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Applicant’s Response to Public Comments

Truchard Family Winery P14-00330-UP & P14-00331-VAR
Planning Commission Hearing Date September 20, 2017

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June 26, 2017

Via Hand Delivery

Chairwoman Jeri Gill
Napa County Planning Commission
1195 Third Street
Napa, CA 94559

Re: Truchard Family Winery Use Permit (P14-00330): response to comments by Davidon Homes

Dear Chairwoman Gill and Members of the Commission:

On May 2, 2017, the day before the Use Permit for the Truchard Winery Project ("Project") was last set for hearing, Davidon Homes and its attorneys ("Davidon") filed objections to the Project, making a number of claims that are responded to below. This Commission should understand the historical context of Davidon's last minute filing as it evaluates the credibility and validity of these claims.

Davidon is a builder that owns parcels in the City of Napa known as "Napa Oaks." Napa Oaks is one of the few remaining pristine hillsides within the City. Davidon has attempted on two previous occasions to obtain permission to remove numerous oak trees from the hill and build 53 homes, which attempts met with significant opposition in the City. The City rejected their proposals on both occasions. Davidon appealed one of the denials to the Napa Superior Court and lost. Davidon is once again attempting to obtain permission from the City to remove the oak trees and build those homes, and not surprisingly, their latest attempt is again attracting significant opposition as it goes through the review process. This history is significant for the Truchard Winery Project because on June 10, 2016 the Truchard family, through this office, filed a detailed objection to the Davidon Napa Oaks Project, identifying a number of deficiencies in the Draft EIR. (Attached as Exhibit A).

A few days prior to the scheduled Truchard hearing on May 3rd, and prior to the last-minute Davidon objection, an executive of Davidon Homes reached out to the Truchards. He asked to meet to discuss the Truchards' environmental report. He represented that it would be in Truchard's "best interest" to meet and hear what they had to say about the Truchard environmental report because otherwise it would ostensibly cost them (the Truchards) a tremendous amount of time and money. Anthony Truchard told the Davidon executive that he would be glad to hear Davidon's concerns (by phone or email) but could not meet in person, due

to time constraints. Anthony also made it clear that the Truchards were not interested in cutting a back-room deal with Davidon Homes and that each project should stand or fall on its own merits. The meeting did not take place after that statement. One could conclude that this was an unsuccessful attempt to bully Truchard into dropping its objections to the Davidon Project and that the resulting Davidon objections represent an unsuccessful act of retaliation. Certainly there is nothing in its objection letter that legitimately prevents this Commission from granting Truchard Winery its requested use permit and variance.

In the same spirit in which the Truchards responded to Davidon, we believe that the Project stands squarely on its own merits and withstands any last-minute allegations regarding the adequacy of its CEQA documentation. Indeed, we understand that the County is preparing a Mitigated Negative Declaration for the Project, based on its determination, as outlined in the CEQA Guidelines § 15064(f)(3), that "there is no substantial evidence that the project may have a significant effect on the environment." As will be seen, there is simply no substantial or credible evidence of any significant environmental effect.

If an agency is presented with a "fair argument" that a project may have a significant effect, it must prepare an EIR. However, the "fair argument" standard is not a legal ninepin, to be knocked down at the slightest touch. Rather, the agency must find "substantial evidence, " of the environmental impact. "Under CEQA…substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." It does not include'[a]rgument, speculation, unsubstantiated opinion or narrative, [or] evidence which is clearly erroneous or inaccurate.'"[1] In the absence of evidence to the contrary, the Commission may accept the determination of the County in its Initial Study that the Project has no potentially significant environmental effects. The Courts have held that "[t]he lead agency [must be given] the benefit of the doubt on any legitimate, disputed issues of credibility." Although Davidon Homes presents copious rhetoric, we believe there is no competent or credible evidence to support their allegations.

In the following sections, we will address each of the Davidon allegations in turn. As you will see, our responses are also based on new information and a robust biological resources report which address some of these areas.

Aesthetics

Davidon makes two allegations with regard to aesthetics:

1. That the Project is not screened from Old Sonoma Road and yet the County analysis notes "that the Project 'will have minimal visual impact from the road" because it is set at a lower elevation and screened by natural vegetation,'" and

2. That the project would be visible from Davidon's property when the homes are built and they install walking paths.

[1] CEQA Guidelines § 15064(f)(5); *Joshua Tree Downtown Business Alliance v. County of San Bernardino* (2016) 1 Cal.App.5th 677, 690.

We are reminded of a very old saying in evaluating these claims: a picture is worth a thousand words. Attached are actual photos and renditions of the proposed winery Project versus what is currently on the property. (Exhibits B1–B9) All of the photos and renditions make clear that, contrary to the assertion by Davidon, the Project is hidden from Old Sonoma Road by vegetation and the design is not only in keeping with the aesthetics for the area but certainly an improvement in scenic vista from what currently exists.

Davidon makes the remarkable claim that Camera View 01 of the architectural renditions demonstrates that the Project "would not be screened at all" from Old Sonoma Road. The truth is that the Project is, in fact, screened from the roadway. View 01, which is attached as Exhibit B1 was taken from the hillside above Old Sonoma Road, within Truchard family vineyard on an uphill grade---not from the roadway! An actual photo from an SUV near the same location on the south side of Old Sonoma Road looking toward the Project area is attached as Exhibit B2. As is clear, the Project would be screened from that portion of the roadway. Davidon also fails to mention View 02 (Exhibit B3) of the renditions, which is a photo taken from the western side of Old Sonoma Road looking into the Truchard property towards the area of the Project. That rendition, in addition to Exhibits B4-B7, demonstrates that the Project could not be seen by anyone driving on Old Sonoma Road in a westerly direction. And even if the Project were visible from the roadway, it would be a visually beautiful structure and consistent with Agricultural land use in Napa County as demonstrated by the other renditions in the possession of the Commission.

Davidon then implies that the Project would spoil the views of future residents of its unapproved Napa Oaks Project, which would sit on a hill above and bordering Truchard vineyards, as Davidon plans on building walking paths on its property. The photos attached as Exhibit B8-9 were taken from the top of the Truchards' property bordering the Davidon Project, looking west and southwest downhill about ¼ mile. The photos demonstrate that the vista from that perspective (representing a Davidon project resident view) would be improved by the Truchard Project. Furthermore, the notion that imaginary occupiers of a future housing tract of 53 homes that do not yet exist would be offended by a view of the winery is completely speculative. No competent testimony from those "residents" is being presented. As stated above, " fair argument" does not include'[a]rgument, speculation, unsubstantiated opinion or narrative, [or] evidence which is clearly erroneous or inaccurate.'"

Finally, taking the County's analysis of the lack of any aesthetic impacts together with the architect's comprehensive presentation regarding the visual effect of the Project, the Commission has ample evidence to determine that the Initial Study is correct in concluding there is no evidence of any negative aesthetic impact.

Air Quality and Greenhouse Gas

With regard to air quality, Davidon Homes presents a somewhat academic argument regarding whether the 1999 or 2010 air quality standards apply in light of a court ruling that cast doubt on the overall validity of the 2010 standards. Where available, the significance criteria established by the applicable air district (in this case, BAAQMD) may be relied upon to

determine whether a project would have a significant effect on the environment. Since the writing of the Davidon comment letter, BAAQMD has reissued updated thresholds in response to the California Supreme Court's 2015 opinion in *Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist.*, 62 Cal.4th 369.

Importantly, Davidon Homes has not presented any evidence – much less substantial evidence – to show that the Project exceeds the threshold of significance. In the absence of any evidence to countermand the County's analysis that there is a less than significant impact, there is no basis for a finding adverse to the County. Furthermore, we modeled the project's construction and operational air pollutants using the current BAAQMD standards (See CalEEMod Report attached as Exhibit C) and as modeled the project is well below the screening criteria as displayed below.

With regard to greenhouse gas impacts, Davidon Homes alleges that the County is using erroneous screening criteria. Wineries do not easily fit into BAAQMD thresholds, and in fact the impacts of wineries are generally less than either restaurants or industrial uses. By way of example, restaurants are generally open without regard to the total number of visitors or hours of operation; similarly, industrial uses generally do not place limits on the amount of activity. For this reason, the air quality model specifically modeled the tasting room as if it were a high quality restaurant (2,200 square feet), the administrative functions as if they were in a general office building (4,600 square feet), and the winery production area as it were manufacturing (16,110 square feet). We believe this is very conservative, yet even on a conservative model, there are no associated impacts of significance.

BAAQMD Air Quality thresholds of significance compared to the Project Air Quality Model

Pollutant	Construction-related average daily emissions	Operational – related	As modeled – Construction Related	As modeled – Operational Related
ROG	54 lbs/day	10 tons/yr.	0.604 tons/year or 3.309589 lbs/day	0.1699 tons/yr.
NOx	54 lbs./day	10 tons/yr.	1.0138 tons/yr. or 6.03495894 lbs./day	.4150 tons/yr.

PM10	82 lbs./day (exhaust)	15 tons/yr.	0.0577 tons/yr. or 0.316164384 lbs/day	5.8600 tons/yr.
PM2.5	54 lbs./day (exhaust)	10 tons/yrs.	0.0534 tons/yr. or 0.29260274 lbs./day	5.7 tons/yr.
Green House Gas	None	1,100 MT of CO2e/yr.	n/a	354 MT of Co2e/yr.

Finally, two points should be made: the Project incorporates voluntary greenhouse gas reduction methods; and the current draft County climate action plan determined that the greenhouse gas emissions inventory for the County results primarily from vehicle travel on Highway 29 and the Trail, which this Project does not affect.

Hydrology

We note simply that the Project proposes to use water from the Congress Valley Water District, not groundwater. It should be noted that Congress Valley Water District has extended its contract for an additional five years. The groundwater analysis is presented purely as an alternative, should the Congress Valley water become unavailable. With regard to the groundwater analysis, it is consistent with the County's administrative practice and adequately demonstrates that the water use is within established guidelines. We are confident in the County's assessment that there are no hydrologic impacts.

Biological Resources

The lengthiest aspect of the Davidon Homes comment letter addresses the biological resources analysis contained in the earlier Negative Declaration. However, before addressing these allegations, we will summarize the results of the comprehensive biological reports attached hereto as Exhibit D and E.

As reflected in its June 21, 2017 report, WRA conducted surveys or reviews (as appropriate) of the Project area (including places where the tasting room, access drive and replacement bridge will be constructed for the Project) for the presence of protected or sensitive wildlife or plant species. In brief, the report concludes that no wildlife or plant species were

observed during the surveys and that none of the wildlife species reviewed have a high to moderate potential to occur.

In its comment letters, Davidon claimed that the Western pond turtle was present because turtles in unidentifed ponds on the Truchard property were supposedly sighted through a binocular observation in 2011 from a distance of one-quarter mile. The ponds in question are not identified, nor is it identified where on the Davidon Homes property the consultant was situated at the time of this supposed viewing. Western pond turtles grow to a size of no more than 8" in length, so it strains credulity that they could be viewed from a distance of a quarter of a mile or more, even with binoculars. To put this in perspective, we are talking about the ability to view an 8" turtle in a pond surrounded by vegetation from a distance of 8 football fields or more. Tony Truchard, one of the owners of the Project property and the adjacent lands, states that he has in fact seen turtles (although he does not know what kind of turtles they were) in the pond closest to the Davidon Home property in the past. However, he has never – in over 40 years of farming -- seen any turtles in the pond closest to the Project site. All of the intervening land is planted to vineyard, as is the Project site. Vineyard, which is routinely farmed with tractors and other heavy equipment, is unsuitable habitat for pond turtles for the same reasons articulated by Davidon Homes in their concerns about construction traffic: pond turtles do not live in areas driven over by heavy vehicles.

Nonetheless, WRA was asked to survey the Project area to determine whether the Western pond turtle was present. As you can see in the Report, WRA did not detect any Western pond turtles in the irrigation pond, any potential basking habitat or in the unnamed tributary where the replacement bridge will go. Moreover, since the tributary is intermittent, dries by early summer and does not have basking habitat, no such turtles would be expected to be present.

The Davidon comment letters also speculated that the California giant salamander and pallid bat are also present, based on their reading of a chart showing the species potentially existing in areas in the general area of the Project. WRA was also asked to determine whether either of these species was present. With regard to this salamander, WRA did not observe any during its site visit and concluded that the tributary does not provide habitat to support the species and it is not likely to occur. Similarly, for the pallid bat, the existing bridge does not provide potential habitat and no bats were observed. Although these bats can utilize cavities in large oaks, no such oaks will be removed as part of the Project and no bat roosting in any trees was observed.

The WRA report examines a wide array of other sensitive species and explains why none of them were observed to be present, are expected to be present or would be affected by the Project. Thus, there is simply no evidence to support a finding of any environmental impact upon biological resources associated with the Project.

Cultural Resources

There is simply no evidence whatsoever that the bridge is a cultural resource. Naomi Miroglio, a principal at Architectural Resources Group in San Francisco and a qualified

architectural historian, has stated that the bridge does not appear to be old enough to qualify as a historic resource because it appears less than 50 years old. In addition, independent of its age, she pointed out that the bridge would not qualify as a historic resource unless it met the eligibility requirements of the California Register of Historic Resources. She opines that if the entire property has not been determined to be eligible as a historic site (which it has not), it does not appear that the bridge would meet the criteria to be individually eligible.[2]

Variance

The staff report and application materials amply address the required findings for the variance, so no reiteration is required here. We would, however, like to address the main comment made in opposition to the granting of a variance by Davidon: the Truchards own every parcel that adjoins the parcel where the new winery would be built and thus the applicant could simply do a lot line adjust or merge parcels to create a new winery site.

First, Section 18.128.50 of the Napa County Code refers to "other properties in the vicinity and zoning district" and thus whether or not the Truchards own the parcel next to the Project parcel is irrelevant. The question is whether or not the denial of a variance would result in the Truchards losing the "enjoyment of substantial property rights generally enjoyed by **other property in the same zone or vicinity**." (Emphasis Added). The Planning Department has correctly assessed that they would because other properties in the area would not encounter the same difficulty as the Truchards' with regard to setback. However, even the basic premise of Davidon is incorrect, i.e, that the Truchards own every parcel adjoining the Project site. In fact, the properties are not in common ownership, because Anthony Truchard II owns a portion of the Project parcel as a tenant in common, but he does not have an ownership interest in the adjacent property; the family has its own estate planning considerations with regard to the disposition of its lands, and it has determined that the Project parcel in its current configuration should belong in part to Anthony.

Second, even assuming it were possible or desirable to reconfigure the property, the Truchards' oldest vines are located on the adjacent parcel, and any development on that site would involve the loss of a significant and valuable agricultural resource; this presents an additional reason to support the variance.

Third, the adjacent property has third-party financing and a deed of trust, whereas the Project parcel does not; it is important to the family that the Project parcel remains free of debt because it will require separate construction financing to build the winery.

Fourth, we are aware of no precedent where the County has ever *required* an applicant for a variance to obtain a lot line adjustment in lieu of granting the variance.

Finally, and perhaps most significant, we continue to believe that the Project does not require a variance because we do not believe the Old Sonoma Road is subject to the 600' setback

[2] Naomi Miroglio, personal communication, 5/2/2017.

requirement since it is defined as a "collector" road in the General Plan and does not meet the definition of an "arterial" road in the Road and Street Standards. Furthermore, it was not included as one of the roads subject to the 600' setback in the environmental review deliberations at the time of the adoption of the WDO. Indeed, we entered into lengthy discussions with the County on this issue but were unable to obtain their agreement with our position. Ultimately, as a matter of accommodation to County staff, we agreed to submit for the variance. However, it should be noted that, should the Commission not wish to grant a variance, it has discretion to determine that the Old Sonoma Road is subject to a 300' variance because it is not an arterial road.

Conclusion

This is a thoughtfully designed, well presented winery proposal put forward by a family with a long established reputation as stewards of the land and upstanding citizens whose integrity is unimpeached. We would ask you to put aside the allegations resulting from a one-sided neighbor feud and approve the Project on its merits, as the worthy application it is.

Kind regards,

Katherine Philippakis

Katherine Philippakis

KAP/:rj
Attachments

EXHIBIT A

FARELLA
BRAUN+MARTEL LLP

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June 10, 2016

Via Hand-Delivery and E-Mail (mallen@cityofnapa.org)

Mike Allen
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Re: **Comments on Draft Environmental Impact Report (DEIR) for the Napa Oaks II Draft Environmental Impact Report (State Clearinghouse Number 2012082093; City File Number PL11-0024)**

Dear Mr. Allen:

On behalf of Truchard family (the "Truchards"), we submit these comments to the City of Napa ("City") in response to the Draft Environmental Impact Report ("DEIR") for the Napa Oaks II subdivision ("Project") proposed by applicant, Davidon Homes ("Project Sponsor"). The Truchards are understandably dismayed both by the proposed Project and by the inadequacy of its environmental review.

The Truchards actively farm 160 acres immediately to the south and west of the Project; they share approximately 3,000 linear feet of fence line; they own the water rights on the Project property; and they have an unobstructed view of the west face of the scenic hillside. For these reasons, they are among those who will be most impacted by the Project.

The history of the property in question is relevant to an understanding of the Project and its impacts on surrounding properties. Two previous proposals to develop this hillside were rejected due to the incompatibility of the proposed use with the terrain and with surrounding existing uses. In fact, the unsuitability of the Project site for intensive development was the primary reason it was re-designated in the most recent General Plan update to a more compatible Land Use designation – Resource Area. This revision recognized the importance of providing a buffer between the adjacent agricultural operations and the nearby dense urban housing neighborhood. It also worked to protect an important scenic vista visible from multiple vantage spots within the City of Napa – one which will undoubtedly be compromised when nearly 250,000 cubic yards of dirt movement occurs on the site.

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Now the protections previously put into place by the General Plan are in jeopardy as the City once more faces a request for the development of the site in a way that is inappropriate to the area's environmental sensitivities. The Truchards raised their concerns with the foreseeable environmental impacts of the development in their November 23, 2012, comment letter in response to the Notice of Preparation ("NOP") for the Project, and these concerns remain valid and unanswered. Among their concerns is the effect of the Project on the scenic vista: in addition to the massive grading associated with the Project, the development will quintuple the density of the site from 11 to 53 units and scatter structures and non-native landscaping over the hillside. By contrast, the existing zoning is proportionate both to the site's topography and to the intensity of use on neighboring parcels. Further damage to the scenic vista will be caused by the construction of an unsightly man-made drainage pond and by the removal of 71% of the existing trees on the site (571 trees).

In addition to our clients' concerns with the intensity of the Project and its suitability to this site, the Truchards also have serious concerns about the actual and potential significant impacts the Project will have on the health and safety of the neighborhood and Napa community as a whole. The DEIR fails to analyze these impacts adequately or to mitigate them appropriately. By way of example, the alternatives analysis in the DEIR is inadequate because it fails to depict or analyze how the proposed alternatives (such as developing within existing allowed zoning density) would lessen the Project's significant impacts, including impacts to the treasured scenic hillside vista. Similarly, the DEIR fails to analyze the viability of the Project – a project that is located directly above an active earthquake fault, has no secondary egress (requiring occupants to "shelter in place" during a wildfire), and has an ambiguous construction schedule, calling into doubt when – or if – the Project will ever be completed. Additionally, there is important information missing from the analysis of the Project: what constraints might be placed on the viability of any mitigation measures by the property's proposed homeowner's association and CC&Rs? What economic benefits to the City does the Project provide and, in the absence of a development agreement, are such benefits (assuming they exist) achievable? What potential liabilities to the City are created by the Project? Without a full picture of the costs and benefits of the Project, the City is not in a position to make an informed decision on the Project.

