



# Sonoma County Board of Zoning Adjustments

## STAFF REPORT

**FILE:** UPC19-0012  
**DATE:** August 22, 2024  
**TIME:** At or after 1:20 pm  
**STAFF:** Haleigh Frye, Project Planner

### SUMMARY

**Property Owner:** Bloomfield Flowers LLC; Michael Agins  
**Applicant:** Bloomfield Farms LLC; Michael Agins  
**Address:** 4707 Bloomfield Rd, Petaluma, CA 94952  
**Supervisory District(s):** 2  
**APN:** 027-050-022  
**Description:** Request for a five-year limited-term Conditional Use Permit for a commercial cannabis operation including 10,000 square feet mixed light cultivation, 5,000 square feet indoor cultivation, and centralized processing of cannabis (from the local area, Sonoma County) and accessory propagation in all new structures on a 113 acre parcel zoned Land Extensive Agriculture (LEA) located at 4707 Bloomfield Rd, Petaluma. Operations are permitted 24-hours a day seven days a week as needed, although generally hours of operation will be during daylight hours. Vendor deliveries and shipping would be limited to 8:00 am to 5:00 pm Monday through Friday. The cannabis operation would employ a maximum of 19 employees including full and part time staff. No public access or retail sales are permitted  
**CEQA Review:** Proposed Mitigated Negative Declaration  
**General Plan Land Use:** Land Extensive Agriculture (LEA 160)  
**Specific/Area Plan Land Use:** Petaluma Dairy Belt Area Plan  
**Ordinance Reference:** 26-06-020 – 26-06-040 Purpose, Allowed land uses, and Development standards;  
26-88-250 – 26-88-254 Commercial cannabis uses  
**Zoning:** Land Extensive Agriculture, maximum density of one dwelling unit per 160 acres, Riparian Corridor 50-foot development setback/50-foot agricultural setback (LEA B6 160, RC50/50)



## **RECOMMENDATION**

The Permit and Resource Management Department (Permit Sonoma) recommends that the Board of Zoning Adjustments adopt the Mitigated Negative Declaration and approve the request, with conditions, for a five-year limited term Conditional Use Permit for a cannabis operation including 10,000 square feet mixed light cultivation, 5,000 square feet indoor cannabis cultivation, and centralized processing.

### **Executive Summary**

Staff is recommending approval of this permit for the following reasons:

- The project is consistent with the Land Extensive Agriculture (LEA) land use designation of the Sonoma County General Plan and policies related to establishing and maintaining parcel sizes that are conducive to continued agricultural production and restricting non-agricultural uses to those that are compatible with agriculture. The project is consistent with the General Plan because the project supports ongoing agricultural activities, preserves the agricultural character of the area, and does not increase residential density of the area.
- The proposed project is consistent with the Petaluma Dairy Belt Area Plan because it supports ongoing agricultural uses, preserves the agricultural character of the area, and does not increase residential density of the area.
- The project is consistent with the Land Extensive Agriculture Zoning District which allows commercial cannabis cultivation with a Use Permit. The project meets or exceeds required setbacks, minimum lot size requirement, residential density requirements, lot coverage and square footage limitations, and is consistent with the development standards of the project site's base zone.
- The design, location, size, and operating characteristics of the project are considered compatible with the agricultural zoning and surrounding land uses in the vicinity. This is evident by the large parcel size of the site (113 acres), and surrounding parcels (range from approximately 30-290 acres and averaging approximately 96 acres), and, as a result, the relatively low residential densities of either one primary dwelling unit per 60-acres or one primary dwelling unit per 160 acres. A large number of parcels within the greater area are also under land conservation contracts which further limits development of these parcels. While the nearest offsite residential structure is located over 300 feet from the cultivation structures, other offsite residential structures adjacent to the project parcel are located over 1,000 feet or more from the cultivation and processing structures, supporting ample distance between the proposed cannabis cultivation and processing site and residential neighbors. Additionally, structures will be designed to blend into the agrarian nature of the area and will not appear industrial in design.
- The proposed project has been analyzed under the California Environmental Quality Act (CEQA) and the CEQA Guidelines, California Code of Regulations. Staff has determined that the project is subject to the California Environmental Quality Act. Based on application materials provided by the applicant and technical specialists, an Initial Study was completed. As a result of the Initial Study, it was determined that project impacts could be mitigated to a less than significant level, and so a Mitigated Negative Declaration was drafted for the project. This document identifies mitigation measures and a monitoring program for the proposed project.



**PROJECT SITE AND CONTEXT**

***Background***

The project parcel is located in a western unincorporated agricultural area of Sonoma County, southwest of the City of Sebastopol and northwest of the City of Rohnert Park, and about 1.5 miles east of the town of Bloomfield. Existing development on the parcel includes a horse arena, four barns, one greenhouse, and several outbuildings for the existing agricultural uses (Attachment 2 Overall Site Plan).

***Area Context and Surrounding Land Uses***

Direction	Land Uses
North	Scattered residential development and agriculture in rolling grassland zoned Land Extensive Agriculture (LEA), Bloomfield Road, Riparian Corridor (RC) zoning combining district along Bloomfield Rd (unnamed tributary of Americano Creek).
South	Scattered residential development and undeveloped parcels in agricultural production in rolling grassland zoned Land Extensive Agriculture (LEA)
East	Scattered residential development and undeveloped parcels in agricultural production (under Williamson Act contract) rolling grassland zoned Land Extensive Agriculture (LEA)
West	Scattered residential development and undeveloped parcels in agricultural production (some under Williamson Act contract or in a land trust) rolling grassland zoned Land Extensive Agriculture (LEA), Bloomfield Road, Riparian Corridor (RC) zoning combining district along Bloomfield Rd (unnamed tributary of Americano Creek).

The area is generally characterized as rural with scattered residential development and undeveloped parcels consisting of rolling hills and nonnative grassland interspersed with sparse Oakland and small stands of Eucalyptus. Surrounding parcels to the subject site are zoned Land Extensive Agriculture with a density of 160 acres per dwelling unit (LEA-160) or 60 acres per dwelling unit (LEA-60). Surrounding land uses are predominantly pastureland, dairy, and rural residential development with a large portion of land under Williamson Act contract.

The project site is located on a 113-acre parcel directly off Bloomfield Road, a County maintained road. Residences and agricultural operations in the area are typically accessed directly off Bloomfield Road or via private roads and driveways extending off of Bloomfield Road.

The area around the project parcel contains a few scattered tributaries, however, there are no stream channels or riparian habitat located on the subject parcel. For further discussion of on-site hydrology and nearby water courses, see Section Analysis – Water and Hydrology below.

The following attachments provide a visual representation of on-site and surrounding land uses: Attachment 3. Aerial Map; 4. Vicinity Map; 5. Land Use Map; 6. Zoning Map.

***Significant Applications Nearby***

Within a two-mile radius of the project site, there are two properties with a proposed cannabis Use Permit (UPC23-0001 on APN 027-020-010 and UPC23-0002 on APN 027-020-009), located approximately 1.5 mile to the southwest. The operations are not currently approved or operating in the County’s Penalty Relief Program (PRP)



UPC23-0001 includes a proposal for 10,000 square feet of mixed light cultivation, and 35,5690 square feet of outdoor cultivation on a 16-acre parcel zoned Land Extensive Agriculture (LEA). UPC23-0002 includes a proposal for 10,000 square feet of mixed light cultivation, and 35,5690 square feet of outdoor cultivation on a 51.4-acre parcel zoned Land Extensive Agriculture (LEA). No hearing date is currently calendared for these proposed projects. Due to the distance between the proposed project and these nearby applications, there is no overlap in circulation routes, minimal to no potential for cumulative groundwater impacts due to the distance between project wells, and minimal to no likelihood for cumulative odor impacts given both the distance and varying topography between the projects. Therefore, no potentially substantial cumulative impacts are anticipated should all cultivation operations be approved and occur simultaneously.

### **Access**

The project parcel currently includes four gated access points off Bloomfield Road, a county-maintained road. However, the project site will only be accessed by two of these private, gated driveways (see Attachment 8. Overall Site Plan). Two project driveways are intended for vehicles to enter one project driveway and exit the other for traffic circulation on site. Bloomfield Road is an approximately 5-mile-long rural road that runs southwest from Kennedy Road to Valley Ford Road. The first approximately 1.25 miles are classified as a Major Collector Road and the remainder is a Minor Collector; collector roads gather traffic from Local Roads and funnel them to the Arterial network.

### **Wildfire Risk**

According to the Wildland Fire Hazard Area map in the Sonoma County General Plan, the project is located in the State Responsibility Area and classified as a Moderate Fire Hazard Zone. Wildfire risk is dependent upon existing environmental conditions, including but not limited to the amount of vegetation present, topography, and climate. The site is located in western Sonoma County composed of gently sloping hills and flat areas. Vegetation consists predominantly of pastureland grasses and scattered riparian vegetation near water courses. There is no significant forested or chaparral wildland vegetation, which carries wildfire, in the vicinity. Climate in the area is characterized as Mediterranean, with cool wet winters and hot dry summers.

### **Water/Wastewater/Utilities**

Water supply for the project will be supplied through a combination of rainwater catchment and groundwater from an existing onsite well. Water will be stored in holding tanks at the project site, utilizing one 20,000 gallon tank for groundwater and one 250,000 gallon tank for rainwater capture. A hydrogeologic report was prepared for the project in compliance with Sonoma County Permit and Resource Management Department (PRMD) Policy and Procedure Number 8-2-1 and General Plan Policy WR-2e. For further discussion of on-site hydrology and nearby water courses, see Section Analysis – Water and Hydrology below.

Employee restroom facilities will be provided by installing fixed ADA compliant restrooms within proposed structures.

Indoor and greenhouse lighting would consist of high efficiency LED lighting for cultivation and standard building lighting. Additionally, high efficiency insulation will be installed in the indoor cultivation and processing structure, and electrical energy for the project will be sourced from Sonoma Clean Power EverGreen 100% renewable power.



**PROJECT DESCRIPTION**

Bloomfield Flowers, LLC., proposes 5,000 square feet of indoor cultivation area in a new 6,480 square foot structure and 10,000 square feet of mixed light cultivation area in a new 12,960 square foot greenhouse, and both centralized processing and accessory indoor propagation in a new 10,000 square foot structure (see Attachment 9 Site Plan). Centralized processing refers to processing of cannabis grown onsite and within the local area. The project site is located in a previously graded, flat, graveled area on portion of the parcel formerly used as a quarry decommissioned prior to 1980 (see Attachment 11 Site Photos). The project footprint is approximately 2.5-acres.

The mixed-light and indoor cultivation operations will operate year-round, seven days a week generally from 8:00 am to 5:00 pm, with extended hours during harvest typically 7:00 am to 7:00 pm. However, operations may be conducted seven days a week, 24-hours a day as needed. Management will be on-call 24 hours a day, seven days per week, to address any operational or emergency issues. Vendor deliveries and shipping activities would be limited to 8:00 am to 5:00 pm Monday through Friday. The cannabis operation would hire up to 19 employees including full and part time staff. The operation would not be open to the public.

The parcel supports a variety of existing agricultural uses including a horse training facility, commercial organic vegetable farm, bee keeping, and livestock grazing, which will continue to operate independently of the cannabis operation. The majority of the 113 acre parcel (over 100-acres) will be reserved for these uses.

***Project History***

The table below summarizes key project milestones and events.

<b>Date</b>	<b>Project Event/Milestone</b>
<b>12/20/2019</b>	Application accepted
<b>01/16/2020</b>	Early Neighborhood Notification sent out
<b>01/02/2021</b>	Application deemed complete for processing
<b>02/02/2021</b>	Referrals sent
<b>01/26/2022</b>	Updated project materials provided
<b>04/22/2024</b>	CEQA Complete, public notice for 30-day CEQA review period posted and mailed
<b>05/21/2024</b>	Request for public hearing received by PRMD
<b>08/12/2024</b>	Public notice for BZA hearing posted and mailed
<b>08/22/2024</b>	BZA hearing

***General Plan and Area Plans***

The subject property has a General Plan land use designation of Land Extensive Agriculture (LEA), with a 160-acre minimum, which is intended to ensure the stability and productivity of the County’s agricultural lands and industries, specifically by enhancing and protecting lands capable of and generally used for animal husbandry and the production of food, fiber, and plant materials. Section 2.6 of the General Plan Land Use element identifies the intended policy and permitted uses for Land Extensive Agriculture areas. This land use designation is intended to establish and maintain densities and parcel sizes that are conducive to continued agricultural production.



In adopting the Cannabis Ordinance, the Sonoma County Board of Supervisors determined that cannabis uses (including cultivation and processing) are consistent with the overall goals, objectives, policies, and programs of the Sonoma County General Plan pursuant to Ordinance No. 6189 Section I. Findings. U. By requiring a conditional use permit for cannabis cultivation in the Land Extensive Agriculture zone, the goals of protecting agricultural production can be examined on a case-by-case basis. The Sonoma County Board of Supervisors passed Ordinance No. 6189 on December 20, 2016.

**Petaluma Dairy Belt Area Plan**

The site’s Petaluma Dairy Belt Area Plan land use designation is Land Extensive Agriculture. This includes lands characterized predominantly by dairies, sheep and cattle ranches, grazing, silage, and related activities. Residences are mostly related to the agricultural economy and include single family homes, mobile homes, and farm labor housing. A density range of one dwelling per 60-160 acres is used for this category to reflect the existing parcel pattern, discourage incompatible higher density residential use, and maintain large areas for extensive agricultural operations. Furthermore, the primary emphasis in Land Extensive Agriculture designated properties is to promote, protect, and preserve agricultural land uses.

Priorities of the Petaluma Dairy Belt Area Plan are as follows: to preserve and enhance the agricultural resources and protect the agricultural industry; to preserve the area’s scenic beauty; to accommodate a variety of rural lifestyles; and to encourage the development of an adequate transportation network which will accommodate proposed development and projected travel needs, and which will facilitate movement of agricultural products to the market place. Major policies of the Petaluma Dairy Belt Area Plan involve mitigating for increased residential densities; adopting Scenic Design zoning along Highway 116 (Gravenstein Highway), Stony Point Road and U.S. 101; and limiting conflicts with agricultural activities.

**Zoning**

The project site is zoned LEA (Land Extensive Agriculture) with a residential density of one dwelling unit per 160 acres.

The table below summarizes the development standards that apply to the site as outlined in the Sonoma County Zoning Ordinance, the existing and proposed development, and whether the project is consistent with the Zoning Ordinance.

Standard	Ordinance	Existing Condition	Proposed Project
<b>Land Use</b>	Land Extensive Agriculture	113 acres	Cannabis cultivation allowed with Use Permit under Sec. 26-88-250
<b>Permitted building intensity and development criteria of base zone– land Extensive Agriculture Sec 26-06-040</b>			
<b>Lot Size</b>	60-320 acres	113 acres	No change; consistent
<b>Front Setback</b>	30 ft Property Line / 55 ft Road Centerline	NA (no existing structures being used as part of proposed cannabis operation)	~100 feet; consistent
<b>Side Setback</b>	10 ft	NA (no existing structures being used as part of proposed cannabis operation)	±1,100 feet/ ±800; consistent



Standard	Ordinance	Existing Condition	Proposed Project
		operation)	
<b>Rear Setback</b>	20 ft	NA (no existing structures being used as part of proposed cannabis operation)	±1,200 feet; consistent
<b>Lot Coverage %</b>	85,000 sf or 5%, whichever is greater (246,114 sf or 5.65 acres for this parcel)	~10,355 square feet	~29,440square feet for project ~39,795 square feet total (proposed + existing); consistent
<b>Cannabis Cultivation (Sec 26-88-254)</b>	Cultivation permit not to exceed 1-acre cultivation per operator	No cultivation currently on site	5,000 square feet indoor cultivation, 10,000 square feet mixed light; consistent
<b>Sensitive Use Setbacks for indoor cultivation and processing</b>	Structures must comply with base zoning setbacks 600 ft from schools	No cultivation currently on site	Consistent with base zoning criteria as expressed above, ± 3 miles from nearest school
<b>Sensitive Use Setbacks for mixed light cultivation</b>	100 ft from property lines 300 ft from nearby residences 1000 ft from parks, schools, treatment facilities	No cultivation currently on site	100 feet from property lines 400 feet from nearest offsite residence ± 3 miles from nearest school
<b>Prohibited uses and exceptions within a County Designated Riparian Corridor (Sec. 26-65-030)</b>	Development and agriculture shall maintain a minimum 50-foot streamside conservation area from the top of bank of a County designated Riparian Corridor	No development within designated setback.	No development proposed in designated setback; consistent

**ANALYSIS**

***General Plan Consistency***

In adopting Ordinance No. 6189, the Board of Supervisors concluded that cannabis cultivation and processing may be permitted within the Land Extensive Agriculture land use designation provided the project is consistent with the overall goals, objectives, policies, and programs of the Sonoma County General Plan. Although cannabis is not defined as an agricultural crop under County Code, it is classified as an agricultural product, and cannabis cultivation is an allowed use in agricultural zoning with Use Permit or Zoning Permit approval. The proposed project will disturb a relatively small portion of the 113-acre property, and all development is occurring in a previously disturbed area of the parcel formerly used as a quarry. The density of the parcel size will remain unchanged. There is no proposal to provide additional services, such as public sewer or water, which might facilitate more intensive development away from agricultural industries or result in further encumbrance of agricultural lands.



### ***Zoning Consistency***

Existing agricultural uses, including a horse training facility, commercial vegetable farm, bee keeping, and livestock grazing, will continue in addition to the cannabis cultivation and centralized processing operation. Although the greenhouse is intended for cannabis cultivation, such structures are generally agricultural in nature and would not be considered out of place in the LEA zoning district. Processing facilities are also common in agricultural lands. The project would preserve the natural, visual, and scenic resources of the site, avoid urban development of the site, and would result in the use of existing property consistent with General Plan Objectives LU-9.1, -9.3, -9.4, -19.1, -19.2, -19.4, AR-4.1, and AR-4a as well as the policies for the Land Extensive Agriculture Areas.

### ***Petaluma Dairy Belt Area Plan Consistency***

The project would continue to support agriculture uses and does not increase residential density of the area. Although cannabis is not defined as an agricultural crop under County Code, it is classified as an agricultural product. Existing agricultural uses including horse training facilities, organic vegetable farming, bee keeping, and livestock grazing are proposed to continue in addition to the cannabis cultivation. Additional landscaping will be planted along the frontage of the property to screen and soften the view of the proposed structures. The site is not located in a Scenic Resource area or along the scenic corridors identified in the Petaluma Dairy Belt Area Plan. There will be no increase in residential density; there is no proposal to provide additional services, such as public sewer or water, which might facilitate more intensive development away from agricultural industries or result in further encumbrance of agricultural lands. Therefore, the proposed project does not conflict with area plan policies.

### ***Zoning Consistency***

Commercial cannabis cultivation is an allowed use in the Land Extensive Agriculture (LEA) zoning district pursuant to Sonoma County Code 26-88-250 through 26-88-254, which was adopted on December 20, 2016 (No. 6189), and amended on October 16, 2018 (No. 6245). The applicant requests a conditional use permit for a commercial cannabis operation including mixed light, and indoor cultivation, centralized processing, and accessory propagation (for onsite use only).

As summarized in the above Zoning Table, all setbacks and development criteria are met by the proposed project. Further, the project complies with County Code Section 26-88- 250, Table A1, footnote 2, which limits structural development for cannabis cultivation to previously developed areas. The project site is the location of a former rock quarry; this area of the parcel was previously graveled and graded under an approved grading permit to manage stormwater flow as the quarry operation left the site with highly compacted surface materials which were relatively impermeable to rainwater infiltration (See Attachment 12 Geotechnical Memo).

### ***Water and Hydrology***

The project is located in a located within a Class 2 - Major natural recharge groundwater availability area, outside of any priority groundwater basin, as designated by the Sustainable Groundwater Management Act. As such, a groundwater study is not automatically required by policy. However, the geology of the site is mapped as Franciscan Melange which is a geologic assemblage associated with wells of low yield. In order to address concerns, a water well yield test and water supply, use, and conservation assessment was requested.



A hydrogeologic assessment report was prepared for the project by Hurvitz Environmental Services Inc. dated January 26, 2022 (see Attachment 13 Hydrogeologic Assessment). The Report defined a cumulative impact area of 925 acres for the water budget analysis. The Report estimated groundwater storage (11,933 acre feet) and average yearly recharge (247 acre feet/year) to be substantially greater than proposed water demands (54.9 acre feet) of the cumulative impact area. The study determined that total water use for the site (including non-cannabis agricultural uses) would be 2.3 acre-feet prior to the proposed water conservation offsets. Under proposed conditions, and including proposed water conservation measures, the project itself has an expected net groundwater use of 0.61 acre feet/year for cannabis irrigation and employee uses.

The project proposes numerous water conservation measures including the following:

1. Rainwater catchment collecting water from roughly 23,000 square feet of roof area, with a water storage tank of 250,000 gallons
2. Recycled water collection and reuse through installation of dehumidifiers in both the greenhouse and indoor gardens

Well pump test data is commonly used to characterize project aquifer properties, verify adequate water supply for the project, and assess potential impacts to neighboring wells. Jerry and Dons Yager Pump and Well Service conducted an 8-hour “dry season” well yield test on the proposed project well located on the southwest portion of the project site. The 8-hour test recorded a static water level at 48 feet the top of the well casing, a sustained yield of 4 gpm and total drawdown of 88 feet below top of casing which indicates a specific capacity for the well of 0.1 gpm per foot of drawdown. The water level recovered to initial static water level within 48 hours of the pump test.

Annual groundwater use of the parcel, including existing non-cannabis agriculture and grazing, was estimated to be 412,852 gallons (1.27 acre feet). This equates to an average well pumping rate of 0.79 gpm. Well yield results are interpreted to indicate the project well can sustainably support this rate of pumping.

The Report concluded that there is little potential to negatively impact groundwater supply, groundwater levels in neighboring wells, and surface waters. Further, Conditions of Approval 43-54 require well monitoring and limit groundwater use in accordance with the proposal to employ rainwater capture and water reuse. Although the hydrogeologic study determined that no significant impact to groundwater resources would result from on-site water use of 2.3 acre-feet per year, to further reduce potential groundwater impacts, total well water use for the project, inclusive of employee uses and irrigation of cannabis, will be limited to 1.0 acre-feet per year by Condition of Approval 51. This condition of approval allows flexibility for years when the estimated maximum amount of rainwater capture or recycled water re-use cannot be obtained (340,801 gallons or 1.05 acre-feet), but also requires that at least 215,000 gallons (0.66 acre-feet) be obtained, or that irrigation, and corresponding canopy amount, be reduced to protect and conserve water resources.

### ***Wildfire Risk***

The proposed project parcel and surround area is located within a Moderate Fire Hazard Severity Zone, as designated by the General Plan Public Safety Element (Figure PS-1g) and using data provided by the California Department of Forestry and Fire Protection (CalFire). As noted in the General Plan Public Safety Element (p. PS-14): the Moderate Fire Hazard Severity Zone includes: a) wildland areas of low fire frequency supporting modest fire behavior; and b) developed/urbanized areas with a very high density of non-burnable surfaces and low vegetation cover that is highly fragmented and low in flammability.



Wildfire risk is dependent upon existing environmental conditions, including but not limited to the amount of vegetation present, topography, and climate. The site is located in western Sonoma County composed of rolling hills and flat areas. Vegetation consists predominantly of pastureland grasses and scattered riparian vegetation near water courses. There is no significant forested or chaparral wildland vegetation, which carries wildfire, in the vicinity. Climate in the area is characterized as Mediterranean, with cool wet winters and hot dry summers.

Projects located in High and Very High Fire Severity Zones are required by state and county code to have a detailed vegetation management plan developed and reviewed by the Sonoma County Fire Prevention Division before a building permit can be issued. This requirement does not apply to projects such as this one located in a Moderate Zone. However, all construction projects must comply with County Fire Code (Chapter 13) and Fire Safe Regulations, including but not limited to, installing fire sprinklers in buildings, providing emergency vehicle access, and maintaining a dedicated fire-fighting water supply on-site. Construction and operation at the site must conform with adopted State standards as determined and implemented by CALFIRE and Sonoma County Fire officials intended to reduce the risk of wildfire to less than significant.

There are no existing residences on the project parcel. No more than 19 employees for the project would be on site at any given time. Ongoing vegetation maintenance of the property to reduce wildfire risk would occur throughout the year as part of the project’s Fire Prevention Plan which includes reduction of fuel loads through vegetation management and fire break maintenance, in addition to installing emergency vehicle turnaround space, widening driveways, and reserving water for fire suppression.

### **CEQA DETERMINATION**

The proposed project has been analyzed under the California Environmental Quality Act (CEQA) and the CEQA Guidelines, California Code of Regulations. Staff has determined that the project is subject to the California Environmental Quality Act. Based on application materials provided by the applicant and technical specialists, an Initial Study was completed.

As a result of the Initial Study, it was determined that project impacts could be mitigated to a less than significant level, and so a Mitigated Negative Declaration was prepared and circulated for the project (see Attachment 14 UPC19-00012 Updated Final ISMND). This document identifies mitigation measures and a monitoring program for the proposed project. Mitigation measures for air quality related to short term construction, pre-construction surveys for nesting birds and roosting bats, and noise have been incorporated into the project conditions of approval. With incorporation of these mitigation measures, the project is expected to have a less than significant impact.

### **NEIGHBORHOOD/PUBLIC COMMENTS**

A total of seven written comments have been submitted to Permit Sonoma as of August 12, 2024 , three from two agencies and four from two members of the public. The comments from individuals voiced opposition to the proposed project and cited a number of concerns outlined below. On April 22, 2024, a Notice of Intent to Adopt a Mitigated Negative Declaration was posted near the project site and mailed to property owners within 1000 feet of the project parcel. The notice also indicated the County planned to post a hearing waiver and approve the project administratively via a hearing waiver after the close of the thirty-day public review period. On May 21, 2024, a written request for a hearing was received citing several concerns regarding water quality, odor, noise, visibility from private property, impacts to public roads, and neighborhood compatibility.



California Highway Patrol: On May 14, 2024, the California Highway Patrol Santa Rosa Area Division commented that the project's traffic impacts would be minimal. Although they would not be first responders to emergencies at the site, they noted a rise in violent crime around rural cannabis operations. Despite this, they did not request any additional measures beyond those specified in Sec. 26-88-254(f)(21). A representative from the division confirmed that this response is standard when reviewing and commenting on environmental documents for cannabis operations routed to them from the State Clearinghouse, and that no site-specific data or analysis was applied by CHP.

California Department of Fish and Wildlife: On May 20, 2024, the California Department of Fish and Wildlife submitted written comments on the Initial Study and Mitigated Negative Declaration circulated for the project. An amended Mitigated Negative Declaration was prepared to address CDFW's comments, which were primarily concerned with expanding protections to species already addressed in the CEQA document (see Attachment 14 UPC19-00012 Updated Final ISMND). All requested revisions to mitigation measures are substitutions that are equivalent or more effective than previously proposed. Thus, these measures can be substituted pursuant to CEQA Guidelines Section 15074.1, and no recirculation is required. Additionally, all other changes to the MND do not constitute substantial revisions and merely clarify or amplify the prior analysis and thus also do not require recirculation (CEQA Guidelines Section 15073.5.). A letter responding to these comments was sent to CDFW on July 9, 2024 (see Attachment 14 Response to CDFW Letter).

Water quality: As described above, the operation would not result in impacts to groundwater storage, offsite wells, or offsite impacts to nearby surface waters. See previous Section Analysis – Water and Hydrology for a detailed discussion of irrigation water use.

Odor: In adopting the Cannabis Ordinance, the Board of Supervisors found that air quality and odor issues could be addressed through compliance with development and operating standards requiring minimum setbacks for cultivation uses and implementation of odor control filtration systems for cultivation and processing structures. Odor is discussed in the Air Quality section of the Initial Study (see Attachment 14 UPC19-00012 Updated Final ISMND, page 21-26).

In compliance with Sec. 26-88-254(g)(2), all cultivation and processing structures will be equipped with odor control filtration and ventilation systems that will control odors, humidity, and mold. This includes the use of carbon filters that function as an odor vacuum and fans to help circulate the air. The project incorporates required odor control filtration systems, which complies with the Operating Standard. The project does not include any outdoor cultivation; all odors will be contained within buildings.

Noise: County Code Section 26-88-254(g)(6) includes the following standard pertaining to cannabis: "Cultivation operations shall not exceed the General Plan Noise Standards table NE-2, measured in accordance with the Sonoma County Noise Guidelines". The three primary noise sources related to the project would include traffic (e.g., employees, deliveries), short term construction noise, and long-term operational noise. Noise is discussed in the Noise section the Initial Study (see Attachment 14 UPC19-00012 Updated Final ISMND, pages 59-62).

The portion of Bloomfield Road, where the project is located, is a Minor Collector Road with an average daily traffic volume of 547 vehicles. The area consists of large agricultural parcels with widely spaced rural residences and active agricultural operations, which generate truck and employee trips. Due to the low number of vehicle trips associated with the project and its location, transportation noise is not expected to significantly impact the existing ambient traffic noise level.



Construction noise would be temporary and short term as the impact would cease upon completion of construction. While residents could experience temporary noise from construction equipment and transport of construction materials, construction would be conducted within the allowable hours of 8:00 am and 5:00 pm.

