zoning density of the Project. It further concludes that the designated American Badger Habitat Area "does not preclude the Urban Separator Path identified in the Petaluma General Plan 2025 that runs along the rear of the property line."Id.

The MND neglects a series of applicable goals and policies from relevant land use plans with which the Project conflicts.

Sonoma County's General Plan 2020 Land Use Element and its Open Space and Resource Conservation Element contain goals and policies in conflict with this Project. For example, Goal LU-10 provides that the "uses and intensities of any land development shall be consistent with the preservation of important biotic resource areas and scenic features." To achieve this goal, the General Plan encourages incentivizing voluntary easements on lands with important biological resources (Policy LU-10b), and developing programs "for preservation and enhancement of important biotic resource areas," (Policy LU-10c). Goal OSRC-7 sounds a similar note, calling for the County to "[p]rotect and enhance the County's natural habitats and diverse plant and animal communities." This goal is supported by the following objectives: "[i]dentify and protect native vegetation and wildlife, particularly occurrences of special status species . . . and areas of essential habitat connectivity," (Objective OSRC-7.1), and "[m]aintain connectivity between natural habitat areas" (Objective OSRC-7.5). But, as explained above, this Project will disrupt the habitat of the American Badger, a special-status species, and interrupt a wildlife movement corridor. This habitat disruption is not consistent with "the preservation of important biotic resource areas" or the protection and maintenance of wildlife and habitat connectivity called for in the General Plan.

The Project is also inconsistent with Goal LU-5 of the County General Plan. This goal calls for the identification of "important open space areas between and around the county's cities and communities" and the maintenance of these areas "in a largely open or natural character with low intensities of development." The Project is an open space area outside of the City of Petaluma but on the edge of its Urban Growth

Boundary. As such, it falls within the scope of Goal LU-5. The Project, however, would replace open space with development, which would not maintain this area "in a largely open or natural character" as called for by the Plan[2].

Moving from the County General Plan to the City of Petaluma General Plan 2025 (which applies to the Project site because of its location within the Urban Growth Boundary), the Project conflicts with policies pertaining to the Urban Separator. General Plan Figure 3-3-1 shows that the property is adjacent to the Urban Separator Path. See also Letter from Heather Hines to Misti Harris, January 24, 2013, attached as Exhibit K ("the Urban Separator Path as identified in the Petaluma General Plan 2025 runs along the rear property line and should be incorporated into any future development of the property."). The City's General Plan calls for the maintenance of "a permanent open space around the city" through the use of "an Urban Separator Pathway." Policy 1-P-18. While the MND states that the badger habitat area does not preclude the Urban Separator Path, the habitat area does not extend into the remainder parcel. To be consistent with the General Plan, the MND should extend open space restrictions consistent with the maintenance of an Urban Separator Pathway to the remainder lot.

In addition to its conflicts with the City and County General Plans, the Project conflicts with the West Petaluma Area Plan's Open Space Plan. This plan "proposes the preservation of open space" for the purpose of preserving "natural resources such as areas required for the preservation of plant and animal life." West Petaluma Area Plan at 30. The Project here runs completely against this policy in that it converts open space to residential development. Further, as discussed above in the biological resources section, this particular open space is required for the preservation of species such as the American Badger. Since the MND does not contain adequate mitigation to protect the badger and other species, the Project conflicts with the letter and the purpose of the West Petaluma Area Plan's Open Space Plan.

This letter has already discussed the Project's potential conflict with Policy 2.3.1 of the West Petaluma Area Plan and its goal of protecting scenic ridgelines (see section concerning aesthetic impacts, above). It has also discussed the Project's conflict with City of Petaluma General Plan Goal 6-G-1 and Policy 6-P-1, concerning parks and recreation (see section concerning recreational impacts, above).

[2] In contrast, the creation of conservation easements in this area, including on the Project site, would be in keeping with Goal LU-5.

Finally, it appears that the Project may conflict with density standards for Rural Residential areas. The two subdivided lots are 1.53 acres each, smaller than the two-acre minimum lot size for these areas. Section 25-43 of the Sonoma County Code suggests that clustered development may be permitted when "common usable open space" is set aside. The proposed subdivision adds two lots between a large home constructed on the property in 2012 and the property line shared with the protected open space preserve, with a small area in the northwest corner of the property designated as "badger habitat." It appears the total acreage for the two lots and the "badger habitat" is 3.06 acres (i.e., 1.53 acres multiplied by two). The remainder parcel is 3 acres. Given this arrangement, it is not clear whether "common usable open space" has been set aside, as the area set aside for habitat appears to be part of the subdivided lots.

Since the Project conflicts with applicable land use plans, there is a fair argument that it would cause significant land use impacts, and PRMD must prepare an EIR. Furthermore, these conflicts demonstrate that Project approval would also violate the State Planning and Zoning Law.

E. There is a Fair Argument that the Project Will Have Significant Cumulative Impacts.

CEQA requires a discussion of the environmental impacts, both direct and indirect, of the proposed project in combination with all "closely related past, present and reasonably foreseeable probable future projects." Guidelines § 15355(b); see also Pub. Res. Code § 21083(b); Guidelines §§ 15021(a)(2), 15130(a), 15358. The discussion of cumulative impacts must "reflect the severity of the impacts and the likelihood of their occurrence" (Guidelines § 15130(b)), and must document its analysis with references to specific scientific and empirical evidence.Mountain Lion Coalition v, California Fish & Game Comm'n, 214 Cal. App. 3d 1043, 1047, 1052 (1989). A lead agency must prepare an EIR if a project's possible impacts, though "individually limited," may be "cumulatively considerable." Pub. Res. Code § 15064(i).

Extensive case authority highlights the importance of a thorough cumulative impacts analysis. InSan Bernardino Valley Audubon Society v. Metropolitan Water District, 71 Cal. App. 4th 382, 399 (1999), for example, the court invalidated a negative declaration and required preparation of an EIR for the adoption of a habitat conservation plan and natural community conservation plan. The court specifically held that the negative declaration's "summary discussion of cumulative impacts is inadequate," and that "it is at least potentially possible that there will be incremental impacts . . . that will have a cumulative effect." Id.

The MND fails to analyze the Project's cumulative impacts in light of related past, present, and reasonably foreseeable probable future projects. First, the MND fails to address the cumulative effects of the unpermitted grading and construction work that has recently occurred on the Project site. The MND acknowledges that illegal grading occurred in the project description, but its impacts are not addressed in the cumulative impacts section. The illegal grading and construction had negative impacts on protected trees on the parcel, Sanborn Letter, Exhibit J, and disrupted wildlife habitat, Letter from Lindsay Mickles to Misti Harris, February 20, 2014, attached as Exhibit L ("The owners have graded away wildlife habitat up to my property line . . . and have installed unpassable fencing . . . in the . . . area of the property that was always habitat for wildlife and through which wildlife frequently moved"). The MND does not address how these existing and closely related impacts to wildlife and protected species will interact with projected Project activities.

Additionally, the MND fails to consider the impact of past and future development around the Project site. In particular, this is a special concern because of the danger that the Open Space Preserve will be walled in by development. The impacts from such development—including the development proposed in the current Project—are identified in the October 2018 Fitts letter (sent under separate cover). These impacts will negate the conservation easement over the open space property and undermine the more than $1,000,000 in public funds that have been invested in the Open Space Preserve and its conservation values. If residential development steadily increases around the Preserve, this special property will gradually lose its value as a wildlife habitat and a place for wildlife study, education, and passive public enjoyment of open space.

Because the MND does not analyze the potential for cumulative impacts in light of these past actions and future projects, it cannot possibly conclude that there will be no significant cumulative impacts. Accordingly, the County must prepare an EIR to evaluate whether the Project's impacts will be cumulatively significant.

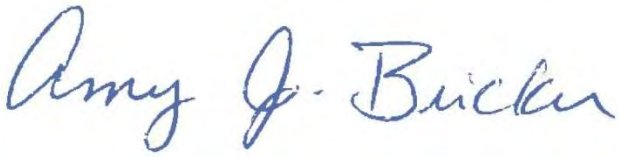
V. Conclusion

For all of the reasons explained above, there is fair argument that the Project will have significant impacts on the environment. The Project also conflicts with numerous policies in the County and City General Plans and the West Petaluma Area Plan. Approval of the Project would contravene good public policy and violate CEQA

and State Planning and Zoning Law. We therefore urge PRMD to revise the Project and prepare an EIR.