CEQA requires the City to carefully describe, analyze and evaluate the full breadth of environmental health and safety risks arising from the Project. As currently drafted, the DEIR is inadequate and fails to disclose and analyze those safety hazards and environmental impacts, to properly mitigate them, or to analyze any Project alternative in sufficient detail to assess whether it significantly reduces the Project impacts.

A. BACKGROUND RE THE TRUCHARDS' INTEREST IN THE PROJECT.

Tony and Jo Ann Truchard planted vines on their property beginning in 1973. They were among the first farmers to plant vineyards in the Carneros region and one of the pioneers of the soon-to-be Carneros AVA. It is critical to understand that, unlike many other areas of Napa County, there is very little groundwater available in the Carneros because of the shallow clay soil (which restricts groundwater infiltration) and the salt water influence from nearby San Francisco Bay. Given the relative unavailability of groundwater, it is essential for vineyards in the area to utilize surface water diversion and sheet flow from upgradient land into reservoirs to provide the necessary water.

Truchard Vineyards became a leader with regard to this approach in the Carneros region. It used the clay soils to create a network of reservoirs for capturing rainfall sheet flow from the surrounding hills and adopted drip irrigation techniques to minimize the amount of water used. The Truchards also applied for and were granted a series of surface water rights permits from the State Water Resources Control Board ("State Board"), which are some of the oldest and most valuable water rights in the Carneros region. These permits authorize them to divert water from Raynes Creek and other watercourses located immediately downgradient from the Project location and also to collect and use water that comes from the Project area into their reservoirs. Many of these permits only allow the collection of water during very limited time periods and for certain uses, so any interference with the timing, amount and pattern of the flow could appreciably diminish the water available to Truchard Vineyards and thereby severely and adversely interfere its water rights and affect the success of its vineyard business.

B. THE DEIR FAILS TO ADEQUATELY ASSESS ALL POTENTIAL SIGNIFICANT IMPACTS, FAILS TO IDENTIFY REALISTIC ALTERNATIVES AND CREDIBLE MITIGATION MEASURES, AND FAILS TO DISCLOSE, ANALYZE, AND MITIGATE POTENTIALLY SIGNIFICANT LAND USE IMPACTS AND POLICY CONFLICTS.

Among other defects, the DEIR is inadequate on three general grounds:

(1) the DEIR fails to propose feasible mitigation measures;

(2) the DEIR fails to identify and analyze details for the feasibility of the alternatives identified for the Project, and

(3) the DEIR fails to properly analyze and identify significant impacts related to aesthetic impacts relating to grading and tree removal, biological resources, water and hydrology, seismic hazards, and land use, and safety impacts.

An EIR can fulfill CEQA only if it analyzes all potential significant impacts caused by a Project. *See* CEQA Guidelines §§15125(a) and §15126.2(a). Once significant impacts are identified, the DEIR must then identify mitigation measures and/or alternatives to lessen the impacts' significance or eliminate the impacts altogether. CEQA Guidelines §§ 15126.4 and 15126.6

1. **The DEIR fails to propose legitimate mitigation measures, defers specifics and feasibility of measures, and proposes mitigation measures in conflict with one another based on unsubstantiated evidence.**

For a hillside development project of this scale and magnitude, proposed on property already designated Resource Area[1] by the Napa General Plan, the mitigation measures proposed in the DEIR are weak. For instance, although Appendix G fully discloses the location of the West Napa Fault line – which runs directly through the site – the EIR identifies no significant impacts and proposes no mitigation measures related to seismic hazards. The DEIR glosses over potential significant impacts, including but not limited to environmental hazards to people and their homes from wildfires and the proximity to the fault line, as well as the aesthetic and biological degradation of the scenic hillside. As a result of these poorly described impacts, the corresponding mitigation measures are inadequate.

Although the City as lead agency has broad discretion to determine the appropriate manner to analyze the Project in order to ascertain environmental impacts, the analysis used must still be supported by substantial evidence. In other words, the DEIR cannot use a means of identifying and analyzing Project impacts and corresponding mitigation that is not documented with substantial evidence, either in the DEIR itself or a technical appendix. *See Gray v. County of Madera* 167 Cal.App.4th 1099, 1124 (2008).

The greatest concerns in this respect are the DEIR's use of unsubstantiated evidence of environmental impacts and its reliance on deferred mitigation measures, some of which are in conflict with other mitigation requirements. For instance, the EIR says that the aesthetics of the hillside development have no visual impacts, without complete analysis of the viewshed impacts. Specifically, the visual simulations do not disclose the change from oak woodlands to residential landscape, nor do they disclose the visual impact of the new roads flanked with non-native

[1] RA is a designation applied to sensitive lands inside the RUL that require special standards due to viewshed, resource, habitat, geotechnical or other considerations that further the conservation and resource protection goals of the General Plan. Limited, very low-density residential use (up to 1 home per existing parcel) is permitted, with discretionary review of the site development details. Other low intensity uses, such as rural residential (to a maximum of 1 dwelling unit per 20 acres) or agriculture, may be considered at the discretion of the City on a case by case basis. All uses will be assessed to determine if they will impact or change the underlying character or feature that is intended for preservation by the RA designation.

purple flowering trees, as well as the extensive drainage, fire, and water infrastructure proposed. Further, the conclusion that landscape screening will block the view from the scenic vista vantage points is in direct conflict with Mitigation Measure Traf-6, which requires "aggressive vegetation management in perpetuity" around structures and roadways. Vegetation that must be aggressively managed to provide fire protection cannot provide effective visual screening of the extensive development associated with the Project.

Table 2.1 lists all potential impacts as Less than Significant With Mitigation. However, some Mitigation Measures (Air-1, Culture-2 a, Culture 2-b, Geo-1, Geo-2, Hydro 2 and Hydro 3) assume that, by providing additional documentation and complying with regulatory protocols, any potential harm or damage would be reduced to insignificant. CEQA requires more than conclusory statements to justify such a conclusion.

With respect to the majority of the Mitigation Measures, the DEIR relies on the Project Sponsor providing future documentation, studies, and submittals for the City to analyze. These items, which are not disclosed in the EIR, are in essence deferred mitigation and therefore the DEIR is not disclosing or analyzing the Project's complete environmental impacts. Some examples of the deferred mitigations include the following:

Mitigation Measure Bio-2 requires the creation of an off-site oak woodland property for protection. However, this property is not identified, nor is there any description of how many acres on-site, if any, will be protected as part of this Project. Again, this is deferred mitigation requiring an indefinite future action. CEQA prohibits deferred mitigation because it is unreliable for reducing impacts to less than significant. Similarly, Traf-6 requires the implementation of a fire plan but does not explain what such a plan would look like, whether such a plan would be compatible with the Project, or whether the impact could be avoided by changes to the Project.

In general, while agencies have great latitude in determining the effectiveness of mitigation measures proposed in an EIR, such a determination must be supported by substantial evidence. *See Sacramento Old City Ass'n v City Council* 229 Cal.App.3d 1011, 1027 (1991). It is insufficient to simply conclude, without substantial evidence, that any of the mitigation measures proposed for the Project are effective —whether they are incorporated into Project design or operation or imposed by a Condition of Approval by the City. Furthermore, deferred mitigation is impermissible under CEQA. Generally, mitigation measures should be described specially in the EIR and not left for future formulation. Guidelines Section 15126.4(a)(1)(B); *see Cal. Clean Energy Comm.. v. City of Woodland*, 225 Cal. App. 4th 173, 194 (2014). Deferred mitigation is also improper where an agency both defers formulation of the measure and delays implementation of mitigation –as is the case here -- allowing the project to move forward without settling a timeline for achieving mitigation. See *POET LLC v. Cal. Air Resources Bd,*. 218 Cal. App. 4th 681 (2013).

The City must revise each Chapter of the DEIR to ensure that these basic CEQA principles are fully satisfied.

2. **Due to the extreme land use conflicts between the Project and existing adjacent land uses, the Alternatives section requires additional analysis.**

According to the Project sponsor, the Project objectives include the following:

1. To create a low density residential project that will respect the unique physical and environmental attributes of the Project site including utilizing the Projects site's previously graded areas.

2. To allow development of a high quality yet economically feasible project, being one that allows for the development of enough low density housing to support public benefits including public trails, conservation areas drainage improvements, fire safety plan, and water supply improvements.

3. To help Napa achieve its goal of providing the housing type currently undersupplied in the City of Napa within its Rural Urban Limit Line.

4. To enhance the overall quality of the community and provide visual and architectural variety within the project in an aesthetically pleasing manner.

5. To provide economic benefit to the City of Napa through increased property tax and the multiplier effect from executive relocation opportunities.

Despite these purported objectives, the Project description and DEIR make clear that the main goal of the Project is to provide the developer with an economically feasible project. There are no discernible public benefits associated with the Project. The stated public benefits are actually private benefits for the Project's prospective homeowners. The remaining so-called benefits are actually mitigation measures designed to eradicate environmental impacts, not to provide public benefits. To cite a few examples, the public trail is within a required agricultural buffer. The conservation areas are a mitigation measure. The drainage improvements are a State requirement. The fire safety plan is a deferred mitigation, and the water supply improvements are a necessity. Again, what are the public benefits? A hillside trail around the new subdivision is not adequate benefit to justify the Project.

Furthermore, the Alternatives analysis is faulty in a number of respects. As an initial matter, if the Project Sponsor were to remove the project requirements triggered by the Project's size that are then erroneously claimed as benefits (such as the fire plan for over 50 units), the preferred alternative that meets the Project Objectives would be a project within the existing

general plan density and within the existing allowed zoning. The DEIR should be revised and re-circulated to depict a subdivision within existing zoning allowances and subject it to full evaluation.

Additionally, the Alternatives analysis is based on the faulty assumption that "the currently proposed Project is fully mitigatable, with no significant and unavoidable impacts. Therefore, reduced density alternatives would not have the effect of avoiding or substantially lessening significant impacts, but have been chosen to compare minor reductions in already less than significant impacts." As demonstrated below, this is simply inaccurate. The conclusions reached in the DEIR regarding impacts on oak woodlands, regulated trees, wetlands biological, scenic ridgelines and other sensitive resources all understate the magnitude of the impact, and do not recommend any additional avoidance, which is in fact the preferable approach to mitigation. If the conclusions and recommendations in Chapter 4 of the DEIR had been sound and adequate mitigation had been provided, a further reduction in the proposed density and footprint of development would have been made in each case. The magnitude of each of the impacts on sensitive resources would have been substantially reduced. And greater compliance with the applicable plans, policies and ordinances of the City of Napa would have been provided. Further avoidance should have been recommended as mitigation for each of these significant impacts, which would have then been captured in the alternatives analysis and supported the logical conclusion, that the project as proposed contains too many units, disturbs too much of the site, and is not appropriate.

The contention in the Alternatives chapter that Alternative B: Reduced Density Alternative, General Plan Allowance would have similar impacts to the project as proposed is similarly unsupported. Again, this conclusion flows from the inadequate identification of impacts created by the proposed density of developments. If carefully designed, a reduced density alternative could conceivably avoid most if not all of the existing oak woodland habitat, most if not all of the jurisdictional wetlands, and could avoid siting new residences on prominent hillside and ridgeline locations. The DEIR must be revised to refine the site plan and design features of a reduced density plan, and to objectively disclose the obvious benefit and reduced impacts associated with Alternative B, rather than trying to bolster the proposed 53 unit development plan. Under the discussion of Oak Woodlands, the DEIR assumes that 6.5 acres of oak woodlands and 0.24 acre of wetlands would be impacted under Alternative B. How was this determined and why was no map included in the Alternatives Chapter to show these assumptions? Without the necessary supporting documentation, these assertions are impossible to verify, and the Alternatives analysis is impossible to assess adequately. As such, the DEIR is defective.

C. SPECIFIC DEFICIENCIES IN THE DEIR

As discussed below, in addition to these general objections of the DEIR's failure to comply with CEQA, there are several specific resources analyses that lack disclosure of impacts, substantial evidence to support conclusions with regard to the severity of impacts and/or failure to propose feasible and effective mitigation measures.

1. The Project Description is Unstable. The Schedule for the Construction Phase is Speculative and Underestimates the Duration of Construction and Resulting Environmental and Human Health Impacts.

The entire environmental analysis here is inadequate because the documentation regarding the duration of construction is not supported by substantial evidence. "An accurate, stable and finite project description is the sine qua non of an informative and legally adequate EIR." *County of Inyo v. City of Los Angeles*, 71 Cal.App.3d 185, 192 (1977); *see also Stanislaus Natural Heritage Project v. County of Stanislaus* 48 Cal.App.4th 182, 201 (1996). A rigorous analysis of environmental impacts is not possible where, as here, the project description is inaccurate, misleading or inconsistent.

The basis for a 3-year construction schedule is speculative at best. The developer fully discloses that it anticipates completing demolition and earthwork for the entire property, with homes being constructed based on market demand. This suggests that the construction duration could last much longer than assumed for purposes of the DEIR analyses. It suggests that the developer may subdivide the property and sell the empty lots as needed or desired, with new owners doing the construction of their individual homes. That could create decades of ongoing construction.

Accordingly, the Project Description should be revised to provide specific time estimates for the construction of all aspects of the Project, not just the site development. A revised overall schedule should be provided that is supported by substantial evidence and which accounts for the range of time that the entire Project could take. Further, this should be tied to a development agreement to protect the direct neighbors impacted by this construction and ensure that the Project has both viability and finality.

Because the schedule underestimates the amount of time for the construction phase of the proposed project, the analysis of impacts associated with construction, including air quality, traffic and noise impacts, must be revised to account for construction-related environmental and public health impacts occurring over a longer period. This will require recirculation of the DEIR.

2. Inadequate Aesthetics Analysis

The analysis of light and glare impacts in the DEIR is inadequate. As an initial matter, the DEIR does not provide sufficient information to determine how much additional lighting will be installed at the Project. Most importantly, there is no substantial evidence disclosing to what extent the new residences, street lighting and other lighting would be visible. The Project site is currently a natural setting with no visible residences or night-time lighting. The addition of the Project would undoubtedly have a significant impact that is not fully disclosed nor supported with substantial evidence.

This is one of the most important sections in the EIR with regard to controlling proposed development such that it conforms to the City's General Plan's goals and policies, and relevant aspects of the Municipal Code. The analysis in this section completely ignores the changes the Project would have on the visual character of this highly visible hillside site. The DEIR simply concludes, without support, that because most of the new residences would not be visible or that landscaping would effectively screen views of these homes, the impacts are "less than significant." The DEIR ignores the fact that some of these homes would daylight against the top of the ridgeline, the most offensive of visual impacts. The DEIR also does not disclose the visual impacts of numerous other aspects of the Project, such as non-native residential landscaping on the oak woodlands, the new fences, the driveways, access roads, and infrastructure improvements for drainage, fire, and water systems. Most importantly, the visual simulations take into account what the site looks like today, but it should disclose what the view will look like after the 517 trees are removed and replaced by dense residential subdivision development which require "aggressive" vegetation management for fire protection purposes.

Typical Mitigation Measures require relocation of the residence to a less visible location. The document does not suggest adjustments to the limits of grading and tree removal to effectively screen residences or require "stepping of structures" but defers this review to a future date for design review. And never does the DEIR analyze the effect of 222,454 cubic yards of grading. To put this into perspective, this amount of dirt would require **22,000-36,000** "typical" dump trucks (holding 6-10 cubic yards each) to move or remove it. The DEIR must disclose and analyze what impact this grading will have on the modification of the landscape, as well as whether the alternatives help to reduce this impact.

Figures 4.1a and 4.2b incorrectly map home visibility. Figure 4.1a shows only six homes visible from CA 29. And Figure 4.2b appears to show only a single home visible from Imola Bridge. With grading, road developments, and associated tree removal associated with development, Lots 45 and 46, and possibly Lot 12 would also be visible from CA 29, Imola Bridge and lands to the east of the site.

Figures 4.2a is missing (page 4-8). This needs to be provided for decision makers to understand assumptions on potential impacts and home visibility. The figure should indicate all future residences that could be visible, including homes on Lots 45 and 46, if applicable.

Figures 4.3a through 4.5a show a number of views from Old Sonoma Road, but not all locations. The visibility of the site changes based on location along Old Sonoma Road, and additional areas not mapped in any of these figures are presumably visible as well. This should be discussed and acknowledged in the section.

Figures 4.1c, 4.2c, 4.3c, 4.4c, 4.5c, 4.6c, 4.7c, 4.8c, 4.9c, show the development simulation "with landscaping". But there is no explanation of the assumptions for plotting that "landscaping". Typically some assumptions are defined as part of a visual analysis for how long it would take the trees and other screening to become established and effective. The green massing shown in these figures is 20-30 or more feet in height, and it is reasonable to assume it would take a tree 20 or more years to reach that size and effectiveness. As discussed it does not describe if the landscaping shown is per the concept landscape plan (which only shows the tree-lined roads) or if the landscaping is in conflict with the defensible space requirements.

None of the photo simulations depicts the new detention basin that would be highly visible as a large 10-foot berm along Casswall Street. This would be a dramatic change in existing conditions, and would take 5 to 10 years before landscaping would be effective in screening this large mass. Impacts Visual 1 and Visual-2 downplay the change in visual character of the site as a result of the project. The analysis should have described the existing natural character of the ridgeline and hillside from views, and the dramatic change that would occur by siting homes in this natural hillside location. These homes would be highly visible, and would contrast sharply with the existing native vegetation, and would be illuminated at night. Impact Visual 3, regarding the change in visual character of the site, completely disregards the actual changes that would occur as a result of the project. And simply dismisses the conflicts with relevant sections of the City's Hillside Overlay Zone (Chapter 17.40 of the Napa Municipal Code) regarding protection of the city's hills, ridges and ridgelines, and the "natural appearance" of the site. The purpose of the EIR is to disclose that there will be changes, and to recommend ways to avoid or minimize those changes. For such a visible site, that can only be achieved by reducing the number of units and eliminating those units that are in fact highly visible. Many of these highly visible homes will become a focal point in future views unless these homes are removed from the proposed development. A significant change in the existing character and aesthetic beauty of the site, that can only be addressed by removing residences off of the ridgeline and locations visible from the valley floor.

The Cumulative Aesthetic Impacts discussion simply states that "limitations" on other hillside development would prevent any cumulative impacts. But it is unclear what – if any -- other undeveloped hillsides exist in the City of Napa within the Rural Urban Limit Line. Thus,

there is no basis for the conclusion that the changes caused by the Project are "less than significant" and warrant no mitigation. This site is one of the last remaining highly visible ridgelines under City control, and the changes caused by the Project represent a considerable contribution to the cumulative impacts on the visual character and aesthetics of the area. This should be recognized as a significant cumulative impact, and mitigation provided through additional restrictions and controls on proposed homes, night-time lighting and other changes.

3. The Biological Resources section of the DEIR is legally insufficient for a wide variety of reasons.

These deficiencies include the failure to generate the baseline data needed to make impact assessments, the failure to address any impacts to California native grasslands, the inadequate analysis of impacts to (or formulation of mitigation measures for) key species like the Western pond turtle, Western burrowing owl or special status bats, serious analytical problems for the wetlands and oak woodland communities, and the complete lack of a cumulative impact analysis relating to any of these biological resources.

a. Failure to Conduct Current Surveys.