The project will not require heavy equipment or machinery. Most HVAC equipment will be located inside the structures, with external HVAC units and an emergency generator placed behind buildings, as shown in the site plan (see Attachment 9 Site Plan), farthest from offsite residences. It is usually possible to achieve noise attenuation in compliance with Section 26-88-254(g)(6) of the zoning code and of the General Plan Noise Standards with a Level II acoustic enclosure generally obtained from the equipment manufacturer. The operator must enclose external equipment in either a manufacturer-provided acoustic enclosure or solid walls made of brick, masonry, or other durable materials. They must also submit sound level specifications for the HVAC and generator equipment, including any acoustic enclosures, to ensure compliance with the specified noise limits (Condition of Approval #39).

Visibility: The project site is not located in an area designated as visually sensitive by the Sonoma County General Plan or the Petaluma Dairy Belt Area Plan. It is not located on a scenic hillside, nor would it involve tree removal, grading or construction that would affect a scenic vista. Aesthetics are discussed in the Aesthetics section of the Initial Study (see Attachment 14 UPC19-00012 Updated Final ISMND, pages 16-19).

Project structures would be visible from Bloomfield Road but be designed to blend with the agrarian character of the site and surrounding land. Additional fencing will be installed surrounding the cannabis premises, and landscaping planted at the front of the parcel boarding Bloomfield Road and scattered throughout the project site (See Attachment 10 Landscaping Plan). Landscaping will consist of drought-tolerant, fire-resistant, trees and shrubs and will substantially soften the visual appearance from Bloomfield Road. Existing mature Eucalyptus trees and other vegetation along Bloomfield Road shall further provide screening from the public roadway and nearby private properties.

Design Review is also required for commercial land uses pursuant to the following, Section 26-88-254(c), Section 26-82-030 and Section 26-82-050. Proposed structures, fencing and landscaping will be subject to design review. Design review of all commercial structures, including fencing, and landscaping will be required as a standard use permit condition of approval (Condition of Approval #25).

Public road impacts: Bloomfield Road is a County maintained road, the portion of this road that the project is located on has an average daily traffic volume of 547 vehicles. The Governor’s Office of Planning and Research Technical Advisory includes a screening threshold for vehicle miles traveled for small projects that generate or attract fewer than 110 trips per day, stating this level of vehicle activity may generally be assumed to result in a less than significant transportation impact. The maximum average daily vehicle trips associated with the project is below the aforementioned threshold, conservatively estimated at 58 trips if all 19 employees were travel to the site per day. The project also proposes to implement a local hiring plan, so although distance travelled for employee trips has not been estimated, it is reasonable to assume that employees would primarily be hired from the local area and would generate relatively few travel miles associated with in-county commuter trips. Transportation is discussed in the Transportation section of the Initial Study (see Attachment 14 UPC19-00012 Updated Final ISMND, pages 65-67).

The Sonoma County Public Infrastructure Roads Division is responsible for the construction, operation, and maintenance of the County-Maintained public road system. According to their Pavement Preservation Program



an approximately one-mile portion of Bloomfield Road that runs from its intersection at Valley Ford Road to Tremari Road (postmile 10 to 11.06) is slated to be repaved sometime this year 2024. In 2021 an approximately one-mile portion of Bloomfield Road (postmile 14.12 to 15.04) was repaved from its intersection at Canfield Rd to Pleasant Hill Rd. While the applicant for this project cannot be required to improve the public roadway which is maintained by the County, they are required by Project Conditions of Approval 102-107 to improve each project driveway entrance such that it conforms to Board of Forestry Fire Safety Regulations §1270 et seq. and County standards and to allow for concurrent emergency ingress and egress as well as the smooth and safe movement of passenger vehicles entering and exiting the public road (Bloomfield Road) that provides access to the property

Neighborhood compatibility: Findings on the design, location, size, and development and operating standards are used to evaluate the project’s neighborhood compatibility. These findings are used to determine if the proposed project/use would be detrimental to the health, safety, peace, comfort, and general welfare of persons residing or working in the area.

The project meets all development criteria for the base zone Sec 26-06-040 and the current Cannabis Ordinance Sec. 26-88-254. While only the greenhouse structure is required to be located at least 300-feet from any offsite residence, all proposed project structures are located over 300-feet from the nearest offsite residence. The other nearest residences, of which there are three, are located over 1,000-feet from proposed structures. The proposed cultivation operation is appropriately scaled for the site; cultivation areas are less than the maximum allowed per parcel by the Ordinance and proposed structures would be located in a previously graded and disturbed area of the parcel, where a former quarry was operated. Structures will be designed to blend with the agrarian nature of the area, landscaping and additional fencing are also proposed in front of and throughout the project site. Access to and from the site will be controlled through private security gates. Security measures are robust and will deter potential theft and other crime. Odor control and management meets all requirements of the Ordinance. An odor control filtration and ventilation system(s) to control odors, humidity, and mold will be installed in the cultivation and processing structures including carbon filters to neutralizer odors. Proposed lighting meets all requirements of the Ordinance. All lighting related to the project will be fully contained within proposed structures. All exterior security lighting will be fully shielded and downward casting to prevent spillover into the night sky or onto adjacent properties. Traffic to and from the site is expected to be minimal. For these reasons, and compliance with all development criteria and operating standards of the Cannabis Ordinance, the project is compatible with the surrounding neighborhood.

## **RECOMMENDATIONS**

### ***Staff Recommendation***

Staff recommends that the Board of Zoning Adjustments adopt the Initial Study and Mitigated Negative Declaration and approve the request, with conditions, for a five-year limited term Conditional Use Permit for 5,000 square feet of indoor cannabis cultivation, 10,000 square feet of mixed light cultivation, and centralized processing in addition to accessory propagation.

## **ATTACHMENTS**

1. Resolution
2. Attachment 2 Overall Site Plan
3. Attachment 3. Aerial Map;



**Sonoma County Permit and Resource Management Department**  
2550 Ventura Avenue Santa Rosa CA 95403-2859 (707) 565-1900  
[www.PermitSonoma.org](http://www.PermitSonoma.org)



4. Attachment 4. Vicinity Map;
5. Attachment 5. Land Use Map;
6. Attachment 6. Zoning Map
7. Attachment 7 Proposal Statement
8. Attachment 8. Overall Site Plan
9. Attachment 9 Site Plan
10. Attachment 10 Landscaping Plan
11. Attachment 11 Site Photos
12. Attachment 12 Geotechnical Memo
13. Attachment 13 Hydrogeologic Assessment
14. Attachment 14 UPC19-00012 Updated Final ISMND
15. Attachment 15 Response to CDFW Letter
16. Public Comments Received Prior to August 12, 2024



Resolution Number # 24-XX

County of Sonoma  
Santa Rosa, California

August 22, 2024  
UPC19-0012   Haleigh Frye

RESOLUTION OF THE BOARD OF ZONING ADJUSTMENTS,  
COUNTY OF SONOMA, STATE OF CALIFORNIA, APPROVING  
A FIVE-YEAR LIMITED TERM CONDITIONAL USE PERMIT FOR  
5,000 SQUARE FEET OF INDOOR CANNABIS CULTIVATION,  
10,000 SQUARE FEET OF MIXED LIGHT CANNABIS  
CULTIVATION, CENTRALIZED PROCESSING, AND  
ACCESSORY CANNABIS PROPAGATION, ON A 113-ACRE  
PARCEL ZONED LAND EXTENSIVE AGRICULTURE LOCATED  
AT 4707 BLOOMFIELD ROAD, PETALUMA; APN 027-050-022.

WHEREAS, the applicant, Micheal Agins, representing Bloomfield Flowers LLC., filed a Use Permit application with the Sonoma County Permit and Resource Management Department for a commercial cannabis operation including 5,000 square feet of indoor cultivation, 10,000 square feet of mixed light cultivation, centralized processing, and accessory cannabis propagation located at 4707 Bloomfield Road, Petaluma CA 95466; APN 94952; Zoned Land Extensive Agriculture (LEA), B6 160; Supervisorial District No 2; and

WHEREAS, a Mitigated Negative Declaration was prepared for the Project and noticed and made available for agency and public review in accordance with the California Environmental Quality Act ("CEQA") and the State and County CEQA Guidelines; and

WHEREAS, in accordance with applicable provisions of law, the Board of Zoning Adjustments held a public hearing on August 22, 2024, at which time the Board of Zoning Adjustments heard and received all relevant testimony and evidence regarding the Project. All interested persons were given an opportunity to hear and be heard regarding the Project; and

WHEREAS, the Board of Zoning Adjustments has had an opportunity to review this Resolution and finds that it accurately sets forth the intentions of the Board regarding the Project.

NOW, THEREFORE, BE IT RESOLVED that the Board of Zoning Adjustments makes the following findings:

1. Environmental Determination: The Board of Zoning Adjustments has reviewed and considered the Mitigated Negative Declaration prepared to address environmental impacts of the project, together with all comments received during the public review process. Based upon the full record of proceedings (including the amended Initial Study and all comments received), it has been determined that there is no substantial evidence that the project as approved will have a significant environmental effect because mitigation measures and a mitigation monitoring program have been incorporated into the project as Conditions of Approval and agreed upon by the project applicant. The Mitigated Negative Declaration (IS/MND) has been completed in compliance with State and County CEQA guidelines and reflects the independent judgment and analysis of the County of Sonoma.

2. Based on its review of the IS/MND and public comments, the Board of Zoning Adjustments directs the following changes to the IS/MND, Mitigation Monitoring Program, and Conditions of Approval, as appropriate:
  - a. In accordance with CEQA Guidelines Section 15074.1(b)(2), new Mitigation Measure BIO-2 is equivalent or more effective in mitigating or avoiding potential significant effects and the new mitigation measure in itself will not cause any potentially significant effect on the environment. Specifically, the mitigation measure requires a greater distance in which habitat assessments (150 meters/492 feet) and surveys (500 feet) shall be conducted, increased time in which preconstruction surveys should be conducted prior to ground disturbance (14-days), reference to CDFW guidelines (2012 CDFW Staff Report), and incorporation of additional language to differentiate ground nesting species (specifically burrowing owl) from other raptor species.
  - b. In accordance with CEQA Guidelines Section 15074.1(b)(2), new Mitigation Measure BIO-3 is equivalent or more effective in mitigating or avoiding potential significant effects and the new mitigation measure in itself will not cause any potentially significant effect on the environment. Specifically, the mitigation measure requires identification of a specific maternity bat roosting season (April 1 through July 31) during which surveys must be conducted, increasing the assessment distance to 300 feet (from 100 feet), specification of what constitutes suitable habitat within trees (cavities, crevices, deep bark fissures), and presumption of presence if any suitable habitat exists.
3. General Plan Consistency: The proposed project is consistent with the General Plan land use designation of Land Extensive Agriculture, and the goals, objectives, policies, and programs of the General Plan. The proposed project is consistent with policies for managing and conserving agricultural areas and preserving areas of agricultural character. A majority of the subject parcel is used for existing agricultural operations including horse training, a commercial vegetable garden, bee keeping, and grazing and primary use of the parcel is and will remain in agricultural production. The project does not increase residential density or urban development, and would preserve the natural, visual, and scenic resources of the site.
4. Area Plan Consistency: The proposed project is consistent with the Petaluma Dairy Belt Area Plan land use designation of Land Extensive Agriculture and Area Plan policies because there would be no increase in residential density, agricultural uses including cattle grazing and a commercial organic garden would be supported on the site, and the project would not conflict with surrounding agricultural uses.
5. Zoning Consistency:
  - a. The proposed project is consistent with the Land Extensive Agriculture (LEA) Zoning District, in that the proposed cannabis cultivation operation is allowed with approval of a Conditional Use Permit. The purpose of the LEA District is to enhance and protect lands best suited for permanent agricultural use but capable of relatively low production per acre of land. The proposal maintains the agricultural uses on the majority of the land (110 acres; 97% of the total land area) and does not facilitate residential use.

- b. The proposed project is consistent with the operating standards and development criteria of the Cannabis Ordinance, Sonoma County Code Sections 2688-250 and 254, because it complies with the minimum parcel size, cultivation limits, setbacks, lighting standards, security and fencing requirements, odor control, 100% renewable energy use, hours of operation, noise standards, and groundwater monitoring.
6. The establishment, maintenance, or operation of the use for which application is made will not, under the circumstances of this particular case, be detrimental to the health, safety, peace, comfort, and general welfare of persons residing or working in the area of such use, nor be detrimental or injurious to property and improvements in the neighborhood or the general welfare of the area. The particular circumstances that support this finding include the following facts: 1) The cannabis operation would not involve more than one acre of cannabis cultivation area, less than 2.5% of the project parcel; 2) All cannabis cultivation areas are greater than 100 feet from property boundaries and greater than 300 feet from adjacent off-site residences; 3) The project parcel is greater than 10 acres (113-acres); 4) All cannabis cultivation areas will be screened from public view from Bloomfield; 5) Security measures will be implemented to uphold the health, safety, peace, comfort, and general welfare of persons residing or working in the neighborhood of such use; 6) All equipment shall be in compliance with the General Plan Noise Standard; 7) Operations will generally occur during daylight hours, however may occur 24-hours a day 7-days a week. Vendor deliveries and shipping operations will be limited to the hours of 8:00 am to 5:00 pm Monday through Friday; 8) All cultivation lighting will be contained within the mixed light structure; exterior lighting downward casting and fully-shielded; 9) Hazardous materials will be stored in accordance with local, state and federal regulations; 10) All energy will be 100% renewably sourced; 11) No public access or retail sales are permitted; and 11) The project parcel is predominantly surrounded by large parcels with agricultural uses

BE IT FURTHER RESOLVED that the Board of Zoning Adjustments hereby adopts the Mitigated Negative Declaration and Mitigation Monitoring Program set forth in the Conditions of Approval. The Board of Zoning Adjustments certifies that the Mitigated Negative Declaration has been completed, reviewed, and considered, together with comments received during the public review process, in compliance with CEQA and State and County CEQA Guidelines, and finds that the Mitigated Negative Declaration reflects the independent judgment and analysis of the Board.

BE IT FURTHER RESOLVED that the Board of Zoning Adjustments hereby approves the requested Use Permit, subject to the Conditions of Approval set forth in Exhibit "A" attached hereto.

BE IT FURTHER RESOLVED that the Board of Zoning Adjustments designates the Secretary as the custodian of the documents and other material which constitute the record of proceedings upon which the Board's decision herein is based. These documents may be found at the office of the Sonoma County Permit and Resource Management Department, 2550 Ventura Avenue, Santa Rosa, CA 95403.

BE IT FURTHER RESOLVED that the Board of Zoning Adjustments' action shall be final on the 11<sup>th</sup> day after the date of the Resolution unless an appeal is taken pursuant to Sonoma County Code Section 26-92-160.

THE FOREGOING RESOLUTION was introduced by Commissioner \_\_\_\_\_, who moved its adoption, seconded by Commissioner \_\_\_\_\_, and adopted on roll call by the following vote:

Commissioner  
Commissioner  
Commissioner  
Commissioner  
Commissioner

Ayes: 0    Noes: 0    Absent: 0    Abstain: 0

WHEREUPON, the Chair declared the above and foregoing Resolution duly adopted; and

SO ORDERED.



**DRAFT - CONDITIONS OF APPROVAL**

**Date:** August 22, 2024 **File No.:** UPC19-0012  
**Site Address:** 4707 Bloomfield Road, Petaluma **APN:** 027-050-022  
**Applicant/Operator:** Bloomfield Flowers LLC., Michael Agins  
**Applicant Address:** 4707 Bloomfield Rd, Petaluma  
**Landowner:** Michael Agins  
**Landowner Address:** 74 New Montgomery Street, Suite 602, San Francisco

**Project Description:** Request for a five year limited term Use Permit for a commercial cannabis operation consisting of 10,000 square feet mixed light cultivation, 5,000 square feet indoor cultivation, and centralized processing, in addition to accessory propagation in all new structures on a 113 acre parcel zoned Land Extensive Agriculture (LEA) located at 4707 Bloomfield Rd, Petaluma. Proposed hours of operation are 24 hours per day, seven days per week, as needed. Vendor deliveries would be limited to 8:00 am to 5:00 pm Monday through Friday. The cannabis operation would employ a maximum of 19 employees including full and part time staff. No public access or retail sales are permitted.

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**Prior to commencing the use, evidence must be submitted to the file that all of the following conditions have been met.**

**CONDITIONS ON PLAN SETS:**

1. Project conditions and mitigation measures (if applicable) must be printed or included in all plan sets submitted for permitting. Building permit plans shall have plan sheets that include all conditions as part of the submittal package.

**FEES:**

2. Permit Processing and Development Fees. This "At Cost" entitlement is not vested until all permit processing costs and development fees are paid in full. No grading or building permits shall be issued until all permit processing costs and development fees are paid in full.
3. CEQA Filing Fee. Within five working days after project approval, the applicant/operator shall pay a mandatory Notice of Determination filing fee of \$2,764.00 (or the latest fee in effect at the time of payment) for County Clerk processing. The fee will be charged against the project At-Cost deposit account and billed to the applicant, unless the applicant requests an alternate payment method, such as a check made out to the Sonoma County Clerk and submitted to Permit Sonoma in advance of the fee due date. NOTE: If the fee is not paid within five days after approval of the project, it will extend time frames for CEQA legal challenges.
4. Condition Compliance Fee. Prior to staff review of Condition Compliance and/or prior to submitting a building permit application the applicant/operator shall submit to Permit Sonoma



an Approved Permit Condition Compliance Review fee deposit of \$3,029.00 (or other amount consistent with the adopted fee schedule in effect at the time). In addition, the applicant/operator shall be responsible for payment of any additional compliance review fees that exceed the initial deposit (based upon hours of staff time worked) prior to final occupancy being granted.

5. Department of Agriculture Annual Site Monitoring Fee. The applicant/operator shall be responsible for payment of all site monitoring fees conducted to verify compliance with the ordinance, cultivation BMPs, and project conditions of approval. Inspections shall be conducted and fees shall be paid for each year over the effective term of the permit.
6. Well Monitoring Fee. Prior to building permit final or issuance of a Use Permit Certificate to operate the use, the applicant/operator shall submit to Permit Sonoma an Annual Well Monitoring fee of \$224.00 (or other amount consistent with the adopted fee schedule in effect at the time). The applicant/operator shall be responsible for payment of additional annual well monitoring fees for each year over the effective term of the permit. **The annual well monitoring fee shall be paid by January 31 of each year the permitted operation is active.**
7. Traffic Mitigation Fee. Prior to building permit final or issuance of a Use Permit Certificate to operate the use, the applicant/operator shall submit to Permit Sonoma a Traffic Mitigation Fee per Chapter 26, Article 98 of the Sonoma County Code. The fee is computed by multiplying project Average Daily Traffic (ADT) by the commercial fee in effect at the time of permit issuance. Evidence of payment shall be submitted to the Permit Sonoma Project Review Planner.
8. Workforce Housing. Construction of new or expanded non-residential development shall be subject to Workforce Housing Requirements pursuant to Section 26-89-045 of the Sonoma County Code. No grading or building permits shall be issued until Workforce Housing Requirements have been met. Internal tenant improvements are not subject to Workforce Housing Requirements.

**PERMIT SONOMA PLANNING:**

"Compliance with the conditions below have been verified " BY \_\_\_\_\_ DATE \_\_\_\_\_

Contact Haleigh Frye, Project Planner at (707) 565-2477

9. Term of Permit. This is a limited term permit. No property interest, vested right, or entitlement to receive a future permit to operate a cannabis use shall ever inure to the benefit of the permit holder as such permits are revocable and shall expire (Section 26-88-250 (e)). This permit for cannabis uses shall be issued to the applicant/operator for a period not to exceed five years from the date of issuance of the Use Permit Certificate and shall be subject to permit renewals. The Use Permit Certificate for UPC19-0012 shall expire five years after issuance, unless the applicant/operator applies for and is granted a permit renewal. **The applicant/operator must apply for permit renewal at least 90 days prior to expiration of the permit to avoid interruption of service.**
10. Type(s) and Limitations of Use:



- a. This use permit allows 15,000 square feet of cannabis cultivation:
    - i. 5,000 square feet of Indoor
    - ii. 10,000 square feet of Mixed Light
  - b. This use permit allows centralized processing and packaging of cannabis.
  - c. This use permit does not allow Wholesale Nursery.
  - d. This use permit does not allow public access to any portion of the cannabis operation.
  - e. This use permit does not include or authorize special events.
  - f. This use permit does not allow any retail sales on-site or the delivery of cannabis to patients or the public.
  - g. **If phased construction will occur rather than full buildout of permitted uses, a Phasing Plan shall be submitted for review and approval by Permit Sonoma staff within 90 days of Use Permit approval.** At a minimum, the Phasing Plan shall include a floor plan and corresponding table disclosing the following for each room:
    - i. Room identifier/label.
    - ii. Square footage per room.
    - iii. Canopy area per room.
    - iv. Use (e.g., flower, vegetative propagation, processing, distribution).
    - v. Proposed phase and timeline for each phase
  - h. The use shall be operated in accordance with the proposal statement, operational plans, and site plans located in File No. UPC19-0012 as modified by these conditions.
11. Cultivation Area. The applicant/operator shall not increase cultivation area beyond 15,000 square feet (as described in Condition 10 above) at this location without prior written approval from Permit Sonoma Staff. This permit does not include wholesale nursery cultivation.
12. Propagation Area. This use permit allows for additional indoor and or mixed light propagation (growing clones or other non-flowering materials to support the onsite use) and vegetative production area not to exceed to 25% of the permitted cultivation area (3,750 square feet), provided this plant material is kept in a separate, unique area away from flowering plants. Propagation must occur within the licensed premises. Propagation area is separate from and does not include wholesale nursery cultivation.
13. Canopy Plan. The applicant/operator shall be responsible for submission of a current canopy plan including all cultivation areas for each year over the effective term of the permit. This plan shall graphically depict all cannabis cultivation areas that contain mature plants and shall calculate the canopy area in square feet, measured in clearly identifiable boundaries. The canopy may be noncontiguous, but each unique area included in the total canopy calculation shall be separated by an identifiable boundary that may include, but is not limited to,



greenhouse walls, shelves, garden benches, hedgerows, fencing, etc. **The canopy plan shall be submitted by June 1 of each year the permitted operation is active.**

14. Hours of Operation. Indoor and mixed light cultivation and processing activities are allowed to occur 24 hours per day, seven days a week as needed, although general use will occur during daylight hours. All vendor deliveries and shipping activities shall be limited from 8:00 am to 5:00 pm Monday through Friday, year-round.
15. Employees. This use permit allows for a maximum of seven (19) employees onsite per day.
16. Ownership changes. Written notification shall be provided to Permit Sonoma prior to any of the following changes: 1) a new person meeting the definition of cannabis business owner of the permit holder, 2) change in business entity type of the permit holder, 3) change in legal business name of the permit holder, 4) a new person serving as operator of the permit holder, or 5) a new property owner. Supporting documentation shall be submitted to Permit Sonoma within 30 days of any of the aforementioned changes.
17. Security Plan. The operation shall maintain all aspects of the approved site security plan (held confidentially at Permit Sonoma). This shall, at a minimum, include video surveillance, of which recordings will be kept for at least 30 days, perimeter fencing, controlled access gates, locking doors, security lighting, and alarms. Weapons and firearms are prohibited. Cash shall be limited at the location to a minimum needed for the daily operations only and shall be placed in a secure location (e.g., locked drawer, safe, or similar storage cabinet with a locking mechanism).
18. Security Log. **A log of security incidents shall be maintained, and an annual report shall be submitted to Permit Sonoma by January 31 of each year the permit is active.** The reporting shall be provided in a format agreed to by Permit Sonoma staff.
19. Odor Control System. The applicant/operator shall install and maintain an odor control air filtration and ventilation system in each structure containing cannabis products to control off-site odor generated by the cannabis operation. This requirement shall apply to all permanent structures used in the operation, including mixed light greenhouses, processing, and product storage structures. Verification of compliance shall be required prior to issuance of the Use Permit Certificate or operation of the use, either by photographic documentation or site inspection by the Project Planner, at the discretion of Permit Sonoma staff.
20. Odor Monitoring Log. **A log of odor incidents, complaints received, and actions taken to resolve any odor issue shall be kept and an annual report shall be submitted to Permit Sonoma by January 31 of each year the permit is active.** The reporting shall be provided in a format agreed to by Permit Sonoma staff. Odor complaints received shall be documented, along with the complaint resolution and the timeframe required to address the odor issue and shall be included in the annual report. If it is determined by staff that complaints are warranted, Permit Sonoma may require the permit holder to implement additional odor control measures.



21. Inspection. The operation shall be subject to inspections by appropriate local and state agencies, including but not limited to Agriculture/Weights & Measures and Permit Sonoma. Inspections may occur at random times for conformance with the County Code and permit requirements. If interference in the performance of the duty of the agency having jurisdiction occurs, the agency may temporarily suspend the permit and order the operator to immediately cease operations.
22. Energy Use. The applicant/operator shall submit and maintain documentation that the operation utilizes 100% renewable energy sources. A request to modify energy provider must be submitted to Permit Sonoma and approved prior to making any change in energy service.
23. Water Conservation Plan. Prior to issuance of a Use Permit Certificate to operate, a Water Conservation Plan shall be implemented by the applicant/operator and verified by staff. The Plan includes all reasonably feasible measures to reduce water demand and enhance water resource recovery to the maximum extent feasible, including but not limited to: high efficiency drip irrigation system for watering plants, using a rainwater catchment system to minimize groundwater use for irrigation, installing ultra-low flow fixtures, and utilizing dehumidification units for water recovery.
24. Greenhouse Gas Reduction Plan. Prior to issuance of a Use Permit Certificate to operate, a Greenhouse Gas Reduction Plan to reduce greenhouse gas emissions in the design, construction, and long-term operations of the project shall be implemented by the applicant/operator and verified by staff. The Greenhouse Gas Reduction Plan includes all reasonably feasible measures to reduce greenhouse gas emissions to the maximum extent feasible, including but not limited to: implementing a local hiring plan, encouraging carpooling, hiring local contractors, reducing the use of fertilizers, and installing HVAC units to use zero HFC's and halons.
25. Design Review. Prior to issuance of building, grading, or other development permits, all exterior modifications to the site, including landscaping, parking lot improvements, fencing, lighting, driveway improvements, and installation of water tanks for irrigation or fire suppression, shall be subject to administrative design review. Razor wire and similar fencing is not permitted. Design Review.
26. Signage. The project approval does not include any signage. A separate administrative design review application will be required if any exterior signage is proposed.
27. Lighting. Prior to issuance of a Use Permit Certificate to operate, an exterior lighting plan, including security lighting, shall be submitted for review by Permit Sonoma staff. Exterior lighting shall be low mounted, downward casting and fully shielded to prevent glare. Lighting shall not wash out structures or any portions of the site. Light fixtures shall not be located at the periphery of the property and shall not spill over onto adjacent properties or into the night sky. Flood lights are not permitted. Lighting shall shut off automatically after closing and security lighting shall be motion sensor activated. Verification of lighting installation in compliance with

standards shall be required, either by photographic documentation or site inspection by the Project Planner, at the discretion of Permit Sonoma staff.

28. Maintenance of On-Site Agricultural Use. The applicant/operator shall execute a primary agricultural use onsite prior to issuance of subsequent development permits. The applicant/operator shall maintain a primary agricultural use on the parcel. As proposed, the primary agricultural uses on the parcel include a horse training facility, an organic vegetable farming operation, bee keeping, and sheep grazing. Failure to maintain a primary agricultural use shall be considered a violation of this use permit, subject to revocation or modification
29. Use Permit Certificate. A Use Permit Certificate with these conditions, approved proposal statement, and approved plans shall be maintained on site and made available to county officials upon request.
30. Operational Requirements. The operation shall conform to the standards established by County Code Sections 26-88-250 through 26-88-256, and all other applicable requirements for the specific type of use and those of the underlying base zone.
31. Conformance with Statutes. This use shall be constructed, maintained, and operated in conformance with applicable county and state statutes, ordinances, rules, and regulations, including but not limited to state and/or county track and trace programs, state licensing, occupational safety requirements, health permits and regulations, and cannabis business taxes. A violation of any applicable statute, ordinance, rule, or regulation shall be considered a violation of this use permit, subject to revocation or modification.
32. Code Violations. All code violations shall be abated, and all applicable penalty fees paid prior to issuance of a Use Permit Certificate to operate.
33. Permanently installed generators. Permanently installed emergency generators shall not be used to power the indoor or mixed light growing of cannabis plants. The prohibition includes indoor and mixed light propagation and vegetative plant production. Permanent emergency generators can be used only during power shut offs and other emergencies when on-grid power is not available. During those specified times, a permanently installed generator can be used to power supporting and accessory activities, such as employee uses, processing, and product storage, and to power public safety functions, such as security lighting, cameras, alarms, and fire sprinklers. Permanently installed emergency generators can be used during emergency and non-emergency conditions to power well pumps for irrigation and/or fire suppression for all cultivation uses.