Respectfully,

SHUTE, MIHALY & WEINBERGER LLP



Amy J. Bricker
Aaron M. Stanton

Exhibits:
A - Kim Fitts, BioConsultant LLC, American Badger Habitat Survey (2004).
B - Letter from Kim Fitts, BioConsultant LLC, to Misti Harris, PRMD, July 24, 2013.
C - Letter from Scott Wilson, Department of Fish and Game, to Misti Harris, December 27, 2012.
D - Letter from Dana Riggs, WRA, Inc., to Kim Gardner, July 5, 2013.
E - E-mail Exchange between Susan Kirks and Adam McKannay, September 17-18, 2014.
F - E-mail from Kim Fitts to Misti Harris, January 28, 2014.
G - Letter from Amy Bricker, Shute, Mihaly & Weinberger LLP, to T. Wick and M. Grosch, May 17, 2016.
H - Dana Riggs, WRA, Biological Resources Assessment report: 245 Paula Lane, Sonoma County California (August 2014).
I - Deed and Agreement By and Between the City of Petaluma and the Sonoma County Agricultural Preservation and Open Space District Conveying a Conservation Easement and Assigning Development Rights, Recorded May 14, 2012, as Doc. 2012046059 in the Official Records of Sonoma County.
J - Letter from Sherby Sanborn to Paula Lane Action Network (PLAN), May 17, 2016.
K - Letter from Heather Hines, Petaluma Community Development Department, to Misti Harris, January 24, 2013.
L - Letter from Lindsay Mickles, Mickles Enterprises, to Misti Harris, February 20, 2014.

BioConsultant LLC
Environmental Consulting

October 22, 2018

Members of Sonoma County Planning Commission
George McDaniel, Member of Planning Staff
Sonoma County Permit and Resource Division
2550 Ventura Ave.
Santa Rosa, CA 95403

Re: MNS 12-2004 / 245 Paula Lane WRA Biological Resources Assessment Report August 2014

Submitted: Email: Georgia.McDaniel@sonoma-county.org

Dear Members of the Planning Commission and Ms. McDaniel:

I have been a professional consulting wildlife biologist for the past 30 years and the retired owner of BioConsultant LLC. I am a recognized expert on the federally endangered Point Arena mountain beaver (*Aplodontia rufa nigra*), and have served as the primary consultant for federal, state and local governments on its management. I have collaborated with CA Department of Fish and Wildlife (DFW) on numerous studies and projects.

I have monitored the status of the American badger (*Taxidea taxus*)(badger) within the Paula Lane environs since 2003. At the request of Paula Lane Action Network (PLAN), I conducted a habitat survey on two adjacent properties (431 & 245 Paula Lane) to determine if, and to what extent, badgers were utilizing the land. The resulting report, American Badger Habitat Survey–Paula Lane Proposed Subdivision (2004), documented extensive and long-term badger activity on both parcels. The study clearly illustrates that the grassland habitat creates a movement corridor and that the badger trails and burrowing systems are contiguous between the 431 and 245 Paula Lane properties. Additionally, the report states that burrowing activity was noted on adjacent properties to the southwest and west.

The habitat of the 431 and 245 Paula Lane properties has been well documented as continuously supporting badger since 2003, and according to land owners in the Paula Lane area for a century. In a professional capacity, I have observed and documented in reports and to DFW California Natural Diversity Data Base the presence of foraging, denning and its use of the habitat as a natal area within a home range. DFW staff have also documented active badger use during several site visits.

In 2012, the Sonoma County Agricultural Preservation and Open Space District awarded a $1,000,000 grant to the City of Petaluma and Paula Lane Action Network, as Grantees,

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to acquire and conserve the 431 Paula Lane 11.22 acre property (Preserve). The District placed and holds in perpetuity a Conservation Easement over the Preserve; badger is the primary conservation value.

I have reviewed the WRA Biological Resources Assessment Report -245 Paula Lane, Sonoma County California (August 2014) prepared by Dana Riggs, and the Mitigated Negative Declaration for the Minor Subdivision (Project). In my professional opinion, the mitigation measures proposed are simply avoidance measures to avoid direct impact and are inadequate to avoid Take or to mitigate adverse effects caused by the Project, as described by DFW below. 3.1

In the attached 2012 DFW letter, Scott Wilson recommends that "The County of Sonoma and applicant work with DFW to: 1) maintain the size and distribution of extant badger and burrowing owl populations, 2) increase the population of badger and burrowing owl populations where possible and appropriate, and 3) minimize or prevent unnatural causes of badger and burrowing owl population decline (e.g. burrow destruction, chemical control of rodent host and prey, etc). If the Project will impact badgers, burrowing owls or their habitat, adequate mitigation to protect and restore existing habitat that can support badger and burrowing owls should be required." 3.2

Construction-Related Significant Impacts

Significant impacts include those that would result in "take" of special status species or impede/disrupt dispersal patterns. Take is defined as kill, harass, or otherwise harm a species of special concern. Removal of suitable habitat for non-listed species is not considered significant unless it disrupts movement patterns of the species such that take may occur as a result such as removal of habitat during the breeding season. 3.1

The badger is a fossorial animal, meaning that it spends much of its life underground in burrows/dens. The U.S. Fish and Wildlife Service consider other fossorial animals, such as the Point Arena mountain beaver to be very sensitive to ground vibrations caused by construction activities. Further development of this property would create significant diurnal noise and vibration, likely to cause the displacement of badger from the Project Site and the Preserve. 3.3

Project related significant impacts include those that could result in direct mortality, harm, or harassment and impede/disrupt dispersal patterns to badgers on the Project site and to those utilizing the adjacent Preserve. Other substantial adverse effects include reduction and fragmentation of a documented landscape scale movement corridor, change in land use from rural low density development, and loss of access to foraging habitats.

These potential impacts meet the criteria of Take.

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Appropriateness of the Mitigation Measures

Mitigation measures are based upon surveys/assessments and analysis of potential impacts; the WRA assessments are inadequate as follows:

The WRA report incorrectly states that: 1) badger have only used a small portion of the Project Site (outside of proposed building envelopes) and that (1) one percent of foraging habitat would be lost to development, 2) barriers to the south and west indicate the majority of the site is not part of any viable dispersal corridor, 3) the Project Site likely represents the southeastern extent of a single territory for one badger pair, and 4) compatible uses are proposed in the Badger Habitat Area; these are incompatible for continued badger use. **3.4**

Additionally, the designation of less than a small area of land bordered by development for a highly mobile species is biological unsound and meaningless, and to allow compatible uses such as recreation and installing structures in a small area would render it unsuitable as a movement corridor.

The impact analysis does not adequately address potential impediment/disruption of dispersal patterns, loss of foraging habitat or that the contiguous land represents a natal area within a special status species home range. **3.5**

Collectively, the proposed Restrictions and Mitigation Measures do not mitigate for potential adverse effects or reduce impacts to less than significant as required by CEQA. As recommended in the 2012 DFW letter, the goal is to maintain or increase the population, minimize or prevent badger decline and if the Project will impact badgers "adequate mitigation to protect and restore existing habitat that can support badger…should be required". **3.2**

The proposed Mitigation Measures do not satisfy DFW's stated recommendations nor do they reduce *substantial adverse effects to less than significant* to qualify for a Negative Declaration.

If approved, the Project would clearly have adverse effects through habitat modifications; effecting dispersal and breeding patterns, human/pet encroachment, and increased risk of mortality from forced displacement. These impacts are not adequately mitigated for and would negate the Preserve's primary conservation value, which was purchased with public funds. Therefore, I urge the Commission members to deny the application. **3.6**

A deed restriction or a conservation easement which would be managed for the badger as a Special Status Species would maintain the documented landscape scale movement corridor and restore impacted long-standing badger habitat.

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I reserve the right to provide further comment on the biological resources impacts to: MNS12-2004 and the 245 Paula property.

Sincerely,

Kim Fitts

Kim Fitts, Wildlife Biologist
DBA BioConsultant

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Attachment 4

Gmail kim gardner <kimlichtergardner@gmail.com>

FW: 245 Paula Lane, Petaluma File No. MNS12-0004

2 messages

Dana Riggs <riggs@wra-ca.com> Fri, Jul 18, 2014 at 3:26 PM
To: kim gardner <kimlichtergardner@gmail.com>
Cc: Mhogan1@hoganls.com

Mike, please see the attached map for information regarding the no-build area. Building envelopes will need to be placed outside this area. Information regarding what is allowed in the habitat area is provided below (not sure how much detail might be needed on the map – maybe none).

Hope to see you tomorrow. Thanks!

DANA RIGGS | Principal | o: 415.454.8868 x 123 | c: 707.396.3373 | riggs@wra-ca.com

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WRA is open for consulting in San Diego and Denver.

From: McKannay, Adam@Wildlife [mailto:Adam.McKannay@wildlife.ca.gov]
Sent: Friday, July 18, 2014 3:13 PM
To: Dana Riggs
Cc: Misti.Harris@sonoma-county.org
Subject: RE: 245 Paula Lane, Petaluma File No. MNS12-0004

Dana,

The measures identified below are consistent with the Department's recommendations for similar projects requiring best management practices for American badger. I would also like to recommend the following be included in some format or variation consistent with the intent of the measure:

1) No grading, spoil sites or construction staging will occur within the Badger Habitat Area. Excavation and haul equipment shall be confined to the designated access routes, designated staging areas, and designated excavation areas. The Badger Habitat Area should be appropriately flagged and identified during construction to avoid accidental incursions by heavy equipment that could result in excessive soil compaction that may impact potential burrow sites.