At the outset, the Draft EIR lacks the biological data necessary to analyze the significant biological impacts resulting from the Project. The biological reports contained in Appendix C reflect that no plant, mammal, bird or other wildlife surveys have been conducted on the site in five years. The floristic survey took place in March to June 2011 and the wildlife surveys occurred in January to May 2011. These surveys are too old to provide the data necessary to support a 2016 Final EIR and would be too dated and wholly unacceptable for the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife ("CDFW"). The City should require the applicant to conduct surveys during the upcoming survey windows for each type of protected plant and wildlife species and then prepare a new Draft EIR.

One example of why current surveys are necessary relates to the plant surveys. Those surveys were taken at the beginning of a 3-4 year drought, which has then been followed by a winter of heavy rains prior to this spring. Plant surveys taken during a drought period five years ago are in no way representative of what can be expected on site at the present time or in the future. The Huffman-Broadway Group ("HBG") Biological Assessment states that up to nine special status plants could potentially be on site, but the old, flawed surveys do not determine whether the plants are currently there (or absent). These surveys cannot be deferred to the preconstruction period. Rather, they need to be performed during the spring/summer 2017 blooming season before the Draft EIR is completed so a legally supportable analysis of plant impacts and formulation of appropriate mitigation measures can occur.

b. California Native Grassland

California native grassland is a special biological and sensitive natural community in the City of Napa, Napa County and throughout California. In the City of Napa, the amount of native grassland is decreasing due to a variety of residential, commercial, vineyard and other developments. Native grasslands have been severely affected by historic grazing and replacement by non-native species and remaining stands are now considered a sensitive natural community type by CDFW and must be recognized and addressed during CEQA environmental review. The Draft EIR is deficient because it does not determine how much native grassland is present on the site, does not mitigate for the impacts to that grassland and does not analyze the cumulative impact of these losses due to this and other reasonably foreseeable projects.

The HBG Biological Assessment dated July 2011 ("BA") states (page 8) that there are 49.65 acres of "annual grassland" on site, which is 61% of the land area. However, the BA then reports that "some portions of the annual grassland have assemblages of native species...," but it makes no effort to identify how much of the acreage consists of the special vegetation community of California native grassland. The Draft EIR repeats this quoted language (page 7-2), but then also fails to determine how much of this amount is native grassland. A new survey must be conducted to identify the precise amount and location of native grassland. Based on the information currently available, it is highly likely that native grassland communities are present on site.

Once the amount and location of native grassland is determined, CEQA requires that an analysis be made regarding whether there is potentially a "substantial adverse effect" on this natural community. CEQA Guidelines, Appendix G. The amount of that grassland that will be destroyed by the project can be calculated. The Draft EIR can then evaluate ways to avoid the destruction of this native grassland (particularly those stands of high quality) and an appropriate mitigation measure can be proposed to address any unavoidable takes of such grasslands. The standard mitigation ratios range from 2:1 to 3:1 in preservation of off-site grasslands or restoration of native grasslands, depending on the particular circumstances of the impacts.

Finally, it will be important for the Draft EIR to evaluate the cumulative impacts of the losses of native grassland that are occurring. These types of analyses are being done for a wide variety of projects in the Napa Valley and other parts of Napa County.

c. Sensitive Plant and Wildlife Species Impacts

As noted above, no floristic surveys for sensitive plant species or any wildlife surveys have been conducted since 2011, and thus the Draft EIR's conclusion that no impacts on such species will occur is unsupported and flawed. As a result of the lack of current data, no meaningful CEQA analysis can yet be undertaken to determine whether and to what extent the Project will have significant impacts on such species and what mitigation measures are

appropriate to address the impacts. These surveys must be undertaken during the relevant plant blooming periods and wildlife presence periods, before another Draft EIR is prepared and circulated.

d. Western Pond Turtle

Western pond turtles are a California species of special concern and are protected by designations by other agencies. During a survey on February 1, 2011, as reported in the HBG BA (page 21), consultant Mark Jennings "observed (with binoculars) basking or swimming adult Western pond turtles in every irrigation pond adjacent to the property within a distance of about a quarter of a mile." Western pond turtles are known to move more than a quarter of a mile from water sources and often hibernate in wooded upland habitats. The Draft EIR concludes (page 7-9) that these observations "makes it likely that western pond turtle could move across a small part of the Project site's southern boundary." One of these irrigation ponds appears to be very close to the Project boundary.

Unfortunately, no surveys of the presence of Western pond turtles, either on the Project site, or through observation of nearby sites, have been made in over five years. Given the sensitive nature of this species and their known movement, hibernation and estivation patterns, a survey must be performed before the Draft EIR is completed.

There is currently one proposed Mitigation Measure for Western pond turtles (Bio-6), which only involves a setback of 200 feet from the southern grading limit of the Project and the adjacent irrigation pond and the installation of silt fencing. This measure is woefully insufficient because: (1) there has been no survey in five years to determine the presence of or impacts to pond turtles on or near the site; (2) the turtle is known to travel much longer distances than 200 feet, so the setback distance is far too small; and (3) the installation of silt fencing is an inadequate and potentially harmful measure because it could trap and kill Western pond turtles who are already present on site. In addition, given the potential impacts, a mitigation measure should be imposed to require that a biological monitor be present on site at all times when grading or other ground disturbing activities take place to protect Western pond turtles.

e. Western Burrowing Owl

The Western burrowing owl is a California species of special concern and has special status under certain federal agency designations. Despite the fact that HBG determined that the Project site contains suitable nesting and wintering habitat for the burrowing owl, the applicant failed to perform protocol site surveys for this species. CDFW has adopted special protocols to determine the presence or absence of the species, none of which have been followed for this Project. Rather, the Draft EIR merely proposes in Mitigation Measure Bio-4b that pre-

construction surveys for burrowing owls be conducted within 30 days of the beginning of construction activity and, if any are detected, further mitigation occur at that time.

This approach to analyzing and mitigating for the impacts to burrowing owls is inadequate under CEQA. Protocol surveys need to be performed during the appropriate seasons to determine whether burrowing owls are present or absent. Since no surveys of any kind have occurred in the last five years and since suitable habitat has been confirmed to exist on site, it is essential to determine whether and where they are currently present. If any active nests or colonies are encountered, the Project should be revised to avoid these locations. Preconstruction surveys would only avoid an active colony during construction. In this case, the attempt to defer detection of burrowing owls to the construction period fails to achieve the avoidance and compensatory mitigation objectives of CDFW's burrowing owl protocols.

f. Special Status Bats

The existing structures and oak woodlands on site provide suitable nesting or foraging habitat for a number of special status bat species. Indeed, the HBG BA (page 23) determined that seven bat species that are California species of special concern or have other agency designations "have potential to occur within the project boundaries." However, it appears that the applicant has not conducted, and the Draft EIR does not reflect, any bat surveys to determine whether these species are present on the Project site. Instead, the Draft EIR proposes Mitigation Measure Bio-7, which would defer surveys to a future time period just before the destruction of the existing structures on site.

This approach to protecting bat species is legally inadequate. It is currently unknown whether these special status species are present on site (although it is highly likely based on the existing information), either in buildings or in the larger trees. Preconstruction surveys are inadequate because they provide no mitigation for permanent loss of existing habitat and do not address the effects on any local population, if present on the site.

g. Wetlands

The U.S. Army Corps of Engineers has issued a preliminary wetland determination that 1.25 acres of wetlands and waters of the United States are present on site. The Project plans to fill 0.43 acre of this total amount (approximately 34% of the total site wetlands) based on an overlay of the development footprint. However, there has been no attempt to revise the limits of grading to avoid additional acreage of affected wetlands – rather, there is just a summary, unsupported statement in the Draft EIR (page 7-16) that "[a]s the wetlands are scattered throughout the Project area, complete avoidance of seasonal wetlands would not be feasible with the level of development proposed." This analysis is inadequate and the City must conduct further consideration of potential avoidance measures.

h. Oak Woodlands

The Project site contains an extensive, healthy and robust community of oak woodlands, dominated by Coast live oaks. Oak woodlands are considered a vital statewide resource and are protected by laws at the State and City levels, including City of Napa Municipal Code Chapter 12.45. The Draft EIR states that there are 27.29 acres of oak woodlands on the Project site and that 9.36 acres of oak woodland will be destroyed or lost through Project construction. A total of 571 oak trees, including 173 Native Protected trees, are proposed to be destroyed.

There are several important deficiencies in the Draft EIR's analysis of the Project's impacts on oak woodland and in the mitigation measures proposed to address them. First, the Draft EIR undercounts the acreage of oak woodland that will be potentially affected by the Project. Specifically, it appears that there is an additional estimated 3.85 acres of oak woodland contained within individual lots that it assumes (without explanation or the imposition of local controls) would not be removed by individual landowners. These additional trees, which are at risk by future removal within individual yard areas, should be quantified and their risk assessed.

Second, given the importance, good health and prominent hilltop location of these oak woodlands, it appears that there has not been a sustained effort to provide greater avoidance of these valuable oak woodland communities. Although there is a reference in the Revised Tree Report to an effort being made to preserve a few further trees, the Draft EIR does not reflect that the type of sustained and careful effort to avoid as many trees as possible has occurred. This falls far short of the intent embodied in Chapter 12.45 to "...promote a healthy urban forest that contributes to clean air, soil conservation, energy conservation, scenic beauty, enhanced property values and a quality of life through the protection of significant and native trees."

Third, since oak woodland impacts are some of the most significant among many serious environmental impacts of the Project, the Draft EIR's identification and analysis of alternatives is flawed because there is no alternative specifically designed to avoid and minimize these impacts. Although the Draft EIR mentions generic reduced size alternatives (which are promptly rejected for allegedly failing to meet Project objectives), the Draft EIR fails to propose or evaluate an alternative that specifically addresses and minimizes oak woodland and other closely associated environmental impacts. For example, there should be an alternative based on a revised footprint prepared that is intended to preserve significantly more oak woodland and avoid the dramatic and significant hydrology and aesthetic impacts of the Project. The failure to identify such an alternative renders the current alternatives analysis inadequate.

Finally, the two Mitigation Measures proposed in the Draft EIR that attempt to address oak woodland impacts (Bio-2a and Bio-2b) are inadequate and not feasible. For example, it appears that there would be no physical way to accommodate on site the large number of

replacement tree plantings needed. Assuming a replacement tree ratio of three 15-gallon trees for every protected tree removed or damaged, a minimum of 519 trees would have to be planted on the site. Assuming planting on 20-foot centers, the replacement trees would occupy a total area of about 5.3 acres. Where on the site is there room for this planting without displacing native grasslands, wetland areas and other sensitive communities? The other problem with these measures is that they improperly defer the details of the mitigation to a future mitigation plan without providing sufficient performance standards.

i. Cumulative Biological Impacts

Unlike many other sections in the Draft EIR, there is no text in Section 7 discussing the cumulative impacts of the Project in the Biological Resources areas. Moreover, the short and generic "Cumulative Impacts" section at page 18-1 of the Draft EIR also does not mention cumulative biological resource impacts, including the cumulative impacts to native grasslands and oak woodlands. The failure to do so constitutes a violation of CEQA. *See, e.g.*, CEQA Guidelines § 15130.

4. Water/Hydrology Deficiencies in the Draft EIR

The slopes above Truchard Vineyards have not had any development on them since the vineyards were established. Rather, they have been primarily used for grazing. As a result, Truchard Vineyards has, for more than 40 years, relied on both diversions from the water courses on the upgradient portions of its property just below the new proposed development and sheet flow across this upgradient property to fill their reservoirs and to directly apply surface water to their grape crops.

The proposed Project is designed to fundamentally alter this hydraulic regime for its own purposes and thereby substantially and unreasonably interfere with both the Truchard water diversion permits and the rainfall water flowing across this upgradient property into their reservoirs. The Project proposes to construct a series of large hilltop homes (ranging in size from 3,888 to 5,061 square feet), with large areas of impervious road, driveway, roof and other surfaces. Many of these homes are clustered just above Truchard Vineyards' diversion points and reservoirs, causing a tremendous disruption (if not almost a total blockage) of the natural flows. It appears that the developer is planning to install an elaborate set of ditches, catchments and detention ponds described below to completely reroute, divert and prevent water from proceeding in a natural manner downhill. Unfortunately, and in contravention of CEQA, there is not one word regarding these proposed facilities in the Project Description in Chapter 3 of the Draft EIR. Rather, one has to look at the hydrology chapter and a short hydrology report marked as Appendix G to understand the full scope of these plans.

Furthermore, the Draft EIR fails to comply with CEQA in many important ways with regard to the significant water and hydrology impacts of the proposed Project on Truchard Vineyards and the other downgradient neighbors. First, the project description in Chapter 3 (pages 3-3 to 3-4) fails to provide any description of the extensive, unusual and significant water management features that are proposed to built into the Project. The lack of even a conceptual description of these important project components in the project description fails to provide a complete and accurate description of all project components with a direct physical environmental impact in contravention of CEQA. 14 Cal. Code Regs. § 15378; *see, e.g., Habitat & Watershed Caretakers v. City of Santa Cruz*, 213 Cal. App. 4th 1277, 1297 (2013).

Second, the Draft EIR completely fails to analyze the significance of the impacts of the Project on the surface water supply needs and water rights of Truchard Vineyards or other neighbors. The hydrology analysis in Chapter 12 focuses on only three issues: (1) whether the project will degrade water quality, (2) whether it will impact groundwater supplies or recharge, and (3) whether it will result in erosion, siltation or flooding. Nowhere does the document, or any supporting technical report, address the issue of whether and how the project will interfere with the water rights, surface water supplies or water flow patterns of the immediately downgradient Truchard Vineyards facilities or other downgradient neighbors.

This deficiency is apparent at the outset of the Draft EIR's hydrology "significance" discussion. Although ten separate hydrology thresholds of significance are listed on page 12-6, there is no threshold addressing downgradient water supply, rights or pattern impacts. There are two that address substantial alteration of drainage patterns, but they are perplexingly limited to erosion/siltation and flooding. As a result, the Draft EIR fails to provide any significance criterion to assess the impact of the Project on water rights or supply.

In fact, the Draft EIR appears so unreasonably focused on preventing on-site flooding or water escaping their property that they have designed a water management system that takes dramatic steps to cut off almost all flow to the downgradient reservoirs, creeks and ditches that supply water to these vineyards. Ironically, while so doing, the document concedes important issues relating to the significant downgradient water impacts. Thus, the Draft EIR concedes that, under current conditions, "[p]recipitation falling on the site drains quickly in the form of surface flows." Page 12-7. Moreover, once the project detention basin on the south boundary is built, they would need to "account for losses due to infiltration at the southern proposed detention basin location in order to provide assurance that significant reductions of run-off to downstream watercourses would not occur as a result of the Project which could exceed State Water Resources Control Board thresholds of reasonableness." Page 12-9. In so today, the Draft EIR concedes that the Proposed Project will significantly impair surface flows and that the new facilities will significantly reduce the volume of water released due to infiltration.

The Draft EIR does at least quickly acknowledge the downgradient water issue by stating in Impact Hydro-3 that the Project's altered stormwater flows "could result in increased erosion, siltation, on- or off- site flooding, or significant reductions in rainfall runoff to existing watercourses," which it terms "a potentially significant impact." Page 12-8. However, it then proposes a mitigation measure deferring analysis of all these issues to the later Final Drainage Report, and on that basis finds that "the impacts related to altered drainage patterns would be less than significant." Page 12-9.

In fact, the Draft EIR does not undertake any real technical or legal analysis of this topic. No hydrology study has been conducted regarding the timing, amount or patterns of the precipitation water that flows to the Truchard reservoirs in the different locations or the amount of flow that will be prevented from reaching Raynes Creek or other surface water drainages from which Truchard Vineyards has the right to divert water. The Draft EIR does not even mention, much less discuss, the Truchard water rights permits to determine the limited time periods during which the Truchards are authorized to divert water or in what amount. The only Project hydrology analysis is for the purpose of sizing the detention basins (primarily to avoid flooding of the new homes), not for analyzing the natural water flow patterns or evaluating the interference with the downgradient vineyard water needs.

Not surprisingly, there is no corresponding legal analysis of the significance of these impacts. Although the hydrology section briefly mentions that the State Board uses a rule of reasonableness relating to diversion and use of water, it fails to make any legal analysis of how the rule applies here. The hydrology section completely fails to address the corresponding legal "reasonable use" doctrine relating to modifications of upgradient water runoff patterns, likely because the dramatic and unstudied modifications contemplated by the Project clearly go far beyond the recognized legal bounds of this doctrine. The failure to make these factual and legal analyses completely undermines the Draft EIR.

First, this mitigation measure constitutes an improper future deferral of a mitigation measure without providing specific performance standards. 14 Cal. Code Regs. § 15126.4(a)(1)(B); *See e.g., San Joaquin Raptor Rescue Ctr. v. County of Merce*d, 149 Cal. App. 4th 645, 669 (2007). The only standard mentioned in the measure is that "volume of rainfall runoff shall not significantly reduce rainfall runoff to downstream watercourses." This undefined standard fails to address the complicated timing, pattern and amount issues that would govern the water and hydrology needs of Truchard Vineyards or other downgradient water users. Second, the measure does not even address the significant water rights and supply impacts. Third, even if the Draft EIR did analyze this environmental impact (which it does not), the mitigation measure it adopted (deferring consideration of impacts and appropriate mitigation until a Final Drainage Plan after approval of the Project) fails to meet CEQA's legal standards.

Fourth, the lack of any analysis of these significant impacts also infects the discussion of alternatives, where CEQA requires that a full set of alternatives be evaluated to avoid or reduce significant environmental impacts. Since the Draft EIR does not even acknowledge that this significant impact even exists, it certainly does not examine a project alternative that would reduce this impact to less than significant levels. The roster of alternatives is basically limited to a "no project" alternative and three simplistic reduced-density alternatives that are discarded as not providing improvements to the City and not meeting the developer's objectives. There is no evaluation of an alternative that moves the development footprint out of the key surface water drainage zone or which does not unreasonably interfere with downgradient water rights and supply. This failure to examine a full range of alternatives violates CEQA.

In sum, the Draft EIR fails to appreciate, analyze or address one of the most significant environmental issues of the Project: the dramatic, unwarranted and unreasonable impacts of the Proposed Project on the water rights and supply of the downgradient water users and businesses, including Truchard Vineyards. Instead, the Draft EIR attempts to relegate this critical environmental issue to be a mere afterthought that will be covered by a drainage plan after all entitlements are issued. It is surprising that, in the three-plus year period since the Truchards raised this issue in their formal comments on the NOP, neither the developer nor the City has conducted technical studies, formulated a significance criterion or made any serious effort to evaluate these impacts. Instead, the Draft EIR abdicates its responsibility to address this issue factually, technically and legally. Surface water is the lifeblood of the business of Truchard Vineyards and many other downgradient vineyards in the Carneros region and the Draft EIR's failure to analyze the Project's impacts in this subject area is a clear and fundamental violation of CEQA.