A Building permit is required. The installation shall be subject to all applicable Building Code, Fire Prevention, and air quality requirements and standards, including, but not limited to:



- a. Location away from overhanging vegetation, and 30-foot non-combustible space around the generator site.
- b. Generator noise emissions shall be less than 70 decibels as measured at any point 25 feet from the generator when operating at full power (this typically can be obtained with a Level II acoustic enclosure from the generator manufacturer). A generator sound level specification sheet must be submitted with the building permit application to verify compliance with this standard. If a separate structure is required or proposed to meet this standard, the structure may be subject to additional permits.
- c. Self-test cycles shall be programmed to run on a weekday between the hours of 10:00 am and 2:00 pm.
- d. A completed and signed Declaration of Use (Form BPC-061) shall be submitted along with the Building Permit describing the proposed use of the generator. The form requires a Site Plan specific to the Declaration that clearly identifies the building(s)/use(s) the emergency generator will support, and clearly identifies where cannabis operations will occur. This information can be hand-drawn on an existing site plan or on an aerial.

34. Accidental Discovery of Cultural Resources. In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and Permit Sonoma Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to Permit Sonoma. Permit Sonoma staff will notify and consult with the culturally affiliated tribal representative from tribes known to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by-products of human land use greater than fifty (50) years of age including trash pits older than fifty (50) years of age. When contacted, a Permit Sonoma Project Review staff person, tribal representatives, and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. Permit Sonoma will consult with the tribe(s) on the mitigation/protection plan and provide appropriate time for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by Permit Sonoma and agreed to by Tribe(s). Measures may include avoidance, removal, preservation and/or recordation in accordance with California law. Archeological evaluation and mitigation shall be at the applicant's sole expense.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed.

### **Mitigation Measures from MND:**

#### **35. Mitigation Measure AIR-1 Construction Dust and Air Quality Control:**

- a. Construction Coordinator shall be designated by the project applicant, and a sign shall be posted on the site including the Coordinator's 24-hour phone number for public contact regarding dust, trackout, and air quality complaints. The Coordinator shall respond and take corrective action within 48 hours. The Coordinator shall report all complaints and their resolutions to Permit Sonoma staff.
- b. Water or alternative dust control method shall be sprayed to control dust on construction areas, soil stockpiles, and staging areas during construction as directed by the County.
- c. Trucks hauling soil, sand, and other loose materials over public roads shall cover the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions.
- d. Vehicle speeds on unpaved areas shall be limited to 15 miles per hour.
- e. Final surfacing (i.e., pavement or concrete, gravel, landscaping) shall be completed as soon as possible after earthwork is finished, unless seeding or soil binders are used.
- f. Idling time of diesel-powered construction equipment shall be limited to five minutes. Signs shall be posted reminding workers of this idling restriction at all access points and equipment staging areas during construction of the proposed project.
- g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications and shall have a CARB certified visible emissions evaluator check equipment prior to use at the site.
- h. Trackout shall not be allowed at any active exit from the project site onto an adjacent paved public roadway or shoulder of a paved public roadway that exceeds cumulative 25 linear feet and creates fugitive dust visible emissions without cleaning up such trackout within 4 hours of when the Construction Coordinator identifies such excessive trackout, and shall not allow more than 1 quart of trackout to remain on the adjacent paved public roadway or the paved shoulder of the paved public roadway at the end of any workday.
- i. Visible emissions of fugitive dust shall not be allowed during cleanup of any trackout that exceeds 20 percent opacity as determined by the Environmental Protection Agency in Method 203B - Opacity Determination for Time Exception Regulations (August 2017).

Trackout is defined by BAAQMD in Regulation 6, Rule 6: Prohibition of Trackout (August 2018) as any sand, soil, dirt, bulk materials or other solid particles from a site that adhere to or agglomerate on the exterior surfaces of vehicles (including tires), and subsequently fall or are dislodged onto a paved public roadway or the paved shoulder of a paved public roadway on the path that vehicles follow at any exit and extending 50 feet out onto the paved public roadway beyond the boundary of the site. Material that has collected on the roadway from erosion is not trackout.

**Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control:**

Permit Sonoma staff shall verify that the AIR-1 measures are included on all site alteration, grading, building or improvement plans prior to issuance of grading or building permits. The applicant shall submit documentation to Permit Sonoma staff that a Construction Coordinator has been designated and that appropriate signage has been posted including the coordinator's phone number. Documentation may include photographic evidence or a site inspection, at the discretion of Permit Sonoma staff.

**36. Mitigation Measure BIO-1: Prohibition on Plastic Erosion Control Netting:**

Plastic monofilament or loosely woven erosion control netting, or any similar materials that may entangle special-status wildlife, shall not be installed. Suitable erosion control measures include natural materials that are 100% biodegradable, such as natural fiber netting and straw.

**37. Mitigation Measure BIO-2: Prevent Disturbance to Nesting Birds:**

The following measures shall be taken to avoid potential inadvertent destruction or disturbance of nesting birds on and near the project site as a result of construction-related vegetation removal and site disturbance:

- a. To avoid impacts to nesting birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (generally prior to February 1 or after August 31). Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest.
- b. If construction-related activities are scheduled to occur during the nesting season (generally February 1 through August 31), a qualified biologist shall conduct a habitat assessment for nesting birds, including ground nesting species such as burrowing owl. Habitat assessments related to burrowing owl shall be performed following Appendix C of the CDFW Staff Report on Burrowing Owl Mitigation (2012 CDFW Staff Report) and shall extend at least 150 meters (492 feet) from the Project site boundary and include burrows and burrow surrogates. If suitable habitat exists then a qualified biologist shall conduct pre-construction surveys for nesting birds, including ground nesting species such as burrowing owl, no more than fourteen (14) days prior to initiation of work. Specifically, if suitable burrowing owl habitat is determined to be present, then surveys shall be conducted following the methodology described in Appendix D (Breeding and Non-breeding Season Surveys) of the 2012 CDFW Staff Report. The qualified biologist conducting the surveys shall be familiar with local

nesting bird and ground-nesting species including burrowing owl. Surveys shall be conducted at the appropriate times of day during periods of peak activity (i.e., early morning or dusk) and shall be of sufficient duration to observe movement patterns. Surveys shall be conducted within the project area and 250 feet of the construction limits for nesting non-raptors and 500 feet for nesting raptors and burrowing owls as feasible as disturbance distances vary dependent on species, time of year, and geographical location. If the survey area is found to be absent of nesting birds, no further mitigation is required. However, if project activities are delayed by more than seven days, an additional nesting bird survey shall be performed.

- c. If pre-construction nesting bird surveys identify active nests and or burrows, no site disturbance (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading) shall occur until a qualified biologist has established a temporary protective buffer around the nest(s). For any raptor species, a Qualified Biologist, experienced in raptor behavior should be assigned to monitor the behavior of any raptors nesting within disturbance distance of Project activities. The buffer shall be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified biologist. The Qualified Biologist shall have authority to order the cessation of all Project activities within disturbance distance of any raptor nest if the birds exhibit abnormal nesting behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young). No-work buffers are species- and site-specific, as determined by a qualified biologist. Typically, the no-work radius is 100-250 feet for songbirds and up to 1,000 feet for special-status raptors and owls. The nest buffer, where it intersects the project site, shall be staked with orange construction fencing or orange lath staking. Any active nests and burrows shall be monitored by a qualified biologist to ensure compliance with the relevant Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) requirements. The biologist shall document monitoring efforts and provide documentation to the applicant and County. No-work nest protection buffers may be removed and/or reduced if the qualified biologist determines the young have fledged the nest, the nest has otherwise become inactive due to natural cause (i.e., storm events or predation), or if the qualified biologist determines in coordination with CDFW that construction activities are not likely to adversely affect the nest. The qualified biologist and CDFW may agree upon an alternative monitoring schedule depending on the construction activity, season, and species potentially subject to impact.
- d. A report of the findings shall be prepared by a qualified biologist and submitted to the County prior to the initiation of construction-related activities that have the potential to disturb any active nests. The report shall include recommendations required for establishment of protective buffers as necessary to protect nesting birds and ground nesting species. A copy of the report shall be submitted to the County and applicable regulatory agencies prior to the issuance of a grading permit.

**38. Mitigation Measure BIO-3 Roosting Bat Pre-Construction Survey(s):**

If initial ground disturbance or building demolition occurs during the bat maternity roosting season (May 1 through July 31), a qualified biologist shall conduct a bat roost assessment of



trees and structures within 300 feet of the construction site to determine if they contain suitable bat habitat (e.g., cavities, crevices, deep bark fissures). If any trees contain such habit, bat presence shall be presumed. Surveys shall be conducted immediately prior to construction (within 1 to 2 days). If the biologist determines there is potential for maternity roosting bats to be present within 300 feet of the project site, nighttime emergence surveys shall be performed to determine if maternity roosting bats are present. If bat maternity roosts are present, the biologist shall establish an appropriate exclusion zone around the maternity roost. Once the biologist has determined that all young have become independent of the roost, construction may take place in the former exclusion zone.

**Mitigation Monitoring: BIO-2 and BIO-3 Pre- Construction Surveys:** Prior to construction and through completion of initial site disturbance, Permit Sonoma staff shall verify that all surveys have been conducted according to applicable protocols and shall review the results of all pre-construction surveys and any measures recommended by the biologist to avoid sensitive habitat or species and ensure compliance. If the survey determines protective buffers are necessary, ground disturbing activities shall not be initiated until the applicant provides evidence that nest protection buffers are flagged and fenced off and active nest monitoring has been initiated.

A final monitoring report shall be submitted to the County within 30 days of the completion of ground disturbing activities.

39. **Mitigation Measure NOISE-1 HVAC and Emergency Generator Sound Enclosures:** HVAC and Generator noise emissions shall be less than 70 decibels as measured at any point 25 feet from the unit(s) when operating (this typically can be obtained with a Level II acoustic enclosure from the equipment manufacturer). The applicant shall submit sound level specification sheet(s) for HVAC and generator equipment and for any accompanying acoustic enclosures, if applicable, to demonstrate compliance with this noise limit. A separate structure (e.g., a sound wall) may also be constructed to meet this standard; if construction of a separate structure is proposed, the applicant shall also submit documentation prepared by a qualified noise consultant that the structure will attenuate the noise level in compliance with this noise limit.
40. **Mitigation Monitoring NOISE-1 HVAC and Emergency Generator Sound Enclosures:** Permit Sonoma staff shall verify that all required acoustic enclosures or sound walls are in place prior to issuance of a Use Permit Certificate to Operate the use. Verification shall include photographic documentation and/or a site visit, at the discretion of Permit Sonoma staff.

**PERMIT SONOMA NATURAL RESOURCES:**

Compliance with the conditions below have been verified BY \_\_\_\_\_ DATE \_\_\_\_\_  
Contact the Permit Sonoma Natural Resources Geologist at 707-565-1352

**PRIOR TO BUILDING PERMIT:**



41. An Easement is required to be recorded for this project to provide Sonoma County personnel access to any on-site water well or other water source serving this project and any required monitoring well or water meter to collect groundwater level measurements and water meter readings. Access shall be granted Monday through Friday from 8:00 a.m. to 5:00 p.m. All Easement language is subject to review and approval by Permit Sonoma Project Review staff and County Counsel prior to recordation.

**PRIOR TO OPERATION:**

42. Water well(s) serving this project shall be equipped to enable regular groundwater level monitoring, subject to approval by Permit Sonoma Professional Geologist or Environmental Health Specialist.
43. Totalizing water meter(s) to measure all groundwater extracted for the use shall be installed, subject to approval by Permit Sonoma Professional Geologist or Environmental Health Specialist.
44. A Site Plan showing the location of the well(s) with the groundwater level measuring device(s), water storage ponds, tanks, and reservoirs, and the location of all water meter(s) shall be submitted to PRMD. The monitoring well(s) shall be marked with a measuring reference point. The well's Global Positioning System (GPS) coordinates (in NAD83 California State Plane II or WGS 84lat./long.) shall be noted. The height of the water level measuring reference point above the ground surface shall be specified. Attached to the Site Plan should be the monitoring well(s) well completion reports (with owner information redacted, as is publicly available through California DWR).
45. The applicant shall provide a Water Conservation Plan prepared by a qualified professional that estimates monthly and annual water use, subject to review and approval by Permit Sonoma. The water conservation plan should consider practical methods to conserve water use including recycling leachate into an irrigation supply tank, and installation of an air conditioner and dehumidifier condensate water collection system.
46. Prior to obtaining a Use Permit Certificate to operate, a rainwater capture system which collects water from all feasible roof areas and has a minimum storage tank capacity of 250,000 gallons shall be installed, subject to approval by Permit Sonoma.
47. Prior to obtaining a Use Permit Certificate to operate, a condensate capture system which collects water from all air conditioners and dehumidifiers, and routes collected water into irrigation supply storage tanks, shall be installed, subject to approval by Permit Sonoma.
48. Prior to operation, all water conservation measures and equipment described in the approved Water Conservation Plan shall be installed, subject to approval by Permit Sonoma.

**OPERATIONAL REQUIREMENTS:**

49. Groundwater Monitoring and Meter Calibration
  - e. Groundwater levels and quantities of groundwater extracted for the use shall be measured quarterly. Data shall be reported to Permit Sonoma in January of the following year pursuant to Section WR-2d of the Sonoma County General Plan and



County policies. Data should be provided on template monitoring forms provided by Permit Sonoma.

- f. Water meters shall be calibrated, and copies of receipts and correction factors shall be submitted to Permit Sonoma at least once every five years.
  - g. If the County determines that groundwater levels are declining in the local groundwater basin, then the applicant shall submit and implement a Water Conservation Plan, subject to review and approval by PRMD.
50. All water conservation measures described in the most recent Water Conservation Plan shall be implemented. Alternative methods or technology of equal or better water efficiency may be used or installed with update and approval of the Water Conservation Plan. Equipment and fixtures shall be maintained in good working order. If replaced, equipment and fixtures of equivalent or better water use efficiency shall be installed.
51. Total well water use for the project, inclusive of employee uses and irrigation of cannabis shall not exceed 1.0 acre feet per year. In the event that average water use over 3 years exceeds 1.0 acre feet per year, the applicant shall update the Water Conservation Plan to utilize the best available technologies to reduce water use, subject to review and approval by Permit Sonoma. In the event that average water use over 3 years exceeds the estimated water use of the approved Water Conservation Plan by Sonoma County Permit and Resource Management Department 2550 Ventura Avenue Santa Rosa CA 95403-2859 (707) 565-1900 [www.PermitSonoma.org](http://www.PermitSonoma.org) Page 5 of 5 more than 10%, Permit Sonoma shall bring this matter back to the BZA for review of additional measures to reduce net groundwater use.
52. The project shall comply with all applicable regulations, monitoring, and fees associated with the Groundwater Sustainability Agency as applicable to the project site.

**PERMIT SONOMA GRADING AND STORMWATER:**

**Compliance with the conditions below have been verified BY \_\_\_\_\_ DATE \_\_\_\_\_  
Contact Permit Sonoma Engineering and Water Resources Section at 707-565-1691**

53. Grading and/or building permits require review and approval by the Grading & Storm Water Section of the Permit and Resource Management Department (PRMD) prior to issuance. Grading permit applications shall abide by all applicable standards and provisions of the Sonoma County Code and all other relevant laws and regulations.
54. A drainage report for the proposed project shall be prepared by a civil engineer, currently registered in the State of California, be submitted with the grading and/or building permit application and be subject to review and approval by the Grading & Storm Water Section of the Permit and Resource Management Department (PRMD). The drainage report shall include, at a minimum, a project narrative, on- and off-site hydrology maps, hydrologic calculations, hydraulic calculations, pre- and post-development analysis for all relevant existing and proposed



drainage facilities. The drainage report shall abide by and contain all applicable items in the *Drainage Report Required Contents* (DRN-006) handout.

55. Drainage improvements shall be designed by a civil engineer, currently registered in the State of California, and in accordance with the Sonoma County Water Agency Flood Control Design Criteria. Drainage improvements shall be shown on the grading/site plans and be submitted to the Grading & Storm Water Section of the Permit and Resource Management Department (PRMD) for review and approval. Drainage improvements shall maintain off-site natural drainage patterns, limit post-development storm water quantities and pollutant discharges in compliance with PRMD's best management practices guide, and shall abide by all applicable standards and provisions of the Sonoma County Code and all other relevant laws and regulations. Existing drainage patterns shall be maintained, to the maximum extent practicable, to not adversely impact adjacent properties or drainage systems. Proposed drainage improvements shall not adversely impact adjacent properties or drainage systems.
56. The applicant shall provide grading plans, prepared by a civil engineer currently registered in the State of California, which clearly indicate the nature and extent of the work proposed and include all existing and proposed land features, elevations, roads, driveways, buildings, limits of grading, limits of disturbed area/total work, adequate grading cross sections and drainage facilities such as swales, channels, closed conduits, or drainage structures. The grading plans shall abide by and contain all applicable items from the *Grading Permit Required Application Contents* (GRD-004) handout.
57. As part of the grading plans, the applicant shall include an erosion prevention/sediment control plan which clearly shows best management practices to be implemented, limits of disturbed areas/total work, vegetated areas to be preserved, pertinent details, notes, and specifications to prevent damages or minimize adverse impacts to the surrounding properties and the environment. Tracking of soil or construction debris into the public right-of-way shall be prohibited. Runoff containing concrete waste or by-products shall not be allowed to drain to the storm drain system, waterway(s), or adjacent lands. The erosion prevention/sediment control plan shall abide by and contain all applicable items in the *Grading Permit Required Application Contents* (GRD-004) handout.
58. Residue or polluted runoff from the cannabis production/processing areas/activities shall not be allowed to drain directly to the storm drain system, waterway(s) or adjacent lands. Production & processing areas shall be covered or drain directly to a proper waste disposal system. No diversion valves shall be allowed.
59. Runoff from waste receptacles or outside washing areas shall not be allowed to drain directly to the storm drain system, waterway(s) or adjacent lands. Areas used for waste receptacles and outside washing areas shall be covered or separated from the rest of the project site by grade breaks that prevent storm water run-on. Any surface water flow from a waste receptacle or

outside washing area shall not be permitted to enter the storm drain system without receiving appropriate treatment.

60. Drainage easements are required to convey storm water runoff through any neighboring properties. Drainage easements shall be clearly shown and noted on the grading/site plans. The applicant shall be responsible for obtaining or creating drainage easements necessary for the proposed project prior to grading or building permit issuance. Any proposed drainage easements shall be private easements unless otherwise approved by the Department of Transportation and Public Works.
61. If the cumulative land disturbance of the project is equal to or greater than one (1) acre, then the project is subject to National Pollutant Discharge Elimination System (NPDES) requirements and must obtain coverage under the State Water Resource Control Board's General Construction Permit (General Permit). Documentation of coverage under the General Permit must be submitted to the Grading & Storm Water Section of the Permit and Resource Management Department prior to issuance of any grading permit for the proposed project.

**BUILDING:**

**"Compliance with the conditions below have been verified " BY \_\_\_\_\_ DATE \_\_\_\_\_**

**Contact Building Plan Check at 707-565-2095**

62. The applicant/operator shall apply for and obtain building-related permits from Permit Sonoma for any new construction. The necessary applications appear to include, but may not be limited to, an accessibility report and building permit(s). Construction inspections shall have occurred, and the building permit(s) finalized prior to occupancy of new or remodeled structure(s). A signed Declaration of Use that complies with the associated Use Permit application shall be submitted with the building permit application package.
63. Due to the scope of this commercial project, the California Business and Professions Code requires plans and calculations to be prepared by California licensed design professionals (e.g., architects, engineers, etc.). The cover sheet of plans shall identify the full scope of work and shall include an architectural analysis of the proposed project, including occupancies of all spaces, areas, area and height limitations, occupant load factors, occupant loads, exit system requirements, emergency egress, fire-rated construction details, fire separation requirements, and fixture requirements. All buildings shall comply with the prescriptive requirements of all applicable codes, including Energy and CALGreen.
64. Application materials shall be consistent with Permit Sonoma's Building/Grading Permit Application Submittal Checklist (Form # CSS-003).



65. If any changes to plans, drawings, documents, or specifications are required pursuant to any conditions specified herein, these changes shall be brought to the appropriate department for review and approval prior to any construction or improvements. These changes shall be reviewed by all departments involved in the initial approval of the subject plans, drawings, documents, or specifications that are proposed for the change.
66. To determine proper fire separations, the intended occupancies and uses of the facility, and spaces therein shall be clearly stated on the plans; similarly, the approved use and occupancy of the adjacent spaces in the building shall be shown. A detail of the wall assembly separating those spaces shall be shown on the plans. Plans shall include an analysis of proposed occupant load, area and height limitations, emergency egress, and fire-rated construction details.
67. All fertilizers, pesticides, corrosives, flammables, explosives and/or toxic materials that may be stored or used at the facility shall be defined, scoped, and quantified. A control area analysis shall be prepared by the applicant/operator and provided to the project planner for any of the above materials which exceed code-prescribed thresholds.
68. Mechanical, electrical, and plumbing plans shall be fully detailed. Plumbing system materials used to convey concentrated byproducts of water reuse process equipment shall be identified and detailed from point-of-inlet to point-of-discharge. The path of reclaimed condensate systems and associated storage and conveyance equipment shall be identified and detailed.
69. All permanently installed equipment shall be identified in the appropriate section of the mechanical, electrical, and plumbing plan sheets. Product information shall be included to verify that installation and use of equipment is consistent with the manufacturer's listing and/or recommendations.
70. The applicant/operator shall comply with California Building Code Section 11B-202.3, which requires that alterations to existing elements or spaces comply with the accessibility requirements of CBC 11B Division 2. For this purpose, a change of use is an alteration.
71. All buildings, structures, sidewalks, curbs, and related facilities, intended for use by the public or employees, shall be accessible to and usable by persons with disabilities. Accessible parking shall be provided for both assigned and unassigned and/or visitor spaces per California Building Code requirements. Plans shall include details of the path of travel from accessible parking to the area of alteration. All facilities serving the area of alteration shall be made accessible. Prior to initiation of the approved use, the project shall comply with the accessibility requirements set forth in the most recent California Building Code, as determined by the Permit Sonoma Building Division. Such accessibility requirements shall apply to all new construction and remodeling and, where required by the California Building Code, to retrofitting of the existing structure.

72. Prior to any site review or field inspections, any materials or systems that could present a danger to inspectors shall be isolated and secured. All field inspection staff shall be accompanied by project personnel familiar with the systems and construction at the project site and capable of describing and controlling equipment.
73. Any structures to be constructed as part of use permit conditions, such as security or sound walls, shall require separate building applications and permits.
74. Dust Control: The applicant/operator shall always comply with dust control measures, including weekends and holidays. Measures to be incorporated may include, but are not limited to, the following: keeping dust on the site, use of water trucks or sprinkler systems to prevent dust from leaving the site and to create a crust after the completion of each day's activities, use of water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site, wetting down the construction area after work is completed for the day and whenever winds exceed 15 mph, having site watered at least once each day including weekends and/or holidays when winds exceed 15 mph, and covering soil stockpiled for more than two days or treating with soil binders to prevent dust generation

**FIRE PREVENTION:**

**Contact Fire and Emergency Services at 707-565-2191**

**OCCUPANCY AND OPERATION:**

75. Prior to operation, written approval that the required improvements and comments have been addressed and/or corrected shall be provided to PRMD from the County Fire Marshal/Local Fire Protection District.
76. The subject property (or properties) shall be in full compliance with Building Code regulations, Fire Code Regulations and Hazardous Materials regulations
  - a. A fire inspection shall be conducted by the Sonoma County Fire Prevention Division to determine if the subject property (or properties) is currently in full compliance with applicable Building Code regulations, Fire Code Regulations and Hazardous Materials regulations.
  - b. The Building (s) shall be fire sprinklered and contain a fire alarm system consistence with the occupancy type. Existing sprinklered or non-sprinklered buildings shall be verified based on design to be in compliance with specific occupancy type.

**OPERATIONAL PERMITS:**

77. An annual fire safety inspection may be required by the fire code official for any facility requiring a Fire Code Operational Permit. The county or fire district which inspects the facility may charge



and collect a fee for the inspection from the owner of the facility in an amount, as determined by the county or fire district, sufficient to pay its costs of that inspection.

**EMERGENCY PLANNING AND RESPONSE:**

78. Fire Protection plan shall be provided prior to operation and shall provide information about the property including but not limited to the following. See Chapter 4 of the California Fire Code and <http://sonomacounty.ca.gov/FES/Fire-Prevention/Cannabis/>
- c. Emergency Contacts
  - d. Address
  - e. Property owner
  - f. Site map with property lines
  - g. Fire access roads including gates
  - h. Water supplies and hydrants
  - i. Location of hazardous materials
  - j. Utilities
  - k. Buildings and intended use
  - l. Employee training for use of regulated materials in the fire code
    - i. When required by the local fire jurisdiction special processing of cannabis may require the facility to have identified trained staff including a main point of contact to oversee and train employees in the special process.
    - ii. This process shall have onsite training records for review and a manual in address emergencies associated with the special process. (Example is extraction equipment)

**ACCESS:**

79. Prior to operation the applicant and or operator shall at a minimum facilitate locating an emergency, avoid delays in response and provide for safe access for emergency fire apparatus and civilian evacuation concurrently, and shall provide and unobstructed traffic circulation during an emergency, and shall be constructed and maintained as required by Sonoma County Fire Safe Standards and the California Fire Code. The following shall be approved by the fire code official prior to operation.
- a. All existing roads providing access to new commercial cannabis operations with structures shall be provided with an access road not less than 20 feet in width. Access roads may be allowed to be reduced to 12 feet in width with turnouts as approved by the fire code official.
  - b. All roadways and building shall be identified by approved road signs clearly visible and legible from the roadway and at interchanges, as required by the California Fire Code as adopted and amended by Sonoma County Code, and as required by Sonoma County Fire Safe Standards.

**WATER SUPPLY:**

80. Emergency water supply for fire protection shall be available and accessible in locations, quantities and delivery rates as specified in the California Fire Code as adopted and amended by Sonoma County Code.

**VEGETATION MANAGEMENT:**

81. To reduce the intensity of a conflagration by the proposed project shall be in accordance with the California Fire Code as adopted and amended by Sonoma County Code and Sonoma County Fire Safe Standards.

**HEALTH (Permit Sonoma):**

**Contact Permit Sonoma Health at (707) 565-1924**

**PRIOR TO BUILDING PERMIT:**

**Water**

82. Water Supply System Testing:
- a. Prior to building permit issuance and project operation, provide the Project Review Health Specialist with the bacteriological (E. Coli and total coliform) arsenic and nitrate analysis results of a sample of your water tested by a State-certified lab.  
**Applicant shall submit: A copy of the State Certified Lab report to the Well and Septic Health Specialist.**

If the analysis shows contamination, the applicant will be required to treat the well per County requirements and re-test the well. If the contamination cannot be cleared from the well, destruction under permit of this Department may be required. As an alternative to the well destruction, the applicant may initiate a permanent water treatment program subject to the following requirements prior to issuance of a building permit and/or commencement of project operation:

- i. A deed restriction running with the land and acceptable to PRMD and County Counsel notifying subsequent property owners that treatment of the water supply is required as a condition of this Use Permit in order to meet State and Federal MCL's and provide potable water to all plumbing fixtures.
  - ii. Proof of a contract with a qualified service provider shall be submitted for routine/diagnostic water testing, monitoring, maintenance, and record keeping of the water supply system. Initial water test results before and after the water treatment device shall be submitted to PRMD Project Review Health Specialist.
- b. Prior to project operation, the applicant shall have the proposed water supply system



evaluated for potential contamination or pollution via backflow by an American Water Works Association Certified Cross Connection Control Specialist. The recommendations for cross connection control shall, at a minimum, meet the requirements of the 2016 California Plumbing Code and subsequent editions adopted by Sonoma County. Backflow prevention devices shall be installed on the water supply system as recommended, after concurrence with the hazard evaluation and recommendations for cross connection control report by PRMD.

Applicant shall submit: A copy of the Cross Connection Control Specialist's initial report and a letter from the Cross Connection Control Specialist to the Well and Septic Health Specialist stating that backflow prevention has been installed as recommended.

- c. Prior to building permit issuance and project operation, proof of water availability must be submitted in accordance with Section 7-12 of the Sonoma County Code, Chapter 7. Provide an 8 to 12 hour yield test that indicates a minimum of one gallon per minute for each project activity such as each commercial facility, and for each residence, or second unit, conducted during the dry season (July 15 through October 1). (Testing procedures for 1-2 project activities = 8-12 hour test, 3-4 activities = 18-24 hour test, and 72 hour test for 5 or more activities).

Applicant shall submit: A final clearance from the Well and Septic Section that approved well and/or spring yield tests (during the dry weather test period if applicable) have been accepted and the results approved.

**Septic:**

83. Prior to building permit issuance and project operation, the applicant shall obtain a separate permit for the process waste water with the State and/or sewage disposal system with the County. The system may require design by a Registered Civil Engineer or Registered Environmental Health Specialist. The septic system must meet the current Sonoma County OWTS Manual.

The sewage system shall meet peak flow discharge of the wastewater from all sources granted in the Use Permit and any additional sources from the parcel plumbed to the disposal system, and shall include the required reserve area.

If a permit for a standard, innovative or experimental sewage disposal system sized to meet all peak flows cannot be issued, then the applicant shall revise the project (fees apply and a hearing may be required) to amend the Use Permit to a reduced size, not to exceed the on-site disposal capabilities of the project site and attendant easements.

**Applicant shall submit: Final clearance from the Well and Septic Section that all required septic system testing and design elements have been met to the Well and Septic Health Specialist.**

84. Application for wastewater discharge requirements shall be filed by the applicant with the North Coast Regional Water Quality Control Board. Documentation of acceptance of a complete application with no initial objections or concerns by the Regional Water Quality Control Board



shall be submitted to the Project Review Health Specialist prior to building, grading for ponds or septic permit issuance (if the Regional Water Board Water Resource Engineer or Environmental Specialist have objections or concerns then the applicant shall obtain Waste Discharge Requirements prior to building permit issuance).