2) A Qualified Biologist shall hold a training session for staff responsible for performing ground disturbing construction activities (e.g. activities involving heavy equipment used in excavation of foundations or other site grading). Staff will be trained to recognize American badgers and their habitats. Staff will also be trained to use protective measures to ensure that American badgers are not adversely impacted by ground disturbing construction activities. At least one staff person with up-to-date training in American badger protective measures shall be present at the site at all during ground disturbing activities.

3) Disking of the Badger Habitat Area should be avoided.

4) Fire protection activities, including mowing, should be limited to those deemed necessary by local fire authorities and ordinances, and should be implemented in such a way that minimizes impacts to American badger to the extent feasible. It is understood that fire danger varies by season and that the extent of fire management activities will vary year by year.

Please let me know if you have any other questions or comments.

Adam McKannay

Environmental Scientist

California Department of Fish and Wildlife

7329 Silverado Trail

Napa, CA 94558

Phone (707) 944-5534

From: Dana Riggs [mailto:riggs@wra-ca.com]
Sent: Tuesday, June 03, 2014 1:53 PM
To: McKannay, Adam@Wildlife
Subject: 245 Paula Lane, Petaluma File No. MNS12-0004

HI Adam,

Thank you for your recent visit to the 245 Paula Lane property located in Petaluma, Sonoma County, California. Per our discussion at the site, the purpose of this email is to review the findings of the site visit and habitat assessment on the property for American Badger and request your input on the proposed mitigation measures to be included in our biological report to the County that will ensure the proposed minor subdivision and grading at the property do not result in negative impacts to this species or its habitat. This request is in response to a letter from CDFW to the County and landowner dated December 27, 2012.

Per our on-site discussion, only a small portion of the site planned for subdivision currently supports American Badger; this portion of the site is located on the back northwest upper quarter of the property and constitutes approximately 1.0 acre of the total 6.0-acre site (see attached figure). The determination of this area as habitat is based on evidence collected during our initial site visit on March 8, 2013 where we documented a number of suitable burrows in friable soils in this area of the property. Most of the burrows we observed appeared to be old and inactive based on vegetation growing in the throw piles and/or spider webs present at the openings. The highest concentrations of burrows were found along the treeline and ridgeline. Other areas of the property, including the eastern half of the property were compacted as a result of prior land disturbances (prior to applicants ownership) and contained no evidence of burrowing past or present.

To mitigate for potential impacts to American badger on the property, the following measures shall be implemented:

1) The project has been modified to include building envelopes which will be placed outside the existing badger habitat area. Only compatible uses such as but not limited to: horse and livestock grazing; agricultural uses; recreational related uses (that do not include grading); rural/permit exempt structures (e.g. small shed, gazebo, livestock rain shelter) with dirt or raised flooring; vegetation management (control of invasive species and fire management); or similar uses shall be allowed in this area.

2) Pass-thru fencing shall be installed around the habitat area where it borders the Open Space Preserve to the north and the adjacent property to the west. A pass-through fence having at minimum a 12-inch opening from the ground to the bottom of the fence is recommended to allow badgers to move through the property; the 12-inch opening is based on the upper range of badger burrow entrance heights (Reid 2006). A no-climb fence may be used, provided the 12-inch opening at the bottom is maintained. The bottom wire or, if a no-climb fence, the bottom of the fence should be free from barbs to avoid entanglement. No screening, slats or weatherproofing material on the pass-through fence shall be installed in order to avoid the appearance of a visual barrier.

3) Prior to any grading or construction adjacent to the habitat area in designated building envelopes, a pre-construction survey shall be performed by a qualified biologist to map the location of any potential dens. If potential dens are observed, a minimum 300-foot no disturbance setback/buffer will be established around the potential den during the breeding/pupping/rearing season (December 1 to May 31). During the non-breeding season (June 1 to November 31), a minimum 100-foot setback/buffer will be established.

a. If planned construction activities are to occur within the 100-foot setback, a qualified biologist will perform track plate and/or push camera surveys to determine occupancy in consultation with CDFW.

If occupied, the biologist will install one-way doors to exclude badgers temporarily until work is completed. No work will occur within the setback until it is confirmed in consultation with CDFW that the den is no longer occupied.

4) Downcast lighting (or landscape lighting) is recommended for outdoor placement on any structures that may result in indirect lighting impacts to badgers that may be located in the habitat area. Ambient lighting from these structures is not expected to negatively affect any badgers present in the habitat area based on the presence of existing ambient lighting surrounding both the habitat area and adjacent Open Space Preserve in the form of streetlamps and existing residential and commercial structures. It is expected that existing topography will prevent lighting impacts from affecting wildlife use in the Open Space Preserve to the north.

We greatly appreciate your consideration of these measures in advance of submittal to the County of Sonoma. Please advise if you feel further measures are needed for consideration under CEQA, or if you wish to have us revise any measures provided herein.

Best regards,

DANA RIGGS | Principal | o: 415.454.8868 x 123 | c: 707.396.3373 | riggs@wra-ca.com

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WRA is open for consulting in San Diego and Denver.

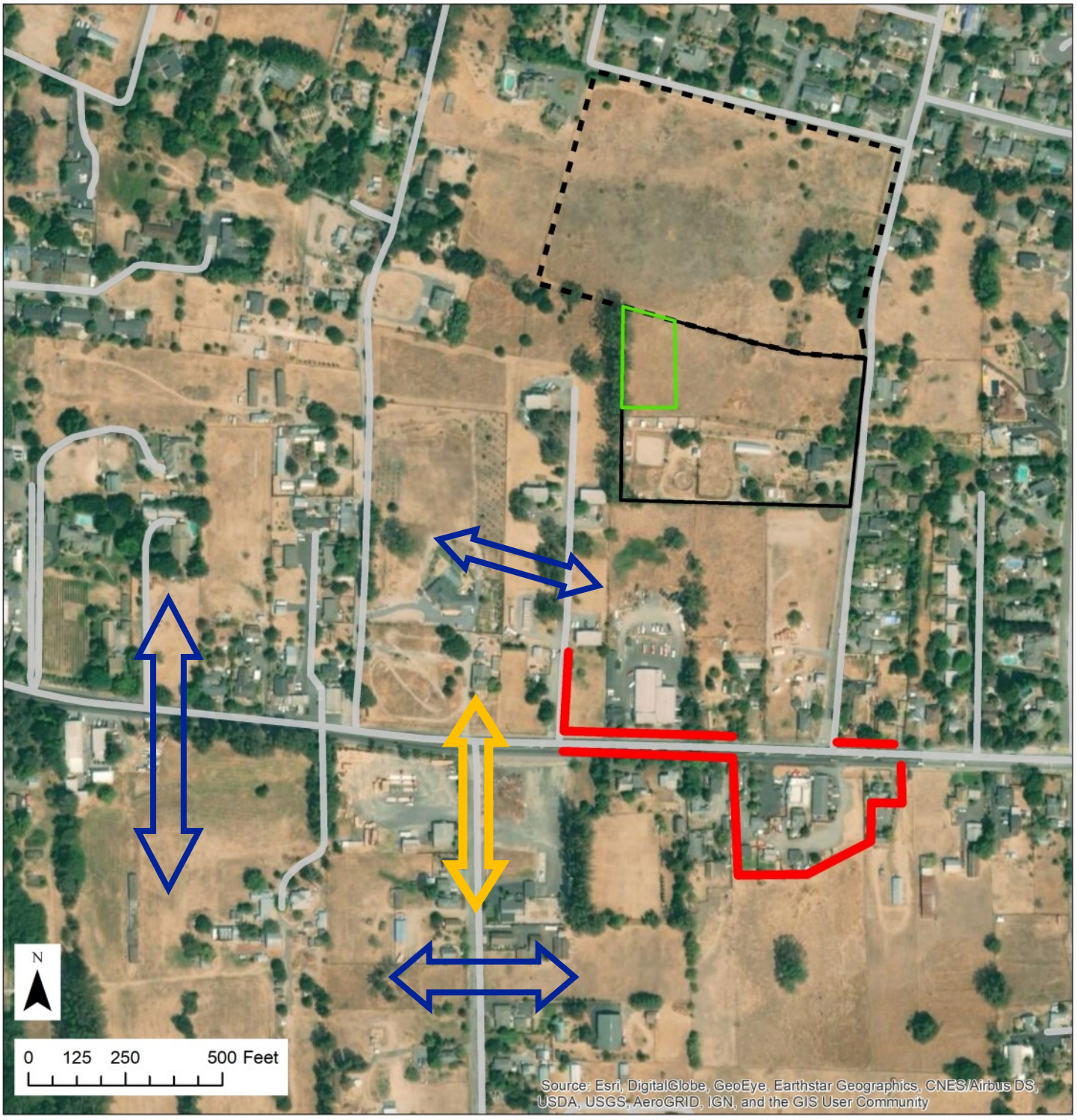
Badger Habitat 20140602.pdf
4597K

Kim Gardner <kimlichtergardner@gmail.com> Fri, Jul 18, 2014 at 6:37 PM
To: Dana Riggs <riggs@wra-ca.com>
Cc: "Mhogan1@hoganls.com" <Mhogan1@hoganls.com>

Sent from my iPad
[Quoted text hidden]

<Badger Habitat 20140602.pdf>

Attachment 5, Figure 1: Wildlife Corridors and Dispersal Barriers Map
Paula Lane, Petaluma, CA



Habitat area
Preserve
Barriers
Roads and streets
Project area

Wildlife corridors

Potential wildlife corridors

Date: 2-28-2019
Data: Sol Ecology Inc., Sonoma Co.