5. Inadequate Seismic Impacts Analysis

The analysis in the DEIR of the risks of exposure of people and structures to adverse effects of a known fault is lacking. The DEIR fails to identify any potential impacts related to faults or ground shaking, contrary to the significance criteria set forth in the DEIR and required by the Guidelines which state, in part, that the project would have a significant environmental impact if it results in "the exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving rupture of a known earthquake fault..." Despite adopting this significance criteria, the DEIR doesn't actually analyze the potential for seismic hazards resulting from faults. Instead, it takes a very aggressive interpretation of the recent *CBIA vs. BAAQMD* decision, which found in an entirely different context that CEQA does not require analysis of the environment's effects on the project, but requires only an analysis of the project's effects on the environment. This is an incredibly broad principle that has not been tested in the courts. More to the point, this approach fails to acknowledge that it is the Project that causes the *exposure of people and structures* to seismic hazards. It is not necessary to find that the Project will cause earthquakes in order to find a significant seismic hazard. The DEIR's approach is not only contrary to the significance criteria

set forth in the Guidelines and adopted by the DEIR itself, but it is also irresponsible. The Project site contains a known fault and presents very real potential for injury and damage to property. The DEIR must disclose and provide mitigation for this known hazard.

Further, the recommended 25 foot setback from the "fault zone" is not based on substantial evidence. It is more common (and more prudent) to provide a 50-foot setback from the edge of the fault zone to all structures. If a reduced setback is permissible in this case, the DEIR must support this conclusion with substantial evidence. In addition, this 25-foot setback is not described as a "mitigation measure," but rather as a "condition of approval," presumably because the EIR erroneously takes the position that there is no significant impact from the known fault.

The DEIR should be revised to apply the significance thresholds earlier articulated and disclose the recommended mitigation thereof.

6. Inadequate Land Use Analysis

As discussed, the analysis is faulty, and the mitigation, which ignores further avoidance and protection of sensitive resources (such as oak woodlands, regulated trees, wetlands, and scenic ridgelines) is completely inadequate. Impact Plan-1 again completely ignores the quantifiable impacts on sensitive resources, which are to be recognized and protected under the General Plan and Municipal Code. This Project that will have very obvious significant, quantifiable impacts on resources to be protected under the City's guiding documents. The majority of the site is designated RA- Resource Area by the Napa General Plan. This designation is applied to sensitive lands within the Rural Urban Limit Lime that require special standards due to viewshed, resource, habitat, geotechnical, or other considerations that further the conservation and resource protection goals of the General Plan. To minimize urban/rural conflicts that City shall ensure a buffer is provided between residential uses on the periphery of RUL and productive agricultural land outside the RUL. Based on the fact that the Project is proposing houses so close to intensive farming operations, an 80 foot buffer is arbitrary and insufficient, not being based on any substantial evidence.

The DEIR does not fully disclose the extreme inconsistency with the existing zoning and general Plan designation and the proposed designation. The DEIR never discloses existing zoning with a visual map, nor does the Alternatives depict what a project would look like if it were consistent with the existing Zoning and General Plan designation. Further, there is no map to show the property boundaries to the site and the dramatic inconsistency between urban and agricultural zoning. To put this in perspective, the properties bordering the Project have a minimum parcel size of 160 acres. The DEIR needs to disclose these inconsistencies with more accurate representations. The bare assertion that the act of a General Plan amendment makes the Project less than significant is meritless. The public deserves a better description of the intent of

the recent re-designation and of how the Project is in conformance with those intentions. Further, the DEIR should disclose if the Project qualifies for a hillside overlay design review approval, rather than defer it to a future date.

D. THE DEIR MUST BE RECIRCULATED.

Recirculation of an EIR prior to certification is required "when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation measure proposed to be implemented; (2) a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt; or (4) that the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless." CEQA Guidelines § 15162; *Laurel Heights Improvement Assn. v. Regents of University of California* 6 Cal.4th 1112, 1130 (1993), citing *Mountain Lion Coalition v. Fish & Game Comm'n* 214 Cal.App.3d 1043 (1989).

Recirculation is required where "significant new information" has been added to an EIR. *See Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* 40 Ca1.4th 412, 447 (2007). New information is "significant" where it results in a change to the EIR's analysis or mitigation of a substantial adverse environmental effect. *Id.*

Here, the DEIR must be revised and recirculated to address the many deficiencies identified above. For example, the DEIR must be revised and recirculated to allow the public a meaningful opportunity to comment on a complete Project Description that provides a supported basis for the duration of construction, accurate representation of the viewshed impacts, current biological studies and hydrological analysis, and one which provides a revised analysis of Project impacts that would result from the revisions. Unless the DEIR is revised to address these and other identified deficiencies, and unless the DEIR is recirculated for further public review, the public and decision makers will be deprived of an opportunity for full input and informed decision making in violation of CEQA.

E. CONCLUSION.

For the reasons discussed above, this is an ill-judged Project of doubtful benefit to the community and with the potential for significant environmental damage. The environmental analysis conducted to date has not been adequate to allow for approval of the Project. Accordingly, before the City can determine whether or not to approve the Project, the DEIR first requires significant revision, recirculation and review so that the environmental impacts of the Project are discernible. Only then will it be possible to determine whether these impacts may be adequately mitigated.

We thank you for your attention to this letter.

Sincerely,

Kristy Shetta Georgen for:

Katherine Philippakis

cc: The Truchard family

EXHIBIT B

B1

D4

B3

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B5

BL

B 7

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EXHIBIT C

Truchard Family Winery
Napa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	16.11	1000sqft	0.37	16,107.00	4
Quality Restaurant	2.20	1000sqft	0.05	2,204.00	60
General Office Building	1.16	1000sqft	0.03	1,156.00	1
General Office Building	3.44	1000sqft	0.08	3,440.00	1

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	3.6	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Population over-rided based on true facts supported by the application

Construction Phase - Based on typical construction

Grading - Site preparation over-riden based on the additional road construction

Demolition -

Vehicle Trips - over-rode the model based on the use permit limitations on the number of people per day. 40 ppl/day '/, 2.6 ppl/car x 2 trips for weekdays and 60 ppl/day weekends.

Land Use Change -

Sequestration -

Mobile Commute Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	1.00	56.00
tblConstructionPhase	PhaseEndDate	4/30/2018	4/17/2018
tblConstructionPhase	PhaseStartDate	5/1/2018	4/15/2018
tblGrading	AcresOfGrading	28.00	1.50
tblLandUse	BuildingSpaceSquareFeet	16,110.00	16,107.00
tblLandUse	BuildingSpaceSquareFeet	2,200.00	2,204.00
tblLandUse	BuildingSpaceSquareFeet	1,160.00	1,156.00
tblLandUse	LandUseSquareFeet	16,110.00	16,107.00
tblLandUse	LandUseSquareFeet	2,200.00	2,204.00
tblLandUse	LandUseSquareFeet	1,160.00	1,156.00
tblLandUse	Population	0.00	4.00
tblLandUse	Population	0.00	60.00
tblLandUse	Population	0.00	1.00
tblLandUse	Population	0.00	1.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSequestration	NumberOfNewTrees	0.00	31.00
tblVehicleTrips	ST_TR	2.46	11.03
tblVehicleTrips	ST_TR	94.36	20.90
tblVehicleTrips	SU_TR	1.05	11.03
tblVehicleTrips	SU_TR	72.16	20.90
tblVehicleTrips	WD_TR	89.95	13.90

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2018	0.0981	1.0138	0.6670	1.1500e-003	0.0163	0.0577	0.0740	6.5800e-003	0.0534	0.0600	0.0000	104.4906	104.4906	0.0282	0.0000	105.1958
2019	0.6004	0.2560	0.2129	3.5000e-004	2.7500e-003	0.0152	0.0179	7.4000e-004	0.0141	0.0149	0.0000	31.0229	31.0229	7.8900e-003	0.0000	31.2202
Maximum	**0.6004**	**1.0138**	**0.6670**	**1.1500e-003**	**0.0163**	**0.0577**	**0.0740**	**6.5800e-003**	**0.0534**	**0.0600**	**0.0000**	**104.4906**	**104.4906**	**0.0282**	**0.0000**	**105.1958**

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
2018	0.0981	1.0138	0.6670	1.1500e-003	0.0163	0.0577	0.0740	6.5800e-003	0.0534	0.0600	0.0000	104.4905	104.4905	0.0282	0.0000	105.1957
2019	0.6004	0.2560	0.2129	3.5000e-004	2.7500e-003	0.0152	0.0179	7.4000e-004	0.0141	0.0149	0.0000	31.0228	31.0228	7.8900e-003	0.0000	31.2201
Maximum	**0.6004**	**1.0138**	**0.6670**	**1.1500e-003**	**0.0163**	**0.0577**	**0.0740**	**6.5800e-003**	**0.0534**	**0.0600**	**0.0000**	**104.4905**	**104.4905**	**0.0282**	**0.0000**	**105.1957**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1014	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Energy	4.4700e-003	0.0406	0.0341	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	119.7351	119.7351	4.2600e-003	1.5200e-003	120.2938
Mobile	0.0640	0.3743	0.7554	2.3000e-003	0.1388	2.7700e-003	0.1416	0.0383	2.6100e-003	0.0409	0.0000	211.2523	211.2523	8.8400e-003	0.0000	211.4732
Waste						0.0000	0.0000		0.0000	0.0000	2.6663	0.0000	2.6663	0.1576	0.0000	6.6056
Water						0.0000	0.0000		0.0000	0.0000	1.6531	8.5346	10.1877	0.1702	4.0900e-003	15.6607
Total	**0.1699**	**0.4150**	**0.7897**	**2.5400e-003**	**0.1388**	**5.8600e-003**	**0.1447**	**0.0383**	**5.7000e-003**	**0.0440**	**4.3194**	**339.5223**	**343.8417**	**0.3409**	**5.6100e-003**	**354.0338**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	1.15	4.16	4.09	5.58	4.89	9.57	5.09	4.90	9.67	5.54	38.17	7.32	7.90	31.74	3.77	8.65

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-16-2018	7-15-2018	0.3515	0.3515
2	7-16-2018	10-15-2018	0.4056	0.4056
3	10-16-2018	1-15-2019	0.4119	0.4119
4	1-16-2019	4-15-2019	0.7986	0.7986
		Highest	0.7986	0.7986

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1014	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Energy	5.1800e-003	0.0471	0.0396	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	136.3296	136.3296	4.8300e-003	1.7400e-003	136.9676
Mobile	0.0652	0.3859	0.7836	2.4100e-003	0.1460	2.9000e-003	0.1489	0.0402	2.7300e-003	0.0430	0.0000	221.2701	221.2701	9.1500e-003	0.0000	221.4988
Waste						0.0000	0.0000		0.0000	0.0000	5.3326	0.0000	5.3326	0.3152	0.0000	13.2112
Water						0.0000	0.0000		0.0000	0.0000	1.6531	8.7560	10.4092	0.1702	4.0900e-003	15.8831
Total	**0.1719**	**0.4330**	**0.8234**	**2.6900e-003**	**0.1460**	**6.4800e-003**	**0.1525**	**0.0402**	**6.3100e-003**	**0.0465**	**6.9857**	**366.3562**	**373.3419**	**0.4993**	**5.8300e-003**	**387.5611**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	22.7540
Vegetation Land Change	-2.9739
Total	19.7801

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/16/2018	4/17/2018	5	2	
2	Site Preparation	Site Preparation	4/15/2018	7/2/2018	5	56	digging the subterranean floor
3	Grading	Grading	7/3/2018	8/1/2018	5	2	
4	Building Construction	Building Construction	8/2/2018	2/19/2019	5	100	
5	Paving	Paving	2/20/2019	3/7/2019	5	5	
6	Architectural Coating	Architectural Coating	3/8/2019	4/10/2019	5	5	

Acres of Grading (Site Preparation Phase): 1.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 34,361; Non-Residential Outdoor: 11,454; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	4.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	**1.0600e-003**	**9.4300e-003**	**7.7800e-003**	**1.0000e-005**	**0.0000**	**6.2000e-004**	**6.2000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**1.0608**	**1.0608**	**2.0000e-004**	**0.0000**	**1.0659**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0726	0.0726	0.0000	0.0000	0.0727
Total	**5.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0726**	**0.0726**	**0.0000**	**0.0000**	**0.0727**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	**1.0600e-003**	**9.4300e-003**	**7.7800e-003**	**1.0000e-005**	**0.0000**	**6.2000e-004**	**6.2000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**1.0608**	**1.0608**	**2.0000e-004**	**0.0000**	**1.0659**

3.2 Demolition - 2018

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0726	0.0726	0.0000	0.0000	0.0727
Total	**5.0000e-005**	**4.0000e-005**	**3.7000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0726**	**0.0726**	**0.0000**	**0.0000**	**0.0727**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0220	0.2732	0.1190	2.7000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	24.9620	24.9620	7.7700e-003	0.0000	25.1563
Total	**0.0220**	**0.2732**	**0.1190**	**2.7000e-004**	**8.0000e-004**	**0.0117**	**0.0125**	**9.0000e-005**	**0.0108**	**0.0109**	**0.0000**	**24.9620**	**24.9620**	**7.7700e-003**	**0.0000**	**25.1563**

3.3 Site Preparation - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	5.1000e-004	5.1800e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0164	1.0164	4.0000e-005	0.0000	1.0173
Total	**6.6000e-004**	**5.1000e-004**	**5.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0164**	**1.0164**	**4.0000e-005**	**0.0000**	**1.0173**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0220	0.2732	0.1190	2.7000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	24.9620	24.9620	7.7700e-003	0.0000	25.1563
Total	**0.0220**	**0.2732**	**0.1190**	**2.7000e-004**	**8.0000e-004**	**0.0117**	**0.0125**	**9.0000e-005**	**0.0108**	**0.0109**	**0.0000**	**24.9620**	**24.9620**	**7.7700e-003**	**0.0000**	**25.1563**

3.3 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	5.1000e-004	5.1800e-003	1.0000e-005	1.1100e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0164	1.0164	4.0000e-005	0.0000	1.0173
Total	**6.6000e-004**	**5.1000e-004**	**5.1800e-003**	**1.0000e-005**	**1.1100e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.0164**	**1.0164**	**4.0000e-005**	**0.0000**	**1.0173**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2800e-003	0.0000	8.2800e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1037	0.0855	1.3000e-004		6.8500e-003	6.8500e-003		6.5400e-003	6.5400e-003	0.0000	11.6690	11.6690	2.2500e-003	0.0000	11.7252
Total	**0.0117**	**0.1037**	**0.0855**	**1.3000e-004**	**8.2800e-003**	**6.8500e-003**	**0.0151**	**4.5500e-003**	**6.5400e-003**	**0.0111**	**0.0000**	**11.6690**	**11.6690**	**2.2500e-003**	**0.0000**	**11.7252**

3.4 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.0000e-004	4.0700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7986	0.7986	3.0000e-005	0.0000	0.7993
Total	**5.2000e-004**	**4.0000e-004**	**4.0700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7986**	**0.7986**	**3.0000e-005**	**0.0000**	**0.7993**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2800e-003	0.0000	8.2800e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1037	0.0855	1.3000e-004		6.8500e-003	6.8500e-003		6.5400e-003	6.5400e-003	0.0000	11.6690	11.6690	2.2500e-003	0.0000	11.7252
Total	**0.0117**	**0.1037**	**0.0855**	**1.3000e-004**	**8.2800e-003**	**6.8500e-003**	**0.0151**	**4.5500e-003**	**6.5400e-003**	**0.0111**	**0.0000**	**11.6690**	**11.6690**	**2.2500e-003**	**0.0000**	**11.7252**

3.4 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.0000e-004	4.0700e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7986	0.7986	3.0000e-005	0.0000	0.7993
Total	**5.2000e-004**	**4.0000e-004**	**4.0700e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7986**	**0.7986**	**3.0000e-005**	**0.0000**	**0.7993**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	0.5957	0.4186	6.1000e-004		0.0383	0.0383		0.0352	0.0352	0.0000	56.1663	56.1663	0.0175	0.0000	56.6034
Total	**0.0586**	**0.5957**	**0.4186**	**6.1000e-004**		**0.0383**	**0.0383**		**0.0352**	**0.0352**	**0.0000**	**56.1663**	**56.1663**	**0.0175**	**0.0000**	**56.6034**

3.5 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-003	0.0290	8.5100e-003	5.0000e-005	1.2800e-003	2.4000e-004	1.5200e-003	3.7000e-004	2.3000e-004	6.0000e-004	0.0000	5.2168	5.2168	3.1000e-004	0.0000	5.2245
Worker	2.3100e-003	1.7800e-003	0.0180	4.0000e-005	3.8400e-003	3.0000e-005	3.8700e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.5282	3.5282	1.2000e-004	0.0000	3.5313
Total	**3.5100e-003**	**0.0308**	**0.0265**	**9.0000e-005**	**5.1200e-003**	**2.7000e-004**	**5.3900e-003**	**1.3900e-003**	**2.6000e-004**	**1.6500e-003**	**0.0000**	**8.7450**	**8.7450**	**4.3000e-004**	**0.0000**	**8.7558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0586	0.5957	0.4186	6.1000e-004		0.0383	0.0383		0.0352	0.0352	0.0000	56.1662	56.1662	0.0175	0.0000	56.6034
Total	**0.0586**	**0.5957**	**0.4186**	**6.1000e-004**		**0.0383**	**0.0383**		**0.0352**	**0.0352**	**0.0000**	**56.1662**	**56.1662**	**0.0175**	**0.0000**	**56.6034**

3.5 Building Construction - 2018

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-003	0.0290	8.5100e-003	5.0000e-005	1.2800e-003	2.4000e-004	1.5200e-003	3.7000e-004	2.3000e-004	6.0000e-004	0.0000	5.2168	5.2168	3.1000e-004	0.0000	5.2245
Worker	2.3100e-003	1.7800e-003	0.0180	4.0000e-005	3.8400e-003	3.0000e-005	3.8700e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.5282	3.5282	1.2000e-004	0.0000	3.5313
Total	**3.5100e-003**	**0.0308**	**0.0265**	**9.0000e-005**	**5.1200e-003**	**2.7000e-004**	**5.3900e-003**	**1.3900e-003**	**2.6000e-004**	**1.6500e-003**	**0.0000**	**8.7450**	**8.7450**	**4.3000e-004**	**0.0000**	**8.7558**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0172	0.1768	0.1358	2.0000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	18.4141	18.4141	5.8300e-003	0.0000	18.5597
Total	**0.0172**	**0.1768**	**0.1358**	**2.0000e-004**		**0.0109**	**0.0109**		**0.0100**	**0.0100**	**0.0000**	**18.4141**	**18.4141**	**5.8300e-003**	**0.0000**	**18.5597**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	9.1600e-003	2.5700e-003	2.0000e-005	4.3000e-004	7.0000e-005	4.9000e-004	1.2000e-004	7.0000e-005	1.9000e-004	0.0000	1.7299	1.7299	1.0000e-004	0.0000	1.7324
Worker	6.9000e-004	5.2000e-004	5.2500e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1414	1.1414	4.0000e-005	0.0000	1.1423
Total	**1.0500e-003**	**9.6800e-003**	**7.8200e-003**	**3.0000e-005**	**1.7100e-003**	**8.0000e-005**	**1.7800e-003**	**4.6000e-004**	**8.0000e-005**	**5.4000e-004**	**0.0000**	**2.8713**	**2.8713**	**1.4000e-004**	**0.0000**	**2.8747**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0172	0.1768	0.1358	2.0000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	18.4141	18.4141	5.8300e-003	0.0000	18.5597
Total	**0.0172**	**0.1768**	**0.1358**	**2.0000e-004**		**0.0109**	**0.0109**		**0.0100**	**0.0100**	**0.0000**	**18.4141**	**18.4141**	**5.8300e-003**	**0.0000**	**18.5597**