**Applicant shall submit:** A copy of the Waste Discharge Permit to the Well and Septic Health Specialist prior to issuance of a Certificate of Occupancy or project operation and vesting the Use Permit.

85. Prior to building permit issuance and project operation, the applicant shall have a capacity/wastewater flow analysis and proper functioning of the wastewater system inspection completed by a Registered Civil Engineer or Registered Environmental Health Specialist regarding the existing septic system's ability to accommodate the peak flows from all sources granted in the Revised Use Permit.

Any necessary system expansion or modifications, and demonstration of reserve areas, shall be done under permit and the current standards from the PRMD Well and Septic Section and may require both soils analysis, groundwater and percolation testing. If a permit for a standard, innovative or experimental sewage disposal system sized to meet all peak flows cannot be issued, then the applicant shall revise the project (fees apply and a hearing may be required) to amend the Use Permit to a reduced size, not to exceed the on-site disposal capabilities of the project site and attendant easements.

**Applicant shall submit:** A final clearance from the Well and Septic Section that all required septic system testing and design elements have been met to the Well and Septic Health Specialist.

86. Toilet facilities shall be provided for employees prior to issuance of building permits.

**Applicant shall submit:** A copy of the Floor Plan showing the location of the restrooms, prior to issuance of building permits, to the Project Review Health Specialist.

#### **Solid waste:**

87. Prior to building permit issuance and project operation, the applicant shall submit a design for trash enclosures, recycling areas, and a secured cannabis green waste area with prohibited public access, for review and approval by Project Review-Health. No visually recognizable cannabis, nor materials that smell like cannabis shall be disposed of as ordinary refuse. All cannabis waste shall be ground, chipped or shredded as necessary and mixed with suitable materials and composted until it is no longer recognizable as cannabis by sight or smell.

**Applicant shall submit:** A design for trash enclosures, recycling areas, composting and cannabis green waste area for review and approval by the PRMD Building Plan Check Section. If refuse collection is "curbside", include a detail of the area turnaround.



88. Prior to building permit issuance and project operation the applicant shall submit:
- a. **A solid waste management plan** calculating the total cubic yards of solid waste generated each week by the projected people at maximum occupancy. Trash collection frequency shall be included in the Solid Waste Management Plan.
  - b. **A cannabis solid waste management plan** with compost and trash enclosure designs shall be fully developed and submitted. No visually recognizable cannabis, nor materials that smell like cannabis shall be disposed of as ordinary refuse. All cannabis waste shall be ground, chipped or shredded as necessary and mixed with suitable materials and composted until it is no longer recognizable as cannabis by sight or smell. Final disposal method shall be clearly stated

### **OPERATIONAL REQUIREMENTS:**

#### **Water**

89. The property owner or lease holder shall have the backflow prevention assembly tested by an American Water Works Association certified Backflow Prevention Assembly Tester at the time of installation, repair, or relocation and at least on an annual schedule thereafter.
90. A safe, potable water supply shall be provided and maintained.

#### **Septic:**

91. Maintain the Annual Operating Permit for any package treatment plant, alternative (mound or pressure distribution) or experimental sewage disposal system installed per Sonoma County Code 24-32, and all applicable Waste Discharge Requirements set by the Regional Water Quality Control Board.
92. Use of the on-site wastewater disposal system shall be in accordance with the design and approval of the system.
93. All future sewage disposal system repairs shall be completed in the Designated Reserve areas and shall meet Code Compliant Standard. Alternate reserve areas may be designated if soil evaluation and testing demonstrate that the alternative reserve area meets or exceeds all of the requirements that would have been met by the original reserve area. If wastewater ponds or a package treatment plant are needed, then a modification of the Use Permit may be required, as determined by PRMD.

#### **Odor Control:**

94. All indoor, and mixed light cultivation operations and any drying, aging, trimming and packing facilities shall be equipped with odor control filtration and ventilation system(s) to control odors humidity, and mold. All cultivation sites shall utilize dust control measures on access roads and all ground disturbing activities.



**Noise**

95. Noise shall be controlled in accordance with Table NE-2 (or an adjusted Table NE-2 with respect to ambient noise, as described in General Plan 2020, Policy NE-1c), as measured at the exterior property line of any affected residential or sensitive land use:

TABLE NE-2: Maximum Allowable Exterior Noise Exposures

Hourly Noise Metric <sup>1</sup> , dBA	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (4 minutes 48 seconds in any hour)	60	55
L02 (72 seconds in any hour)	65	60
<sup>1</sup> The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level.		

96. If noise complaints are received from nearby residents, and they appear to be valid complaints, then the applicant/operator shall conduct a Noise Study to determine if the current operations meet noise standards and to identify any additional noise Mitigation Measures that may be necessary. A copy of the Noise Study shall be submitted to the Project Planner within 60 days of notification from Permit Sonoma that a noise complaint has been received. The applicant/operator shall implement any additional Mitigation Measures needed to meet noise standards.

**Solid Waste**

97. All garbage and refuse on this site shall be stored in non-absorbent, water-tight, vector resistant, durable, easily cleanable, galvanized metal or heavy plastic containers with tight fitting lids. No refuse container shall be filled beyond the capacity to completely close the lid. Garbage and refuse on this site shall not be accumulated or stored for more than seven calendar days and shall be properly disposed of at a County transfer Station or County Landfill before the end of the seventh day.



**Smoking:**

- 98. Smoking is prohibited at any public event, in any dining area, service area (including entry lines or ticket purchase lines) and in any enclosed area that is a place of employment (Sonoma County Code 32-6). “No Smoking” signs shall be conspicuously posted at the point of entry into every building where smoking is prohibited by Chapter 32 of the Sonoma County Code. The California Health and Safety Code (section 113978) also requires the posting of “No Smoking” signs in all food preparation areas, all retail food storage areas, and all food utensil washing areas. Note that Health and Safety Code section 113781 definition of food includes any beverage intended for human consumption
  
- 99. A “Designated Smoking Area” may be established in unenclosed areas consistent with Sonoma County Code section 32-3. Designated Smoking Areas must be at least 25 feet away from any building or area where smoking is prohibited, must be conspicuously identified by signs as a smoking area, and shall be equipped with ash trays or ash cans.

**SONOMA COUNTY PUBLIC INFRASTRUCTURE:**

**Compliance with the conditions below have been satisfied BY \_\_\_\_\_ DATE \_\_\_\_\_**  
**Contact Sonoma County Public Infrastructure at (707) 565-3711**

**RIGHT OF WAY REQUIREMENTS:**

- 100. The Applicant shall offer right-of-way to the County of Sonoma, free of encumbrances, and of sufficient width:
  - c. As necessary to create public right-of-way a total of thirty feet wide on the Applicant’s side of the road, as measured from the existing pavement centerline, for the full length of the property’s frontage on Bloomfield Road. This condition shall be void if the existing right-of-way meets or exceeds the minimum requirement(s) described above.
  - d. To contain all Public drainage facilities.

**INTERSECTIONS OF ROADS AND DRIVEWAYS**

- 101. The Applicant shall construct each project driveway entrance such that it conforms to Board of Forestry Fire Safety Regulations §1270 et seq. and County standards and meets the following criteria to allow for concurrent emergency ingress and egress as well as the smooth and safe movement of passenger vehicles entering and exiting the public road (Bloomfield Road) that provides access to the property. This condition shall be void if the existing entrance meets these requirements. A signed and stamped statement from a Registered Civil Engineer, licensed in the State of California, will be required to prove the driveways (project’s entries to Bloomfield Road) meet these requirements.
  - a. A minimum paved throat width of twenty (20) feet.



- b. Entrance curves having a minimum pavement radius of 25 feet; the entrance curves shall begin on a line that is a minimum of 12 feet distant from, and parallel with, the physical centerline of Bloomfield Road. A 1:10 pavement taper shall be constructed on both sides of the entrance if required per County of Sonoma Department of Transportation and Public Works (Sonoma Public Infrastructure) Construction Standard Drawing 815. Entrance curve radii may be reduced with the approval of the Fire Prevention of Permit Sonoma.
  - c. The minimum sight distance for vehicles entering and exiting the driveways shall be in accordance with current AASHTO requirements for the speed traveled on Bloomfield Road. Any monuments and/or signs that result from this proposal shall be located outside of the necessary sight distance triangles to achieve the minimum AASHTO required sight distance at each driveway. Refer to County of Sonoma Department of Transportation and Public Works (Sonoma Public Infrastructure) Construction Standard Drawing 812, latest revision, for rural County road driveway and private road intersections.
  - d. The entries shall be surfaced with asphalt concrete a minimum distance of 25 feet from the existing edge of pavement.
  - e. The entries shall intersect the public road as close to perpendicular as possible, but in no case shall the entry intersect the public road at more than 20 degrees from perpendicular.
  - f. Refer to County of Sonoma Department of Transportation and Public Works Construction Standard Drawing 815, latest revision, for private road and driveway intersection details.
  - g. The Applicant shall maintain all existing and proposed vegetation fronting the site as well as within the public right-of-way to preserve the sight distance triangles necessary to achieve the minimum AASHTO required sight distance at any project driveway where it intersects a public roadway per County Standard 812.
102. Driveway cross-drains within the County right-of-way shall be upgraded to a minimum 18 inch culvert under the driveways.
103. The Applicant shall not construct, install or place any monuments and/or signs resulting from this proposal within the necessary sight distance triangles required to achieve the minimum AASHTO required sight distance at any project driveway where it intersects a public roadway.

104. The Applicant shall ensure adequate on-site parking availability for employees.

**Processing:**

105. The applicant shall obtain an Encroachment Permit issued by Permit Sonoma prior to working within County road right-of-way.

**GENERAL:**

**The Use Permit and operation of the use are subject to the following general provisions:**

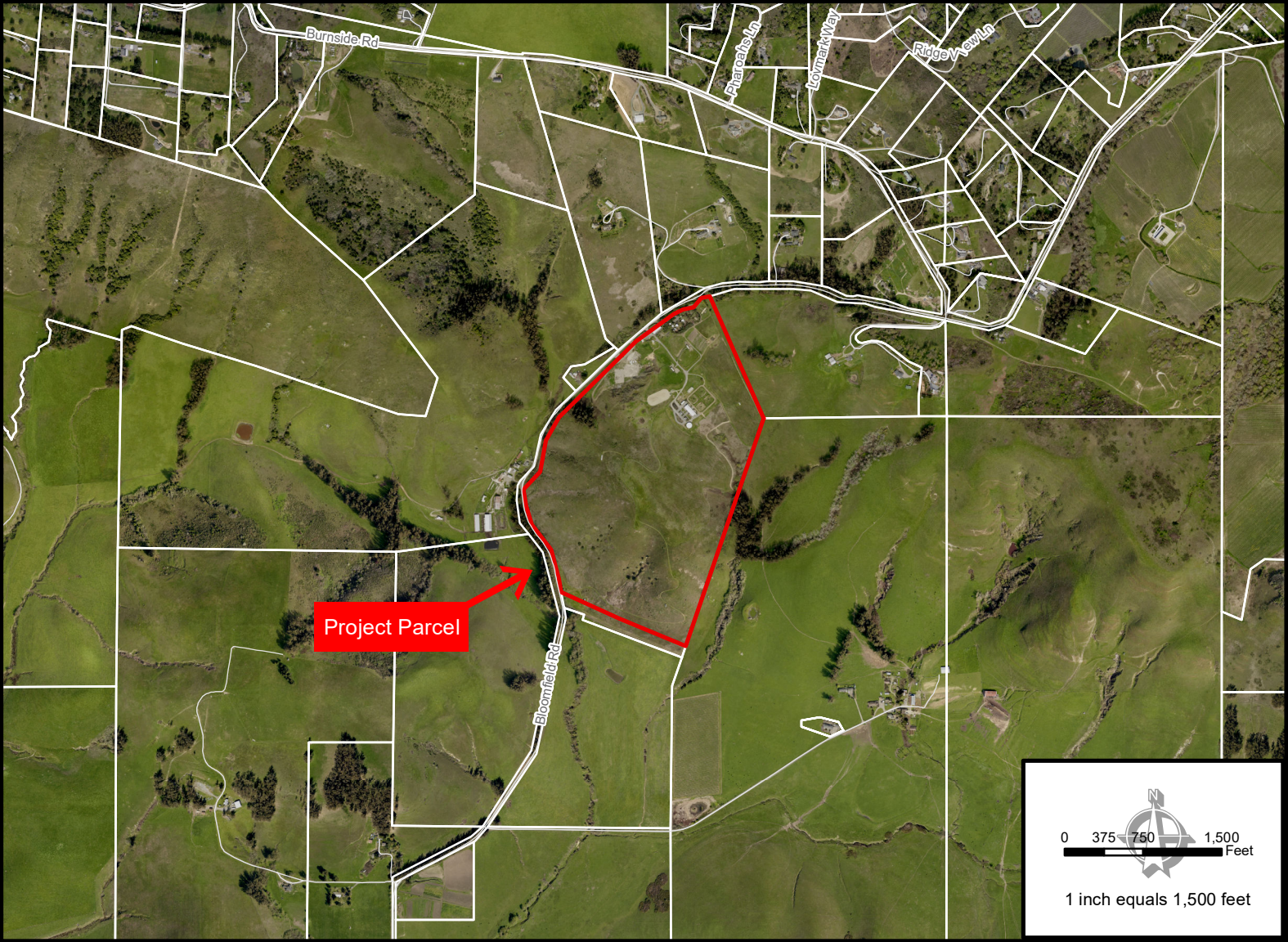
106. Any proposed modification, alteration, and/or expansion of the use authorized by this use permit shall require the prior review and approval of Permit Sonoma or the Board of Zoning Adjustments, as appropriate. Such changes may require a new or modified use permit and additional environmental review, if warranted.

107. The Director of Permit Sonoma is hereby authorized to modify these conditions for minor adjustments to respond to unforeseen field constraints provided that the goals of these conditions can be safely achieved in some other manner. The applicant must submit a written request to Permit Sonoma demonstrating that the condition(s) is infeasible due to specific constraints (e.g., lack of property rights) and shall include a proposed alternative measure or option to meet the goal or purpose of the condition. Permit Sonoma shall consult with affected departments and agencies and may require an application for modification of the approved permit. Changes to conditions that may be authorized by Permit Sonoma are limited to those items that are not adopted standards or were not adopted as mitigation measures or that were not at issue during the public hearing process. Any modification of the permit conditions shall be documented with an approval letter from Permit Sonoma and shall not affect the original permit approval date or the term for expiration of the permit.

108. This permit may be subject to revocation or modification by the Board of Zoning Adjustments if: (a) the Board finds that there has been noncompliance with any of the conditions or (b) the Board finds that the use for which this permit is hereby granted constitutes a nuisance. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to Section 26-92-120 and 26-92-140 of the Sonoma County Code.

109. In any case where a use permit has not been used within two (2) years after the date of the granting thereof, or for such additional period as may be specified in the permit, such permit shall become automatically void and of no further effect, provided however, that upon written request by the applicant prior to the expiration of the two year period the permit approval may be extended for not more than one (1) year by the authority which granted the original permit pursuant to Section 26-92-130 of the Sonoma County Code.

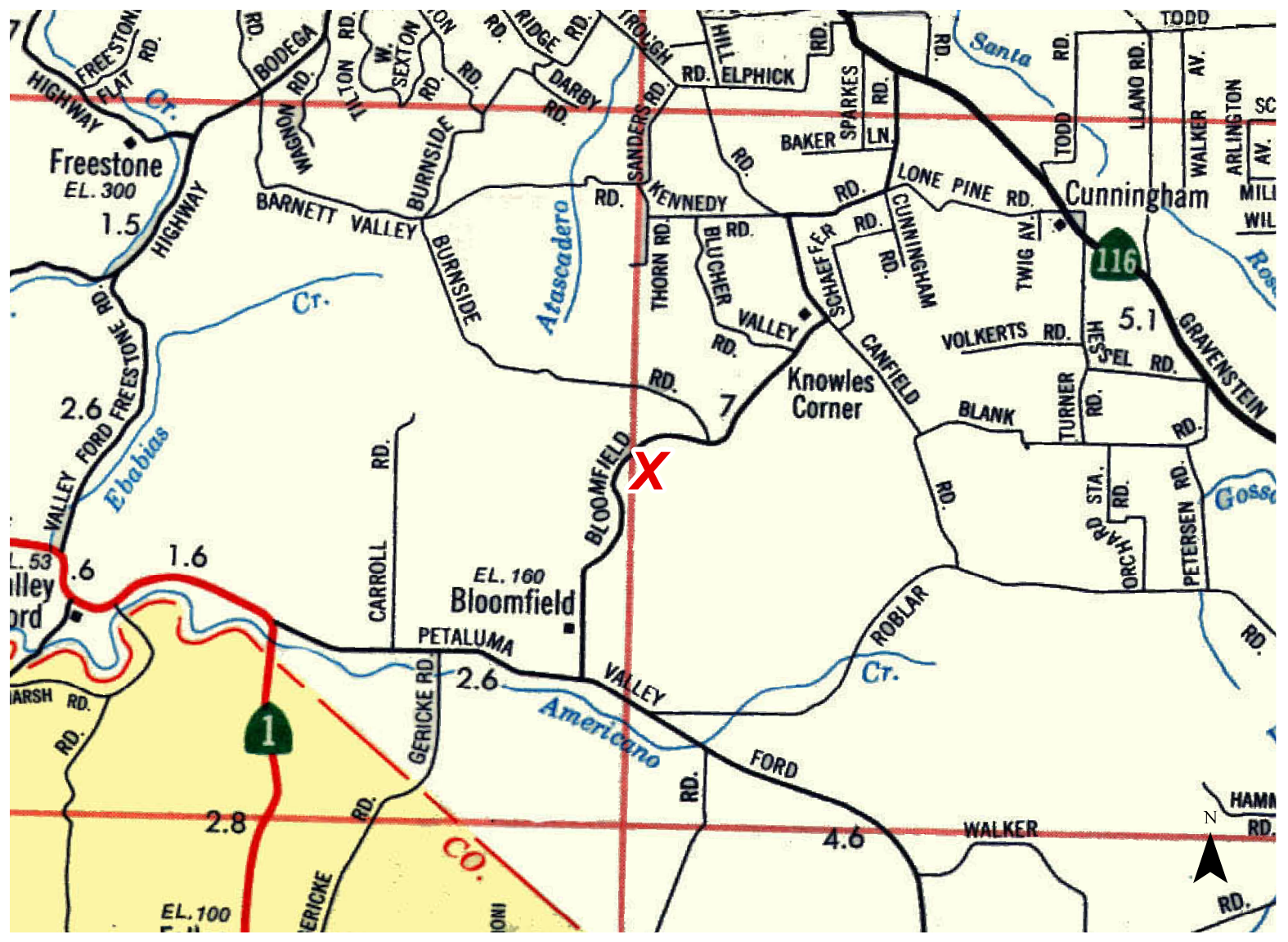


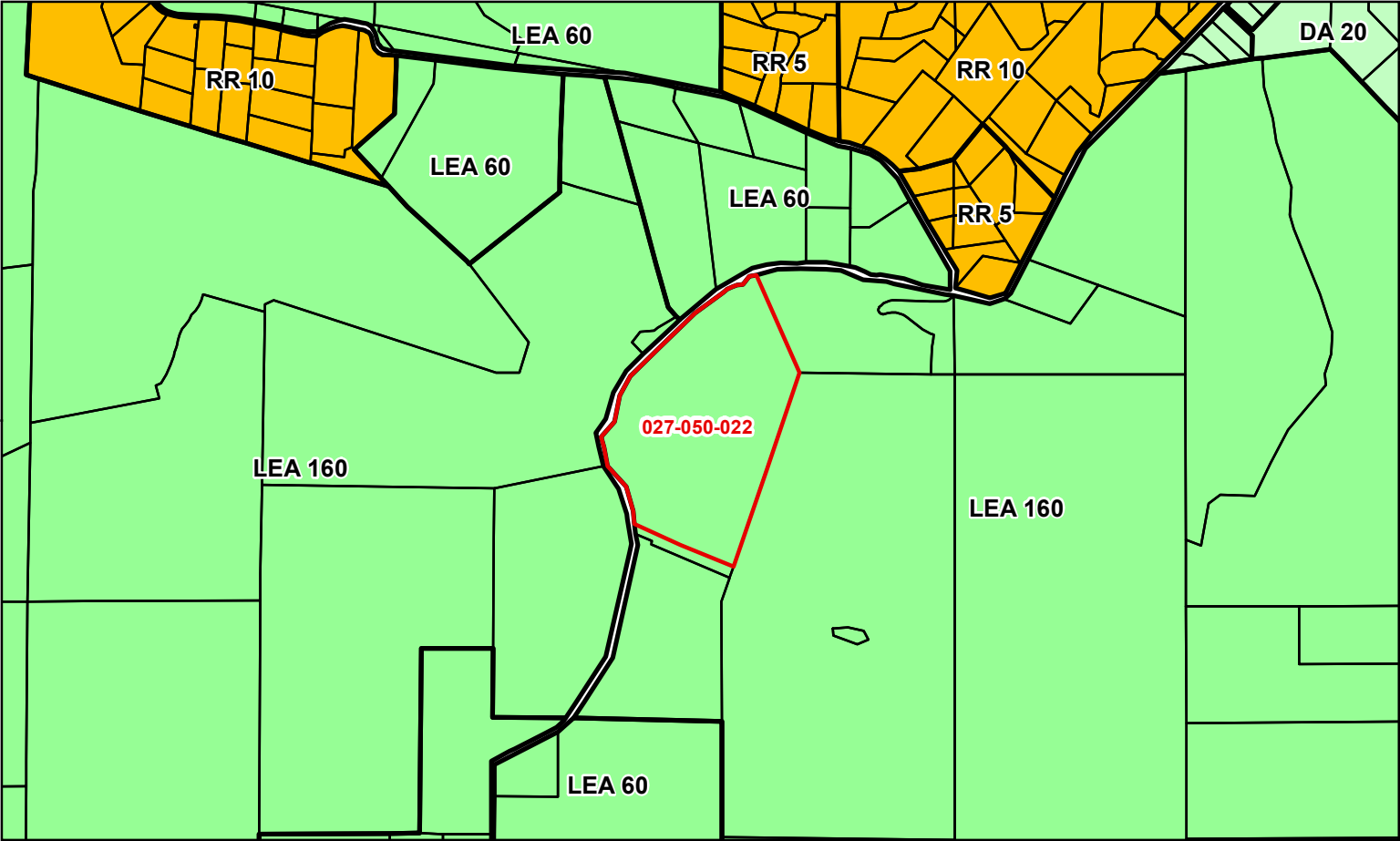


**Project Parcel**





1 inch equals 1,500 feet



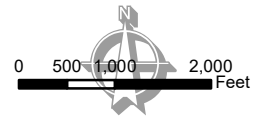


**General Plan Land Use**

-  Land Extensive Agriculture
-  Rural Residential

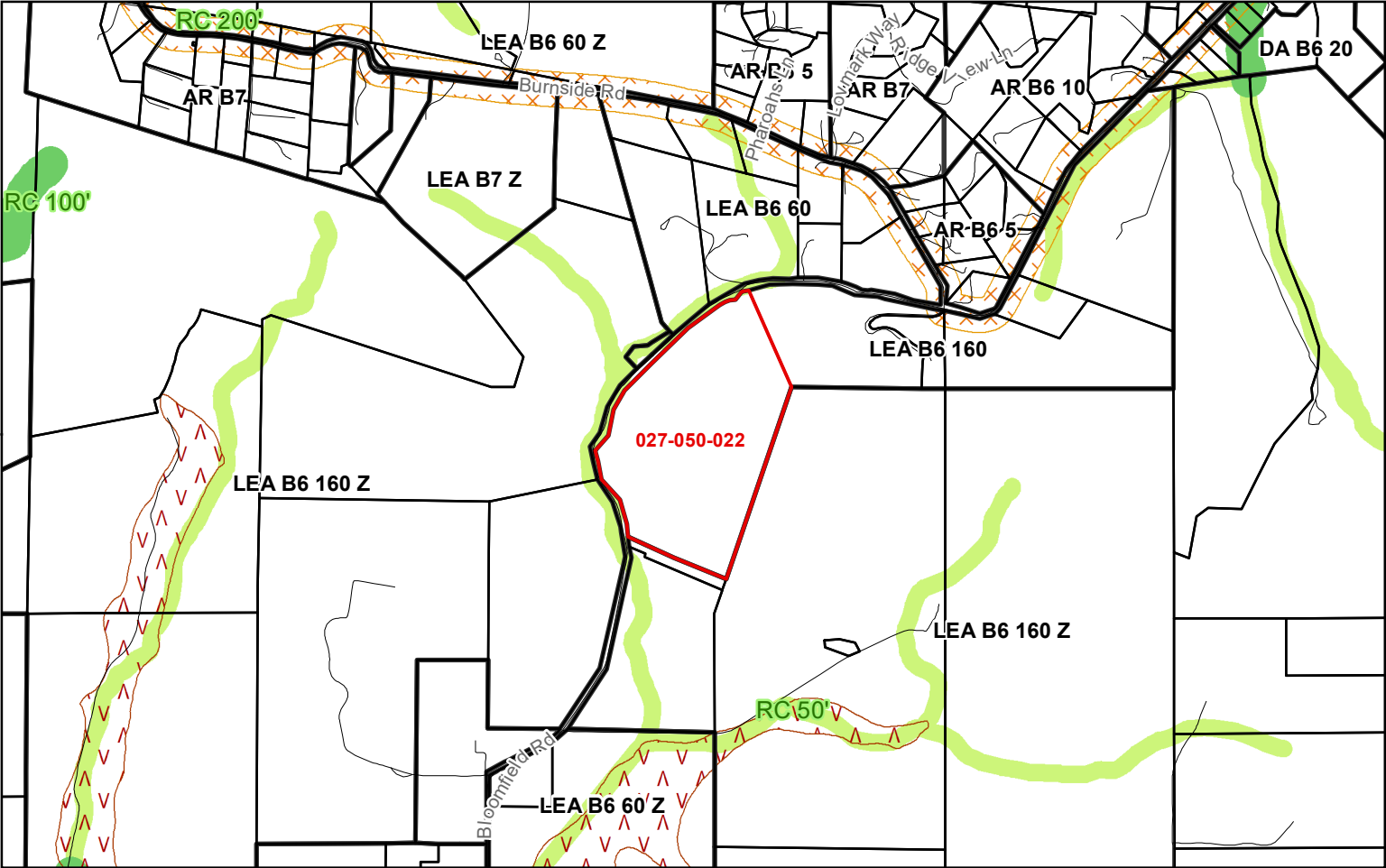
**Base Map Data**

-  Parcel








1 inch equals 2,000 feet



Numbers on map indicate maximum density in Acres/Unit, except Urban Residential where numbers indicate Units/Acres.

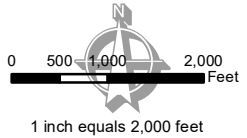


**Zoning and Combining Districts**

-  Zoning by Area
-  SR Scenic Resource
-  VOH Valley Oak Habitat
-  RC Riparian Corridor (Width In Feet) 50'
-  100'

**Base Map Data**

-  Parcel
-  Street



## **AMENDED PROPOSAL STATEMENT**

Applicant: Bloomfield Flowers, LLC  
Address: 4707 Bloomfield Road, Petaluma, CA 94952  
APN: 027-050-022  
Zoning: LEA B6 160 Z, RC50/50  
Land Use: LEA 160  
Lot Size: 113 acres  
GWA: Zone 2  
Proposed Use: Mixed Light (10,000 sq. ft.), Indoor (5,000 sq. ft.), and Processing

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This project statement is submitted in support of the cannabis cultivation permit application filed by Bloomfield Flowers, LLC (the “Applicant”). This statement provides details about the proposed cultivation site to comply with the Sonoma County rules.

### **1. PROPOSAL SUMMARY**

The Applicant proposes to operate a commercial cannabis facility on a 113-acre parcel zoned Land Extensive Agriculture (LEA) located at 4707 Bloomfield Road, Petaluma, CA 94952 in unincorporated Sonoma County. The project will operate from 8:00 a.m. to 5:00 p.m. with longer day from 7:00 a.m. to 7:00 p.m. during harvest periods. At peak operations, the Applicant anticipates hiring a maximum of 19 employees with a combination of part- and fulltime labor. Management will be on-call 24 hours a day, seven days per week, to address any operational or emergency issues. The site will be closed to the public.

Prior to operations, the Applicant will apply for all required permits from Sonoma County and state licenses. The Applicant will ensure that all proposed cannabis activities will be conducted and maintained in compliance with the Best Management Practices for Cannabis Cultivation issued by the Agricultural Commissioner as well as all applicable Sonoma County Municipal Code sections and state laws and regulations. All scales used onsite for commercial transactions will be registered for commercial use and sealed by the Department of Department of Agriculture/Weights and Measures. Additionally, the Applicant will ensure that records are made available to the county upon request. The Applicant will comply with and accommodate any and all inspections from county and state agencies.