Base: ESRI
GIS: AJG

SOL ECOLOGY
solecology.com

Thomas E. Kucera, Ph.D.
22 Reservoir Road
San Rafael CA 94901

5 May 2004

Ms. Marti Buxton
Mission Valley Properties
5000 Hopyard Road, Suite 170
Pleasanton CA 94588

Dear Ms Buxton:

This letter is in reference to the property at the southwest corner of Paula Lane and Sunset, in the city of Petaluma, California. At the beginning, I would like to state that I am not taking a position of advocacy for the project and I do not want my remarks to be interpreted as such. I would like to contribute some scientific awareness of badgers and rare carnivores in general to the discussion.

At your request, I visited the site with you on 13 April 2004 to look at and assess wildlife sign, particularly that reportedly made by American badgers. I have also reviewed documents regarding badgers and the project that you provided me, including those written by: Robert W. Floerke, dated March 11, 2002; Anne Flannery, May 16, 2002; Kimberly Fitts and Derek Marshall, January 2004; William F. Gogin and Bradley G. Erskine, February 11, 2004; K Shawn Smallwood, February 23, 2004; and Liam Davis, email, February 23, 2004.

I am a wildlife biologist with more than 25 years of experience. I received a Master's degree in Resource Ecology (Wildlife Management) from the University of Michigan in 1976, and earned a Ph.D. in Wildland Resource Science (Wildlife Biology) from the University of California, Berkeley (UCB), in 1988. I am a Certified Wildlife Biologist, as designated by The Wildlife Society, the professional organization of wildlife biologists. Currently I am employed as a Research Wildlife Biologist in the Department of Environmental Science, Policy, and Management at UCB, and as a Project Manager with the Endangered Species Recovery Program, California State University, Stanislaus. I also conduct numerous independent wildlife studies. For more than 10 years I have been involved in research on the distribution and ecology of rare mammalian carnivores in California, including the fisher, marten, wolverine, which are cousins to the badgers, all members of the family Mustelidae.

The American badger is a medium-sized (7-20 lbs) member of the mustelid family, related to sea otters, weasels, and skunks. They have a large native distribution in North America, mainly on unforested lands from the northern

Great Plains in Canada into Mexico. They are specialized for digging, and prey on burrowing rodents such as pocket gophers, ground squirrels, and kangaroo rats. Although related to economically important furbearers (e.g., mink, fishers, marten, sea otters, etc.), badgers have fur of relatively poor quality and low economic value. They are incidentally caught in traps set for other species, but have never been a major component of a fur harvest. Badgers are poorly known ecologically in California; most research on them has occurred elsewhere, notably Idaho (Messick and Hornocker 1981) and Wyoming (Minta 1993), mostly on undeveloped land. Most of the following information is from those studies and from Grinnell et al. (1937) and a recent species review by Lindzey (2003).

Although occasionally active during the day, badgers are primarily nocturnal, when they forage, and typically spend daytime underground. Dens are common, as many as 4 per acre, and are used for daytime resting, food storage, and parturition, which occurs in February through April. Dens are typically open, but may be plugged from below during cold weather, and may be reused frequently. Badgers are typically solitary. Researchers have estimated badger densities on open, undeveloped lands of between 0.5 and 2 animals per square mile (640 acres). Sizes of home ranges reported in the scientific literature have varied by sex, age, season, and geographic location from 300 to more than 3,600 acres (0.5-6 square miles). The home ranges of different individuals may overlap. Again, these data are from rangelands in Idaho, Wyoming, and Utah; no such data from California exist.

The property at Paula Lane, at the western edge of the city of Petaluma, comprises approximately 11 undeveloped acres in a suburban landscape fragmented with residential developments. The density of development is apparently higher to the east (toward central Petaluma) than to the west. The property immediately adjoining to the west appears to have been developed in the last few years; others nearby are up to approximately 40 years old, and no doubt others are older still. Examination of aerial photos confirms the visual impression of fragmentation due to residential sprawl. The site itself is flat to moderately sloping and vegetated mostly with annual grasses and native and non-native forbs, with a few Baccharis shrubs and several trees along the edge.

At the time of my visit, the grasses were 1-3 feet high and quite dense. Although dense vegetation covered most of the ground, several animal burrows, which were relatively fresh (i.e., with loose dirt with no vegetation, open entrance), were evident. Others were less fresh, as evidenced by cobwebs covering the opening. The uneven nature of the ground on much of the site supports the contention that such animal excavations have occurred for some years. I am aware that in addition to badgers, other mammals that excavate burrows of the size and type found on the site, such as coyotes and red foxes, have been reported at the site. I also saw mounds made by pocket gophers, and found one freshly killed gopher, with only the head and intestines present. There

was no way to determine what killed it, but I doubt that a badger would have left the head and intestines. A predatory bird or domestic cat are possibilities.

I am sensitive to the need for verifiable documentation of the distribution of animals that are poorly known and difficult to study, having spent several years developing reliable, empirical, non-lethal detection methodologies for fishers and martens (Zielinski and Kucera 1995) that are presently widely used in rare carnivore surveys in California. In the documents that I read and during my site visit, I saw no direct evidence that establishes the presence of badgers at the site. The existence of burrows means that burrowing mammals are present, but I do not know how one can confidently discriminate burrows made by badgers from those made by coyotes or foxes. "Dens [of badgers] are variable in characteristics, with most having only a single, often elliptical entrance" (Lindzey 2003:686). I saw no scats at or near the burrows. (In contrast to the assertion of Kimberly Fitts in her document of February 24, 2004, that "the badger buries its scat," Lindzey (2003:686) writes "Scats frequently occur in the mound of soil at the entrance and in the den itself.") I saw no tracks at or near the burrows clear enough to identify. No expert has reported seeing a badger at the site, and I am unaware of the existence of any carcass (for example, from a road kill), photograph, or other solid evidence of badgers at the site. The existence of burrows by itself in my mind is insufficient to conclude the presence of badgers.

To my knowledge, there has been no published ecological research on badgers in California. As a wildlife research biologist, I regret the fact that the status, distribution, and ecology of badgers in California are essentially unknown. Badgers have been of conservation concern in California since at least 1937, when Grinnell et al. (1937:374) stated "The badger has been reduced in numbers over almost all its range in California." It was and likely still is subject to poisoning and shooting, and continues to experience habitat loss from agricultural and urban development. Williams (1986) listed it as a "species of special concern in California," and stated (p. 66) "No current data exist on the status of Badger populations in California..." According to the California Department of Fish and Game (CDFG; http://www.dfg.ca.gov/hcpb/species/ssc/ssc.shtml), Species of Special Concern (SSC) is a designation for "animals not listed under the federal Endangered Species Act or the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist." It is essentially an early warning regarding species that could qualify for listing as threatened or endangered, with the expectation that such a warning combined with management attention could make such listings unnecessary.

According to the CDFG, "This designation is intended to result in special consideration for these animals by the Department, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under federal and State endangered species laws

and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them.

"Department staff should consider SSCs during 1) the environmental review process, 2) conservation planning process, 3) the preparation of management plans for Department lands, and 4) inventories, surveys, and monitoring (conducted either by the Department or others with whom we are cooperating)." (http://www.dfg.ca.gov/hcpb/species/ssc/ssc.shtml)

Direction to CDFG staff, taken from their website and presented in the previous paragraph, is to "consider SSCs" during environmental reviews. It is my understanding that CDFG's consideration of the badger with respect to the Paula Lane project is outlined in a letter dated March 11, 2002 from Robert W. Floerke, Regional Manager, Central Coast Region, to Ms. Irene T. Borba of the City of Petaluma Planning Department. In this letter, Mr. Floerke recommends using the undeveloped portion of the project for long-term badger habitat, and separating this from the developed portions with a barrier extending some depth into the ground to prevent badger access under fences and walls to prevent problems for future owners. This recommendation was repeated in an email dated February 23, 2004, from Mr. Liam Davis of CDFG to Ms. Borba. This exclusion concept appears to me a reasonable approach in an abundance of caution to discourage badgers from accessing the developed areas, assuming that badgers do indeed occur there. Developing some 8-10 acres of habitat in an already fragmented landscape is unlikely to have a significant adverse impact on an animal that is of low density by nature and has a home range of hundreds or thousands of acres.