3.5 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	9.1600e-003	2.5700e-003	2.0000e-005	4.3000e-004	7.0000e-005	4.9000e-004	1.2000e-004	7.0000e-005	1.9000e-004	0.0000	1.7299	1.7299	1.0000e-004	0.0000	1.7324
Worker	6.9000e-004	5.2000e-004	5.2500e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.1414	1.1414	4.0000e-005	0.0000	1.1423
Total	**1.0500e-003**	**9.6800e-003**	**7.8200e-003**	**3.0000e-005**	**1.7100e-003**	**8.0000e-005**	**1.7800e-003**	**4.6000e-004**	**8.0000e-005**	**5.4000e-004**	**0.0000**	**2.8713**	**2.8713**	**1.4000e-004**	**0.0000**	**2.8747**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.9800e-003	0.0471	0.0429	7.0000e-005		2.6600e-003	2.6600e-003		2.4600e-003	2.4600e-003	0.0000	5.7435	5.7435	1.6400e-003	0.0000	5.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9800e-003**	**0.0471**	**0.0429**	**7.0000e-005**		**2.6600e-003**	**2.6600e-003**		**2.4600e-003**	**2.4600e-003**	**0.0000**	**5.7435**	**5.7435**	**1.6400e-003**	**0.0000**	**5.7845**

3.6 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.4000e-004	3.5000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7610	0.7610	2.0000e-005	0.0000	0.7616
Total	**4.6000e-004**	**3.4000e-004**	**3.5000e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7610**	**0.7610**	**2.0000e-005**	**0.0000**	**0.7616**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.9800e-003	0.0471	0.0429	7.0000e-005		2.6600e-003	2.6600e-003		2.4600e-003	2.4600e-003	0.0000	5.7435	5.7435	1.6400e-003	0.0000	5.7845
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9800e-003**	**0.0471**	**0.0429**	**7.0000e-005**		**2.6600e-003**	**2.6600e-003**		**2.4600e-003**	**2.4600e-003**	**0.0000**	**5.7435**	**5.7435**	**1.6400e-003**	**0.0000**	**5.7845**

3.6 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.4000e-004	3.5000e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.3000e-004	0.0000	0.7610	0.7610	2.0000e-005	0.0000	0.7616
Total	**4.6000e-004**	**3.4000e-004**	**3.5000e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.7610**	**0.7610**	**2.0000e-005**	**0.0000**	**0.7616**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0220	0.0221	4.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	3.0639	3.0639	2.6000e-004	0.0000	3.0704
Total	**0.5766**	**0.0220**	**0.0221**	**4.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**3.0639**	**3.0639**	**2.6000e-004**	**0.0000**	**3.0704**

3.7 Architectural Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	7.8000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1691	0.1691	1.0000e-005	0.0000	0.1692
Total	**1.0000e-004**	**8.0000e-005**	**7.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1691**	**0.1691**	**1.0000e-005**	**0.0000**	**0.1692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0220	0.0221	4.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	3.0639	3.0639	2.6000e-004	0.0000	3.0704
Total	**0.5766**	**0.0220**	**0.0221**	**4.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**3.0639**	**3.0639**	**2.6000e-004**	**0.0000**	**3.0704**

3.7 Architectural Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	7.8000e-004	0.0000	1.9000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1691	0.1691	1.0000e-005	0.0000	0.1692
Total	**1.0000e-004**	**8.0000e-005**	**7.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1691**	**0.1691**	**1.0000e-005**	**0.0000**	**0.1692**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Encourage Telecommuting and Alternative Work Schedules

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	0.0640	0.3743	0.7554	2.3000e-003	0.1388	2.7700e-003	0.1416	0.0383	2.6100e-003	0.0409	0.0000	211.2523	211.2523	8.8400e-003	0.0000	211.4732
Unmitigated	0.0652	0.3859	0.7836	2.4100e-003	0.1460	2.9000e-003	0.1489	0.0402	2.7300e-003	0.0430	0.0000	221.2701	221.2701	9.1500e-003	0.0000	221.4988

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	12.79	12.79	12.79	35,324	33,644
General Office Building	37.94	37.94	37.94	104,754	99,772
Manufacturing	61.54	24.00	9.99	188,589	178,998
Quality Restaurant	30.58	45.98	45.98	41,535	39,630
Total	142.86	120.72	106.71	370,203	352,045

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Quality Restaurant	14.70	6.60	6.60	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.569185	0.038999	0.171806	0.120317	0.026328	0.006551	0.017860	0.035422	0.003826	0.001868	0.005693	0.001021	0.001123
Quality Restaurant	0.569185	0.038999	0.171806	0.120317	0.026328	0.006551	0.017860	0.035422	0.003826	0.001868	0.005693	0.001021	0.001123
General Office Building	0.569185	0.038999	0.171806	0.120317	0.026328	0.006551	0.017860	0.035422	0.003826	0.001868	0.005693	0.001021	0.001123
General Office Building	0.569185	0.038999	0.171806	0.120317	0.026328	0.006551	0.017860	0.035422	0.003826	0.001868	0.005693	0.001021	0.001123

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.5022	75.5022	3.4100e-003	7.1000e-004	75.7980
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	85.0499	85.0499	3.8500e-003	8.0000e-004	85.3831
NaturalGas Mitigated	4.4700e-003	0.0406	0.0341	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003	0.0000	44.2329	44.2329	8.5000e-004	8.1000e-004	44.4957
NaturalGas Unmitigated	5.1800e-003	0.0471	0.0396	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.2798	51.2798	9.8000e-004	9.4000e-004	51.5845

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	19016.2	1.0000e-004	9.3000e-004	7.8000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0148	1.0148	2.0000e-005	2.0000e-005	1.0208
General Office Building	56588	3.1000e-004	2.7700e-003	2.3300e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0198	3.0198	6.0000e-005	6.0000e-005	3.0377
Manufacturing	426513	2.3000e-003	0.0209	0.0176	1.3000e-004		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	22.7604	22.7604	4.4000e-004	4.2000e-004	22.8956
Quality Restaurant	458829	2.4700e-003	0.0225	0.0189	1.3000e-004		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	24.4849	24.4849	4.7000e-004	4.5000e-004	24.6304
Total		**5.1800e-003**	**0.0471**	**0.0396**	**2.9000e-004**		**3.5800e-003**	**3.5800e-003**		**3.5800e-003**	**3.5800e-003**	**0.0000**	**51.2798**	**51.2798**	**9.9000e-004**	**9.5000e-004**	**51.5845**

5.2 Energy by Land Use - NaturalGas

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	tons/yr										MT/yr					
General Office Building	14279.5	8.0000e-005	7.0000e-004	5.9000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7620	0.7620	1.0000e-005	1.0000e-005	0.7665
General Office Building	42492.6	2.3000e-004	2.0800e-003	1.7500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2676	2.2676	4.0000e-005	4.0000e-005	2.2810
Manufacturing	346743	1.8700e-003	0.0170	0.0143	1.0000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	18.5036	18.5036	3.5000e-004	3.4000e-004	18.6135
Quality Restaurant	425378	2.2900e-003	0.0209	0.0175	1.3000e-004		1.5800e-003	1.5800e-003		1.5800e-003	1.5800e-003	0.0000	22.6998	22.6998	4.4000e-004	4.2000e-004	22.8347
Total		**4.4700e-003**	**0.0406**	**0.0341**	**2.4000e-004**		**3.0800e-003**	**3.0800e-003**		**3.0800e-003**	**3.0800e-003**	**0.0000**	**44.2329**	**44.2329**	**8.4000e-004**	**8.1000e-004**	**44.4958**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	21062.3	6.1273	2.8000e-004	6.0000e-005	6.1513
General Office Building	62676.8	18.2334	8.2000e-004	1.7000e-004	18.3048
Manufacturing	135621	39.4537	1.7800e-003	3.7000e-004	39.6083
Quality Restaurant	72996.5	21.2355	9.6000e-004	2.0000e-004	21.3187
Total		**85.0499**	**3.8400e-003**	**8.0000e-004**	**85.3831**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	18292.5	5.3215	2.4000e-004	5.0000e-005	5.3424
General Office Building	54434.6	15.8356	7.2000e-004	1.5000e-004	15.8977
Manufacturing	119168	34.6672	1.5700e-003	3.2000e-004	34.8031
Quality Restaurant	67641.9	19.6778	8.9000e-004	1.8000e-004	19.7549
Total		75.5022	3.4200e-003	7.0000e-004	75.7980

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1014	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Unmitigated	0.1014	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Total	**0.1014**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.0000**	**4.4000e-004**

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0895					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.1000e-004	4.1000e-004	0.0000	0.0000	4.4000e-004
Total	**0.1014**	**0.0000**	**2.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.1000e-004**	**4.1000e-004**	**0.0000**	**0.0000**	**4.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.1877	0.1702	4.0900e-003	15.6607
Unmitigated	10.4092	0.1702	4.0900e-003	15.8831

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.817575 / 0.501095	2.0566	0.0267	6.5000e-004	2.9171
Manufacturing	3.72544 / 0	7.0462	0.1217	2.9200e-003	10.9582
Quality Restaurant	0.667774 / 0.0426239	1.3064	0.0218	5.2000e-004	2.0078
Total		**10.4092**	**0.1702**	**4.0900e-003**	**15.8831**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.817575 / 0.300657	1.8525	0.0267	6.4000e-004	2.7122
Manufacturing	3.72544 / 0	7.0462	0.1217	2.9200e-003	10.9582
Quality Restaurant	0.667774 / 0.0255743	1.2891	0.0218	5.2000e-004	1.9904
Total		**10.1877**	**0.1702**	**4.0800e-003**	**15.6607**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.6663	0.1576	0.0000	6.6056
Unmitigated	5.3326	0.3152	0.0000	13.2112

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	4.28	0.8688	0.0513	0.0000	2.1524
Manufacturing	19.98	4.0558	0.2397	0.0000	10.0480
Quality Restaurant	2.01	0.4080	0.0241	0.0000	1.0108
Total		**5.3326**	**0.3151**	**0.0000**	**13.2112**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	2.14	0.4344	0.0257	0.0000	1.0762
Manufacturing	9.99	2.0279	0.1198	0.0000	5.0240
Quality Restaurant	1.005	0.2040	0.0121	0.0000	0.5054
Total		**2.6663**	**0.1576**	**0.0000**	**6.6056**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	19.7801	0.0000	0.0000	19.7801

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	4.58 / 3.89	-2.9739	0.0000	0.0000	-2.9739
Total		**-2.9739**	**0.0000**	**0.0000**	**-2.9739**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	31	22.7540	0.0000	0.0000	22.7540
Total		**22.7540**	**0.0000**	**0.0000**	**22.7540**

Diagram of the Process to Analyze Greenhouse Gas (GHG) Emissions as part of discretionary development projects in Napa County:

Step One: Napa County receives a request for development that requires discretionary review.

Step Two: Planner compares the project to the operational GHG screening size[1].

If it's below the screening criteria:

Applicant selects the BMPs they wish to implement as part of their project.

If it's above the screening criteria:

Staff models the project with CalEEmod and quantifies the project's operational related GHG emissions.

Step Three (If required): Planner compares the project's operational GHG emissions to the threshold of 1,100 MT of CO_2e/yr[2]

If it's below the significance threshold:

Applicant selects the BMPs they wish to implement as part of their project.

If it's above the significance threshold

Staff uses BMPs as required mitigation measures to bring the project below the significance threshold. (The applicant may also select additional BMPs.)

[1] Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes, Table 3-1. *Bay Area Air Quality Management District Air Quality* Guidelines (May 2012). Screening criteria are only available for certain types of projects. Where screening criteria do not exist, staff must quantify project GHG emissions.

[2] Thresholds of Significance Table 2-1.*Bay Area Air Quality Management District Air Quality* Guidelines (May 2012). These thresholds of significance are not relevant to vineyard projects.

A Tradition of Stewardship
A Commitment to Service

Agenda Date: 6/5/2013
Agenda Placement: 10A

Napa County Planning Commission
Board Agenda Letter

TO:	Napa County Planning Commission
FROM:	Charlene Gallina for Hillary Gitelman - Director Planning, Building and Environmental Services
REPORT BY:	Kirsty Shelton, Planner - 299-1377
SUBJECT:	Best Management Practices

RECOMMENDATION

DISCUSSION AND DIRECTION TO STAFF REGARDING A LIST OF VOLUNTARY BEST MANAGEMENT PRACTICES TO REDUCE GREEN HOUSE GAS EMISSIONS ASSOCIATED WITH NEW DEVELOPMENT

CEQA Status: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

Request: Discussion and direction to staff about a checklist of voluntary Best Management Practices (BMPs) for green house gas reductions. If the Commission concurs, applicants requesting approval of discretionary development applications will be asked to complete the checklist of voluntary BMPs.

Staff Recommendation: Commissioner input and direction regarding the proposed BMPs and their inclusion in discretionary development applications.

Staff Contact: Kirsty Shelton, Planner, 299-1377, Kirsty.shelton@countyofnapa.org

EXECUTIVE SUMMARY

The Planning Commission considered the proposed Climate Action Plan (CAP) at their meeting of January 18, 2012 and recommended adoption by the Board of Supervisors. After almost a year long trial period, the Board of Supervisors considered adoption of the plan at their meeting of December 11, 2012. At that time, the Board declined to adopt the CAP, instead directing staff to seek additional emission reductions from transportation sources and investigate other issues raised during the hearing. The Board also requested that the Planning Commission develop and apply a list of best management practices (BMPs) to reduce green house gas emissions from development projects while the CAP is being revised and reconsidered for possible adoption.

The proposed BMPs have been developed in consultation with applicant "stakeholders," including local land use planners, attorneys, civil engineers, architects, and industry representatives. If the Commission concurs, the checklist of voluntary BMPs would be included in the application materials required when project proponents request discretionary development approvals from the County. Applicants would use the checklist to indicate those measures they propose to include in their project. When the CAP is ultimately revised, it could incorporate, update, or supersede the checklist of BMPs.

FISCAL IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

BACKGROUND AND DISCUSSION

As indicated in the Executive Summary, the Board of Supervisors requested that the Planning Commission work with project applicants to incorporate "best practices" that will reduce green house gas emissions associated with development projects until the County can revise and adopt a Climate Action Plan. This request was based in part on a realization that voluntary measures to reduce green house gas emissions can be effective with or without a Napa-specific standard like the one that was proposed in the Climate Action Plan. (See the summary of 2012 projects, attached.)

If the Commission concurs, the proposed checklist of voluntary Best Management Practices (BMPs) would be used by project applicants to identify those measures proposed as part of their project. The measures selected would be included in staff's analysis of the proposed project, and in most cases would achieve a policy goal (reduced green house gas emissions) over and above what is needed to mitigate significant impacts under the California Environmental Quality Act (CEQA).

As the Commission is aware, staff analyzes development projects by comparing them to a list of screening criteria promulgated by the Bay Area Air Quality Management District (BAAQMD). If a project exceeds the screening criteria, staff quantifies the green house gas emissions associated with the project, and compares them to CEQA significance thresholds also developed by the BAAQMD. (The BAAQMD's significant thresholds were challenged in court and set aside, but are still based on substantial evidence and available for local lead agencies to use.)

Once the checklist of voluntary BMPs has been finalized and is in use, staff will begin the process of revising the Climate Action Plan for consideration by the Planning Commission and the Board of Supervisors. Staff's intent is to form a small task force or working group of interested stakeholders to assist with the process, and to complete a revised draft this fall. In addition, staff will continue work on a number of complementary efforts:

- The Board of Supervisors remains interested in a local offset program since it would offer the advantage of keeping the co-benefits of emission offset projects local (e.g. habitat restoration would happen here instead of elsewhere), and would allow for local monitoring. Staff will continue to research ways to keep the offsets local so that the community can enjoy the co-benefits.

- As part of the 2013 California Building Code, staff is going to research high performance building standards similar to Marin County such that the larger the home, the larger the percentage of high efficiency building materials required. Public meetings will be held when a draft of local building code amendments is prepared for adoption by the Board of Supervisors later this year. This new code will become effective on January 1, 2014.
- Staff is working with NCTPA on a Travel Behavior Survey to assess the potential for achieving additional green house gas reductions via expanded transit or paratransit programs.

SUPPORTING DOCUMENTS

A . Draft GHG BMP_Version Two 5.21.13

B . Summary of 2012 Project level GHG

C . Process Diagram

Napa County Planning Commission: Approve

Reviewed By: Charlene Gallina

EXHIBIT D

wra
ENVIRONMENTAL CONSULTANTS

June 21, 2017

Anthony Truchard
Truchard Family Vineyards
3234 Old Sonoma Road
Napa, California 94559

RE: Results of the Western Pond Turtle Survey and Special-Status Wildlife Review for the Truchard Winery Study Area

Dear Mr. Truchard,

This letter is to report the findings of the western pond turtle (*Actinemys marmorata*) survey and review of special-status wildlife species in the vicinity of the proposed Truchard Winery Project Area (Study Area). The Study Area is located at 4062 Old Sonoma Road, Napa, Napa County, California. Western pond turtle is a California Department of Fish and Wildlife (CDFW) Species of Special Concern. The Study Area was surveyed to assess the suitability of the site to provide aquatic and nesting habitat for the western pond turtle and determine if pond turtles were currently utilizing the Study Area. In addition, the potential for and presence in the Study Area of California giant salamander (*Dicamptodon ensatus*), pallid bat (*Antrozous pallidus*), and special-status wildlife species documented in the vicinity of the Study Area were assessed. A table of all wildlife species reviewed and their potential for occurrence is provided as Attachment A. A survey and assessment for special-status plant species has also been conducted in the Study Area and is provided as Attachment B.

Study Area

The Study Area is located at 4062 Old Sonoma Road, Napa, Napa County, California. The proposed Project includes replacement of a bridge over an unnamed tributary to Congress Creek, access drive improvements, and construction of a tasting room. The Study Area includes the Project footprint and surrounding areas within 200 feet, and the immediately adjacent irrigation pond. The Study Area resides in an agricultural setting dominated by vineyards, and is bordered to the north, south, and east by vineyards and associated infrastructure including irrigation ponds. To the west is Old Sonoma Road and a mix of vineyards, rural residential, and oak woodland.

Survey Methods

A site visit to the Study Area was made on May 12, 2017 by WRA biologist Patricia Valcarcel. Prior to the site visit, a review was conducted of background information. Database searches for known occurrences of special-status wildlife species focused on the Napa 7.5-minute USGS quadrangle and the eight surrounding USGS quadrangles. The following sources were reviewed to determine which special-status wildlife species have been documented to occur in the vicinity of the Study Area:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2017)

- U.S. Fish and Wildlife Service (USFWS) 7.5' Quadrangle Species Lists for the Napa quadrangles (USFWS 2017)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "California Bird Species of Special Concern" (Shuford and Gardali 2008)
- California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- National Marine Fisheries Service (NMFS) Species List and Essential Fish Habitat Maps of California (NMFS 2017)
- Breeding Birds of Napa County, California (Berner et al 2003)
- Western Bat Working Group (WBWG) online species accounts (WBWG 2017)
- eBird online database (eBird 2017)
- iNaturalist online database (2017)

Special-status species include wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). Additionally, CDFW Species of Special Concern, CDFW Fully Protected species, CDFW Special-status Invertebrates, and Western Bat Working Group High and Medium Priority Species are all considered special-status wildlife species and were considered in this review.