### **2. DESCRIPTION OF EXISTING USE**

The proposed project site is located at 4707 Bloomfield Road, Petaluma, CA 94952 in unincorporated Sonoma County. The parcel is 113 acres and is zoned LEA. Over the years this property has been rehabilitated from a dumping ground and quarry to a beautiful, diversified agricultural property. The property owner has invested significant energy to improve the property and return it to a working farm. Now, the property owner seeks to diversity the property and support the traditional agricultural activities by allowing the Applicant to operate a commercial cannabis operation. The property owner and Applicant envision this operation adding to the beauty and usefulness of the surrounding agricultural area.

The Applicant is unaware of any existing easements on the property. Existing structures onsite

include a historic barn, livestock facilities, a greenhouse for traditional agriculture (produce), and several outbuildings. None of the existing structures are proposed to be used for cannabis activities. Current activities onsite include bee keeping, equestrian activities, grazing sheep, and traditional organic agriculture.

As this is a larger parcel, the proposed cultivation activities will be situated in a separate location from other activities onsite. The cannabis operation will have separate access point, gates and fencing to ensure division between the current activities onsite and the proposed cannabis related activities. The cannabis project will not remove any existing agricultural activities.

### **3. PROPOSED CANNABIS USE AND OPERATIONAL PLAN**

The proposed cannabis project will be situated in a retired quarry area. For years, the soil in the proposed area has been compacted and covered in gravel. To return the soil to agricultural use would require engineering and a good deal of work. The quarry area is separate from the other existing uses onsite and has a separate gated entrance. As such, the quarry is an ideal part of the property for the uses proposed.

- a. Mixed Light Cultivation.** The Applicant proposes building a state-of-the-art greenhouse for mixed light cultivation of up to 10,000 square feet of mature plant canopy. To properly cultivate the allowable square footage of cannabis within this structure, additional space is required for mixing inputs, storage of equipment and movement. Floor plans for the proposed greenhouse structure are included as Exhibit 8, and examples of the style of greenhouses proposed are in Exhibit 9. As the technology for cultivation infrastructure is rapidly developing, the Applicant will determine the best possible structures to use prior to submitting proposed plans to the Building Department.
- b. Indoor Cultivation.** Within a smaller proposed warehouse structure, the Applicant plans to cultivate up to 5,000 square feet of cannabis.
- c. Propagation.** The Applicant proposes up to 25% of the proposed 15,000 square feet of cultivation to be used for immature plants within the larger warehouse structure. The total cultivation square footage proposed would allow up to 3,750 for propagation. The applicant proposes 3,000 square feet of propagation area.
- d. Processor.** Applicant seeks to have processing inside the larger warehouse structure. Centralized processing will include all allowable activities, such as drying, curing, grading, making pre-rolls, packaging, labeling, and storing. As two cultivation licenses are proposed onsite, the primary processing activities will focus on cannabis cultivated at the premises. As available, the applicant will provide processing services for other local cultivators. The proposed location, off Valley Ford Road and in close proximity to Highway 101, is ideal for servicing cultivation projects in west Sonoma County.

### **4. DEVELOPMENT CRITERIA**

- a. Number and Type of Facilities.** The Applicant has no other cannabis operations at this time.

- b. Setbacks and Separation Distance.** The proposed cultivation areas are all located at least one hundred feet (100') from property lines and a minimum of three hundred feet (300') from occupied residences and businesses on surrounding properties. Additionally, the proposed cultivation sites are setback well over one thousand feet (1,000') from a school providing education to K-12 grades, a public park, childcare center, or an alcohol or drug treatment facility.
- c. Proposed Structures and Permitting Existing Structures.** To the best of Applicant's knowledge, no existing structures onsite need permitting. None of the existing structures on the property are proposed for the cannabis activities. The Applicant proposes building three structures for the cannabis activities, including:
- i. **Greenhouse.** The Applicant will build a greenhouse structure comprised of four sections (each measuring 30" x 108") with a total of 12,960 square feet. Cannabis plants will be grown in raised beds that can be measured and restricted to the maximum allowable 10,000 square feet of cultivation area. The remaining 2,960 square feet will be used for equipment, ventilation systems, humidity controls, walkways, storage of inputs, extra soil, and tanks for mixing plant nutrients. The greenhouses proposed will be made from the highest quality materials with state-of-the-art systems.
  - ii. **Larger Warehouse.** The Applicant proposes a 10,000 square foot metal warehouse structure (80" x 125"). The warehouse will include approximately 3,000 square feet of propagation area. The remainder of the space will be for processing, employee facilities, storage, and general administrative activities.
  - iii. **Smaller Warehouse.** The Applicant also proposes a smaller warehouse of 6,480 square feet (108" x 60"). The smaller warehouse will contain 5,000 square feet of indoor cultivation along with 1,480 square feet for storage, workspace, and equipment.
- d. Farmland Protection.** No crops will be moved or agricultural activities altered for the proposed cannabis uses. The property is not subject to a Williamson Act Land Contract.
- e. Grading and Access.** The quarry area proposed for the cannabis use development is flat with no notable slope. Access to the project, is directly off of Bloomfield Road. The Applicant does not believe any substantial earth work or grading will be necessary for the proposed project development.
- f. Fire Safety Plan.** The operator has included a Fire Prevention Plan as Exhibit 14 to this application package. The Fire Prevention Plan includes, but not be limited to: emergency vehicle access and turn-around at the facility site(s), vegetation management, and fire break maintenance around all structures.

- g. Hazardous Materials.** This cultivation operations will use allowable agricultural chemicals and nutrients that may be considered hazardous materials. A list of all proposed chemicals and nutrients is included as Exhibit 18. The Applicant will ensure that all hazardous materials are stored and used in a manner that complies with applicable hazardous materials rules.
- h. Outdoor Lighting Plan.** All outdoor lighting will be fully shielded, downward casting and not spill over onto structures, other properties or the night sky. Additionally, the proposed mixed light structures will be fully contained so that little to no light escapes, and no light will escape at a level that is visible from neighboring properties between sunset and sunrise.
- i. Stormwater Management.** Mixed light and indoor cultivation structure surfaces will be slightly graded to allow for any drainage from non-consumed water to be routed to one corner where a sump will be installed. Within this sump, a small pump will move the captured water to a small drum for either reuse or proper disposal. Mixed-light cultivation area will be completely closed prior to any expected or occurring rain. All areas outside of mixed-light cultivation areas will be kept debris- free and surfaces stabilized with gravel. All applicable Best Management Practices and Standard Conditions of the State Waterboards will be documented in the site-specific Water Resources Protection Plan (to be prepare for state licensing), which will eventually be maintained on site and available for inspection by Sonoma County personnel. In addition, daily monitoring by staff and periodic monitoring by consultants will ensure that all Water Board and County Best Management Practices are followed and maintained.
- j. Security and Fencing.** The Applicant's security and fencing plan is attached as Exhibit 15. The plan is intended to prevent theft or diversion of any cannabis as well as to discourage loitering, crime, and illegal or nuisance activities. The security plan is comprised of several layers of systems and protocols, which are discussed in detail below. All the security systems will be capable of remaining fully operational during a power outage. No weapons or firearms will be permitted on the property. All security measures are designed to ensure emergency access is available in compliance with California Fire Code and Sonoma County standards.
- k. Odor Control.** The Applicant seeks to establish air quality and odor control systems will help ensure the health and safety of employees while mitigating any potential odors experience by neighbors. All cultivation and processing areas will be equipped with odor control filtration and ventilation systems that will control odors humidity, and mold. To combat odor and promote air quality, the Applicant will use leading industry methods and products, such as carbon filters that function as an odor vacuum and fans to help circulate the air. The proposed cultivation site will also utilize dust control measures on access roads and all ground disturbing activities.
- l. Energy Use.** The property is currently connected to the electrical grid, and the Applicant will need to upgrade the power service to the property. The Applicant will utilize Sonoma Clean Power's Evergreen option, which is 100% renewable.

- m. Hours of Operation.** The cultivation activities proposed will be conducted seven (7) days a week, from about 9:00 AM to 5:00 PM. During harvest, employee shifts may start at 7:00 AM and end at 7:00 PM. Management will be available and on call as needed 24 hours a day, seven days per week for security purposes.
- n. Outdoor Activities and Distance to Property Lines.** No outdoor activities are proposed. The closest edge of the cannabis use proposed to the property line is 100 feet. The corner of the warehouse structure is the closest point to the property line, while the proposed greenhouse structure is approximately 200 feet from the property line.
- o. Wastewater Management Plan.** The Applicant will be using hand-watering and drip irrigation for cultivation. Plants will be grown in trays or aboveground pots. Wastewater will be collected from sumps as previously described and either reused or properly disposed. Excessive wastewater from the cultivation area is not anticipated. Excess watering or irrigation is not anticipated. The Applicant expects a limited volume of domestic wastewater will be produced by employees. The Applicant will monitor irrigation daily on a plant by plant basis along with domestic wastewater production on a weekly basis.
- p. Waste Management.** The Applicant anticipates generating waste from a variety of source, which are identified and discussed below. All solid and liquid wastes will be in compliance with the state law, best management practices (BMP), and County of Sonoma standards. The Applicant will monitor all waste storage, handling and disposal activities on a daily basis.
- i. Human solid waste or garbage.** All generated human garbage will be stored in containers with lids with locking mechanisms to ensure no tampering. At no time, will any garbage be stored outside of lidded containers. All personnel will be trained in proper identification, sorting and storage BMPs. Once per week, the operator or employee will transport the garbage to the Sonoma County Solid Waste Transfer Facility located in Guerneville site for proper disposal.
  - ii. Recyclable solid waste.** All generated recyclable solid waste such as cardboard, glass, metal, plastic bottles and other locally recyclable materials will be placed in large lidded and lockable containers. All personnel will be trained in proper identification, sorting and storage BMPs. Once per week, the operator or employee will transport the recyclable material to the Sonoma County Solid Waste Transfer Facility located in Guerneville site for processing.
  - iii. Reusable solid waste.** Materials that might ordinarily be disposed or recycled will be evaluated for reuse. Anticipated materials include cardboard, metals and other materials. Materials identified for reuse will be placed in the appropriate fully enclosed storage shed. All personnel will be trained in proper identification, sorting and storage materials identified for

reuse It is anticipated that reusable materials will not be immediately disposed of, but when necessary, the materials will be properly disposed as either garbage or recyclable material.

- iv. **Non-cannabis green waste.** Green waste is anticipated from the organic vegetable garden, which will be planted between long rows of cannabis plants. This green waste will be temporarily stored in a designated area and made ready for composting. All personnel will be trained to ensure non-cannabis green waste is handled separately from cannabis green waste. No disposal is anticipated as all non-cannabis green waste will be composted.
  - v. **Commodity cannabis green waste.** Commodity valued waste will be placed in locked storage shed to await final disposition with State Track and Trace protocols and Local tax and crop loss reporting. Proper and strict procedures and training will be in place to follow State and Local protocols and procedures. Once reporting protocols are met, the waste will disposed of according to State and Local protocols and procedures.
  - vi. **Non-commodity cannabis green waste.** Non-commodity cannabis consists of non-sellable root balls, stalks, twigs, trimmings and leaves. Non-commodity cannabis will be temporarily stored in locked containers until processing is performed. Processing will consist of chipping, grinding and otherwise changing the physical appearance. At that point, the processed material will be added to the green waste compost pile or applied as mulch to the cannabis cultivation or organic vegetable garden. No disposal is anticipated at this time as all material will either be composted or mulched.
  - vii. **Universal Waste.** It is likely that batteries and other household or business hazardous waste will be generated. This waste will be stored in hazardous lockers located within locked storage sheds. All personnel will be trained in proper identification, sorting and storage BMPs for universal waste. Sonoma County Waste Management Agency procedures will be referred to. As needed, the operator or employee will transport the material to the Sonoma County Household Hazardous Facility at the Central Disposal site in Petaluma for drop-off. If required, the Operator will obtain an EPA ID Number to dispose of universal waste in very small quantities as a business.
- q. **Water Supply.** The property is in Groundwater Availability Zone 2. The property has three active wells. The nearest well located on the hill just above the project location will supply some of the water for the cannabis activities. The Applicant will install a 20,000-gallon water storage tank for cannabis uses along with emergency fire storage. As described in the fire plan, the water tank will have a flotation device to trigger automatic refilling of the water tank to ensure sufficient water is available for fire and emergency purposes. Additionally, the cultivation activities will obtain water supply from water catchment systems connected to each of the three proposed structures. Each building will have storage tanks to capture the rainwater. With approximately 29,000 square feet of roof area on the three proposed buildings and an average rainfall of 30 inches in the Bloomfield

area, the water collection could be up to 542,010 gallons per year. This catchment system along with efficient plant watering systems, the water supply from the well will be drastically reduced.

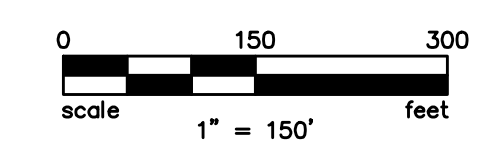
- r. **Noise Limits.** The proposed operations will not exceed the General Plan Noise Standards Table NE-2 and in accordance with the Sonoma County Noise Guidelines.
- s. **Parking.** The proposed cannabis activities will accommodate nine parking spots and one spot for handicap parking space.

## **5. STAFFING AND LOCAL HIRING PLAN**

At full operational capacity, the Applicant anticipates hiring a maximum of 19 employees for the proposed cultivation activities. All employees hired by the Applicant will be over 21 years of age. To setup the proposed project, the Applicant will hire approximately three to four employees from the local community who will assist with setting up the gardens and maintaining the plants throughout the growth cycle along with managing administration of the business. After the project is fully operational, the Applicant anticipates hiring additional garden, processing, and administrative staff. Given the nature of this business, employee shifts will be staggered throughout the week and will last between four to eight hours. The Applicant or management will be available on-call 24 hours per day, seven days per week to address any operational and emergencies issues.

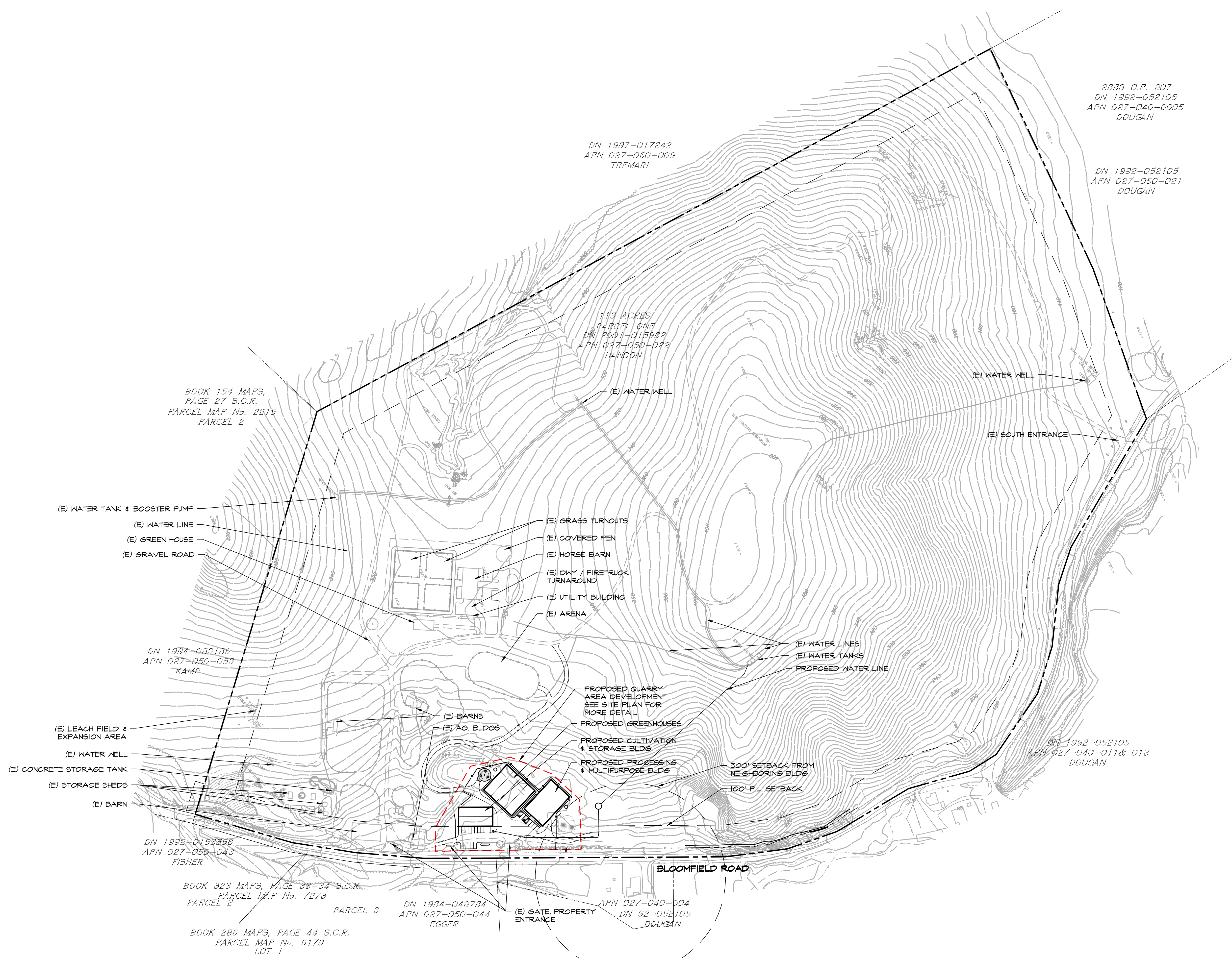
The Applicant is committed to hiring locally. Sonoma County has a wealth of experienced and dedicated cannabis workforce. The Applicant plans to consider residency when making hiring decisions, will promote the job posting locally, and will use local connections in the cannabis industry to discover new local talent.

All staff will receive thorough training on workplace safety, operations, track and trace, and security protocols. In addition to state licensing requirements related to staffing, the Applicant will diligently follow all applicable labor and employment laws.



**LEGEND**

AD	AREA DRAIN
AE	ACCESS EASEMENT
AS	AGRICULTURE
APN	ASSESSOR'S PARCEL NUMBER
BLDG	BUILDING
BSL	BUILDING SETBACK LINE
CB	CATCH BASIN
DI	DROP INLET
E	EXISTING
FC	FACE OF CURB
FD	FIELD DRAIN
FF	FINISH FLOOR
FS	FINISH SURFACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
HP	HIGH POINT
IFO	IN FAVOR OF
PAE	PRIVATE ACCESS EASEMENT
PDE	PRIVATE DRAINAGE EASEMENT
PG	PAD GRADE
PSE	PRIVATE SEW EASEMENT
PSE	PRIVATE SEWER EASEMENT
RS	ROCK SWALE
SD	STORM DRAIN
SS	SEWER SERVICE
TC	TOP OF CURB
TG	TOP OF GRATE
WM	WATER METER
WS	WATER SERVICE



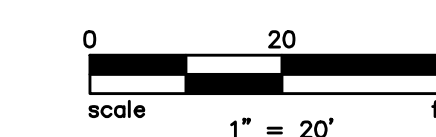
OVERALL SITE  
MASTER PLAN  
**BLOOMFIELD  
FLOWERS**  
PETALUMA, CALIFORNIA

MARCH 02, 2021



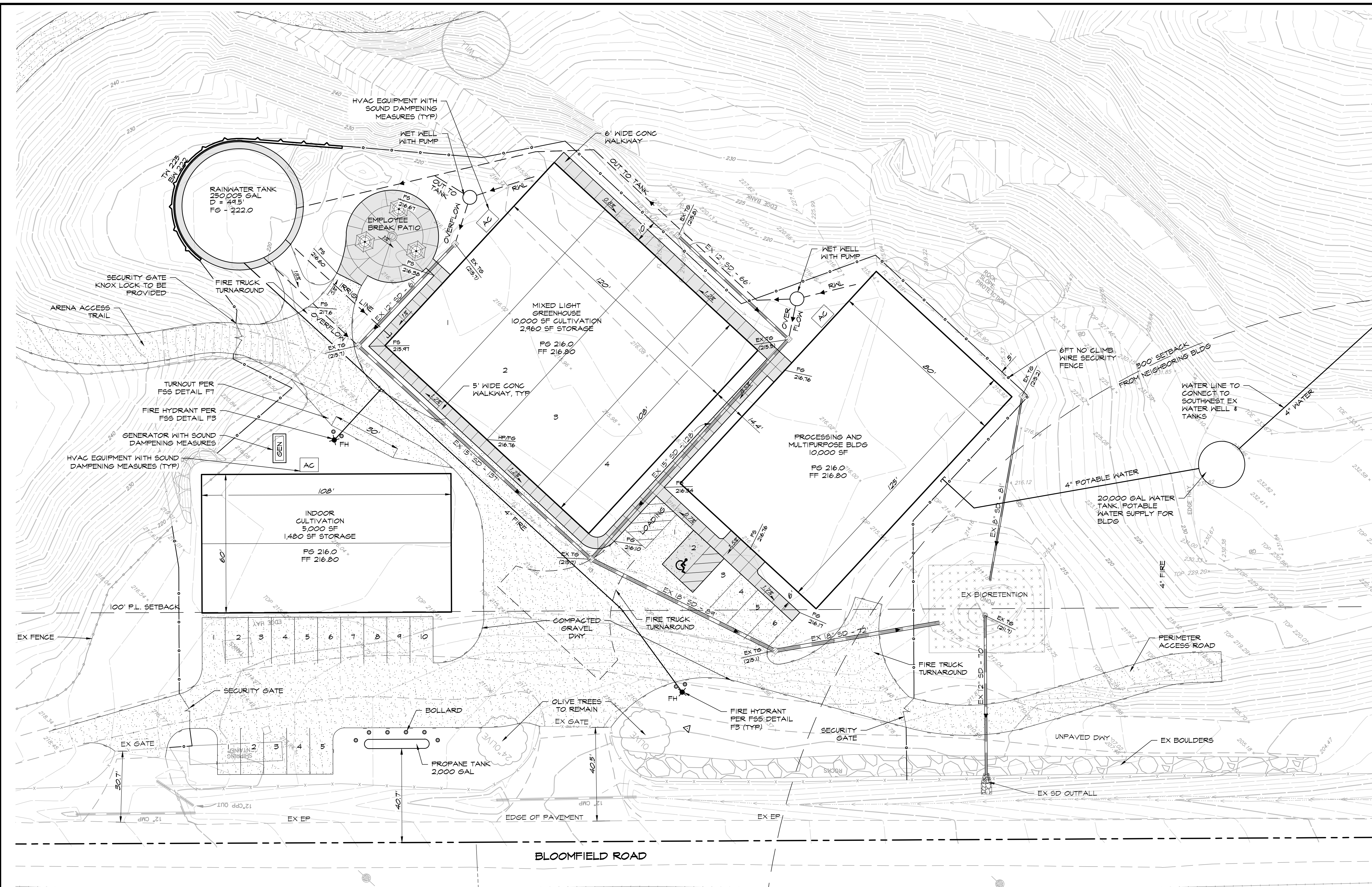
CIVIL ENGINEERS • URBAN PLANNERS • LAND SURVEYORS • LANDSCAPE ARCHITECTS  
15 THIRD STREET, SANTA ROSA, CA 95401  
TEL (707) 542-6451 FAX (707) 542-5212

3/2/2021 5:07:12 PM C:\p1\2001018.00\Drawings\Carlile\Quarry Use Permit\01018-Overall\_Site\_Plan.dwg [User: jmc] (Plot File: 01018-16-C-03; 01018-01-C-03; 01018-01-C-03)



**LEGEND**

AD	AREA DRAIN
AE	ACCESS EASEMENT
BSL	BUILDING SETBACK LINE
CB	CATCH BASIN
DI	DROP INLET
FC	FACE OF CURB
FD	FIELD DRAIN
FF	FINISH FLOOR
FS	FINISH SURFACE
FSS	FIRE SAFE STANDARDS
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GEN	GENERATOR
HP	HIGH POINT
IFO	IN FAVOR OF
PAE	PRIVATE ACCESS EASEMENT
PDE	PRIVATE DRAINAGE EASEMENT
PG	PAD GRADE
PSDE	PRIVATE SD EASEMENT
PSE	PRIVATE SEWER EASEMENT
RS	ROCK SWALE
SD	STORM DRAIN
SS	SEWER SERVICE
TC	TOP OF CURB
TG	TOP OF GRATE
WM	WATER METER
WS	WATER SERVICE
WT	WATER TANK
WT	WATER SERVICE
WT	SAVE TREE



APN 027-040-004  
DN 92-052105  
DOUGAN

- NOTES:**
- POTENTIAL COMPOST AREA TO BE LOCATED ON THE EASTERN PORTION OF PROPERTY.
  - IF FEASIBLE NEW WATER WELL TO BE INSTALLED TO SUPPLY WATER NEEDS.
  - TOTAL PROPOSED BUILDING SQUARE FOOTAGE - 29,440 SF

SITE PLAN  
**BLOOMFIELD FLOWERS**  
PETALUMA, CALIFORNIA

NOVEMBER 03, 2022

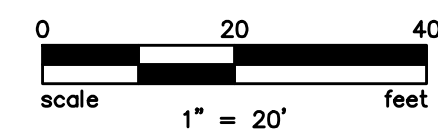


CIVIL ENGINEERS • URBAN PLANNERS • LAND SURVEYORS • LANDSCAPE ARCHITECTS  
15 THIRD STREET, SANTA ROSA, CA 95401  
TEL (707) 542-6451 FAX (707) 542-5212

11/7/2022 4:36:01 PM C:\p\carlile\macy\2001018.00\Drawings\Site\01018-01-01-01-01.dwg User: carlile Date: 11/07/2022 Time: 4:36:01 PM

**IRRIGATION CONCEPT STATEMENT**

1. LANDSCAPE SHALL COMPLY WITH APPLICABLE "WATER EFFICIENT LANDSCAPE ORDINANCE."
2. ALL PLANTINGS SHALL BE IRRIGATED BY A PERMANENT, AUTOMATIC, WATER-CONSERVING IRRIGATION SYSTEM.
3. IRRIGATION SYSTEM SHALL BE DIVIDED INTO DISTINCT "HYDROZONES" BASED ON PLANT WATER USE REQUIREMENTS, SOLAR EXPOSURES, AND APPLICATION TYPE.
4. AN IRRIGATION SUBMETER WILL BE INCLUDED IN THE SYSTEM.
5. TREES IRRIGATION SHALL BE CONTROLLED BY A DEDICATED VALVE, SEPARATE FROM SHRUBS AND GROUND COVERS.
6. TREES WILL BE IRRIGATED WITH POINT-SOURCE, BUBBLER DISTRIBUTION DEVICES.
7. SHRUBS AND GROUND COVER PLANTINGS WILL BE IRRIGATED BY POINT-SOURCE, DRIP DISTRIBUTION DEVICES.