You and I also discussed methods to reduce the likelihood of injury to badgers (or other species) if present in dens during any grading activities, and I presented some ideas. I would anticipate that any badger exclusion or removal plans would be developed in more detail with input from CDFG and other wildlife experts. Overall, however, the concept of identifying occupied dens so as to allow their occupants to escape before construction and physically excluding badgers from the developed portion of the property seems feasible to me.

I hope these remarks are helpful. Please contact me if I can provide any additional information or clarification.

Sincerely,

Thomas E. Kucera, Ph.D.
22 Reservoir Road
San Rafael CA 94901

Literature Cited

Grinnell, J. J. S. Dixon, and J. M. Linsdale. 1937. Fur-bearing mammals of California. University of California Press, Berkeley.

Lindzey, F. G. Badger. 2003. Badger. Pp. 683-691 in G. A. Feldhammer, B. C. Thompson, and J. A Chapman (eds.). Wild mammals of North America: ecology, management, and conservation. Johns Hopkins Press, Baltimore.

Messick, J. P., and M. G. Hornocker. 1981. Ecology of the badger in southwestern Idaho. Wildlife Monographs 76:1-53.

Minta, S. C. 1993. Sexual differences in spatio-temporal interactions among badgers. Oecologia 96:402-409.

Zielinski, W. L. and T. E. Kucera (eds.). 1995. American marten, fisher, lynx, and wolverine: survey methods for their detection. USDA For. Serv. Gen. Tech. Rep. PSW-GTR-157.

Cc: M. Bradish
I. Borba

THOMAS EDWARD KUCERA

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San Rafael, CA 94901

415-482-9325
415-298-9326 cell
tom_kucera@hotmail.com

Education

Ph.D., Wildland Resource Science, University of California, Berkeley, 1988. Area of Specialization: Wildlife ecology, population dynamics, and management. Major Professor: Dr. Dale R. McCullough. Dissertation Title: Ecology and Population Dynamics of Mule Deer in the Eastern Sierra Nevada, California.

M.S., Resource Ecology (Wildlife Management), 1976. The University of Michigan. Thesis Title: Social Behavior During Rut and Breeding System of the Desert Mule Deer.

B.A., Psychology and Zoology, 1969. Western Michigan University.

Professional Employment

Research Wildlife Biologist, Department of Environmental Science, Policy, and Management, University of California, Berkeley. July 2003-present. I lead the operational component of the California Cooperative Wild Turkey Project, including collecting and field necropsies of wild turkeys in state parks, agency coordination, etc.

Project Manager and Wildlife Biologist, Endangered Species Recovery Program, California State University, Stanislaus. January 2001-present. I manage and conduct projects for ESRP that include endangered species issues. Projects include documenting the potential impact of a new highway in the Mojave desert on threatened and endangered plant and animal species and other natural resources, and assessing a dry stretch of the San Joaquin River bed for a variety of listed species including the San Joaquin kit fox, Fresno kangaroo rat, and valley elderberry longhorn beetle.

Wildlife Biologist, URS Corporation, Oakland, CA. August 2001-present. I lead field efforts on surveys for endangered species, particularly small mammals and kit foxes, in the San Joaquin Valley.

Wildlife Biologist, National Park Service, Point Reyes National Seashore, Point Reyes Station, CA. March 1998-March 2000. I managed the ungulate program at the Seashore, which includes elk, native deer, and two species of exotic deer. Responsibilities included planning, organizing, supervising, and conducting management and monitoring activities such as animal capture and translocation, collections and necropsies, radiotelemetry, disease monitoring, and censuses. I supervised two GS-7 technicians and volunteers.

Lecturer and Specialist, Department of Environmental Science, Policy, and Management, University of California, Berkeley, 1992-1998. Courses taught: Advanced Wildlife Management (ESPM 187); North American Wildlife - Conservation and Identification (ESPM 106); graduate seminars on Metapopulation Biology and Conservation Genetics. I was Principal Investigator on a study of the ecology of American martens in the Sierra Nevada funded by the Inyo National Forest. I directed an effort to detect wolverines, Sierra Nevada red fox, and other rare carnivores in mountainous areas of California, and

co-authored a U.S. Forest Service General Technical Report on detection methods for rare carnivores. I led a project to assess the effects of biomass harvest on wildlife in forests of northern California. I was part of a team writing an updated version of Mammals of Special Concern in California for the California Department of Fish and Game. I prepared the "Sportsman's Guide to Mule Deer Habitat Improvements in California," funded by The Mule Deer Foundation.

Project Leader, Tahoe Pilot Project, University of California, Berkeley, May-September, 1992. I supervised a team of six biologists in gathering data on vertebrate distribution across several watersheds in the Sierra Nevada as part of a project combining California's Wildlife-Habitat Relationships models with models of forest growth and yield to predict future wildlife distribution under different management scenarios.

Wildlife Biologist, September 1990-January 1992, Wildland Resources Center, University of California, Berkeley, working with the California Department of Forestry and Fire Protection to develop a Habitat Conservation Plan for the northern spotted owl.

Senior Associate (March 1989-Sept. 1990) and Consulting Biologist (1990-1997), Environmental Science Associates, Inc., San Francisco. I designed, supervised, managed, and conducted studies related to the impact of various projects and land-use changes on terrestrial wildlife. Projects included salt marsh harvest mouse trapping studies in Alameda, Santa Clara, and San Mateo counties, California clapper rail surveys, telemetry studies of deer for highway planning, bio-reserve planning for The Nature Conservancy, shorebird and waterfowl censuses, and Mojave Desert field surveys on the Nevada Test Site.

Wildlife Biologist, July-August 1981, E. Linwood Smith Associates, Tucson, AZ. I conducted radiotelemetry studies of desert bighorn sheep in southwestern Arizona.

Raptor Research Biologist, February 1979-June 1981, Snake River Birds of Prey Project, U.S. Bureau of Land Management, Boise, ID. I collected, compiled, and analyzed data on raptor ecology, nesting density, reproductive performance and diets, prey densities, and habitat distribution in the Snake River Birds of Prey Area in southwestern Idaho.

Wildlife Biologist, May-September 1978, U.S. Forest Service, Portland, OR. I worked on the Resources Planning Act assessment of fish and wildlife for Region 6 (Oregon and Washington), and compiled a publication containing distribution and habitat matrices for all vertebrate species in the region.

Range Aide, April 1978 Inyo National Forest, Bishop, CA. I conducted censuses of bighorn sheep on the winter range at the base of the eastern escarpment of the Sierra Nevada.

Academic Employment

Research Assistant, 1982-1983, Black-tailed deer project, Hopland Field Station, Mendocino County, CA. I captured, marked and released deer, conducted daylight and spotlight censuses, supervised processing and data collection from hunter-killed deer on the Station, and conducted habitat surveys and vegetation analyses.

Teaching Assistant, 1981-2, 1987, Department of Forestry and Resource Management,

University of California, Berkeley. I taught sections of North American Game Birds and Mammals, and Wildlife Biology and Management.

Selected Consulting Experience

Consulting Biologist, Mammoth Mountain Ski Area and Intra-West Corp., Mammoth Lakes CA, May 2001-present. At the request of Mammoth Mountain, I am conducting an ecological study of American martens on the alpine ski areas of Mammoth and June Mountains, and the nordic ski area of Tamarack, on the Inyo National Forest, Mono County, CA.

Member, San Francisco Bay Area Regional Team, California Rapid Assessment Method (CRAM) for wetlands. San Francisco Estuary Institute, May 2003-present. I assist in the EPA-sponsored program to develop and test rapid methods to assess wetlands around San Francisco Bay.

Consulting Biologist, Montezuma Wetlands LLC, Emeryville CA. August 2000-present. I trap for the endangered salt marsh harvest mouse in the Montezuma wetlands of Suisun Bay as part of the project for upland disposal of dredge spoils from the Oakland estuary.

Consulting Biologist, California Department of Parks and Recreation, November 1999-present. Conducted detection surveys to detect red fox (Vulpes vulpes) and other carnivores at China Camp State Park; assessed the black-tailed deer management program on Angel Island State park.

Consulting Biologist, GANDA Co., San Anselmo, CA 1997-2002. Set up forest carnivore detection stations in Plumas County; conducted small-mammal trapping for salt-marsh harvest mice, and collected house mice as surrogates for toxics analyses; burrowing owl monitoring in eastern Alameda County.