The Study Area was traversed on foot by the WRA biologist and examined for the presence, and potential to support, special-status wildlife species with a focus on western pond turtle, California giant salamander, and pallid bat. If a special-status species was observed during the site visit, its presence is recorded and discussed further below.

Survey Results

Study Area Description

The Study Area includes vineyards, unpaved access roads, non-native annual grassland, an irrigation pond, and the unnamed tributary to Congress Valley Creek. Valley oak trees (*Quercus lobata*) are present along the unnamed tributary and scattered through the Study Area. The unnamed tributary contained standing water approximately 6-10 inches deep under the bridge and 4-6 inches deep elsewhere. The tributary is intermittent and was not flowing at the time of the site visit.

Western Pond Turtle

The survey was conducted by Patricia Valcarcel, a biologist experienced with western pond turtle and survey methodology. The survey was conducted between 11:00 am and 2:00 pm when turtles would be visible basking and active. Conditions during the survey were suitable for detection of western pond turtle: clear, winds at 8-15 mph, and air temperature approximately 70-76°F. One hour was spent focused on the irrigation pond along the edge with views of all banks and basking habitat. Vegetation within the irrigation pond is limited to the bank and is predominantly tules (*Scirpus spp.*). Basking habitat is present in areas of fallen tules, but no western pond turtles or turtle species were observed. The unnamed tributary was also investigated within 200 feet of the existing bridge, and no western pond turtle or turtle species were observed. The tributary is intermittent and typically dries by early summer within the Study Area, and is shaded with no basking habitat present. A brief investigation of nearby irrigation ponds was also conducted, but no western pond turtles or turtle species were observed. The

Study Area is predominantly vineyard or access roads and not suitable for pond turtle nesting. The non-native annual grassland contains extremely hard-packed and rocky substrate and is not suitable nesting substrate for pond turtle.

California Giant Salamander

The unnamed tributary was investigated for potential to support California giant salamander. This species requires creek or steam habitat which contain pools through the summer or permanent pools to support successful larval development and metamorphosis. Adult California giant salamanders require subterranean refugia outside of the reproductive period. No California giant salamanders were observed. The tributary does not provide sufficient inundation or pool habitat to support reproduction and is not in proximity to suitable habitat. The banks within the Study Area are developed with revetment walls and bridge supports limiting potential refugia. The bank habitat also contains limited vegetation and burrows to provide refugia for adult giant salamanders. The unnamed tributary does not provide habitat to support the California giant salamander and this species is not likely to occur within the tributary. This species is known in drainages in the forested hills and mountains of Sonoma County and western Napa which provide suitable pools and upland refugia for the species.

Pallid Bat

The Valley oak trees and existing bridge within the Study Area were investigated for potential to support pallid bat and other special-status roosting bats. Typical roost habitat for pallid bat is rocky outcrops and cliffs with spacious crevices, caves, mines, barns, and bridges with suitable crevice structures. Tree roosting is not common but may occur in trees with large cavities. The existing bridge structure is an open slat structure which exposes the underside of the bridge. These types of bridge structures do not provide the protected habitat required by bats for roost locations. Roost locations provide protection from temperature and winds. The existing bridge does not support roost habitat for bat species, and pallid bat is unlikely to roost on the bridge structure. No bat species were observed roosting under the bridge.

Large oaks within the Study Area contain cavities which may support some cavity or tree roosting bat species. However, only one small oak is proposed for removal at the bridge location. All other oak trees are to be avoided. The oak tree proposed for removal is approximately 10-inch diameter at breast height, and does not contain branch structure or cavities to support bat roosting. Branches overhanging the existing bridge were investigated in case trimming is required for bridge replacement activities. Branches were not of suitable size to support bat roosting and no cavities were present. No pallid bat or potential bat roost habitat is present in the tree proposed for removal or branches with potential to be trimmed during project activities. No evidence of bat roosting in trees was observed.

Special-status Wildlife Species Review

A brief review of background literature as described above was conducted to determine the potential for special-status wildlife documented within the nine surrounding 7.5-minute quadrangles. No special-status species were observed within or adjacent to the Study Area. A total of 64 special-status wildlife species have been documented in the surrounding nine quadrangles. Four of these special-status wildlife species have been documented within two miles and include pallid bat, American badger (*Taxidea taxus*), longfin smelt (*Spirinchus thaleichthys*), and western bumblebee (*Bombus occidentalis*). Pallid bat is discussed above,

and two of the remaining species do not have potential to occur within the Study Area. American badger requires open, uncultivated grasslands for dens and foraging. The Study Area is predominantly vineyard and associated infrastructure which does not support this species. The Study Area is not contiguous with open habitat which may support this species. The unnamed tributary does not support fish species including longfin smelt. Longfin smelt is known in the San Francisco Bay Estuary and may occur in the lower Napa River.

Western bumblebee is a generalist forager, but does require flowering plants for foraging which can include some crops (Xerces 2017). Bees are not known to forage for grape pollen; however, may occur in oak woodlands adjacent to vineyards (LeBuhn and Fenter 2008). The Study Area is predominantly vineyards which does not provide foraging habitat, but the species may use oak trees for nests. Foraging habitat is limited to the non-native annual grassland habitat. The extremely limited amount of foraging habitat within the Study Area reduces potential for the western bumblebee to nest within the Study Area. In addition, all oak trees with suitable cracks and cavities for bumblebee nesting will be avoided by the proposed Project. Although it is unlikely western bumblebee will occur within the Study Area, the project is avoiding potential nest habitat.

Summary

No special-status wildlife species were observed during the May 12, 2017 survey, and none of the wildlife species reviewed have a moderate or high potential to occur. Western pond turtle was not observed within the irrigation pond adjacent to the proposed Project and conditions were suitable to detect them if present. This species was possibly observed through binoculars at a distance in 2011 adjacent to the Study Area; however, no evidence that the species is currently present was observed. Nesting habitat for pond turtles is extremely limited within the Study Area and unlikely based on substrate. The existing bridge and one oak tree proposed for removal do not provide roost habitat for pallid bat or other bat species. Potential roost habitat for bat species is present in other oak trees within the Study Area; however, pallid bat is not a typical tree roosting bat species. The oak trees are to be avoided by the proposed Project. The Study Area does not provide suitable habitat for special-status amphibians documented in the vicinity, and foraging habitat is limited for western bumblebee reducing potential for it to nest within the Study Area. In addition, the proposed Project will avoid oak trees with potential to support bumblebee nests.

The Study Area has only limited potential to support special-status wildlife species and such potential habitat is limited to the large oaks. All of the large oak trees will be avoided by the proposed Project. No special-status wildlife species were observed during the survey on May 12, 2017, and none are anticipated to be found or impacted by the proposed Project based on the survey results.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Patricia Valcarcel
Associate Wildlife Biologist

Attachments

Attachment A. Table of Special-Status Wildlife Species Potential for Occurrence
Attachment B. Truchard Winery Project 2017 Special Status Plant Survey (Kelly Biological Consulting 2017)

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Attachment A

Attachment B

Attachment A. Potential for Special Status Wildlife Species to Occur in the Study Area. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB; CDFW 2017); U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation Database (USFWS 2017); National Marine Fisheries Service (NMFS) Endangered Species Act Listed Species, Critical Habitat, Essential Fish Habitat, and Marine Mammal Protection Act Species Data (NMFS 2017) searches of the Napa, Sonoma, Sears Point, Capell Valley, Rutherford, Yountville, Mount George, Cuttings Wharf, and Cordelia USGS 7.5' quadrangles; a review of historical and current satellite imagery via Google Earth (2017); available on-line databases such as iNaturalist and eBird; and other publications.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mammals				
pallid bat *Antrozous pallidus*	SSC, WBWG	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, forages along river channels. Roost sites include crevices in rocky outcrops and cliffs, caves, mines, trees and various human structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Moderate Potential.** The Study Area is predominantly maintained grape vines; however, this species may use cavities in adjacent oak trees for day roosting. Tree cavities in the adjacent oak trees are unlikely to be suitable for maternity roost sites based on size. The bridge does not provide suitable roost habitat for bat species based on design, there is no potential for pallid bat to use the existing bridge.	Avoidance of large oak trees within and near the Study Area.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, WBWG	This species is associated with a wide variety of habitats from deserts to mid-elevation mixed coniferous-deciduous forest. Females form maternity colonies in buildings, caves and mines and males roost singly or in small groups. Foraging occurs in open forest habitats where they glean moths from vegetation.	**Unlikely**. The Study Area is predominantly maintained grape vines. This species is not known to use trees for roosting, and the existing bridge does not provide bat roost habitat. No buildings are present, and no abandoned buildings are present in the vicinity of the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western red bat *Lasiurus blossevillii*	SSC, WBWG	This species is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	**Unlikely**. The Study Area is predominantly maintained grape vines. Typical riparian habitat of this species is not present; however, this species may on occasion use trees adjacent to the Study Area for day roost. The Study Area is unlikely to support maternity roosts of this species based on a lack of dense cover in trees within the Study Area. The existing bridge does not provide bat roost habitat.	No further actions are recommended for this species.
hoary bat *Lasiurus cinereus*	WBWG	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Unlikely**. The Study Area is predominantly maintained grape vines. Typical forested habitat of this species is not present; however, this species may on occasion use trees near the Study Area for day roost. The existing bridge does not provide bat roost habitat. This species has not been documented within 5 miles.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
silver-haired bat *Lasionycteris noctivagans.*	WBWG	Primarily a forest dweller, feeding over streams, ponds, and open brushy areas. Summer habitats include a variety of forest and woodland types, both coastal and montane. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark.	**Unlikely**. The Study Area is predominantly maintained grape vines. Typical forested habitat of this species is not present. The existing bridge does not provide bat roost habitat. This species has not been documented within 5 miles.	No further actions are recommended for this species.
long-eared myotis *Myotis evotis*	WBWG Medium	Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but is usually associated with coniferous forests from sea level to 9000 feet. Individuals roost under exfoliating tree bark, and in hollow trees, caves, mines, cliff crevices, and rocky outcrops on the ground. They also sometimes roost in buildings and under bridges.	**Unlikely**. The Study Area is predominantly maintained grape vines. Typical shrub and chaparral habitat of this species is not present. The existing bridge does not provide bat roost habitat. This species has not been documented within 5 miles.	No further actions are recommended for this species.
fringed myotis *Myotis thysanodes*	WBWG	Associated with a wide variety of habitats including dry woodlands, desert scrub, mesic coniferous forest, grassland, and sage-grass steppes. Buildings, mines and large trees and snags are important day and night roosts.	**Unlikely.** This species has not been documented within 5 miles, and the Study Area is predominantly maintained grape vines. Tree cavities in the adjacent oak trees are unlikely to be suitable for maternity roost sites based on size. No snags are present. The bridge does not provide suitable roost habitat for bat species based on design.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
long-legged myotis *Myotis volans*	WBWG	Primarily found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Large hollow trees, rock crevices and buildings are important day roosts. Other roosts include caves, mines and buildings.	**Unlikely**. The Study Area is predominantly maintained grape vines. Coniferous forest habitat is not present. The existing bridge does not provide bat roost habitat. This species has not been documented within 5 miles.	No further actions are recommended for this species.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely.** The Study Area is a vineyard and surrounding habitats also include agricultural uses and development. This species may be in open habitats west of the Study Area but is unlikely to occur within the Study Area.	No further actions are recommended for this species.
ring-tailed cat (Ringtail) *Bassariscus astutus*	CFP	Widely distributed throughout most of California, absent from some portions of the Central Valley and northeastern California. Found in a variety of habitats throughout the western US including riparian areas, semi-arid country, deserts, chaparral, oak woodlands, pinyon pine woodlands, juniper woodlands and montane conifer forests usually under 1400m in elevation. Typically uses cliffs or large trees for shelter.	**Unlikely.** The Study Area is a vineyard and surrounding habitats also include agricultural uses and development. The trees within and adjacent to the Study Area are unlikely to provide suitable refugia based on lack of large cavities or other cover.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP, SSC	Found only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may use other thick wetland vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	**No Potential.** The Study Area is outside the range of this species. No saltmarsh habitat is within or near the Study Area.	No further actions are recommended for this species.
Suisun shrew *Sorex ornatus sinuosus*	SSC	Tidal marshes of the northern shores of San Pablo and Suisun Bays. Require dense low-lying cover and driftweed and other litter above the mean hightide line for nesting and foraging.	**No Potential.** The Study Area is outside the range of this species. No saltmarsh habitat is within or near the Study Area.	No further actions are recommended for this species.
Birds				
golden eagle *Aquila chrysaetos*	CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**Unlikely.** The Study Area does not contain potential nest habitat. This species forages widely and may be observed flying over the Study Area on occasion, although it is unlikely to forage within the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
bald eagle *Haliaeetus leucocephalus*	FD, SE, CFP	Occurs year-round in California, but primarily a winter visitor. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**Unlikely.** The Study Area does not contain potential nesting or foraging habitat. Small irrigation ponds in the vicinity are unlikely to contain typical prey and be used as foraging for this species.	No further actions are recommended for this species.
northern harrier *Circus cyaneus*	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	**Unlikely.** This species requires open grasslands for nesting or foraging. The Study Area and surrounding areas are predominantly vineyards and development which are unsuitable for this species.	No further actions are recommended for this species.
white-tailed kite *Elanus leucurus*	CFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	**Unlikely.** This species forages over open habitats and typically nests in proximity to foraging habitat. The Study Area and surrounding areas are predominantly vineyards and development which is not suitable foraging habitat. This species is unlikely to nest in trees within or near the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**Unlikely.** The Study Area does not contain potential nest habitat. This species forages widely and may be observed flying over the Study Area on occasion, although it is unlikely to forage within the Study Area.	No further actions are recommended for this species.
Swainson's hawk *Buteo swainsoni*	ST	Summer resident in California's Central Valley and limited portions of the southern California interior. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as agricultural fields, especially alfalfa. Preys on arthropods year-round as well as smaller vertebrates during the breeding season.	**Unlikely.** The Study Area does not contain foraging habitat, and the species is unlikely to nest in or near the Study Area based on a lack of typical foraging habitat. A small population is known to nest in the vicinity of Napa County Airport; however it has not been documented east of the City of Napa.	No further actions are recommended for this species.
northern spotted owl *Strix occidentalis caurina*	FT, ST, SSC	Year-round resident in dense, structurally complex forests, primarily those with old-growth conifers. Nests on platform-like substrates in the forest canopy, including in tree cavities. Preys on mammals.	**No Potential.** The Study Area and vicinity do not contain suitable habitat for this species. This species is not known in southern Napa County.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
burrowing owl *Athene cunicularia*	SSC	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**No Potential.** The Study Area and vicinity do not contain suitable habitat for this species. The Study Area and vicinity are predominantly vineyards and development. This species is extremely rare in Napa County.	No further actions are recommended for this species.
short-eared owl *Asio flammeus*	SSC	Occurs year-round, but primarily as a winter visitor; breeding very restricted in most of California. Found in open, treeless areas (e.g., marshes, grasslands) with elevated sites for foraging perches and dense herbaceous vegetation for roosting and nesting. Preys mostly on small mammals, particularly voles.	**No Potential.** The Study Area and vicinity do not contain suitable habitat for this species. The Study Area and vicinity are predominantly vineyards and development. This species is extremely rare in Napa County.	No further actions are recommended for this species.
long-eared owl *Asio otus*	SSC	Occurs year-round in California. Nests in trees in a variety of woodland habitats, including oak and riparian, as well as tree groves. Requires adjacent open land with rodents for foraging, and the presence of old nests of larger birds (hawks, crows, magpies) for breeding.	**Unlikely.** The Study Area and vicinity do not contain suitable foraging habitat for this species. The Study Area and vicinity are predominantly vineyards and development and this species is unlikely to nest in these habitats.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
California Ridgway's (clapper) rail *Rallus obsoletus obsoletus*	FE, SE, CFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on molluscs and crustaceans.	**No Potential.** The Study Area is outside the range of this species. No tidal marsh habitat is within or near the Study Area.	No further actions are recommended for this species.
California black rail *Laterallus jamaicensis coturniculus*	ST, CFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**No Potential.** The Study Area is outside the range of this species. No marsh habitat is within or near the Study Area.	No further actions are recommended for this species.
great blue heron *Ardea herodias*	none (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially in tall trees and on cliffs, also sequester terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**Unlikely.** The Study Area does not contain a rookery and there is no potential for the Study Area to support a nesting colony. This species may on occasion be observed passing over the Study Area when moving between foraging sites.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
California least tern *Sternula antillarum browni*	FE, SE, CFP	(Nesting colony) nests along the coast from San Francisco Bay south to northern Baja California. Breeding colonies in San Francisco Bay found in abandoned salt ponds and along estuarine shores. Colonial breeder on barren or sparsely vegetated, flat substrates near water.	**No Potential.** The Study Area is outside the nesting range of the species. No suitable habitat is present.	No further actions are recommended for this species.
great egret *Ardea alba*	none (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially, usually in trees, occasionally on the ground or elevated platforms. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**Unlikely.** The Study Area does not contain a rookery and there is no potential for the Study Area to support a nesting colony. This species may on occasion be observed passing over the Study Area when moving between foraging sites.	No further actions are recommended for this species.
western snowy plover *Charadrius nivosus (alexandrines) nivosus*	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No Potential.** The Study Area is outside the nesting range of the species. No suitable habitat is present.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
olive-sided flycatcher *Contopus cooperi*	SSC	Summer resident. Typical breeding habitat is montane coniferous forests. Also occurs in wooded canyons and mixed forests and woodlands at lower elevations. Often associated with forest edges. Arboreal nest sites located well off the ground.	**Unlikely.** The Study Area does not contain typical habitat of this species. In lower elevation habitats, this species typically nests within eucalyptus groves which are not present in or near the Study Area.	No further actions are recommended for this species.
purple martin *Progne subis*	SSC	Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and human-made structures. Nest is often located in tall, isolated tree or snag.	**Unlikely.** This species is typically found in mixed chaparral and coniferous forests and is rare in southern Napa County. The Study Area and vicinity do not provide suitable habitat.	No further actions are recommended for this species.
bank swallow *Riparia riparia*	ST	Migrant in riparian and other lowland habitats in western California. Colonial nester in riparian areas with vertical cliffs and bands with fine-textured or fine-textured sandy soils near streams, rivers, lakes or the ocean. Historical range in southern and central areas of California has been eliminated by loss of nesting habitat due to flood and erosion-control projects, but currently is known to breed in Siskiyou, Shasta, and Lassen Cos., and along Sacramento River from Shasta Co. south to Yolo Co.	**No Potential.** The Study Area and vicinity do not contain riparian or cliff habitat to support this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
loggerhead shrike *Lanius ludovicianus*	SSC	Year-round resident in open woodland, grassland, savannah and scrub. Prefers areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed in densely-foliaged shrubs or trees.	**Unlikely.** The Study Area does not contain typical nesting habitat, and the species is not known to forage within vineyards. Shrubs and trees with dense vegetation are preferred nesting substrate and open habitats for foraging.	No further actions are recommended for this species.
black swift *Cypseloides niger*	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas.	**Unlikely.** The Study Area and vicinity do not contain cliff or canyon habitat to support nesting. This species may be observed on occasion foraging or migrating over the Study Area.	No further actions are recommended for this species.
San Francisco common yellowthroat *Geothlypis trichas sinuosa*	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Unlikely.** This species is associated with marsh habitat. No marsh habitat suitable for this species is present within or near the Study Area.	No further actions are recommended for this species.
yellow warbler *Setophaga (Dendroica) petechia brewsteri*	SSC	Summer resident throughout much of California. Breeds in riparian vegetation close to water, including streams and wet meadows. Microhabitat used for nesting variable, but dense willow growth is typical. Occurs widely on migration.	**Unlikely.** The Study Area does not provide dense riparian vegetation for nesting and is unlikely to occur within the Study Area during the breeding season. This species may by observed passing through during migration.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
yellow-breasted chat *Icteria virens*	SSC	Summer resident, occurring in riparian areas with an open canopy, very dense understory, and trees for song perches. Nests in thickets of willow, blackberry, and wild grape.	**Unlikely.** The Study Area does not provide dense riparian vegetation suitable for this species. It is unlikely to occur in the Study Area during the breeding or migration seasons.	No further actions are recommended for this species.
grasshopper sparrow *Ammodramus savannarum*	SSC	Summer resident. Breeds in open grasslands, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	**Unlikely.** The Study Area and vicinity do not contain open habitat for this species. The Study Area and vicinity are predominantly vineyards and development and this species is unlikely to occur in these habitats.	No further actions are recommended for this species.
Bell's sage sparrow *Amphispiza belli belli*	SSC	Year-round resident, though shows seasonal movements. Prefers dense chaparral and scrub habitats for breeding; strongly associated with chamise. Also occurs in more open habitats during winter.	**Unlikely.** The Study Area and vicinity do not contain scrub or chaparral habitats for this species. The Study Area and vicinity are predominantly vineyards and development and this species is unlikely to occur in these habitats.	No further actions are recommended for this species.
San Pablo song sparrow *Melospiza melodia samuelis*	SSC	Resident of salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits tidal sloughs in the *Salicornia* marshes; nests in *Grindelia* bordering slough channels.	**Unlikely.** The Study Area and vicinity do not contain salt marsh or tidal habitats. This species is unlikely to occur within or near the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Suisun song sparrow *Melospiza melodia maxillaris*	SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and *Salicornia*; also known to frequent tangles bordering sloughs.	**Unlikely.** The Study Area and vicinity do not contain salt marsh or tidal habitats. This species is unlikely to occur within or near the Study Area.	No further actions are recommended for this species.
tricolored blackbird *Agelaius tricolor*	SC, SSC	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**Unlikely.** The Study Area and vicinity do not contain suitable marsh or riparian habitat to support this species. The Study Area is predominantly vineyards and no dense riparian vegetation is present. Adjacent irrigation ponds lack dense vegetation to support a nesting colony.	No further actions are recommended for this species.
yellow-headed blackbird *Xanthocephalus xanthocephalus*	SSC	Summer resident. Breeds colonially in freshwater emergent wetlands with dense vegetation and deep water, often along borders of lakes or ponds. Requires abundant large insects such as dragonflies; nesting is timed for maximum emergence of insect prey.	**Unlikely.** The Study Area and vicinity do not contain suitable marsh or riparian habitat to support this species. The Study Area is predominantly vineyards and no dense riparian vegetation is present. This species is extremely rare in Napa County.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Reptiles and Amphibians				
California red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**Unlikely.** The Study Area and vicinity are vineyards and associated development. No breeding habitat is present within or near the Study Area. Adjacent irrigation ponds are typically occupied with predators such as American bullfrogs and fish. This species is not documented within 5 miles.	No further actions are recommended for this species.
foothill yellow-legged frog *Rana boylii*	SSC	Found in or near rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**No Potential.** The intermittent stream within the Study Area is not suitable habitat for this species, and is not in the vicinity of typical rocky stream habitat. The species is not documented within 4 miles of the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
California tiger salamander *Ambystoma californiense*	FE/FT, ST	Populations in Santa Barbara and Sonoma counties currently listed as endangered. Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Seasonal ponds and vernal pools are crucial to breeding. Adults utilize mammal burrows as estivation habitat.	**No Potential.** The Study Area is outside of the range of this species. No breeding habitat is present within or near the Study Area. Adjacent irrigation ponds are typically occupied with predators such as American bullfrogs and fish. This species is not documented within 5 miles.	No further actions are recommended for this species.
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**Unlikely.** The intermittent stream within the Study Area is not suitable habitat, and is not in the vicinity of typical forested stream habitat. The stream banks are dry and exposed and no pool habitat remains for larvae to successfully metamorphose. The nearest occurrence is over 4 miles north of the Study Area.	No further actions are recommended for this species.
red-bellied newt *Taricha rivularis*	SSC	Inhabits coastal forests from southern Sonoma County northward, with an isolated population in Santa Clara County. Redwood forest provides typical habitat; though other forest types are used. Adults are terrestrial and fossorial. Breeding occurs in streams, usually with relatively strong flow.	**No Potential.** The Study Area is outside the range of this species and no forest habitat is present.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western (Pacific) pond turtle *Actinemys marmorata*	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**Unlikely.** The Study Area does not contain suitable aquatic to support this species throughout the year. The hard substrate within the Study Area precludes nesting, and no pond turtles were observed in adjacent irrigation ponds during the site assessment on May 12, 2017.	No further actions are recommended for this species.
Fishes				
river lamprey *Lampetra ayresi*	SSC	Lower Sacramento River, San Joaquin River and Russian River. May occur in coastal streams north of San Francisco Bay. Adults need clean, gravelly riffles, Ammocoetes need sandy backwaters or stream edges, good water quality and temps < 25 degrees C.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.
green sturgeon *Acipenser medirostris*	FT, SSC	Spawn in the Sacramento River and the Klamath River. Spawn at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Sacramento splittail *Pogonichthys macrolepidotus*	SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento Delta, Suisun Bay and associated marshes. Occurs in slow-moving river sections and dead end sloughs. Requires flooded vegetation for spawning and foraging for young. Splittail are primarily freshwater fish, but are tolerant of moderate salinity.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.
Delta smelt *Hypomesus transpacificus*	FT, SE	Lives in the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.
longfin smelt *Spirinchus thaleichthys*	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.
steelhead - central CA coast DPS *Oncorhynchus mykiss irideus*	FT, NMFS	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** The Study Area is outside the range of the species and the intermittent stream does not provide suitable habitat.	No further actions are recommended for this species.
Invertebrates				
western bumble bee *Bombus occidentalis*	SSI	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2017). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	**Unlikely.** The Study Area and vicinity are predominantly vineyards and development. Bees are not known to forage on grape pollen. Therefore, the Study Area has limited potential to support foraging of this species, and reduces potential for the species to nest in trees within the Study Area.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Callippe silverspot butterfly *Speyeria callippe callippe*	FE, SSI	Two populations in San Bruno mountain and the Cordelia Hills are recognized. Hostplant is *Viola pedunculata*, which is found on serpentine soils. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	**No Potential.** The Study Area is outside the range of this species and does not contain serpentine habitat.	No further actions are recommended for this species.
monarch butterfly *Danaus plexippus*	SSI (winter roosts protected by CDFW)	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**Unlikely.** The Study Area does not contain winter roost habitat and winter roosts are typically in close association with the coast or San Francisco Bay. This species may be observed passing through during migration.	No further actions are recommended for this species.
Ricksecker's water scavenger beetle *Hydrochara ricksecker*i	SSI	Small aquatic beetle known only from pond habitats scattered around the San Francisco Bay area, including Marin, Sonoma, Alameda, Lake, and Contra Costa counties. Extensive surveys from 1988 failed to locate this species. The locations of existing populations remain unknown (Hafernick 1989).	**No Potential**. The Study Area does not contain natural pond habitat. The intermittent stream is unlikely to support this species.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
(No common name) Isopod *Calasellus californicus*	SSI	A blind isopod found in freshwater habitats, the known collections are from a freshwater well and two springs. This poorly known species has been collected from one locality each in Napa, Lake and Santa Clara counties.	**Unlikely.** The Study Area does not contain natural pond habitat, and the intermittent stream is unlikely to support this species. The occurrence in Napa County is from a spring site (CDFW 2017).	No further actions are recommended for this species.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT, SSI	Occurs only in the central valley of California, in association with blue elderberry (*Sambucus mexicana*). Prefers to lay eggs in elderberrry 2 to 8 inches in diameter; some preference shown for "stressed" elderberry.	**No Potential.** The Study Area is outside of the range of this species, and not elderberry plants are present.	No further actions are recommended for this species.
California freshwater shrimp *Syncaris pacifica*	FE, SE, SSI	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main stream flow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	**No Potential.** The intermittent stream within the Study Area does not provide suitable habitat and is not in the vicinity of suitable stream habitat. This species has not been documented within the Congress Creek watershed.	No further actions are recommended for this species.
vernal pool fairy shrimp *Branchinecta lynchi*	FT, SSI	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** The Study Area is does not contain vernal pool or seasonal wetland habitats. The Study Area is predominantly vineyard and developed habitats.	No further actions are recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Conservancy fairy shrimp *Branchinecta conservatio*	FE, SSI	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**No Potential.** The Study Area is does not contain vernal pool or seasonal wetland habitats. The Study Area is predominantly vineyard and developed habitats.	No further actions are recommended for this species.