**TREES**

KEY:	DESCRIPTION:	SIZE:	WATER USE:
	PRIMARY DECIDUOUS SHADE/CANOPY TREES QUERCUS LOBATA / VALLEY OAK TO MATCH EXISTING	15 GAL.	LOW
	SMALL DECIDUOUS FLOWERING CANOPY TREES LAGERSTROEMIA 'INDIAN TRIBES' / CRAPE MYRTLES	15 GAL.	LOW

**UNDERSTORY PLANTS AND GROUNDCOVERS**

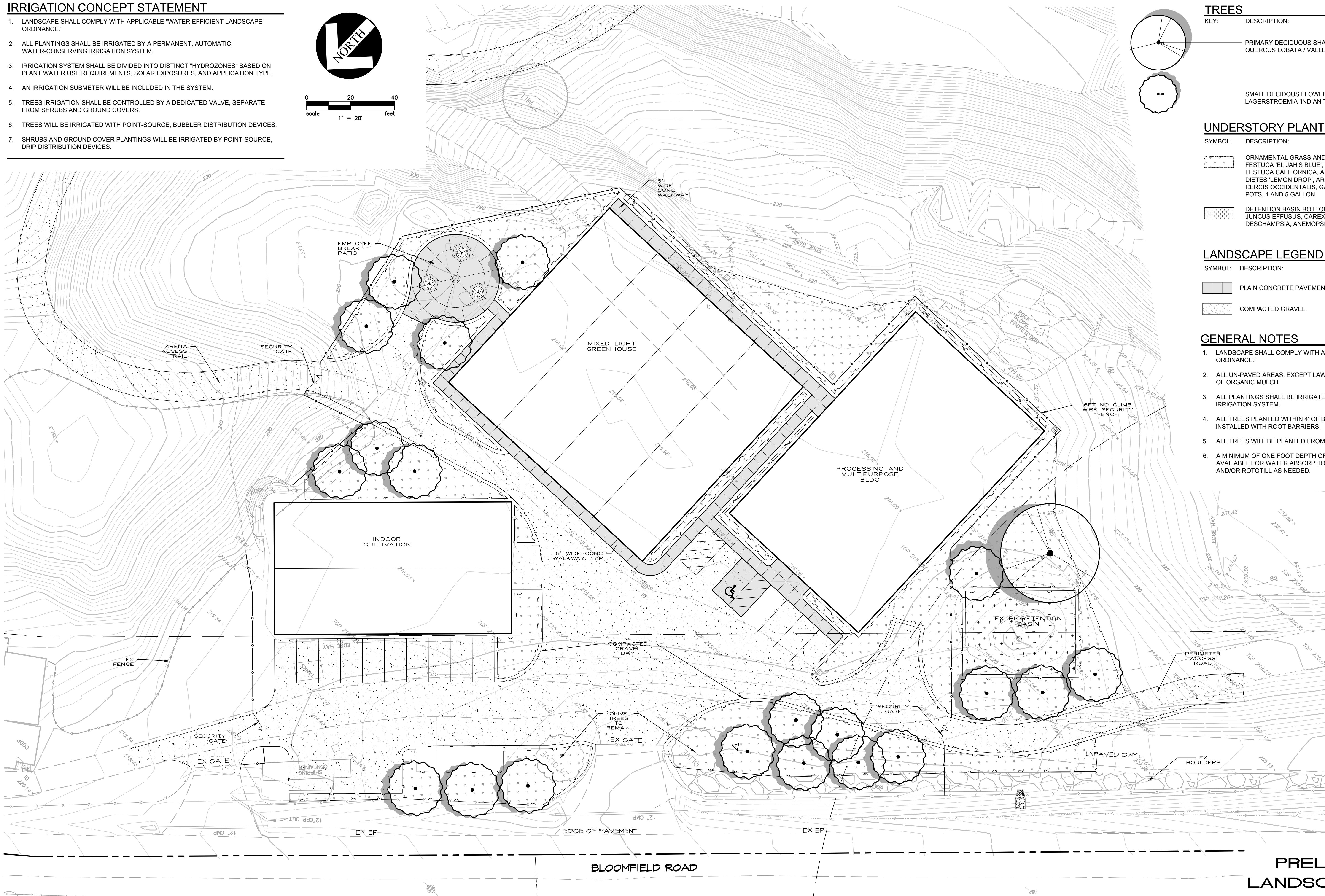
SYMBOL:	DESCRIPTION:
	ORNAMENTAL GRASS AND NATIVE FLOWERING SHRUBS (LOW WATER USE) FESTUCA 'ELIJAH'S BLUE', HELICOTRICHON 'SAPHIRE', FESTUCA MAIREII, FESTUCA CALIFORNICA, ANEMANTHELE LESSONIANA, DIANELLA CULTIVARS, DIETES 'LEMON DROP', ARCTOSTAPHYLOS 'MCMINN', CEANOTHUS 'CONCHA', CERCIS OCCIDENTALIS, GARRYA ELIPTICA, RIBES, EPILOBIUM, MIMULUS - 4" POTS, 1 AND 5 GALLON
	DETENTION BASIN BOTTOMLAND PLANTINGS (MEDIUM WATER USE) JUNCUS EFFUSUS, CAREX SPP., SISYRINCHIUM SPP., FESTUCA RUBRA, DESCHAMPSIA, ANEMOPSIS CALIFORNICA, OENETHEA ELATA - HYDROSEED

**LANDSCAPE LEGEND**

SYMBOL:	DESCRIPTION:
	PLAIN CONCRETE PAVEMENTS
	COMPACTED GRAVEL

**GENERAL NOTES**

1. LANDSCAPE SHALL COMPLY WITH APPLICABLE "WATER EFFICIENT LANDSCAPE ORDINANCE."
2. ALL UN-PAVED AREAS, EXCEPT LAWNS, SHALL BE TOP-DRESSED WITH A 2"-3" LAYER OF ORGANIC MULCH.
3. ALL PLANTINGS SHALL BE IRRIGATED BY AN AUTOMATIC, WATER CONSERVING IRRIGATION SYSTEM.
4. ALL TREES PLANTED WITHIN 4' OF BUILDINGS, WALL, CURBS OR PAVEMENTS WILL BE INSTALLED WITH ROOT BARRIERS.
5. ALL TREES WILL BE PLANTED FROM 15 GALLON CONTAINERS, EXCEPT WHERE NOTED.
6. A MINIMUM OF ONE FOOT DEPTH OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED AREAS. RIP AND/OR ROTOTILL AS NEEDED.



**PRELIMINARY  
LANDSCAPE PLAN  
BLOOMFIELD  
FLOWERS**

PETALUMA, CALIFORNIA

FEBRUARY 19, 2021 SHEET 1 OF 1



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15 THIRD STREET, SANTA ROSA, CA 95401  
TEL (707) 542-6451 FAX (707) 542-5212  
PROJECT No. 2001010.00

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Left: Looking back at quarry area, facing southeast.  
Below: Project sight facing southwest with Bloomfield Road to the right.

Above: Project location facing southwest towards old quarry  
Right: Close up of hardscape



4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

Figure 2. Site Photos 2019

# Hydrogeologic Assessment Report

4707 Bloomfield Road  
Petaluma, CA  
APN 027-050-022

Prepared For:

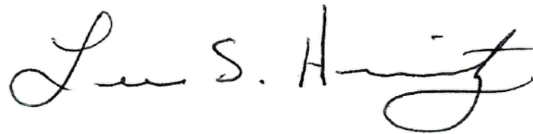
Bloomfield Flowers  
c/o Mr. Michael Agins  
74 New Montgomery St. Suite 602  
San Francisco, CA 94105

January 26, 2022

Prepared By:

**HURVITZ ENVIRONMENTAL SERVICES INC.**

105 Morris Street, Suite 188  
Sebastopol, California 95472



Lee S. Hurvitz, PG #7573 CHG #1015  
Certified Hydrogeologist



Project No. 5181.01

January 26, 2022

Bloomfield Flowers  
c/o Mr. Michael Agins  
74 New Montgomery St. Suite 602  
San Francisco, CA 94105

Re: Hydrogeologic Assessment Report  
4707 Bloomfield Road, Petaluma, CA 94952  
APN 027-050-022  
Hurvitz Environmental Project No. 5181.01

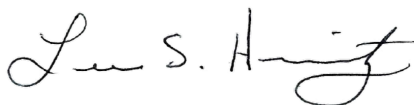
Dear Mr. Agins:

Hurvitz Environmental Services, Inc. (HES) is pleased to submit this Hydrogeologic Assessment Report (HAR) for the above referenced property. HES prepared this HAR in accordance with the Sonoma County Permit and Resource Management Division (PRMD) Policy and Procedure Number 8-1-14 and General Plan Policy WR-2e. The purpose of this HAR was to evaluate the water usage for the proposed project and how it may impact the aquifer conditions at the Site, which is located within a Class 2 - Major natural recharge groundwater availability area, and to determine if the proposed groundwater usage will cause aquifer overdraft conditions, interference of neighboring wells, or impact nearby stream-flow.

Based on the information and assessments contained herein, we conclude that the well's discharge capacity and rate of recharge are sufficient to sustainably provide for the proposed project. The quantity of groundwater to be used for the project and within the Cumulative Impact Area compared to the quantity of available groundwater indicates that pumping for the Project is unlikely to result in significant declines in groundwater resources over time. Based on the findings of this report, pumping and groundwater extraction at the Project well will not significantly impact neighboring wells or stream flow conditions in nearby tributaries to the Americano Creek.

We appreciate the opportunity to provide you with these services. Please do not hesitate to contact us at your convenience, should have any questions or comments regarding this report or our recommendations.

Sincerely,  
HURVITZ ENVIRONMENTAL SERVICES, INC.



Lee S. Hurvitz, PG# 7573 CHG #1015  
Certified Hydrogeologist



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## 1.0 INTRODUCTION AND SCOPE OF SERVICES

We understand that Michael Agins (the Applicant) plans to develop the property located 4707 Bloomfield Road, Petaluma, California (the Site) as a cannabis cultivation facility (Project) that will partially rely on groundwater resources for irrigation. The Site is located within Sonoma County Groundwater Availability Class 2 (Major natural recharge)<sup>1</sup>. Typically, projects located in a Class 2 groundwater zone do not require hydrogeologic assessment studies however we understand that Permit Sonoma has specifically requested a groundwater use and conservation assessment for this project.

Therefore, on behalf of the Applicant, Hurvitz Environmental Services (HES) conducted a Hydrogeologic Assessment for the Site in accordance with the Sonoma County Permit and Resource Management Division (PRMD) Procedures for Groundwater Analysis and Hydrogeologic Reports (Policy No. 8-1-14).

Sonoma County General Plan Policy WR-2e states that procedures for proving adequate groundwater should consider groundwater overdraft, land subsidence, saltwater intrusion, and the expense of such study in relation to the water needs of the project.

Therefore, this groundwater report includes the following elements:

- Delineation of a Cumulative Impact Area.
- Estimates of existing and potential water uses within the Cumulative Impact Area based on established usage rates.
- Characterization of local hydrogeologic conditions within the Site watershed and sub-basin.
- Compilation of Well Completion Reports (drillers' logs) from the area.
- Evaluation of well yield test data collected from the proposed project irrigation well.
- Detailed discussion on proposed rain water catchment and irrigation water conveyance systems.
- Estimates of annual groundwater storage and recharge relative to existing and proposed groundwater uses.
- Assess potential for well interference between the project well and neighboring wells and between the project well and nearby Creeks.

---

<sup>1</sup> Groundwater Availability Map, Sonoma County Permit and Resource Management Division, April 1, 2004

## 2.0 SITE DESCRIPTION

The Site is located in an unincorporated, rural residential and agricultural community approximately 13 miles northwest of downtown Petaluma, California (**PLATE 1 – Site Location Map**). The Site address is 4707 Bloomfield Road, Petaluma, CA and is further identified as Assessor’s Parcel No. (APN) 027-050-022 (**PLATE 2 – Assessor Parcel Map**). The parcel is deeded 113.00 acres and is located in the Petaluma Dairy Belt Area Plan. The Site is not a Williamson Act parcel and is under the jurisdiction of the North Coast Regional Water Quality Control Board. Photographs are presented in **APPENDIX A**.

Access to the parcel is from the east side of Bloomfield Road on to an existing gravel driveway **PLATE 3- Site Plan** and **APPENDIX B – Engineered Site Plan**. The applicant proposes to use the Site for a ~0.34-acre cannabis cultivation development. Specifically, the applicant proposes a 12,960 ft<sup>2</sup> mixed light greenhouse cultivation building and a 6,480 ft<sup>2</sup> indoor cultivation building **PLATE 3A- Site Plan-detail** and **APPENDIX B – Engineered Site Plan**. The Site is currently developed with several barns, horse pastures, animal pens / arenas, a small orchard, a kitchen garden (0.125-acre) and a greenhouse for micro greens. The parcel has three domestic water supply wells, four (4) 5,000- gallon metal water storage tanks, two (2) 5,000-gallon concrete storage tanks and one 10,000-gallon concrete storage tank.

### 2.1 USGS 7.5 MINUTE QUADRANGLE MAP

HES reviewed the most recent United States Geological Survey (USGS) 7.5-Minute Quadrangle Map, 2015 Two Rock, California (**PLATE 4 USGS Topographic Map**). Topographically the parcel contains a large hill with the highest elevation at ~413 feet mean sea level (MSL). Cultivation will be located in a former quarry area on the north west side of the property at an elevation of ~224 feet MSL. Surface water predominantly flows down from the hill top onsite to the south and west across the site however all surface waters eventually drain to the south from unnamed tributaries to Americano Creek. Americano Creek flows west and eventually to Estero de Americano which flows to the Pacific Ocean south of Bodega Bay.

The parcel is in the Estero American Sub-watershed (HUC12- 180500050302). There are no Class I or Class II streams onsite however there are several Class III drainages that originate onsite. The proposed cultivation area is not within 100 feet of any surface water drainages. The areas proposed for cannabis development are flat and underground drains have been installed. The drains capture water that accumulates on the graded area and moves it underground to a small groundwater recharge area located south of the proposed development onsite. The recharge basin is approximately 200 ft<sup>2</sup> in size and less than 5 feet deep. Overflow from the recharge basin is directed to the roadside ditch on Bloomfield Road via underground culverts.

### 2.2 HISTORICAL AERIAL PHOTOGRAPHY

HES reviewed aerial photographs from years 1985-2021 depicting the Site and vicinity to obtain information about historical development and other surficial features. In 1993, there appears to be a residence, large barn and several out building along Bloomfield Road along the northwest side of the property. By February 2003, the residence has been removed and 6 small structures are installed

in the area around the former residence. By 2003, there are several fenced pasture areas most of which exist today. By September 2003, the arena area is developed along with two barns near the fenced pastures. By June of 2009 the microgreens greenhouse has been installed. By September 2018 the upper barn and irrigated pasture areas are installed and by February 2021, the quarry area has been graded.

### **2.3 NEIGHBORING PROPERTIES**

Land use in the vicinity of the Site is zoned as Rural Residential (RR), and Land Extensive Agriculture (LEA) with a mixture of pasture lands, single-family residential development, and dairies (as discussed further in Section 4.0 - Cumulative Impact Area). The developed properties are serviced by private septic systems and groundwater wells.

### 3.0 SITE WATER USE

#### 3.1 SITE DEVELOPMENT AND WATER USE

We understand that the proposed cannabis project will include a total of 10,000 ft<sup>2</sup> of mixed light greenhouse cultivation canopy and 5,000 ft<sup>2</sup> of indoor cultivation canopy as shown in **Appendix B – Engineered Site Plans**. The project plans also include the development of a 10,000 ft<sup>2</sup> processing building. The proposed cannabis plants will be irrigated by a combination of captured rainwater and groundwater. Groundwater used for cannabis irrigation will come from the sites primary domestic well located near the southwest corner of the site (Project Irrigation Well). Rainwater used for cannabis irrigation will be captured off of the proposed greenhouse and processing buildings and will be stored in a proposed ~250,000-gallon steel water holding tank. The two other domestic wells onsite will be utilized as backup wells for the site. The approximate locations of the proposed cultivation areas, water wells and holding tanks are shown on **PLATE 3A Site Plan** and in **Appendix B – Engineered Site Plans**. The total anticipated water usage for the entire parcel including cultivation, livestock, residential, and employees is described below and summarized in **Table 1 – Estimated Annual Site Water Usage**.

#### 3.2 Mixed Light Cultivation Area (10,000 ft<sup>2</sup>, 0.23 acre)

The Applicant proposes to develop 10,000 ft<sup>2</sup> of mixed light cannabis canopy in a 12,960 ft<sup>2</sup> greenhouse on the Site (**Appendix B – Engineered Site Plan**). The mixed light greenhouse will house plants from early in the vegetative stage all the way through the flowering stage. The Applicant estimates that the mixed light cultivation water usage rate will average 944 gallons/day. This usage rate is based on data from a similar cultivation site in another county. Based on this usage rate, and a proposed “year-round” mixed light cultivation season, we have estimated the annual water use required for this proposed facility.

$$944 \text{ gallon/day} \times 365 \text{ days} = \\ \mathbf{344,560 \text{ gallons/year or } 1.06 \text{ acre-feet/year} = \text{Mixed Light Water Use}}$$

Therefore, it is estimated that the mixed light greenhouse will require 1.06 ac-ft/year/acre. In Sonoma County, typical year-round greenhouse cultivation water usage rates are in the range of 4-acre-feet/acre/year. Using this water usage rate, and scaling to the applicant’s project (0.23-acre) we see that the applicants estimate of 1.06 acre-feet/year is consistent with the scaled Sonoma County averages (4 acre-feet/acre/year x 0.23 acre = 0.92 acre-feet/year). A breakdown of the anticipated monthly water usage is presented on **TABLE 1 – Estimated Annual Site Water Usage**.

### 3.3 Indoor Cultivation Area (5,000 ft<sup>2</sup>, 0.11 acre)

The applicant proposes to develop a 5,000 ft<sup>2</sup> indoor cannabis cultivation canopy within a 6,480 ft<sup>2</sup> facility onsite (**Appendix B – Engineered Site Plan**). The indoor facility will operate year-round with 4-5 harvest per year. Water use rates for the indoor cultivation facility is expected to be consistent with the Sonoma County averages for year-round mixed light cultivation. Based on this usage rate (4 acre-feet/acre/year) and the anticipated cultivation area (0.11-acre) the estimated annual water is calculated below.

$$4 \text{ acre-feet/acre/year (So. Co. average)} \times 0.11\text{-acre (indoor cultivation area)} = \\ \mathbf{0.44 \text{ acre-feet/year or } 143,374 \text{ gallons/year} = \text{Indoor Cultivation Water Use}}$$

### 3.4 Propagation Water Use

As part of the cannabis cultivation onsite the applicant plans to operate a small area (~2500 ft<sup>2</sup>) for cannabis propagation. The onsite propagation area will be indoors and shortly after seeds/clones are rooted they will be transferred to the mixed light or indoor cultivation facilities for flowering. Water use for the cannabis propagation area is expected to be approximately 1/3 that of the indoor and mixed light cultivation facilities. Using this water use estimate and the approximately area of the propagation space we can estimate water use for the proposed propagation area.

$$4 \text{ acre-feet/acre/year (So. Co. average)} \times 0.33 \text{ (irrigation rate scaling factor)} \times \\ 0.057\text{-acre (~propagation area)} = \\ \mathbf{0.08 \text{ acre-feet/year or } 24,517 \text{ gallons/year} = \text{Propagation Water Use}}$$

### 3.5 Employee Water Usage

It is anticipated that the project will require the use of one full time and several part time employees. The applicant has estimated that the project may require as many as 19 employees on any given day. However, for the purpose of this assessment, we have estimated that the site will have the equivalent of five (5) full-time employees working 365 days a year. Using the Sonoma County Water Availability Guidance Document<sup>2</sup> estimate of 15 gallons of water utilized per day per cultivation worker on site, we calculated the following additional water usage for the cultivation project:

$$5 \text{ (employees)} \times 15 \text{ gallons/day (daily water usage)} \times 365 \text{ days/year} = \\ \mathbf{27,375 \text{ gallons/year} = 0.08 \text{ acre-feet/year} = \text{Employee Groundwater Use}}$$

### 3.6 Additional Site Water Usage

Additional water uses onsite include a private horse facility, a greenhouse for micro greens and a vegetable garden. Irrigation for gardening and water for horses is also provided from the primary Irrigation Well with the other two site wells providing backup water supply if needed. There are no

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<sup>2</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

permanent residences onsite and there are no immediate plans to develop a residence onsite. However, water use associated with future development of the property for residential purposes is accounted for in Section 4.1.2 – Future Water Demand in Cumulative Impact Area.

We understand that the site contains horse barns and stables and that the owner currently maintains three (3) horses onsite. The widely accepted water use rate for the maintenance of horses is 7.8 gallons/day for an average adult nonbreeding, nonworking horse (500 kg body weight)<sup>3</sup> Therefore, we estimate the annual water consumption of the three horses to be:

$$3 \text{ horses} \times 7.8 \text{ gallons/day} \times 365 \text{ days/year} =$$

**8,541 gallons (0.026 acre-ft) = Annual Livestock Usage**

Between the planted gardens and the existing micro green greenhouse, we estimate that approximately 0.35-acres of the site is planted with gardens. According to the Sonoma County Water Use Guidelines<sup>4</sup> water use for landscaping averages 1.8 acre-feet/acre/year. Therefore, based on these water usage rates and the estimated area under consideration (0.35-acres) we have estimated the additional water use from gardening below.

$$1.8 \text{ acre-feet/acre/year (Sonoma County Landscape irrigation rate)} \times 0.35 \text{ acre (acres used for gardening)} =$$

**0.63 acre-feet/year or 205,286 gallons/year = Annual Gardening Water Use**

---

<sup>3</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7956953/> Freeman D.E., (2021) Effect of Feed Intake on Water Consumption in Horses: Relevance to Maintenance Fluid Therapy, Frontiers in Veterinary Science

<sup>4</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

**TABLE 1 – ESTIMATED ANNUAL SITE WATER USAGE**

Source	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	-----Gallons-----												
<b>Mixed Light Cultivation</b>	28,000	28,000	28,000	28,000	28,000	30,000	30,000	30,000	30,000	29,000	28,000	27,560	<b>344,560 gallons</b>
<b>Indoor Cultivation</b>	11,948	11,948	11,948	11,948	11,948	11,948	11,947	11,947	11,948	11,948	11,948	11,948	<b>143,374 gallons</b>
<b>Propagation</b>	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,044	<b>24,517 gallons</b>
<b>Employees</b>	2,281	2,281	2,281	2,281	2,282	2,282	2,282	2,281	2,281	2,281	2,281	2,281	<b>27,375 gallons</b>
<b>Horses</b>	700	700	700	700	700	750	750	750	750	700	700	641	<b>8,541 gallons</b>
<b>Gardens</b>	8,800	11,000	14,000	17,000	21,000	23,000	23,000	23,000	23,000	21,000	12,000	8,486	<b>205,286 gallons</b>
<b>Total</b>	<b>53,772</b>	<b>55,972</b>	<b>58,972</b>	<b>61,972</b>	<b>65,973</b>	<b>70,023</b>	<b>70,022</b>	<b>70,021</b>	<b>70,022</b>	<b>66,972</b>	<b>56,971</b>	<b>52,960</b>	<b>753,653 gallons</b>

**3.7 Rainwater Catchment**

The applicant is designing the cultivation facility to utilize a combination of rainwater and groundwater for cannabis irrigation. When available, rainwater will be the primary irrigation water source and groundwater will only be used when rainwater resources are depleted. The proposed rainwater system will capture water from the 12,960 ft<sup>2</sup> greenhouse and from the 10,000 ft<sup>2</sup> processing building. The captured rainwater will be collected in 5,000-gallon tanks at each location and then transferred to a proposed 250,000 rainwater tank located just north of the proposed cultivation areas. Therefore, a total of 260,000 gallons in rainwater storage will be available for collection.

Mean seasonal precipitation maps from Sonoma County Water Agency<sup>5</sup> indicate the mean annual rainfall in the Site vicinity is about 32 inches or 2.67-feet over the entire rain water capture area, (**PLATE 7- Precipitation Map**). Based on the average annual rainfall and the rainwater capture area we have estimated the rainwater capture potential at the site.

$$2.67 \text{ feet (rainfall average)} \times 0.527\text{-acre (rainfall capture area)} \times 0.6 \text{ (efficiency factor)} = \mathbf{0.844 \text{ acre-feet/year or } 275,101 \text{ gallons/year} = \text{Rainwater Capture Potential}}$$

<sup>5</sup> Sonoma County Mean Seasonal Precipitation in Flood Control Design Criteria manual: Plate No. B-3, Sonoma County Water Agency, Revised January 2005.

### 3.8 Recycled Water Use

The applicant plans to operate dehumidifiers in the both the mixed light greenhouses and the indoor cultivation rooms. The applicant has estimated that a total of nine (9) dehumidifiers will be used onsite with six (6) designated for the mixed light greenhouses and three (3) designated for the indoor cultivation rooms. It is estimated that each dehumidifier will capture 20-gallons of water from the air each day and the applicant plan is to contain this water within the respective buildings and reuse it for cannabis irrigation. Using the estimate of 20-gallons/day/dehumidifier and assuming that the site will operate 365 days/year we can calculate the amount of recycled water that will be used for the project irrigation.

$$9 \text{ dehumidifiers} \times 20 \text{ gallons/day} \times 365 \text{ days/year} = \\ \mathbf{65,700 \text{ gallons or } 0.2 \text{ acre-feet/year} = \text{Recycled Water Use}}$$

### 3.9 Site Water Use Summary

Based on these estimates presented above, the total site water usage is expected to be approximately 753,653 gallons/year or ~2.31 acre-feet/year. The average daily water demand for all site activities will be approximately **2,065 gallons/day**.

However, as stated in Section 3.1, water slated for cannabis irrigation will come from a combination of rainwater catchment and groundwater from the Project Irrigation Well. All other property water use will also be derived from the Site's additional domestic groundwater wells. Therefore, in order to fully estimate groundwater demand, we must first differentiate between the water needed for cannabis irrigation and all other water use onsite.

#### Cultivation Water Use

Mixed Light Cultivation:	344,560 gallons/year
Indoor Cultivation:	143,374 gallons/year
Propagation:	24,517 gallons/year
Employees:	<u>27,375 gallons/year</u>
<b>Total Cultivation Water Use</b>	<b>539,826 gallons/year or ~1.66 acre-feet/year</b>
Rainwater Capture:	-275,101 gallons/year
Recycled Water:	<u>- 65,700 gallons/year</u>
<b>Total Cultivation Groundwater Use</b>	<b>199,025 gallons/year or ~0.61 acre-feet/year</b>

#### Other Groundwater Use

Horses:	8,541 gallons/year
Landscaping:	<u>205,286 gallons/year</u>
<b>Total Other Groundwater Use</b>	<b>213,827 gallons/year or ~0.66 acre-feet</b>

So, total groundwater use onsite can now be calculated as follows:

$$199,025 \text{ gallons/year (groundwater used for cannabis)} + 213,827 \text{ gallons/year} \\ \text{(groundwater used for horses, landscaping)} = \\ \mathbf{\underline{412,852 \text{ gallons/year or } 1.27 \text{ acre-feet/year} = \text{Total Groundwater Use Onsite}}}$$

## 4.0 CUMULATIVE IMPACT AREA

HES reviewed available water well records obtained from Sonoma County PRMD and California Department of Water Resources (DWR) and assessed information obtained from peer-reviewed scientific publications as referenced in this report to determine an appropriate Cumulative Impact Area (CIA) for the Site. HES delineated the CIA based on known geologic, hydrologic and groundwater characteristics in the area. The CIA is a polygon shaped area with the Site located in the approximate center. The total area of the CIA is approximately 925 acres.

HES identified 38 parcels in the CIA including the Site parcel (#1). Therefore, the CIA includes the entire Site and all or portions of the other 37 properties (**PLATE 3A – Site Plan**). The property uses, and parcel sizes in the CIA range from rural residences at 1.57-acre to pasturelands at 480-acres. A HUC-12 watershed boundary defines the CIA along the northeast side with surface water draining to the south.

Based on zoning and land use data acquired from Permit Sonoma County<sup>6</sup>, of the 38 parcels in the CIA:

- Five (5) are currently used for pasture use only
- Three (3) are dairies with residences
- Twenty-nine (29) parcels have at least one primary residence
- Three (3) of those parcels are also zoned for two or more residences
- Two (2) parcels with permitted accessory dwelling units (ADUs)
- Three (3) parcels are vacant homesites

This means there is a total thirty-two (32) existing primary residences and two (2) permitted ADUs in the CIA. The majority of the parcels, twenty-four (24), are located in Land Extensive Agriculture (LEA) zoning and the other fourteen (14) are located in Rural Residential (RR) zoning. Zoning in this area is unlikely to change so future development is anticipated to be consistent with currently allowed conditions. Descriptions of each parcel within the Cumulative Impact Area is presented on **Table 2 – Cumulative Impact Area Properties**.

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<sup>6</sup> <https://sonomacounty.maps.arcgis.com/>

**TABLE 2 – CUMULATIVE IMPACT AREA PROPERTIES**

<b>Item No.</b>	<b>APN</b>	<b>Address(s)</b>	<b>Acres</b>	<b>Zoning Code</b>	<b>General Land Use</b>
1	027-050-022	4707 BLOOMFIELD RD, BLOOMFIELD	113.0	LEA 160	Pasture w/Misc Imps
2	027-050-053	4201 BLOOMFIELD RD, SEBASTOPOL	46.16	LEA 160	Rural Res/single Res
3	027-060-009	5767 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, BLOOMFIELD	292.92	LEA 160	Dairy W/residence
4	027-040-005	5775 BLOOMFIELD RD, BLOOMFIELD	57.76	LEA 160	Pasture
5	027-040-013	5110 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, PETALUMA	100	LEA 160	Irrigated Pasture
6	027-040-019	5110 BLOOMFIELD RD, BLOOMFIELD 5116 BLOOMFIELD RD, BLOOMFIELD	206.14	LEA 160	Dairy w/Residence
7	027-030-004	12520 VALLEY FORD RD, PETALUMA	277.8	LEA 160	Pasture
8	027-040-017	5600 BURNSIDE RD, SEBASTOPOL 5665 BURNSIDE RD, SEBASTOPOL	74.42	LEA 60	Pasture
9	027-040-018	5700 BURNSIDE RD, SEBASTOPOL	19.91	LEA 160	Irrigated Pasture w/Residence
10	076-170-004	5335 BURNSIDE RD, SEBASTOPOL	211.09	LEA 60	Dairy w/Residence
11	027-050-038	6000 BURNSIDE RD, BLOOMFIELD	10.61	LEA 60	Rural Res/Single Residence
12	027-050-044	4760 BLOOMFIELD RD, BLOOMFIELD 4770 BLOOMFIELD RD, BLOOMFIELD	33.55	LEA 60	Rural Residential SFD w/Granny Unit
13	027-050-043	4700 BLOOMFIELD RD, BLOOMFIELD	32.05	LEA 60	Rural Res/Single Residence
14	027-050-036	4500 BLOOMFIELD RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
15	027-050-033	4400 BLOOMFIELD RD, BLOOMFIELD	18.55	LEA 60	Rural Res/2 or More Residence
16	025-100-031	4050 BLOOMFIELD RD, SEBASTOPOL	5.23	RR 5	Rural Res/Single Residence
17	025-100-032	6750 BURNSIDE RD, SEBASTOPOL	3.77	RR 5	Rural Res/Single Residence
18	025-100-021	6695 BURNSIDE RD, SEBASTOPOL 6697 BURNSIDE RD, SEBASTOPOL	3.12	RR 5	Rural Res/2 or More Residences
19	027-050-030	6695 BURNSIDE RD, BLOOMFIELD	2.86	RR 5	Rural Res/Vacant Homesite
20	027-050-041	6005 BURNSIDE RD, BLOOMFIELD 6605 BURNSIDE RD, BLOOMFIELD	2.67	RR 5	Rural Res/2 or More Residences

21	027-050-040	6495 BURNSIDE RD, BLOOMFIELD	4.23	RR 5	Rural Res/Single Residence
22	027-050-034	6500 BURNSIDE RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
23	027-050-035	6320 BURNSIDE RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
24	027-050-042	6200 BURNSIDE RD, BLOOMFIELD	8.43	LEA 60	Rural Res/Single Residence
25	027-050-039	6100 BURNSIDE RD, BLOOMFIELD	10.96	LEA 60	Rural Res/Single Residence
26	027-270-033	6107 BURNSIDE RD, BLOOMFIELD	3.48	RR 5	Rural Res/Single Residence
27	027-270-032	6103 BURNSIDE RD, BLOOMFIELD	3.48	RR 5	Rural Res/Single Residence
28	027-270-014	6255 BURNSIDE RD, BLOOMFIELD	5.0	RR 5	Rural Res/Single Residence
29	027-270-027	6257 BURNSIDE RD, BLOOMFIELD	3.84	RR 5	Rural Res/Vacant Development w/Util
30	027-270-026	6323 BURNSIDE RD, BLOOMFIELD	4.44	RR 5	Rural Res/Single Residence
31	027-280-001	6425 LOVMARK WAY, SEBASTOPOL	6.29	RR 10	Rural Res/Single Residence
32	027-050-048	6545 BURNSIDE RD, BLOOMFIELD	11.83	RR 10	Rural Res/Single Residence
33	027-050-049	6545 BURNSIDE RD, BLOOMFIELD 6575 BURNSIDE RD, BLOOMFIELD	8.18	RR 10	Rural Res/Single Residence
34	027-050-052	4201 BLOOMFIELD RD, SEBASTOPOL 4211 BLOOMFIELD RD, 4213 BLOOMFIELD RD, BLOOMFIELD	8.37	LEA 160	Rural Residential SFD w/Granny Unit
35	025-100-006	3514 BLOOMFIELD RD, SEBASTOPOL 3845 BLOOMFIELD RD, TWIN HILLS	51.15	LEA 160	Pasture w/Residence
36	027-070-004	5767 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, PETALUMA	480.26	LEA 160	Pasture
37	024-040-004	4880 BLOOMFIELD RD, PETALUMA	1.57	LEA 160	Rural Res/Single Residence
38	027-050-021	5355 BLOOMFIELD RD, PETALUMA	2.48	LEA 160	Rural Res/vacant Homesite

## 4.1 GROUNDWATER USAGE

Based on available information including a Google Earth February 2021 aerial photograph, HES estimated the land use acreage within the 925-acre Cumulative Impact Area as follows:

133 acres	Woodlands/Riparian/Windbreaks
705 acres	Livestock grazing pasturelands
87 acres	Residential use including Houses and Landscaping (~3 acres/developed parcel)

The wooded land within the Cumulative Impact Area primarily consists of planted wind breaks on the ridges and riparian vegetation so further reduction of existing wooded land may not be feasible or pursued.