Consulting Biologist, Ibis Co., San Rafael CA. 1998-2000. I conducted trapping for salt marsh harvest mice in Menlo Park, at Mare Island, Solano Co., the Concord Naval Weapons Center, Contra Costa County, and at the Alameda Naval Air Station, Alameda Co.

Consulting Biologist, Monk and Associates, Walnut Creek CA, May-June 2000. Conducting live trapping and removal of salt marsh harvest mice at Sonoma Creek and Highway 37, Sonoma County, preparatory to seismic retrofit of the Hwy. 37 bridge.

Consultant to the World Bank, 1998. At the request of the World Bank, I made a mission to Georgia to consult on the status of and make management recommendations for several large mammals of conservation concern, including designing monitoring and inventory programs.

Consulting Biologist, Planning Concepts, Nevada City, CA, 1996, to assess effects of operations of a gravel mine on wintering mule deer and pronghorn in Lassen County.

Consulting Biologist, EBASCO Environmental, Sacramento, CA, September-November 1992. I designed, supervised, and conducted field surveys to quantify fall mule deer migration in a proposed reservoir area, North Fork Stanislaus River, California.

Consulting Biologist, McClenahan and Hopkins Associates, Redwood City, CA, April-July 1992. I identified wildlife issues and impacts to bald eagles and deer from a proposed 3000-acre residential development near Lake Almanor, Plumas County.

Consulting Biologist, EIP Associates, Sacramento, CA, December 1991-March 1992. I designed and supervised a study to detect martens, fishers, and wolverines in an area of proposed ski expansion at Alpine Meadows, Lake Tahoe Basin, California, using photographic bait stations and sooted track plates.

Consulting Biologist, Environmental Management Associates, Brea, CA, 1986-1988. I designed, conducted, and supervised field studies in an area of several proposed geothermal plants in the eastern Sierra Nevada to quantify the importance of the area for migratory and summering deer.

Consulting Biologist, EA Engineering, Science, and Technology, Inc., Lafayette, CA, 1986-88. I designed and conducted field studies in the area of a proposed reservoir in the western Sierra Nevada to evaluate its importance for deer, spotted owls, and other wildlife.

Consulting Biologist, Bonneville-Pacific Corp., Salt Lake City, UT, 1986-87. I designed, conducted, and supervised field studies in an area of a proposed geothermal plant to quantify the value of the area to migratory and summering deer in Mono Co., CA.

Consulting Biologist, Jordan Glazov, Ltd., Mammoth Lakes, CA, 1985-86. I quantified migratory and summering deer use and other wildlife values of an area on which a golf course development was proposed near the town of Mammoth Lakes, Mono Co., CA.

Consulting Biologist, O'Connor Design Group, Mammoth Lakes, CA, 1984-85. I determined the wildlife values of an area proposed for alpine ski development at Mammoth Lakes,CA.

Consulting Biologist, Biosystems Analysis, Inc., Santa Cruz, CA, 1984-85. I advised in the design and implementation of field studies to assess the impacts of PG&E's Crane Valley hydro project on mule deer in the Western Sierra Nevada.

Consulting Biologist, Terry Clapham, Bishop, CA, 1985. I advised on impacts of small hydro developments on mule deer in the White Mountains, Mono Co., CA.

Consulting Biologist, Phil Leitner of ESA/Madrone, Novato, CA, 1984-85, for advice regarding ecology of deer in the upper San Joaquin River drainage for an environmental analysis of cumulative effects of hydro development in the basin.

Consulting Biologist, Holton Associates, Berkeley, CA, 1983-84. I evaluated the impacts of the proposed Tuolumne River Ponderosa hydro project on mule deer, and conducted winter surveys for bald eagles along the river.

Consultant on the Conservation of the Camelidae in Bolivia, February 1981, UNESCO, Paris. I made a mission to Bolivia for the United Nations Educational, Scientific, and Cultural Organization to advise on field ecological studies for the conservation of the vicuna, and to evaluate environmental impacts of human activities and the use of conservation areas for the protection of camelids.

Fellowships and Awards

Bidwell Research Fellowship in Forestry and Howard William Siggins Fellowship, University of California, Berkeley, 1984-1985; Charles Lathrop Pack Prize in Forestry, University of California, Berkeley, 1984; Hilgard Fellowship, University of California, Berkeley, 1983-1984; Regent's Fellowship, University of California, Berkeley, 1982-1983.

Center for Latin American Studies Travel Grant, University of California, Berkeley, 1982, for travel to Bolivia to study occurrence of endangered large mammals and vicuna/alpaca dietary interactions.

Danforth Fellow, Department of Psychology, The University of Michigan, 1970-1971.

Cum Laude graduate, Western Michigan University, with Departmental (Psychology) Honors, Dean's List, Honor College; member of Omicron Delta Kappa, Phi Eta Sigma, Beta Beta Beta, and Psi Chi academic honorary societies.

Research Grants

The Rocky Mountain Elk Foundation, Canon, Inc. Expeditions Into the Parks, Bosack and Kruger Foundation, USDA Forest Service, The Mule Deer Foundation, University of California Division of Agriculture and Natural Resources, University of California Energy Research Institute, California Department of Fish and Game, American Museum of Natural History, Sacramento Safari Club, Inyo and Mono County Fish and Game Fund, Mzuri Wildlife Foundation, Boone and Crockett Club, National Rifle Association, Center for Latin American Studies

Publications

Manning, E. J. B., T. E. Kucera, N. B. Gates, L. M. Woods, and M. Fallon-McKnight. 2003. Testing for Mycobacterium avium ss. paratuberculosis infection in asymptomatic free-ranging tule elk from an infected herd. Journal of Wildlife Diseases 39:323-328.

Gogan, P. J. P., R. H. Barrett, W. W. Shook, and T. E. Kucera. 2001. Control of ungulate numbers in a protected area. Wildlife Society Bulletin 29 (4): 1075-1088.

Kucera, T. 1999. Endemic tule elk to range freely at Point Reyes National Seashore. Pages 41-42 in J. Selleck (ed.). Natural Resource Year in Review. National Park Service, U.S. Department of the Interior, Lakewood, Colorado.

Kucera, T. E., and K. E. Mayer. 1998. A sportsman's guide to improving deer habitat in California. California Department of Fish and Game and the Mule Deer Foundation, Sacramento.

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Zielinski, W. L. and T. E. Kucera (eds.). 1995. American marten, fisher, lynx, and wolverine: survey methods for their detection. USDA For. Serv. Gen. Tech. Rep. PSW-GTR-157.

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wolverine: survey methods for their detection. USDA For. Serv. Gen. Tech. Rep. PSW-GTR-157.
Kucera, T. E. 1995. Recent photograph of a Sierra Nevada red fox. California Fish and Game 81:43-44.
Kucera, T. E. and R. H. Barrett. 1995. California wildlife faces an uncertain future. California Agriculture 49(6):23-27.
Kucera, T. E. and W. L. Zielinski. 1995. The case of forest carnivores: small packages, big worries. Endangered Species Update 12(3):1-7.
Kucera, T. E. and R. H. Barrett. 1995. The Trailmaster camera system for detecting wildlife: response. Wildlife Society Bulletin 23:110-113.
Kucera, T. E. and R. H. Barrett. 1993. The use of the Trailmaster camera system to detect wildlife. Wildlife Society Bulletin 21:505-508.
Kucera, T. E. and R. H. Barrett. 1993. The California Cooperative Wolverine Survey. Transactions of the Western Section of the Wildlife Society 29:49-53.
Kucera, T. E. 1993. Seldom-seen carnivores of the Sierra Nevada. Outdoor California 54(6): 1-3.
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Kucera, T. E. 1992. Influences of sex and weather on migration of mule deer in California. Great Basin Naturalist 52:122-130.
Kucera, T. E. 1991. Genetic variability in tule elk. California Fish and Game 77:70-78.
Kucera, T. E. 1991. Adaptive variation in sex ratios of offspring in nutritionally stressed mule deer. Journal of Mammalogy 72:745-749.
Kucera, T. E. 1991. Effects of an antlerless hunt on reproductive output of migratory mule deer. Applied Animal Behavior Science 29:508 (abstract only).
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Guenther, K. and T. E. Kucera. 1978. Wildlife of the Pacific Northwest: Occurrence and Distribution by Habitat, BLM District and National Forest. USDA Forest Service Region 6 Special Publication No. 6. Portland OR.

Presentations at scientific meetings

The Wildlife Society, September 2001. Organized and moderated a special symposium Remote Photography in Wildlife Research and Management at the national meeting in Reno, NV.
Kucera, T. E., N. Gates, and M. Fallon-McNight. 1999. Tule elk at Point Reyes National Seashore: Return of a native. Society for Ecological Restoration, San Francisco, CA, September, 1999.
Kucera, T. E. 1997. Structural characteristics of rest sites of American martens in managed east-side forests. Western Section of The Wildlife Society Annual Meeting, San Diego, CA, 8 February.
Fallon-McKnight, M. and T. E. Kucera. Habitat similarities between American martens and northern goshawks in the eastern Sierra Nevada. Western Section of The Wildlife

Society Annual Meeting, San Diego, CA, 8 February 1997.