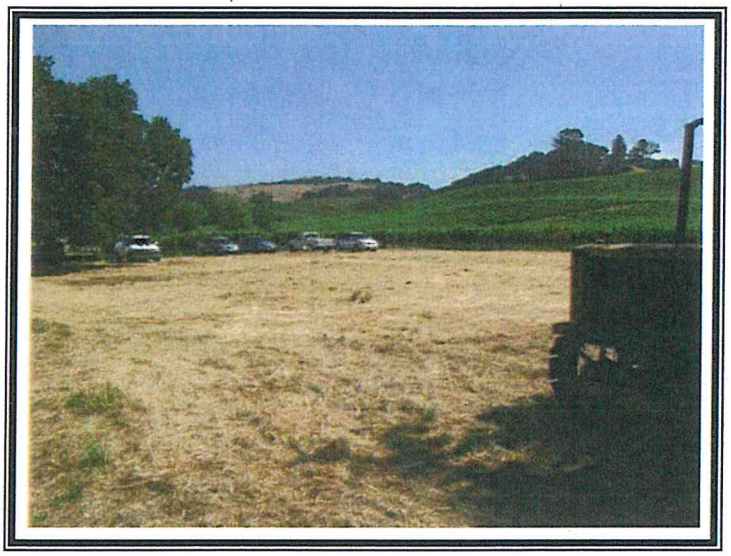
FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
SE	State Endangered
ST	State Threatened
SC	State Candidate
SSC	CDFW Species of Special Concern
SSI	CDFW Special-Status Invertebrate
CFP	CDFW Fully Protected Animal
WBWG	Western Bat Working Group High or Medium Priority species

Potential to Occur:
No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

EXHIBIT E

Truchard Winery Project

2017 Special Status Plant Survey



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June 12, 2017

1.0 Introduction

A special status plant survey of the Truchard Winery Project was completed on June 6, 2017. The purpose of this special status plant survey was to conduct a site visit to determine the potential for special status plants to be present. The site is located along Old Sonoma Road in Napa County, California (APN 043-040-001). It is on the Napa USGS quad, at approximately 38.281645 latitude and -122.323544 longitude. The Study Area is shown in yellow on Figure 1.

2.0 Methods

2.1 Literature Search

Potential occurrence of special status plants in the Study Area was evaluated by first determining which special status species occur in the vicinity through a literature and database search. The California Natural Diversity Database (California Department of Fish and Wildlife 2017) and California Native Plant Society Inventory (CNPS) (CNPS 2017) were queried. From the above sources, a target list of special-status plant species with potential to occur on or in the vicinity of the Study Area was developed (Table 1). Potential for special status species to occur in the Study Area was evaluated according to the following criteria:

(1) Not Present. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (based on cover, substrate, elevation, hydrology, plant community, site history, or disturbance regime).

(2) Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

(3) Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

(4) High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

(5) Present. Species has been observed on the site or recorded (i.e. CNDDB, other reports) on the site recently.

2.2 Field Studies

On June 6, 2017, Micki Kelly, a qualified plant ecologist (Kelly Biological Consulting) conducted a special status plant survey of the Study Area using methods similar to those identified in California Department of Fish and Wildlife's *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (CDFW 2009). The Study Area was traversed on foot. Potential special status plant habitat was examined; and all plant taxa observed

were keyed to the highest taxonomic level necessary for rarity determination. A list of plant taxa found in the Study Area was compiled and included in this report (Table 2).

3.0 Results

The site is roughly 135 feet above sea level and relatively flat. There is an intermittent creek flowing through the site, with old wooden bridge crossing it. The NRCS soils map identifies the soils on the northeast part of the site as 112- Bressa-Dibble complex, 5 to 15 percent slope (NRCS 2017); the west part of the site as 118 - Cole silt loam, 0 to 2 percent slopes; the south-southeast part of the as 146- Haire loam, 2 to 9 percent. None of the soils provide serpentine habitat for special status plants. The adjacent land use is predominately vineyards, with dirt, gravel, and paved roads interspersed. There is a barn and a small parking area along the northeast boundary of the Study Area.

Within the Study Area, the primary plant community is Non-native Grassland. A wooded creek flows south to north, through the site. The Non-native Grassland is similar to the Harding Grass Sward (*Phalaris aquatica* Semi-Natural Herbaceous Stands) discussed in the Manual of California Vegetation (Sawyer, et. al. 2009). This habitat covers most of survey area, with the exception of the creek area. The dominant species is Harding grass (*Phalaris aquatica)* interspersed with minor patches of loosestrife (*Lythrum hyssopifolium*) and other non-native grasses and forbs. Prior to the site visit the northeastern part of the Study Area had been mowed. Several large oaks book-end this mowed area.

The southwestern part of the Study Area consists of similar Non-native Grassland. Though it had not been mowed. There are landscape plantings, including small redwoods (*Sequoia sempervirens*) in this area, along the old driveway, and near Old Sonoma Road.

The creek overstory consists of coast live oak (*Quercus agrifolia* ssp. *agrifolia*), valley oak (*Quercus lobata*), and willow (*Salix lasiolepis)*. The understory is a dense mix of blackberry (*Rubus armeniacus*), poison oak (*Toxicodendron diversilobum*), and various common grasses and forbs. There were several non-native sweet pea plants (*Lathyrus odoratus*) amid the understory.

4.0 Conclusion

Table 1 summarizes the potential for each special status plant species to occur in the Study Area. It should be noted that, the site visit was conducted in June, which is somewhat late in the growing season. No special status plants were observed within the Study Area.

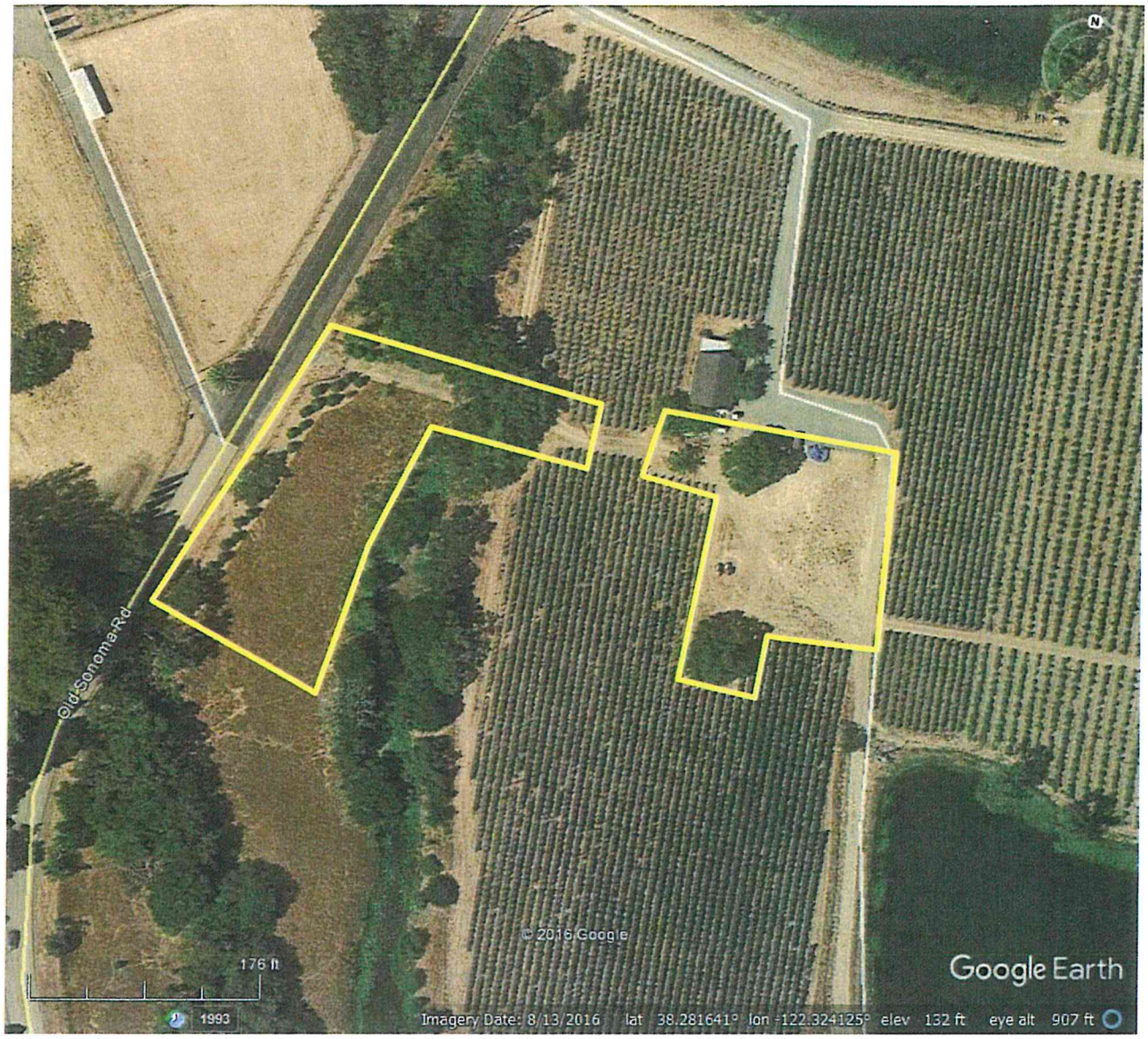

Figure 1. Truchard Property Study Area Boundary (Shown in yellow)

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Table 1. Special Status Plant Species Known to Occur in the Region

Scientific Name	Common Name	Federal Status*	State Status	CNPS Rare Plant Rank	Family, Life Form, Flowering Period, Habitats	Potential Occurrence on the Site
Astragalus tener var. *tener*	alkali milk-vetch	None	None	1B.2	Fabaceae. Annual herb. Mar-Jun. Alkali playa, Valley & foothill grassland, Vernal pool, Wetland.	Unlikely. The site provides marginal potential habitat. The density of the harding grass and the past land uses make occurrence unlikely. No Astragalus species were observed during the survey, which was conducted during the time when the species would be identifiable.
Atriplex joaquiniana	San Joaquin spearscale	None	None	1B.2	Chenopodiaceae. Annual herb. April - October, Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland.	Not present. The site does not provide the habitat typically required by this species.
Brodiaea leptandra	narrow-anthered brodiaea	None	None	1B.2	Themidaceae. Perennial bulbiferous herb. May-July. Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland.	Unlikely. The site provides marginal potential habitat. The density of the harding grass and the past land uses make occurrence unlikely. No *Brodiaea* species were observed during the survey, which was conducted during the time when the species would be identifiable.
Downingia pusilla	dwarf downingia	None	None	2B.2	Campanulaceae. Annual herb. March-May. Valley & foothill grassland, Vernal pool, Wetland.	Unlikely. The site provides marginal potential habitat. The density of the harding grass and the past land uses make occurrence unlikely. However the fieldwork was conducted too late in the season to fully confirm absence.
Erigeron greenei	Greene's narrow-leaved daisy	None	None	1B.2	Apiaceae. Perennial herb. May-September. Chaparral, Ultramafic.	Unlikely. The site provides marginal potential habitat. The density of the harding grass and the past land uses make occurrence unlikely. No Astragalus species were observed during the survey, which was conducted during the time when the species would be identifiable.