### 4.1.1 Current Domestic Water Use in the Cumulative Impact Area

According to the USGS, the average person within the Santa Rosa Plain Watershed uses 0.19 acre-feet/year for domestic purposes<sup>7</sup>. In addition, the United States Census Bureau reported in 2020 that the average household in Sonoma County has 2.59 residents<sup>8</sup>. Therefore, for the purpose of this assessment we used a conservative number of three (3) residents per primary residence within the Cumulative Impact Area and assumed that each person uses 0.19 acre-feet of groundwater per year.

Of the properties identified in the Cumulative Impact Area, 29 appear to be developed with primary residences and three (3) of those parcels were zoned for two or more residences. So, we can assume that 29 parcels within the CIA are currently developed with a total of 32 primary residential homes. In addition, there are two (2) parcels with permitted ADUs. Therefore, if we assume that 3 people live in each primary residence (96 people), and 2 people live in each ADU (4 people), we estimate that 100 people currently live within the defined CIA. Therefore, CIA domestic water usage is calculated as follows:

$$\begin{aligned} &32 \text{ residences (29 primary + 3 secondary)} \times 3 \text{ (people per residence)} = 96 \text{ people} \\ &2 \text{ permitted ADUs} \times 2 \text{ (residents)} = 4 \text{ people} \\ &100 \text{ people (96 primary and 4 ADUs)} \times 0.19 \text{ acre-feet/year} = \\ &\mathbf{19.0 \text{ acre-feet/year} = \text{Current Domestic Water Usage}} \end{aligned}$$

This estimate for residential demand assumes that all domestic water is supplied from groundwater; other sources of water (rainwater, reservoirs or surface water) were not included.

### 4.1.2 Future Potential Domestic Water Demand in the Cumulative Impact Area

For future potential groundwater demand we first assume that the nine (9) undeveloped parcels, *including the project parcel*, will be developed with a primary residence and that all properties over 2-acres that do not currently have ADU's (35) will develop an ADU at some point. We assume that those primary residences will be occupied by three (3) residents and the ADU's will be occupied by

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<sup>7</sup> Santa Rosa Plain Groundwater Management Plan, Sonoma County Water Agency, 2014

<sup>8</sup> <https://www.census.gov/quickfacts/sonomacountycalifornia>

two (2) residents each. Therefore, the CIA has a future potential of 97 additional residents. With these projections, the additional future potential groundwater demand for domestic purposes can be calculated follows:

$$9 \text{ undeveloped parcels} \times 3 \text{ residents/parcel} \times 0.19 \text{ acre-feet/year (domestic water use)} = \\ \mathbf{5.13 \text{ acre-feet/year} = \text{Future Potential Water Demand from Primary Residences}}$$

$$35 \text{ potential ADU's} \times 2 \text{ residents/ADU} \times 0.19 \text{ acre-feet/year (domestic water use)} = \\ \mathbf{13.30 \text{ acre-feet/year} = \text{Future Potential Water Demand from ADUs}}$$

Therefore, total future potential domestic water usage can be estimated as follows:

$$5.13 \text{ acre-feet/year (increased from potential primary residences)} = \\ 13.30 \text{ acre-feet/year (increase from potential ADU's)} + \\ \mathbf{18.43 \text{ acre-feet/year} = \text{Total Future Potential Domestic Groundwater Demand}}$$

#### **4.1.3 Current / Future Pasture Water Use in the Cumulative Impact Area**

In order to estimate the amount of land that is used for livestock we assumed that all pasture land is either currently used for grazing, or will be used be used for grazing in the future. With an estimated 705-acres of pasture/livestock grazing land within the CIA we can estimate grazing water use using Sonoma County established water usage rates. Sonoma County estimates that Livestock (sheep or cows) water usage rate is 0.05 acre-feet/year/acre<sup>9</sup>. Therefore, pasture land annual water usage can be calculated as follows:

$$705\text{-acres (pastureland acres)} \times 0.05 \text{ acre-feet/acre/year (water usage)} = \\ \mathbf{35.25 \text{ acre-feet/year} = \text{Current/Future Pasture Grazing Water Demand}}$$

Pasture land water use is not expected to change due to zoning as most parcels are part of the Petaluma Dairy Belt Area plan and many have Williamson Act contracts<sup>10</sup>.

#### **4.1.4 Total Water Demand in Cumulative Impact Area**

The current total groundwater use and the future potential groundwater demand within the entire Cumulative Impact Area, including the proposed project are summarized on **TABLE 3 – Estimated Groundwater Usage in Cumulative Impact Area.**

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<sup>9</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

<sup>10</sup> Permit Sonoma GIS Online Service Map Gallery, Williamson Act Land Contracts Data 2017

**TABLE 3– ESTIMATED GROUNDWATER USAGE IN CUMULATIVE IMPACT AREA**

<b>Groundwater Uses</b>	<b>Number of uses</b>	<b>Rate of Use (acre-feet)</b>	<b>Annual Water Use (acre-feet)/year</b>
32 Residences (29 primary and 3 secondary)	3 people/residence = 96 residents	0.19 acre-ft/resident	<b>18.24</b>
2 Permitted ADUs	2 residents per ADU = 4 residents	0.19 acre-ft/resident	<b>0.76</b>
Pasture/Livestock	705 acres of pastures	0.05 acre-ft/acre	<b>35.25</b>
<b>Total Estimated Current Water Usage</b>			<b>54.25</b>
35 potential new ADUs (properties larger than 2 acres)	2 residents per new ADU = 70 residents	0.19 acre-ft/resident	<b>13.3</b>
9 potential new residences on undeveloped parcels	3 residents per homestead= 27 residents	0.19 acre-ft/resident	<b>5.13</b>
<b>Total Potential Future Domestic Uses</b>			<b>18.43</b>
Proposed Cannabis Cultivation	Mixed light, indoor, propagation, and employees	~4 acre-ft/acre/year	<b>0.61</b>
<b>Total Existing &amp; Proposed Water Usage Estimates</b>		<b>Without Cannabis</b>	<b>72.68</b>
		<b>With Cannabis</b>	<b>73.29</b>
Note: Projected water usage for cannabis cultivation provided by the property owner and estimates on household domestic water use are based on 2014 USGS study of the Santa Rosa Plain Watershed and 2020 Census Data for Sonoma County.			

Based on the conservative assumptions discussed above, HES has provided the following estimates for the Current and Future annual groundwater demand (in acre-feet/year) within the Cumulative Impact Area, *excluding* the cannabis cultivation project:

- Current groundwater demand in CIA (excluding proposed cannabis) = 54.25 acre-feet/year
- Potential future increased groundwater demand in CIA (excluding proposed cannabis) = 18.43 acre-feet/year
- Total potential groundwater demand in CIA (excluding proposed cannabis) = 72.68 acre-feet/year

The Cultivation Project’s groundwater demand of 0.61 acre-feet/year increases the current total water demand within the CIA by 1.1% and increases the future potential groundwater demand by 0.8%.

## 5.0 HYDROLOGICAL CONDITIONS

According to USGS maps, the project Site is located within the Estero Americano Sub-watershed (**PLATE 4 – USGS Topography Map**) and within the jurisdiction of North Coast Regional Water Quality Control Board (NCRWQCB).

The northern most and southern most portions of the Site are mapped by California Department of Water Resources (DWR) as the Wilson Grove Formation Highlands Basin (designated 1-55.01) a very low priority groundwater basin<sup>11</sup>. The central portion of the Site is mapped as the Franciscan Formation which is known to have highly variable groundwater yields. The proposed Site Irrigation Well is located at the southern corner of the property and within the Wilson Grove Formation.

### 5.1 WILSON GROVE FORMATION

The portions of the site including the location of the project irrigation well is underlain by the Wilson Grove Formation as shown on **PLATE 5 -- GEOLOGIC MAP**. The Miocene to Pliocene aged Wilson Grove Formation consists of fine- to medium-grained, thick-bedded to massively-bedded, moderate- to well-sorted, uncemented to weakly cemented fossiliferous marine sandstone. The Wilson Grove Formation is generally 650 to 950 feet thick based on outcrop exposures and drillers logs in the northwest and may be as much as 3,000 feet thick in the Wilson Grove Formation Highlands Basin<sup>12</sup>.

The Wilson Grove Formation forms a single, continuous aquifer unit, due to general lithologic homogeneity and the absence of faults. The sand and sandstones of the Wilson Grove Formation are generally productive aquifers, with reported specific yield of 10 to 20 percent<sup>13</sup> and a range in specific capacity of 0.05 to 0.5 gpm/ft<sup>14</sup>. The yields of wells in the Wilson Grove Formation range from 100 to 1,500 gpm<sup>15</sup>. Recharge to the Wilson Grove aquifer in the vicinity of the Site is through direct infiltration of precipitation as well as from stream bed recharge from near site creeks and drainages.

### 5.2 FRANCISCAN FORMATION

The central portion of the site including the location of the proposed cannabis cultivation is underlain by the Franciscan Complex as shown on **PLATE 5 - GEOLOGIC MAP**. The Franciscan Complex is also present below the Wilson Grove Formation at the site. The

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<sup>11</sup> California Department of Water Resources (DWR). 2020. Sustainable Groundwater Management Act 2019 Basin Prioritization, Process and Results. May.

<sup>12</sup> Powell, C.L., Allen, J.R., and P.J. Holland (Powell). 2004. Invertebrate Paleontology of the Wilson Grove Formation (Late Miocene to Late Pliocene), Sonoma and Marin Counties, California, with some Observations on Its Stratigraphy, Thickness, and Structure. U.S. Geological Survey Open-File Report 2004-1017.

<sup>13</sup> Herbst, C.M. 1982. Evaluation of Ground Water Resources: Sonoma County, Volume 3: Petaluma Valley. California Department of Water Resources Bulletin 118-4. 94 p.

<sup>14</sup> [https://petalumavalleygroundwater.org/wp-content/uploads/00\\_PVGSP-Sect3\\_Basin-Setting\\_SONOMA-WATER-REVISED\\_Final\\_08252021.pdf](https://petalumavalleygroundwater.org/wp-content/uploads/00_PVGSP-Sect3_Basin-Setting_SONOMA-WATER-REVISED_Final_08252021.pdf) (Sweetkind and Teague, in review)

<sup>15</sup> California Department of Water Resources (DWR). 2014. Petaluma Valley groundwater basin: Bulletin 118 groundwater basin descriptions–Update June 30, 2014. 5 p.

Franciscan Complex (KJfs), is Cretaceous and Jurassic in age and is made up of sheared shale and sandstone with resistant masses of chert, greenstone, and meta greenstone, and less resistant serpentinite. Based on review of the Well Drillers Reports from nearby wells, the aquifer beneath the site and within the Cumulative Impact Area appears to consist of fractured sandstone and shale indicating the two formations are interfingering in this area.

Fractured rock aquifers are distinct from groundwater systems which are hosted in sedimentary deposits. While sedimentary aquifers store and transmit water through pore spaces between individual sediment granules, fractured rock aquifers store and transmit water through crevices, joints and fractures in an otherwise impervious rock mass. As a result, fractured rock aquifers exhibit hydraulic characteristics which are distinct from those observed in sedimentary aquifer systems with water availability (commonly observed in terms of bore yield) generally dependent on the nature (number, size and extent) of discontinuities in the rock mass and their degree of interconnection. This means the long-term yield available from bores screened in fractured rock aquifers is generally dependent on the localized extent and interconnection of discontinuities in the overall rock masses rather than permeability of the geological materials in the immediate vicinity of the abstraction point.

Fractured rock aquifers may also exhibit different recharge characteristics to other aquifer types, particularly unconfined aquifers. In addition, due to the age of the geological units forming fractured rock aquifers (typically pre-Tertiary age) extensive weathering commonly occurs along the upper surface of the rock mass. This weathering commonly results in the alteration of the rock materials to form clay minerals which inhibit the vertical movement of water. Permeability in fractured rock aquifers may also be reduced with depth due to the progressive reduction in open space along joints and fractures due to the weight of the overlying rock mass. Shear zones associated with faults can create areas of secondary permeability and in these areas well yields can increase substantially.

### **5.3 DOMESTIC WELL INFORMATION**

The Site is located in unincorporated Sonoma County and is surrounded by agricultural and rural residential properties. According to modeling done as part of the Petaluma Valley GSP the density of water supply wells adjacent to the Site is low (0.1-8.9 wells/square mile)<sup>16</sup>

HES investigated all parcels within the 925-acre Cumulative Impact Area (**Plate 3A - Site Plan**), and identified domestic well log information for (11) wells on 10 separate properties (**TABLE 4 - Well Inventory**). Available well logs are included in **APPENDIX C**.

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<sup>16</sup> [https://petalumavalleygroundwater.org/wp-content/uploads/PVGSP-Section2\\_Plan-Area\\_FINAL\\_08202021.pdf](https://petalumavalleygroundwater.org/wp-content/uploads/PVGSP-Section2_Plan-Area_FINAL_08202021.pdf) Figure 2-6

**TABLE 4 - WELL INVENTORY**

APN/Well Number	Well Install Year	Distance to Project Well (Feet)	Surface Elevation (Feet, msl)	Total Well Depth (Feet)	Screen Interval/ (Feet)	Total Screen Thickness (Feet)	Well Yield (GPM)	Draw-down (Feet)	Specific Capacity (GPM/FT)
027-050-022 / 807042	2002	Irrigation Well	130	297	160-297	137	8	80	0.1
027-050-022 / 079758	1980	2,380	250	168	68-128 148-168	80	13	124	0.105
027-050-052 / 19423	1970	3,900	500	301	301-221	80	12	80	0.15
027-050-036 / 253891	1989	4,000	380	306	196-306	110	10	180	0.056
027-050-044 / 561469	1996	3,600	400	325	125-325	200	15	275	0.55
025-100-031 / 37084	1977	4,700	470	177	103-123	20	5	77	0.065
025-050-033 / 97484	1972	4,300	370	56	36-56	20	1	15	0.067
025-100-032 / 34355	1977	5,000	460	195	102-195	93	10	30	0.333
027-050-041 / 050385	1980	5,000	500	290	151-171 191-211 231-276	85	5	115	0.043
027-270-026 / 080410	1980	5,100	530	160	120-160	40	7	58	0.121
027-270-033 / 109960	1977	5,400	650	210	130-210	80	4	NA	NA
Average Well Total Depth 226= feet					Average Screen Thickness = 86 Feet				

The well logs identified within 5,000 feet of the Site well show that the subsurface is composed of materials described as sandstone, shale, seashells, and clay. Five (5) of the wells identified were completed to total depths of 290 feet or greater and the remaining six (6) wells had total depths ranging between 56-210 feet below grade. In general, wells drilled at higher surface elevations had deeper well casing installed. The average well depth within the cumulative impact area is 226 feet. The average screened interval thickness is 86 feet and the average specific capacity is 0.16 gpm/foot drawdown. While additional wells are present within the cumulative impact area, there are no wells within 1,200 feet of the proposed Project Irrigation Well. Jerry and Dons Yager Pump and Well Service performed a well yield test on the project well in September 8, 2021 details on the well yield test are provided below in Section 5.3.2

### 5.3.1 Onsite Well Information

Three domestic groundwater wells are located on the property as shown on **PLATE 3A – Site Plan**. Well Completion Reports for two of the wells were readily available including the Project Irrigation Well, **APPENDEIX C – Well Completion Reports**. A brief description of each well is provided below.

**Primary Irrigation Well** - The proposed cannabis irrigation well is located near the southwest corner of the site. The well pumps groundwater from a 5,000-gallon concrete storage tank located at the well head to four (4) 5,000-gallon steel holding tanks located on the hillside approximately 1,300 feet to the north. From the steel holding tanks the applicant has proposed a dedicated water line that will distribute irrigation water for cannabis as needed. Currently there are water lines connected to the steel holding tanks that distribute the water past Backup Well #1 and over to the northeastern portion of the site where it is contained in a 10,000-gallon concrete water tank. From the 10,000-gallon tank the water is routed to another 10,000-gallon concrete storage tank located near the northwestern corner of the site and proximate to Backup Well # 2. All pipping is established and underground, details of the existing and proposed water distribution system are presented in **APPENDIX B- Engineered Site Plan**.

**Backup Well # 1** – This well is located near the eastern property boundary and is dedicated as the secondary backup well for the site. The Well Completion Report for the Backup Well #1 Well (Well No. 807042) indicates that the well was installed in 2002 and is constructed with 5-inch diameter PVC well casing installed to a total depth of 297 feet below grade. The well is equipped with a submersible pump and surface mounted booster pump. The well was constructed with a 30-foot annual seal.

**Backup Well # 2** – This well is located near the northwest corner of the site and is dedicated and the tertiary well for the site. The Well Completion Report for this well (Well No. 079758) indicates that it was installed in 1980 and is constructed with a 6 5/8-inch diameter PVC casing installed to an approximate depth of 168 feet below grade. This well is equipped with a submersible pump and booster pump. The well has a 20-foot annular seal and at the time of installation it produced 13 gallons per minute (gpm).

### 5.3.2 Well Yield Test

On September 8, 2021, Jerry and Dons Yager Pump and Well Service conducted an 8-hour “dry season” well yield test on the proposed Cannabis Irrigation Well located on the southwest portion of the Site. The existing 1.5 hp submersible pump that was set in the well at a depth of approximately 280 feet was used for the test.

The initial static water level was measured at 48 feet below the top of the well casing (TOC). The yield test began at 9:55 am and ended at 6:00 pm (8 hours 5 minutes or 485 minutes). The well was pumped consistently throughout the test at 4 gpm and had a stabilized water level of 88 feet. A total of 2,167-gallons of water was pumped from the well during the 485-minutes of pumping. The specific capacity was calculated to be 0.1 gpm/foot of drawdown (i.e., 4 gpm/40ft). The well yield test data and calculations are attached in **APPENDIX D**. The specific

capacity was consistent with the well test performed during installation and with the average for the Cumulative Impact Area.

Well recovery data was collected 48 hours following completion of the pump test and the static water level had recovered to a depth of 36.7 feet, indicating 100% recovery of initial static levels. This indicates that pumping 2,167-gallons from the well did not create an aquifer overdraft.

Based on the recorded flow rate of 4 gpm and the average daily project demand of 1,450 gallons/day, we estimate that it would require approximately 6 hour and 3 minutes (363 minutes) of pumping to meet the Sites daily cannabis irrigation demand. Based on the results of the well yield test and recovery observations it appears that the well can produce the water necessary for the proposed cultivation project without creating aquifer overdraft conditions.

## 6.0 POTENTIAL IMPACTS to STREAMS & NEIGHBORING WELLS

To evaluate potential well pumping impacts to surface water bodies or wells on other properties, the potential lateral extent of pumping from the planned project well was estimated. Using general relationships discussed in Driscoll (1986)<sup>17</sup>, we estimated the lateral pumping influence using information from the September 8, 2021, well yield test. An approximate relationship between specific capacity calculated from the well drillers log, and aquifer transmissivity was used to obtain aquifer characteristics and estimate a potential radius of pumping influence. Transmissivity was estimated for an unconfined aquifer, using the relationship of Specific Capacity (yield/drawdown) x the coefficient of 1,500. To develop the slope of the drawdown curve from the pumping well, the value of  $\Delta s$  (drawdown over one log graph cycle) was calculated for a distance-drawdown relationship as follows.

$$T = 528 \times \text{Well Yield (gpm)} / \Delta s \text{ (Driscoll, 1986, Equation 9.11).}$$

The analysis is shown on the attached semi-log plot, **APPENDIX E – Radius of Pumping Influence**

As estimated, pumping the project well at 4 gpm with a drawdown of 40 feet indicates a specific capacity of 0.10 gpm/foot drawdown. Using this data and applying it to the Site, we calculated a zone of pumping influence extending approximately 150 feet from the well for an unconfined aquifer.

The closest domestic well to the proposed Project Irrigation Well is approximately 1,200 feet away on parcels 027-040-019. The radius of pumping influence graph indicates that the well at this location is outside the radius of pumping influence and is not likely to be affected by pumping for the proposed project.

There closest creek to the site is an unnamed tributary to the Americano Creek located approximately 300 feet south/southwest of the propose irrigation well. The Class II tributary creek is outside of the direct pumping influence of the irrigation well, and the irrigation well is drawing water from depth of 160 feet and greater. Therefore, it is not likely that pumping from the irrigation will have a significant effect on streamflow. Consequently, stream depletion from the proposed project pumping is not considered a concern to this assessment.

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<sup>17</sup> Groundwater and Wells, Second Edition, Fletcher G. Driscoll, 1986, published by Johnson Division, St. Paul Minnesota, 1089p.

## 7.0 WATER BALANCE INFORMATION

USGS and DWR studies that included the Petaluma Valley area provided water balance information that was used to assess groundwater sustainability within the Cumulative Impact Area.

### 7.1 GROUNDWATER STORAGE

HES used well log information from the surrounding shallow wells to estimate the aquifer thickness beneath the Cumulative Impact Area. The average screened interval for the eleven (11) wells was 86 feet. Based on the aquifer consisting primarily of Wilson Grove Formation we estimated the specific yield of the aquifer is 15 percent (0.15)<sup>18</sup>. Therefore, the Aquifer Storage can be conservatively estimated using the following equation:

$$\text{Aquifer Thickness (86 feet) x Specific Yield (0.15) x Cumulative Impact Area (925 acres) =} \\ \text{Aquifer Storage} = 11,933 \text{ acre-feet}$$

### 7.2 PRECIPITATION

Precipitation, primarily as rainfall and stream flow are the major sources of inflow to the aquifers in the Cumulative Impact Area. Mean seasonal precipitation maps from Sonoma County Water Agency<sup>19</sup> indicate the mean annual rainfall in the Site vicinity is about 32 inches or 2,470 acre-feet over the entire Cumulative Impact Area, (**PLATE 7- Precipitation Map**).

### 7.3 GROUNDWATER RECHARGE

Recharge to aquifers in the Subbasin primarily occurs through direct precipitation as well as through ephemeral drainages within the Stemple Creek and Petaluma Valley Watersheds. Recharge that reaches the deeper aquifer zones is more poorly defined and likely comes from a combination of leakage from overlying shallow aquifers and mountain front recharge along the margins of the valley<sup>20</sup>.

Soil textures in the Cumulative Impact Area consist predominantly of weakly cemented marine-deposited sandstone, with volcanic ash intervals<sup>12</sup>. These soils are rich clean sand with a low degree of cementation which allows for higher specific yield rates than any of the other rocks or sediments in the Santa Rosa Plain Watershed. However, the other geologic formations in the area consists of hard bedrock and low producing well yields.

To estimate the groundwater recharge within the Cumulative Impact Area HES first assumed that the recharge to the aquifer is primarily through rainfall and that most of the rainfall accumulated within the 925-acre Cumulative Impact Area drains to the creeks proximate to the

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<sup>18</sup> Hydrologic and Geochemical Characterization of the Santa Rosa Plain Watershed, Sonoma County, California, U.S. Geological Survey, Scientific Investigations Report 2013–5118.

<sup>19</sup> Sonoma County Mean Seasonal Precipitation in Flood Control Design Criteria manual: Plate No. B-3, Sonoma County Water Agency, Revised January 2005.

<sup>20</sup> Sonoma Valley Groundwater Sustainability Agency. <http://sonomavalleygroundwater.org/gsp/>

Site. Therefore, the annual recharge to the Cumulative Impact Area can be initially estimated using the following data and equation.

$$\text{Estimated groundwater recharge from rainfall} = 925\text{-acres} \times 32 \text{ inches (2.67 feet)} = 2,470 \text{ acre-feet/year.}$$

However, this estimate does not account for surface run-off, stream underflow, and evapotranspiration that was discussed above and that occurs in all watersheds. To further evaluate the percentage of rainfall that contributes to recharge of the aquifer HES reviewed the Santa Rosa Plain Watershed Groundwater Management Plan<sup>21</sup> which discusses hydrogeology in the Region as well as the USGS Scientific Investigation Report 2006-51157. Estimates for recharge found in these documents are considered to be generally reliable for our Site evaluation. Average recharge to the ground-water system for the entire Santa Rosa Plain, including mountainous zones, is derived from an estimated average of 531,000 acre-feet of precipitation falling within the entire watershed. After accounting for runoff (188,400 acre-feet/year) and evapotranspiration (262,000 acre-feet/year), the amount of water available for recharging the Santa Rosa Plain Watershed equates to 80,600 acre-feet/year, or approximately 15.2% of the annual rainfall. However significant variations to this value can occur based on topography, soil infiltration rates, geology etc., and according to these USGS and Sonoma County Water Agency Reports, the long-term average precipitation that recharges groundwater in these regions can be as low as 1.67%. Therefore, based on topography, geology, soil types and regional studies, we estimate that the long-term average precipitation that recharges groundwater within our defined Cumulative Impact Area is at least 10%. With this data and the precipitation data presented above, we can re-calculate the groundwater recharge within the Cumulative Impact Area using the following equation.

$$925 \text{ acres} \times 2.67 \text{ feet (annual precip. CIA)} \times 0.10 \text{ (long term average for recharge)} = \mathbf{247 \text{ acre-feet} = \text{Estimated Annual Aquifer Recharge}}$$

Potential drought conditions in California could alter the recharge potential presented in this assessment. To account for drought conditions, we have assumed that the rainfall would only be 50% of average, which would correlate to only 50% of average recharge to aquifers in the Cumulative Impact Area. Using this assumption, we can re-calculate the aquifer recharge potential in a drought year using the following equation.

$$2.67 \text{ feet/year (average rainfall)} \times 0.5 \text{ (drought year multiplier)} \times 925\text{-ares (CIA)} \times 0.10 \text{ (long term recharge rate)} = \mathbf{123.5 \text{ acre-feet/year} = \text{Annual Recharge during Drought Conditions}}$$

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<sup>21</sup> Santa Rosa Plain Groundwater Management Plan, Sonoma County Water Agency, 2014

## 8.0 Water Quality

A limited water quality assessment of the project irrigation well was performed as part of this Hydrogeologic Assessment Report. In addition, a search for contaminated groundwater Sites within 1,000 feet of the irrigation well was performed on the States Geotracker Database. No contaminated groundwater Sites were identified within 1,000- feet of the project well. The water quality testing results for bacteria, nitrates, arsenic and other common contaminants are tabulated on below on **TABLE 5 – Water Quality Results** and the laboratory analytical report is attached in **APPENDIX D**.