Kucera, T. E. 1996. Relationships between fecal chemicals and population parameters in mule deer. Presented at the Western Section of The Wildlife Society Annual Meeting, Sparks, NV, 3 February.

Kucera, T. E. and R. H. Barrett. 1995. Effects of biomass thinning on wildlife habitat in forests of northern California. Paper presented at The Wildlife Society 2nd Annual Conference, Portland, OR, 13 September.

Kucera, T. E. and W. L. Zielinski. 1995. Survey methods for the detection of lynx, wolverine, fisher, and marten. Paper presented at the Western Section of The Wildlife Society Annual Conference, Santa Rosa, CA, 24 January.

Kucera, T. E. and W. L. Zielinski. 1995. The current distribution of American martens in California. Paper presented at the Western Section of The Wildlife Society Annual Conference, Santa Rosa, CA, 24 January

Zielinski, W. L. and T. E. Kucera. 1995. The current distribution of fishers in California. Paper presented at the Western Section of The Wildlife Society Annual Conference, Santa Rosa, CA, 24 January.

Memberships

The Wildlife Society, The American Society of Mammalogists, The Society for Conservation Biology, the American Association for the Advancement of Science.

Certification Certified Wildlife Biologist

Foreign languages Spanish

Other activities

Have federal Endangered Species Permit and state Memorandum of Understanding for livetrapping the endangered salt marsh harvest mouse (Reithrodontomys raviventris), San Joaquin kangaroo rats (Dipodomys nitratoides), and State MOU to live trap Mohave ground squirrels (Spermophilus mojavensis) and American martens. Conducted workshops on detection of forest carnivores for the USDA Forest Service Region 1 (Kalispell MT) and Region 6 (Portland OR), and for the University of California Cooperative Extension (Riverside CA); member of the Monitoring Committee of the Interagency Forest Carnivore Working Group; served on expert panels evaluating consequences of forest-management options on wildlife in the Pacific Northwest and the Sierra Nevada for the USDA Forest Service; reviewed manuscripts for The Journal of Wildlife Management, Ecological Monographs, Conservation Biology, Mammalian Species, and the Wildlife Society Bulletin; consulted to the California Academy of Sciences on their permanent exhibit "Wild California"; provided photographs and reviewed text for Life on the Edge, A Guide to California's Endangered Natural Resources: Wildlife published by Biosystems Books.

References

Prof. Reginald H. Barrett (510-642-7261)
ESPM, 151 Hilgard Hall
University of California

Dr. Peter Gogan (406-994-6989)
USGS-BRD
Montana State University

Berkeley CA 94720-3110

Prof. Dale McCullough (510-642-8462)
ESPM, 151 Hilgard Hall
University of California
Berkeley CA 94720-3110

Bozeman MT 59715-5065

Dr. Patrick Kelly (559-453-1103)
Endangered Species Recovery Program
1900 N. Gateway Ave.
Fresno CA 93727

Sonoma County General Plan 2020

Amended August 9, 2016

Open Space and Resource Conservation Element, Section 3: Biotic Resources

GOALS, OBJECTIVES, AND POLICIES

* Mitigating Policy

GOAL OSRC-7:	**Protect and enhance the County's natural habitats and diverse plant and animal communities.**
Objective OSRC-7.1:	Identify and protect native vegetation and wildlife, particularly occurrences of special status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity.
Objective OSRC-7.2:	Designate important Biotic Habitat Areas and update designations periodically using credible data sources.
Objective OSRC-7.3:	Establish development guidelines to protect designated Biotic Habitat Areas and assure that the quality of these natural resources is maintained.
Objective OSRC-7.4:	Where appropriate, support regulatory efforts by other agencies to protect biotic habitat.
Objective OSRC-7.5:	Maintain connectivity between natural habitat areas.
Objective OSRC-7.6:	Establish standards and programs to protect native trees and plant communities.
Objective OSRC-7.7:	Support use of native plant species and removal of invasive exotic species.
Objective OSRC-7.8:	Encourage voluntary efforts to restore and enhance biotic habitat.
Objective OSRC-7.9:	Preserve and restore the Laguna de Santa Rosa, San Pablo Bay and Petaluma marshes and other major marshes and wetlands.
Objective OSRC-7.10:	Promote production of native marine and shoreline plant and animal habitats along the Pacific Coast and San Pablo Bay shorelines.

Policy OSRC-7a: Designate as Biotic Habitat Areas in the Open Space and Resource Conservation Element the known locations shown on Figures OSRC-5a through OSRC 5i and identified as Special Status Species Habitat, Marshes and Wetlands, Sensitive Natural Communities, and Habitat Connectivity Corridors.*

Policy OSRC-7b: Rezone to the Biotic Resources combining district all lands designated as Biotic Habitat Areas. Prepare and adopt an ordinance that provides for protection of designated Biotic Habitat Areas in conformance with the following principles. Until the ordinance is adopted, require that land use and development in designated areas comply with these principles:

(1) For discretionary projects, notify applicants of protected habitats and species and possible requirements of Federal and State regulatory agencies, request identification of known protected habitats and species, and:

(a) In designated Biotic Habitat Areas, require site assessment and adequate mitigation. The priorities

for adequate mitigation are, in order of highest to lowest priority:
• Avoid the habitat.
• Mitigate on site to achieve no net loss.
• Mitigate off site to achieve no net loss.
• Create replacement habitat off site to achieve no net loss.
To the extent feasible, the mitigation required by the County should be consistent with permit requirements of Federal and State regulatory agencies.
(b) In designated Marshes and Wetlands, require a setback of 100 feet from the delineated edges of wetlands. The setback may be reduced based upon site assessment and appropriate mitigation.
(c) In designated Habitat Connectivity Corridors, encourage property owners to consult with CDFG, install wildlife friendly fencing, and provide for roadway undercrossings and oversized culverts and bridges to allow movement of terrestrial wildlife.
(d) The acreage required for adequate mitigation and replacement habitat shall be at least two times the acreage affected unless a lower level is acceptable to the applicable State and Federal agencies, with the amount depending on the habitat affected and the applicable mitigation priority value.
(2) For discretionary projects in all designated Biotic Habitat Areas, send referrals to appropriate regulatory agencies and, where such agencies' comments or other agency information indicates biotic resources could be adversely affected, require site assessment, compliance with agency requirements and adequate mitigation pursuant to the priorities in (1) (a).*
Policy OSRC-7c: Notify discretionary and ministerial permit applicants of possible requirements of Federal and State regulatory agencies related to jurisdictional wetlands or special status species.*
Policy OSRC-7d: In all areas outside Urban Service Areas, encourage property owners to utilize wildlife friendly fencing and to minimize the use of outdoor lighting that could disrupt native wildlife movement activity.*
Policy OSRC-7e: In coordination with resource agencies, landowners and affected public, review Biotic Habitat Area designations and related policy issues periodically, but at least every five years. If warranted, develop recommendations for additional policies that may be needed to ensure appropriate protection of biotic resources. Include consideration of methods to identify and monitor cumulative habitat loss and establish thresholds to protect sensitive resources.*
Policy OSRC-7f: Support acquisition of conservation easements or fee title by the Sonoma County Agricultural Preservation and Open Space District (SCAPOSD) of designated Biotic Habitat Areas.*
Policy OSRC-7g: Where additional Biotic Habitat Areas are designated in Area Plans, revise such plans and guidelines as needed to provide protection of biotic resources equivalent or better than the protection provided by the General Plan.
Policy OSRC-7h: In coordination with resource agencies, landowners and affected public, conduct a comprehensive study of the cumulative impacts of habitat fragmentation and connectivity loss and the effects of exclusionary fencing on wildlife movement. If warranted, identify essential habitat connectivity corridors and develop recommendations for policies to protect essential habitat corridors and linkages and to restore and improve opportunities for native plant and animal dispersal.*
Policy OSRC-7i: Conduct a comprehensive habitat identification and mapping program for use in future policy determinations.*
Policy OSRC-7j: Establish a clearinghouse of information for public use related to biotic habitat protection and management and work toward making this information available by computer.
Policy OSRC-7k: Require the identification, preservation and protection of native trees and woodlands in the design of discretionary projects, and, to the maximum extent practicable, minimize the removal of native trees and fragmentation of woodlands, require any trees removed to be replaced, preferably on the site, and provide permanent protection of other existing woodlands where replacement planting does not provide adequate mitigation.