Scientific Name	Common Name	Federal Status*	State Status	CNPS Rare Plant Rank	Family, Life Form, Flowering Period, Habitats	Potential Occurrence on the Site
Juglans hindsii	Northern California black walnut	None	None	1B.1	Junglandaceae. Perennial deciduous tree. April-May. Riparian forest, Riparian woodland.	Not present. Several walnut trees were observed. However, they were grafted plantings, not native occurrences.
Lasthenia conjugens	Contra Costa goldfields	FE	None	1B.1	Asteraceae. Annual herb. March-June. Alkali playa, Cismontane woodland, Valley & foothill grassland, Vernal pool, Wetland.	Unlikely. The site provides marginal potential habitat. The density of the harding grass and the past land uses make occurrence unlikely. No Lasthenia species were observed during the survey, which was conducted during the time when the species would be identifiable.
Lathyrus jepsonii var. jepsonii	Delta tule pea	None	None	1B.2	Fabaceae. Perennial herb. May-July (occasionally Aug. - September). Freshwater marsh, Marsh & swamp, Wetland.	Not present. No appropriate habitat. The only member of the genus found was a common sweet pea.
Leptosiphon jepsonii	Jepson's leptosiphon	None	None	1B.2	Polemoniaceae. Annual herb. April- May. Chaparral, Cismontane woodland, Ultramafic	Unlikely. The heavy disturbance may make occurrence unlikely. However the fieldwork was conducted too late in the season to fully confirm absence.
Lilaeopsis masonii	Mason's lilaeopsis	None	SR	1B.1	Apiaceae. Perennial rhizomatous herb. April-November. Freshwater marsh, Marsh & swamp, Riparian scrub, Wetland.	Not present. Unlikely within the Study Area due to absence of appropriate habitat. Not observed in the Study Area.
Symphyotrichum lentum	Suisun Marsh aster	None	None	1B.2	Asteraceae. Perennial rhizomatous herb. Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland.	Not present. The Study Area does not provide the appropriate habitat. Not observed during the site visit.
Trichostema ruygtii	Napa bluecurls	None	None	1B.2	Lamiaceae. Annual herb. June-October. Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland, Vernal pool, Wetland.	Unlikely. Survey was conducted during the flowering season when this species would be identifiable. This species was not observed.

Scientific Name	Common Name	Federal Status*	State Status	CNPS Rare Plant Rank	Family, Life Form, Flowering Period, Habitats	Potential Occurrence on the Site
Trifolium amoenum	two-fork clover	FE	None	1B.1	Fabaceae. Annual herb. April-June. Coastal bluff scrub, Ultramafic, Valley & foothill grassland	Not present. All Trifolium observed during the survey were keyed to species.
Trifolium hydrophilum	saline clover	None	None	1B.2	Fabaceae. Annual herb. April-June. Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland	Unlikely. The site provides limited habitat. The density of the harding grass and the absence of saline or alkali conditions make occurrence unlikely. All Trifolium observed during the survey were keyed to species.

*

Federal

FE Federal endangered

California State

SR California rare

California Native Plant Society ("CNPS") List

1B.1 Rare, threatened or endangered in California and elsewhere. Fairly endangered in California.

1B.2 Rare, threatened or endangered in California and elsewhere. Not very endangered in California.

1B.3 Rare, threatened, or endangered in California and elsewhere. Not very endangered in California.

2.1 Rare, threatened or endangered in California, more common elsewhere. Fairly endangered in California.

2.2 Rare, threatened or endangered in California, more common elsewhere. Not very endangered in California.

2.3 Rare, threatened, or endangered in California, but more common elsewhere. Not very endangered in California.

Table 2. Plant Species Observed During the Truchard Fieldwork on June 6, 2017

Family	Scientific Name	Common Name
Other		
moss	*Homalothecium (nuttallii?)*	
Cupressaceae	*Sequoia sempervirens*	redwood
Eudicots		
Anacardiaceae	*Toxicodendron diversilobum*	poison oak
Apiaceae	*Conium maculatum*	poison hemlock
Apiaceae	*Foeniculum vulgare*	fennel
Apiaceae	*Torilis arvensis* ssp. *purpurea*	hedge parsley
Asteraceae	*Baccharis pilularis*	coyote brush
Asteraceae	*Carduus pycnocephalus*	Italian thistle
Asteraceae	*Helminthotheca echioides*	bristly ox-tongue
Asteraceae	*Hypochaeris radicata*	rough cats ear
Asteraceae	*Lactuca serriola*	prickly lettuce
Asteraceae	*Taraxacum officinale*	common dandelion
Brassicaceae	*Brassica rapa*	field mustard
Brassicaceae	*Raphanus sativus*	radish
Cactaceae	*Opuntia* sp.	prickly pear
Caryophyllaceae	*Spergularia rubra*	red sand spurrey
Fabaceae	*Lathyrus odoratus*	sweet pea
Fabaceae	*Medicago polymorpha*	bur clover
Fabaceae	*Trifolium fragiferum*	strawberry clover
Fabaceae	*Trifolium repens*	white clover
Fabaceae	*Vicia sativa* ssp. *sativa*	spring vetch
Fagaceae	*Quercus agrifolia* var. *agrifolia*	coast live oak
Fagaceae	*Quercus lobata*	valley oak
Geraniaceae	*Erodium brachycarpum*	storks bill
Geraniaceae	*Geranium dissectum*	cut leaf geranium
Juglandaceae	*Juglans sp. (with grafts)*	planted walnut
Lythraceae	*Lythrum hyssopifolium*	loosestrife
Myrsinaceae	*Lysimachia arvensis* (prev. *Anagallis a.)*	scarlet pimpernel
Onagraceae	*Epilobium brachycarpum*	epilobium
Plantaginaceae	*Kickxia spuria*	kickxia
Plantaginaceae	*Plantago lanceolata*	English plantain
Polygonaceae	*Rumex crispus*	curly dock

Family	Scientific Name	Common Name
Polygonaceae	*Rumex pulcher*	bitterdock
Rosaceae	*Malus* sp.	apple
Rosaceae	*Prunus* sp.	prunus
Rosaceae	*Rubus armeniacus*	Himalayan blackberry
Rosaceae	*Rubus ursinus*	California blackberry
Rubiaceae	*Galium aparine*	goosegrass
Salicaceae	*Salix lasiolepis*	arroyo willow
Monocots		
Iridaceae	Iris sp. (landscape planting)	iris
Poaceae	*Avena fatua*	wild oat
Poaceae	*Bromus diandrus*	ripgut brome
Poaceae	*Bromus hordeaceus*	soft chess
Poaceae	*Cortaderia jubata*	pampus grass
Poaceae	*Festuca perennis*	perennial ryegrass
Poaceae	*Holcus mollis*	creeping velvet grass
Poaceae	*Hordeum murinum*	wall barley
Poaceae	*Phalaris aquatica*	Harding grass
Poaceae	*Polypogon monspeliensis*	rabbitfoot grass

Representative Photographs

Northeast part of the Study Area (mowed Non-native Grassland), Taken 6-6-2017

Southwest part of the Study Area (Non-native Grassland, not mowed), Taken 6-6-2017

Bridge crossing the Creek. Photo also shows adjacent vineyards. Taken 6-6-2017

From:	Kirsty Shelton Gerosa
To:	Gallina, Charlene; McDowell, John
Subject:	Truchard additional Bio and Historic review
Date:	Wednesday, July 26, 2017 10:59:58 AM
Attachments:	image003.png Bio Response for Supplemental Information Request_July21.PDF 2017_07_21 Bridge Rvw ltr.PDF
Importance:	High

Hi Charlene and John,

Attached is an addendum for the Truchard Bio report and the letter from the historian who reviewed the bridge.

Please confirm this completes what you need to revise the Initial Study.

Anthony would really like to get on the September 20th PC agenda. I hope that you agree that this is doable. He and his family are very hands on for harvest and that date works for their schedule.

The family would very much appreciate it if we could meet that date.

I'm around if you need anything,

Kirsty

Kirsty Shelton
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ENVIRONMENTAL CONSULTANTS

July 21, 2017

Anthony Truchard
Truchard Family Vineyards
3234 Old Sonoma Road
Napa, California 94559

RE: Request for Supplemental Information for Truchard Winery Project

Dear Mr. Truchard,

This letter is to provide additional information as requested by the County of Napa for the proposed Truchard Winery Project (P14-00330-UP/Variance P14-0033; Project) in a letter dated July 13, 2017. This letter responds to comments related to the wildlife and plant assessments and surveys described in a June 21, 2017 letter.

Study Area Map

The proposed Project Area is located at 4062 Old Sonoma Road, Napa, Napa County, California and includes the proposed project footprint and temporary staging and stockpile areas. The wildlife assessment on May 12, 2017 focused on the proposed Project Area and surrounding areas east of Old Sonoma Road and within approximately 200 feet of the Project Area (Study Area). The Study Area was the focus of the wildlife assessment and is shown in the enclosed Figure 1. Two additional irrigation ponds and connecting drainage to the east were also inspected for the presence of pond turtle, and are identified in the enclosed figure to document all areas investigated by the wildlife biologist. The additional features will not be impacted by the proposed project.

Pallid Bat

Pallid bats (*Antrozous pallidus*) are a cavity-roosting species, and less commonly, can use cracks or crevices in trees as day and night roosts. No snags or large trees with complex cavities, cracks, or crevices are present within the Study Area. There is no potential for trees in the Study Area to support pallid bat maternity or hibernation roost sites, but there is potential for pallid bat to utilize some trees for a day or night roost.

The existing barn is actively utilized by the winery and maintained in good condition. Access into the barn is limited, but gaps may be present sufficient for pallid bat to enter and use as a day or night roost. Typical of other bat species, pallid bat is sensitive to disturbances at roost sites especially maternity and hibernation roosts. The existing barn is unlikely to be utilized as a maternity or hibernation roost site based on regular disturbance from vineyard operations. However, there is potential for pallid bat to utilize the barn for a day or night roost.

One small tree is proposed for removal and based on size and structure of the tree, no suitable bat roost habitat is present. In adjacent trees and the existing barn, day and night roosting bats may be present. Night roosting bats would not be impacted by the proposed project because no activities are to occur during night hours. Pallid bats are not known to have strong site fidelity to

specific day roosts and may adjust day roost locations daily[1,2]. In addition, these areas will be avoided by project activities; therefore, day roosting bats are not likely to be significantly disturbed by project activities. However, as an extra pre-caution during the pallid bat active season (February 28 – October 31), a qualified biologist can inspect the barn and trees with suitable crevices within 50 feet of project activities within 14 days prior to initial activities. The inspection will assess presence of roost sites, roosting bats, or evidence of recent or regular use by pallid bats.

Draft Notification of Lake or Streambed Alteration

The draft Notification of Lake or Streambed Alteration stated potential for presence of western pond turtle, pallid bat, and California giant salamander. This determination was made strictly upon a review of species occurrences documented in the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB)[3] and general habitats present in the Project Area. Per RSA, a biologist did not evaluate the Project Area and vicinity for specific habitat requirements of the species. WRA reviewed the CNDDB, but a biologist also conducted a site inspection and determined the potential for these species based on conditions and habitats present at the site. These species are known in the vicinity; however, upon a review of habitats present in the Study Area, WRA determined the species would not likely be present within the Study Area.

Special-status Plant Study Area

The Project Area and vicinity are predominantly grapevines in active production or developed habitat including access roads, barns, and irrigation ponds. The assessment for special-status plant species was focused on habitats with potential to support native plant species. The ruderal (weedy) areas along the roadsides and irrigation ponds did not support native plant species and are regularly maintained. The project botanist determined that these areas and the vineyards do not have potential to support specials-status plant species.

Please do not hesitate to contact me if you have any further questions regarding the wildlife and plant assessments conducted.

Sincerely,

Patricia Valcarcel
Associate Wildlife Biologist

Enclosure

[1] Lewis. S.E. 1996. Low roost-site fidelity in pallid bats: associated factors and effect on group stability. Behavioral Ecology and Sociobiology 39:335-344
[2] Western Bat Working Group. 2005. Western Bat Species Accounts, *Antrozous pallidus* | Pallid Bat. Available online: http://wbwg.org/western-bat-species/; Most recently accessed July 19, 2017.
[3] California Department of Fish and Wildlife (CDFW). 2017. Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento.

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Truchard Winery Project

Napa County, California

Figure 1.

Study Area Map

N
W E
S

0 125 250 500

Feet

Map Prepared Date: 7/18/2017
Map Prepared By: smortensen
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\27000\27169\GIS\ArcMap\Location Map.mxd

Architectural
Resources Group

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San Francisco, California 94111

argsf.com

21 July 2107

Katherine Philippakis
Farella Braun + Martel LLP
899 Adams Street, Suite G
St. Helena, CA 94574

RE: Proposed Truchard New Winery (P14-00330)

Dear Kay:

As requested, I have reviewed the existing bridge located on the above mentioned property, relative to its eligibility as an historic resource under the California Register criteria. From my review, it does not appear to me that the bridge on the proposed site is over 50 years old and thus would not be considered a historic resource on the basis of age. In any event, to be considered an historic resource under CEQA, the structure (or element) must meet eligibility requirements of the California Register of Historic Resources. This includes the following four potential context types:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States, or history, or
2. It is associated with the lives of persons important to local, California, or national history, or
3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or
4. It has yielded, or is likely to yield, information important to prehistory or history of the local area, California, or the nation.

If the entire property has not been determined to be eligible as a historic site, it does not appear that the bridge would meet the criteria to be individually eligible as an historic resource. The construction materials are similar to readily available materials, including pressure treated wood with tags still attached. As you may recall, in my previous evaluation of the barn on your property, I concluded that the barn did not have historic significance. As the barn is the only other structure on the property that could potentially be considered historic, I do not believe that the bridge could qualify as a cultural resource under the relevant criteria.

Sincerely,

Naomi Miroglio

Naomi Miroglio, FAIA
Principal

Image 1. September 1973 aerial at 10,000 feet (USGS EarthExplorer).

Image 2. Existing View of Bridge

Image 3. Existing View of Bridge

wra
ENVIRONMENTAL CONSULTANTS

August 7, 2017

Anthony Truchard
Truchard Family Vineyards
3234 Old Sonoma Road
Napa, California 94559

RE: Response to Western Pond Turtle Mitigation Measures for Truchard Winery Project

Dear Mr. Truchard,

This letter is to respond to questions regarding potential western pond turtle (*Actinemys marmorata*) mitigation measures and recommendations for the proposed Truchard Winery Project (P14-00330-UP/Variance P14-0033; Project). This letter is supplemental to the wildlife assessment letter by WRA, Inc (WRA) dated June 21, 2017 to provide additional pre-cautionary measures for western pond turtle.

No western pond turtles were observed in the two irrigation ponds immediately adjacent to the proposed Project during the May 12, 2017 survey. The irrigation pond immediately east of the proposed Truchard Winery Project has an access road along the western and southern banks of the irrigation pond but is otherwise surrounded on all sides by vineyards. The access road is graded with hard-packed soils. The vineyard and access road do not provide suitable nesting habitat for western pond turtle based upon substrate. Accordingly, western pond turtles are not believed to be present.

Although no pond turtles were observed, a question has been raised on whether mitigation measures similar to those proposed for the Napa Oaks Project, a proposed development on undeveloped lands east of Truchard Winery, would be appropriate here. The Napa Oaks Project mitigation measures for western pond turtle are based upon an assessment conducted by Rana Resources in February 2011 in which western pond turtle were reportedly observed through binoculars from a long-distance view point in an irrigation pond adjacent to the proposed Napa Oaks Project Site. There is undeveloped habitat to the north and east of this pond, and vineyards to the south and west.

One proposed western pond turtle mitigation measure for the Napa Oaks Project is installation of silt fencing along the boundary of construction operations to prevent movement of pond turtle onto the construction site. WRA concurs with this measure for the Truchard project site, as pond turtles will move through upland habitats in search of nesting habitat or when dispersing between habitats. Although no pond turtles were observed in the irrigation pond immediately adjacent to the Truchard Winery Project, WRA concurs installation of silt fencing prior to initial ground disturbance is a pre-cautionary measure to prevent western pond turtle, if present, from entering the project site during ground disturbance.

The second mitigation measure for the Napa Oaks Project Site is a setback of 200 feet from the edge of high water. The 200-foot setback is intended to provide an area for wetland mitigation and upland habitat for western pond turtle. Upland habitat for pond turtles is used for nesting and overwintering. As described above, the Napa Oaks Project Site currently contains undeveloped and potential upland habitat for western pond turtle.

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In contrast, the irrigation pond immediately east of the proposed Truchard Winery Project does not have suitable upland habitat surrounding the pond, and the proposed Truchard Winery Project will not convert upland habitat for pond turtle. The substrate and soils in the Truchard Winery Project Area are hard-packed and the access road is graded. No nesting habitat or vegetative cover suitable for overwintering turtles is present at the Truchard Winery Project. No impacts to pond turtle nests, hatchlings, or overwintering adults is anticipated. Since there is no need to maintain upland nesting habitat because it is not present, there is no biological need for a buffer of any size. WRA therefore does not recommend this as a mitigation measure here.

Instead, as an added measure of precaution, a pre-construction survey within the irrigation pond immediately east of the Truchard Project Area is recommended. The pre-construction survey shall be conducted no more than 14 days prior to installation of the silt fence. The installation of silt fencing will be sufficient to prevent pond turtle from entering the Project Area if present, but the survey will provide an update on the presence of the species in the adjacent irrigation pond prior to Project activities.

In sum, no pond turtles were observed during a WRA survey on May 12, 2017 for pond turtle in the irrigation pond east of the proposed Truchard Winery Project. Based on this most recent survey and habitat conditions adjacent to the pond and within the Project Area, no pond turtles are anticipated to be present or impacted by the Project. However, as added precaution, installation of silt fencing between project activities during construction and the irrigation pond is recommended. A pre-construction survey of the adjacent irrigation pond is also recommended to provide an update on presence of pond turtle in adjacent habitats. No upland habitat is present in the Truchard Winery Project Area; therefore, the 200-foot buffer is not appropriate or recommended.

Please do not hesitate to contact me if you have any further questions regarding potential western pond turtle recommendations.

Sincerely,

Patricia Valcarcel
Associate Wildlife Biologist