Policy OSRC-7l: Identify important oak woodlands, assess current protection, identify options to provide greater protection of oak woodlands and their role in connectivity, water quality and scenic resources, and develop recommendations for regulatory protection and voluntary programs to protect and enhance oak woodlands through education, technical assistance, easements and incentives.*
Policy OSRC-7m: Designate important valley oak habitat areas, reevaluate current designations, and apply a Valley Oak Habitat combining district zoning that requires adequate mitigation for trees removed and monitoring of replacement tree survival.*
Policy OSRC-7n: Encourage landowners to voluntarily participate in a program that protects officially designated individual trees or groves that either have historical interest or significance or have outstanding size, age, rarity, shape or location.*
Policy OSRC-7o: Encourage the use of native plant species in landscaping. For discretionary projects, require the use of native or compatible non-native species for landscaping where consistent with fire safety. Prohibit the use of invasive exotic species.*
Policy OSRC-7p: Support voluntary programs for habitat restoration and enhancement, hazardous fuel management, removal and control of invasive exotics, native plant revegetation, treatment of woodlands affected by Sudden Oak Death, use of fencerows and hedgerows, and management of biotic habitat.*
Policy OSRC-7q: Participate in the development of a conservation strategy to preserve, restore and enhance the unique vernal pool habitat of the Santa Rosa Plain and protect the associated special-status species. Seek ways to minimize the adverse effects of irrigation on valley oaks and vernal pool habitat.*
Policy OSRC-7r: Develop comprehensive programs for preservation and restoration of the freshwater marsh habitat of the Laguna de Santa Rosa area, the extensive marsh areas along the Petaluma River, other tidal marshes, and freshwater marshes such as the Pitkin, Kenwood, Cunningham, and Atascadero Marshes. Include mechanisms for preservation and enhancement such as land acquisition, zoning restrictions, public and private conservation easements, regulating filling, grading or construction, floodwater retention, and wetland restoration.*
Policy OSRC-7s: Develop comprehensive programs for preservation and restoration of the San Pablo Bay area and shoreline habitats, including mechanisms for preservation and enhancement such as acquisition, zoning and easements and avoiding activities such as filling, grading or construction that would be detrimental to the biotic resources or historic water retention functions.*
Policy OSRC-7t: Continue to actively participate in the FishNet4C program and work cooperatively with participating agencies to implement recommendations to improve and restore aquatic habitat for listed anadromous fish species and other fishery resources.*
Policy OSRC-7u: Identify and consider designation of old growth Redwood and Douglas Fir as sensitive natural communities. Encourage preservation and public acquisition of remaining old growth Redwood and Douglas Fir forests in private ownership with the County. Because of their rarity and biological importance, these sensitive natural community types should be made priorities for protection through conservation easements, fee title purchase, or other mechanisms.*

City of Petaluma General Plan 2025

Published May 2008 and Revised January 11, 2012

Chapter 4: The Natural Environment

Goals, Policies, and Programs

Goal 4-G-1: Biology and Natural Resources. Protect and enhance biological and natural resources within the UGB.

4-P-1 *(Policy regarding the Petaluma River and its tributaries – not relevant, removed.)*

4-P-2 Conserve wildlife ecosystems and sensitive habitat areas in the following order of protection preference: 1) avoidance, 2) on-site mitigation, and 3) off-site mitigation.

A. Utilize Technical Memorandum 3: Biological Resources Review as a baseline document, expanding to address project specific impacts.

4-P-3 Protect special status species and supporting habitats within Petaluma, including species that are State or Federal listed as endangered, threatened, or rare.

A. As part of the development review process, site-specific biological resource assessments may be required to consider the impacts on riparian and aquatic resources and the habitats they provide for invertebrates, fish, amphibians, reptiles, birds, mammals, and plants. If development is located outside these ecologically sensitive regions, no site-specific assessment of biological resources may be necessary. Appropriate mitigation measures to reduce impacts to sensitive habitats and special status species shall be imposed on a project-by-project basis according to Petaluma's environmental review process.

B. Permit mitigation banking as a conditional use in all land use designations along the Petaluma River and its tributaries.

Goal 4-G-2: Biology and Natural Resources. Promote resource protection within the Petaluma Watershed to conserve grassland habitats, oak woodlands, and other natural resources that are found in areas between the UGB and the Planning Area Boundary,

4-P-4 Continue to support rural land use designations and Agricultural Best Management Practices within the Sonoma County General Plan.

A. Coordinate with Sonoma County's Agricultural Preservation and Open Space District, Permit and Resource Management Department, and Water Agency to protect riparian corridors and critical biological habitats as well as to reduce cumulative impacts on sensitive watershed areas outside of the city limits.

B. Work with County, State and federal agencies to ensure that development within the Planning Referral Area does not substantially affect State or federally listed rare, endangered, or threatened species or their habitats. Require assessments of biological resources prior to approval of any development in or within 300 feet of ecologically sensitive areas.

4-P-5 Support wetland mitigation and oak woodlands restoration in the unincorporated areas outside the UGB.

West Petaluma Area Plan

Adopted August 11, 1981 and Modified September 23, 2008

Major Policies
(2) Insure that impacts are mitigated before approving subdivisions or rezonings which increase residential densities, especially those within proximity to existing agricultural operations

Constraints and Mitigation Measures: Natural Characteristics – Vegetation and Wildlife
(1) Continue to refer development proposals within the areas to the California Native Plant Society and the California Department of Fish and Game to insure regular update of knowledge relative to plants and wildlife.

THE WILDLIFE SOCIETY

Excellence in Wildlife Stewardship Through Science and Education

Ecological Impacts of Feral Cats

The domestic cat (*Felis catus*) is now found on all 7 continents, with 600 million cats worldwide and 148-188 million within the United States.[1,2] As a domestic animal, cats have no native range and are a non-native species in all environments worldwide; native prey species often have no evolved defenses against this invasive predator. Domestic cats have the potential for intense environmental alterations due to their predatory instincts and close affiliation with humans, a relationship that has led to the species' global spread and artificially large populations.

Hunting: Domestic cats are highly skilled predators, and studies have shown that even when fed daily by humans, cats continue to hunt wildlife.[3,4,5] Domestic cats have tremendous impacts on wildlife and are responsible for the extinction of numerous mammals,[6,7] reptiles,[8,9] and at least 33 bird species.[10] The BP Deepwater Horizon oil spill, widely considered to be the worst environmental disaster in the history of the United States, resulted in the deaths of over 7,000 birds: A 2009 study estimated the number of birds killed by cats *every year* in the United States at one billion, conservatively.[11] In southern California, researchers observed that native bird diversity dropped as cat abundance increased.[12] A Virginia study conducted on free-ranging cats between January and November of 1990 found that 4 urban cats killed an average of 26 native vertebrates while a single rural cat killed 83 individuals.[13] These data were conservative, accounting only for prey returned to the home and not eaten or left outside. Precise numbers of cat-caused mortalities are difficult to obtain given the secrecy with which most cats hunt, yet the abundance of scientific studies and eyewitness accounts make it clear that cats kill a large number of native wildlife.

A four month old feral kitten devours an Eastern Cottontail rabbit. Photo credit: Jake Berzon, Wikimedia.

Competition with Wildlife: Predation by domestic cats is an obvious threat to wildlife, but competition with wildlife species is less direct and often overlooked. Feral and free-ranging cats compete with native mesopredators like skunks, opossums, raccoons, and foxes for prey. Unfortunately for these and other native species, the domestic cat has an overwhelming competitive advantage because humans subsidize their populations by supplying food, water, and shelter, allowing cat populations to reach densities 100 times higher than those of their native counterparts. [14]

Disease Transmission: Diseases in feral and free-ranging cats can be transmitted to wildlife, decreasing their fitness or causing death. [15,16] Cats are natural vectors for rabies and can host a variety of other diseases and parasites including toxoplasmosis, hookworms, feline immunodeficiency virus, and feline infectious peritonitis. Since greater density of

individuals means a greater likelihood of disease transmission, feral cat colonies may serve as a reservoir for disease, threatening the health of cats and local wildlife.

The introduction of domestic cats to environments worldwide has caused a reduction in biodiversity and altered ecosystem functions. Domestic cats are non-native species that, when allowed to roam freely outside of the home, have severe and varied negative impacts on native ecosystems.

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[1] O'Brien S.J. and Johnson W.E. 2007. The evolution of cats. *Scientific American* 297: 68-75.

[2] Dauphine N. and Cooper R.J. 2009. Impacts of free-ranging domestic cats (*Felis catus*) on birds in the United States: a review of recent research with conservation and management recommendations. *Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics*, p 205-219.

[3] Warner R. 1985. Demography and movements of free-ranging cats in rural Illinois. *Journal of Wildlife Management* 49: 340-346.

[4] Churcher P.B. and Lawton J.H. 1987. Predation by domestic cats in an English village. *Journal of Zoology* 212: 439-455.

[5] Churcher P.B. and Lawton J.H. 1989. Beware of well-fed felines. *Natural History Magazine* 95: 40-46.

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