**TABLE 5 – WATER QUALITY RESULTS for LOCATION / APN 027-050-022**

pH	Hardness (gpg)	Iron (ppm)	TDS (ppm)	Manganese (ppm)	Arsenic (µg/L)	Nitrate (µg/L)	E-Coli Bacteria	Total Coliform
7-8.5	<3.0	<0.3	<500	<0.05	<10	<10	<1.0	<1.0
gpg = grains per gallon								

## 9.0 CONCLUSIONS

The Site aquifer consists of sands and sediments that are consistent with the Wilson Grove Formation interfingering with the Franciscan Complex. Recharge to the aquifers likely occurs primarily from direct rainfall, near-Site ephemeral drainages and intermittent streams. The aquifers penetrated by wells within the Cumulative Impact Area have an estimated average thickness of ~86 feet extending over the 925-acre area. With an estimated aquifer specific yield of 15%, we estimate the total aquifer storage value of 11,933 acre-feet is available within the Cumulative Impact Area. The annual recharge to the aquifer is estimated to be 247-acre feet. The current annual water demand within the Cumulative Impact Area is conservatively estimated to be 54.25 -acre feet and future water demand in the CIA is estimated to be 72.68. The estimated annual water demand for the proposed cannabis cultivation including employees is 1.66-acre feet. However, almost two thirds of the annual cannabis irrigation water (1.05 acre-feet/year) will come from the applicants proposed rainwater capture and recycled water systems, leaving the total groundwater demand at approximately 0.61 acre-feet/year. The total annual water demand proposed for the Site including cannabis, landscaping, gardens and livestock use (~2. acre-feet/year) is sustainable based on current and future development within the Cumulative Impact Area.

In summary:

11,933	Aquifer storage in Cumulative Impact Area (acre-feet)
247	Annual Recharge to Aquifer (acre-feet)
123.5	Annual Recharge to Aquifer During Drought (acre-feet)
54.25	Current Annual Water Use in Cumulative Impact Area (acre-feet)
72.68	Future Potential Water Use in Cumulative Impact Area w/o Cannabis (acre-feet/yr.)
2.31	Total Annual Site Water Use (acre-feet)
1.66	Annual Water Use for Proposed Cannabis Project (acre-feet)
0.84	Annual Rainwater Capture and Storage (acre-feet)
0.20	Annual Recycled Water Use
0.61	Net Annual Groundwater Demand for Cannabis (acre-feet)

Based on the assumptions and estimates presented in this report, future development of available remaining land to the extent possible within the Cumulative Impact Area is not likely to create unsustainable groundwater demand in the Cumulative Impact Area. In addition, the groundwater demand proposed for the Site is not significant with respect to the potential future conditions (approx. 0.8%) in the Cumulative Impact Area. Therefore, the findings of this report indicate that pumping and groundwater extraction from the Site for the proposed cannabis project is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future.

Based on the findings of this report, pumping and groundwater extraction at the proposed Project Irrigation Well will not significantly impact neighboring wells or stream flow conditions in nearby creeks. In addition, based on the relative distance to the coastal areas, the depth of the Project Irrigation Well and the proposed water usage rates, salt water intrusion is not considered to be a concern to this Assessment.

## **10.0 Limitations**

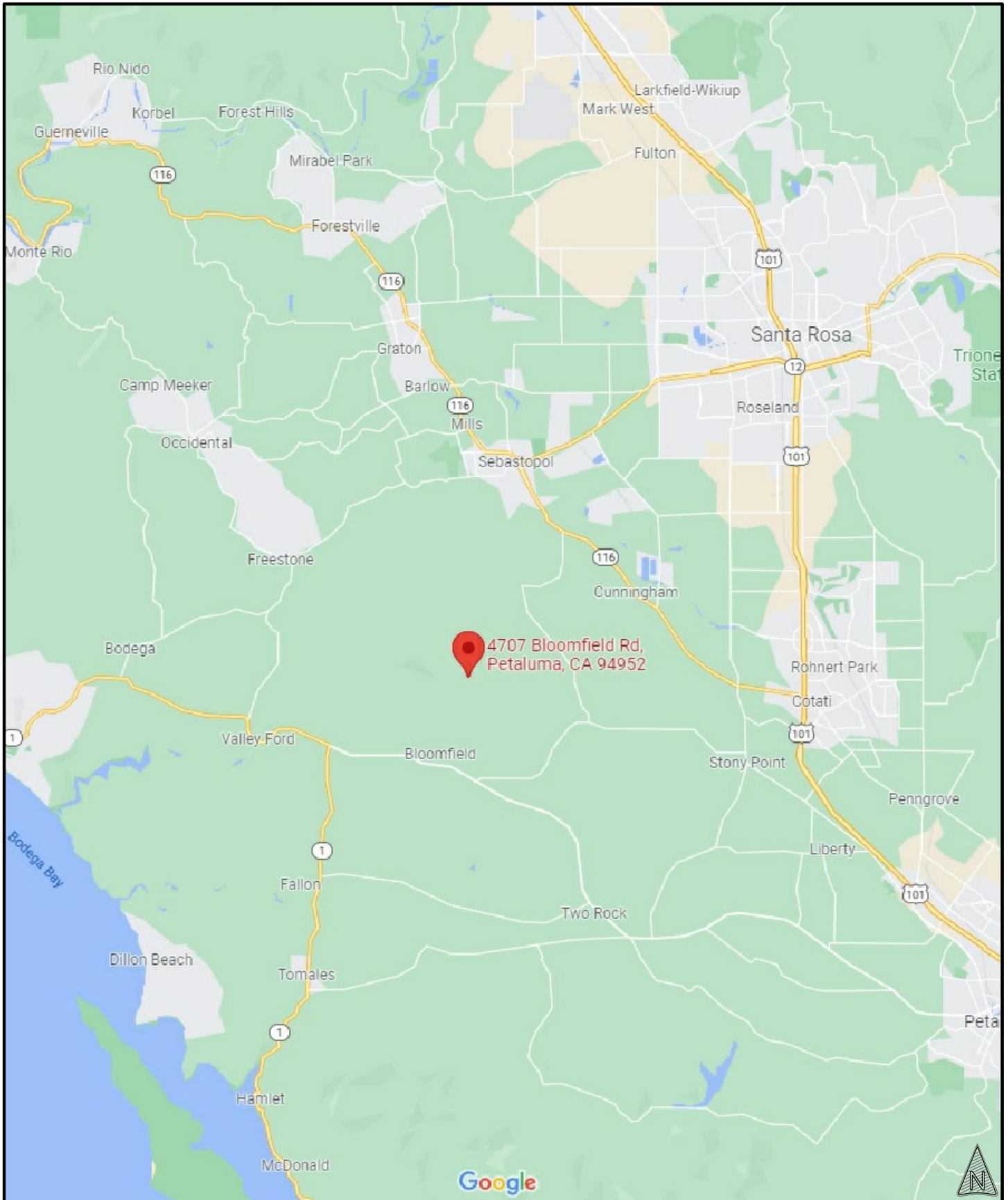
HES is not responsible for the independent conclusions, opinions or recommendations made by others based on the records review, site inspection, field exploration, laboratory test data and interpretations presented in this report.

Groundwater systems of Sonoma County are typically complex, and available data rarely allows for more than general assessment of groundwater conditions and delineation of aquifers. Hydrogeologic interpretations are based on the drillers' reports made available to us through the California Department of Water Resources, available geologic maps and hydrogeologic studies and professional judgment. This analysis is based on limited available data and relies significantly on interpretation of data from disparate sources of disparate quality.

It should be noted that hydro-geological assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated.

This study is not intended to assess if any soil contamination, waste emplacement, or groundwater contamination exists by subsurface sampling through the completion of soil borings and the installation of monitoring wells. The scope of work, determined by the client, did not include these activities.

This Report is for the exclusive use Michael Agins, his affiliates, designates and assignees and no other party shall have any right to rely on any service provided by Hurvitz Environmental Services without prior written consent.



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 CA PG# 7573

**SITE LOCATION MAP**  
 027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

JOB NUMBER: 5181.01
DATE: 12/20/21
PLATE: 1



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**SITE PLAN DETAIL**  
 027-050-022  
 4707 Bloomfield Road  
 Petaluma, CA 94952

JOB NUMBER: 5181.01
DATE: 01-18.22
PLATE: 3B



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**SITE PLAN**  
 027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

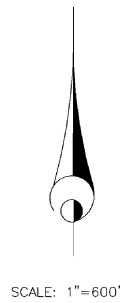
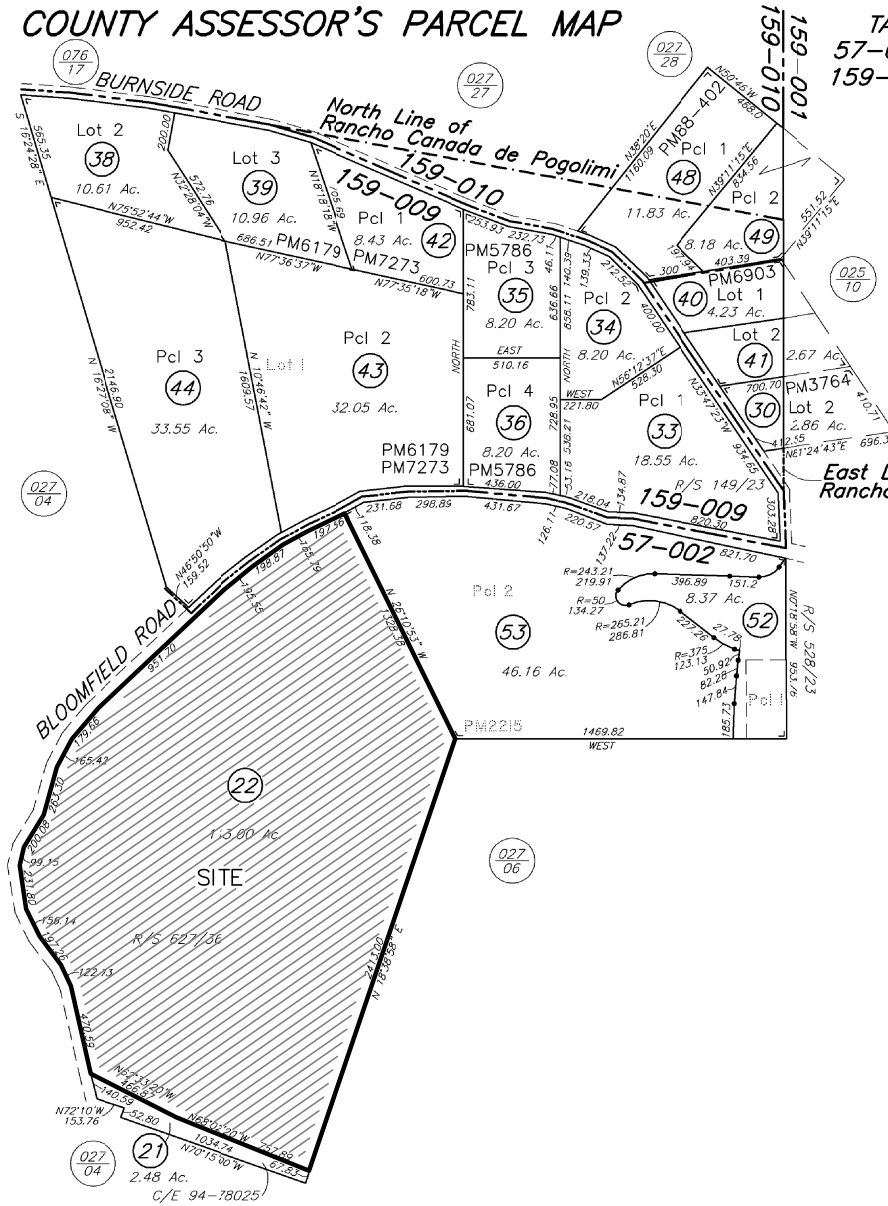
JOB NUMBER:  
**5181.01**  
 DATE:  
**12/20/21**  
 PLATE:  
**3A**

# COUNTY ASSESSOR'S PARCEL MAP

TAX RATE AREA  
57-002 159-001  
159-009 159-010

027-05

- Parcel Map No. 2215  
REC. 03-08-1971 IN BK.154 , MAPS, PGS. 29-00
- Ptn. Parcel Map No. 3764  
REC. 07-18-1973 IN BK.194 , MAPS, PGS. 06-00
- Parcel Map No. 5786  
REC. 06-09-1977 IN BK.253 , MAPS, PGS. 11-00
- Parcel Map No. 6179  
REC. 05-21-1979 IN BK.286 , MAPS, PGS. 44-00
- Ptn. Parcel Map No. 6903  
REC. 12-07-1979 IN BK.299 , MAPS, PGS. 05-00
- Parcel Map No. 7273  
REC. 06-22-1981 IN BK.323 , MAPS, PGS. 33-34
- Parcel Map No. 88-402  
REC. 09-19-1989 IN BK.443 , MAPS, PGS. 38-40



REVISED  
02-07-90=49-KR  
09-26-91=SUB-KT  
02-22-95=51-KT  
12-04-96=53-KT

NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps, recorded deeds, prior assessment maps, etc.)

NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.

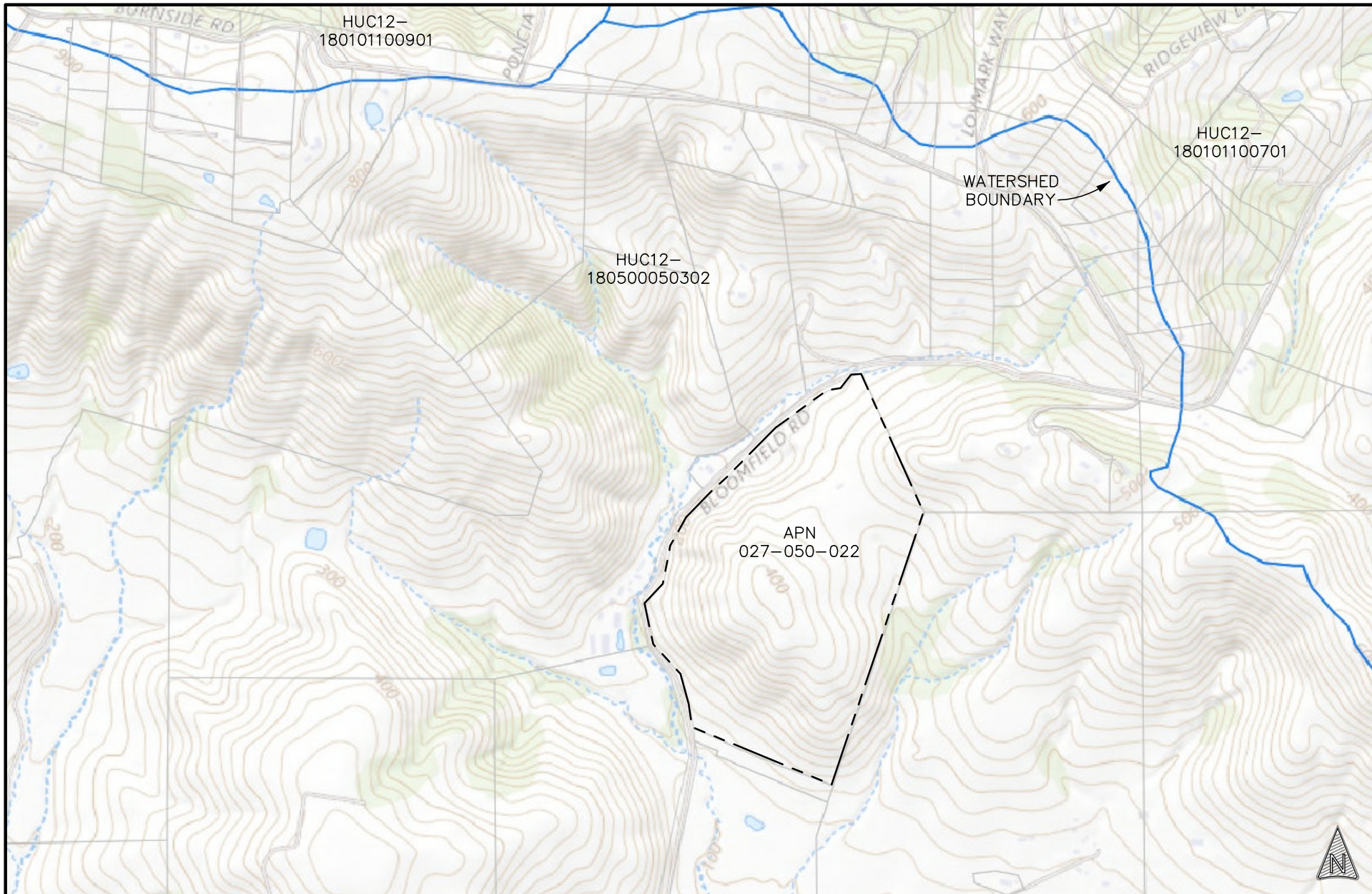
Assessor's Map Bk.027, Pg.05  
Sonoma County, Calif. (ACAD)  
KEY 04/16/2015 KR

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**ASSESSORS PARCEL MAP**

027-050-022  
4707 BLOOMFIELD RD  
PETALUMA, CALIFORNIA 94952

JOB NUMBER: <b>5181.01</b>
DATE: <b>12/20/21</b>
PLATE: <b>2</b>



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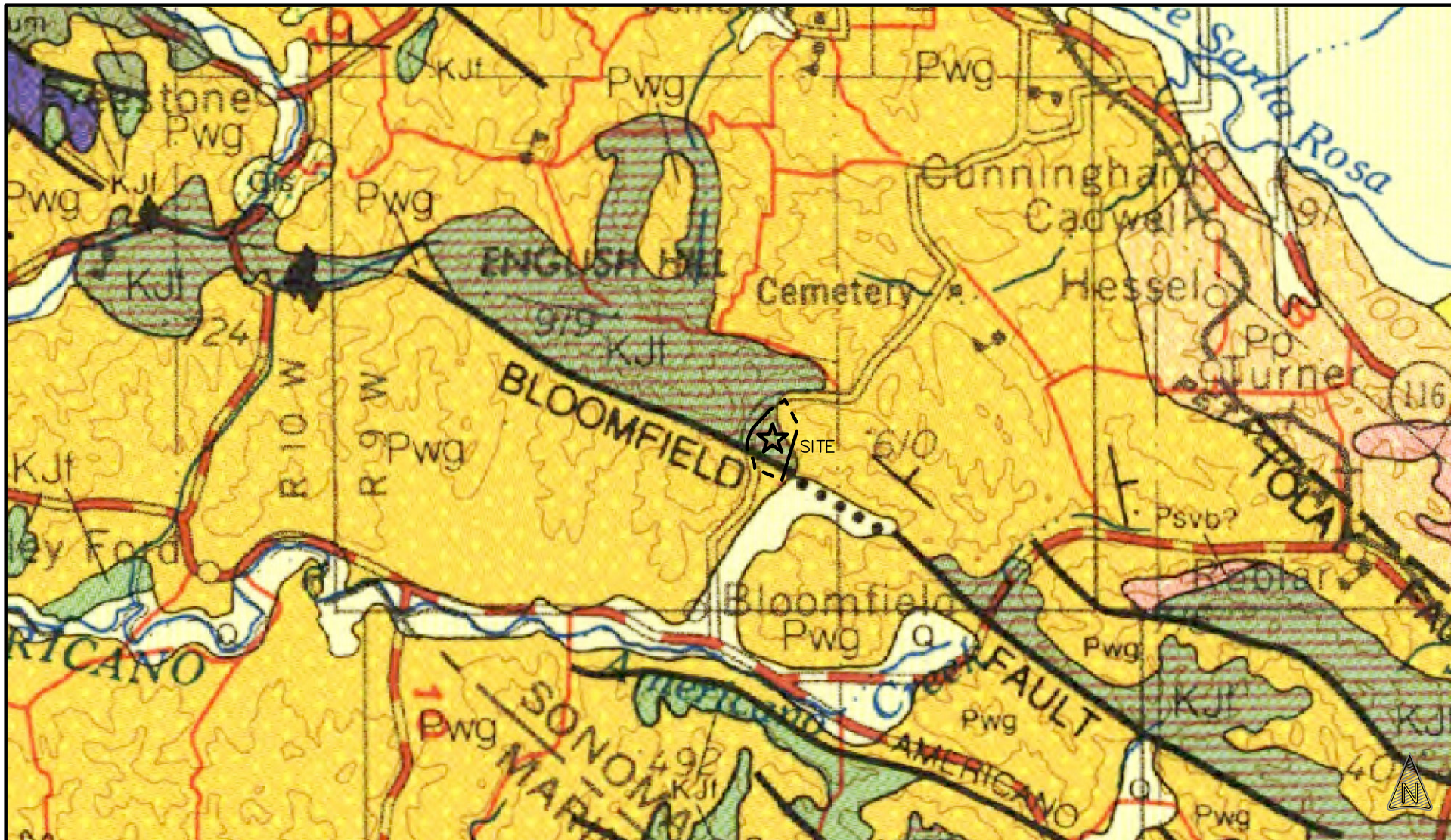
## TOPOGRAPHIC MAP

027-050-022  
4707 BLOOMFIELD RD  
PETALUMA, CALIFORNIA 94952

JOB NUMBER:  
5181.01

DATE:  
12/20/21

PLATE:  
3



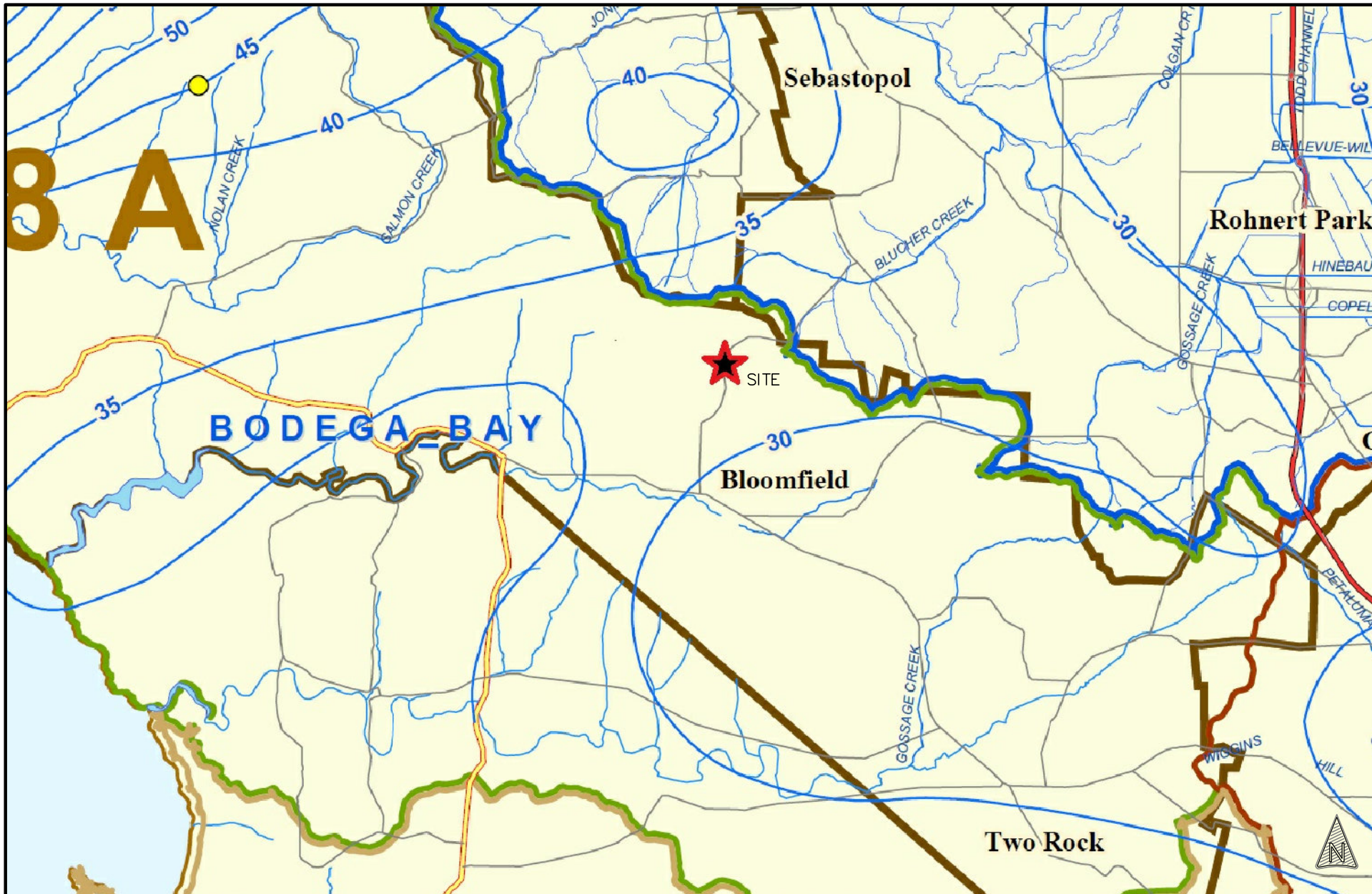
SOURCE: GEOLOGIC MAP OF THE SANTA ROSA QUADRANGLE, CALIFORNIA, 1:250,000, CALIFORNIA DIVISION OF MINES AND GEOLOGY, COMPILATION BY D.L. WAGNER AND E.J. BORTUGNO, PUBLISHED 1982.

Pwg - WILSON GROVE FORMATION: PLIOCENE AGED MARINE SANDSTONE, CONGLOMERATE AND TUFF. ALLUVIUM IN SMALL VALLEYS; SAND, GRAVEL, SILTS, AND CLAY.  
 Kjf - FRANCISCAN COMPLEX - JURASSIC AGED SANDSTONE, SHALE, CONGLOMERATE, CHERT, GREENSTONE, METAGRAYWACKE.

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**GEOLOGIC MAP**  
 027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

JOB NUMBER:  
**5181.01**  
 DATE:  
**12/20/21**  
 PLATE:  
**5**



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**PRECIPITATION MAP**

027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

JOB NUMBER:  
 5181.01

DATE:  
 12/20/21

PLATE:  
 6

**APPENDIX A**  
**PHOTOGRAPHIC LOG**

## SITE PHOTOGRAPHS



Photo 1: View of Irrigation well shed and associated concrete holding tank.

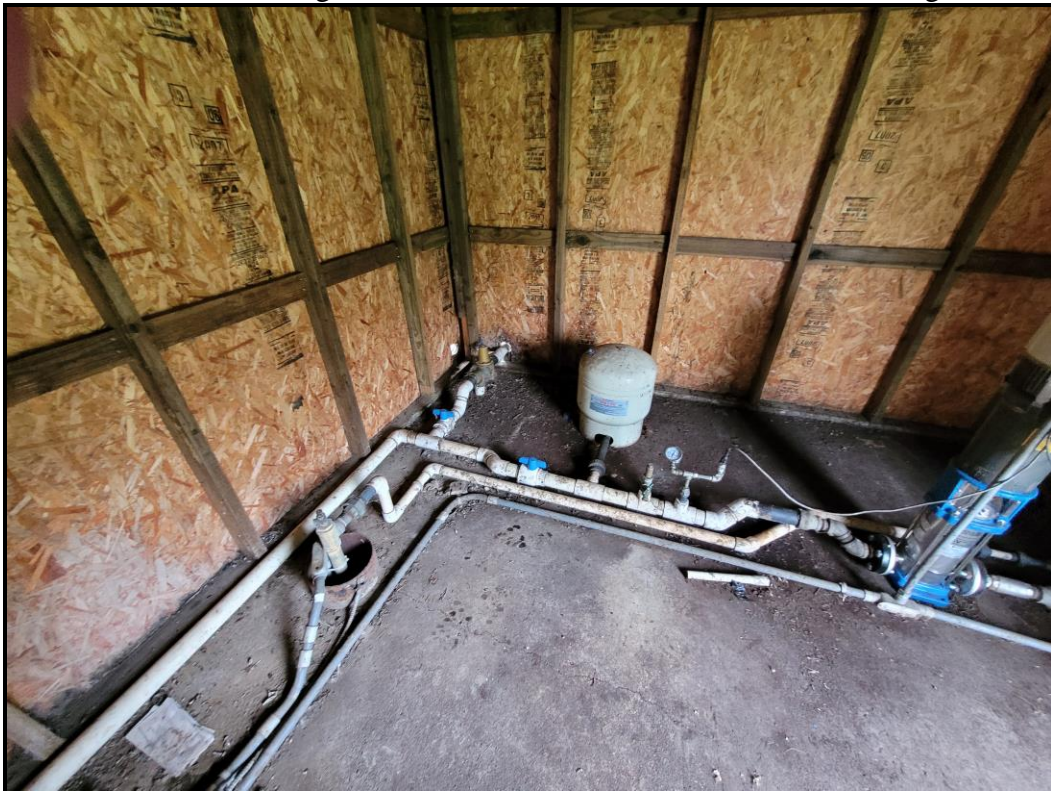


Photo 2: Closeup View of Project Irrigation Well.

SITE PHOTOGRAPHS



Photo 3: View of proposed greenhouse cultivation area.



Photo 3: View site drain feature located adjacent to the proposed cultivation areas.

SITE PHOTOGRAPHS



Photo 5: View of small recharge basin located south of cultivation area.



Photo 6: View of four (4) steel water tanks used to store water from the irrigation well.

SITE PHOTOGRAPHS

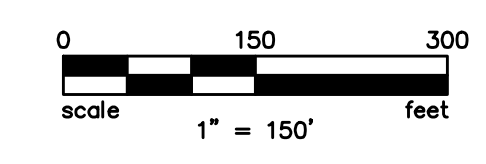


Photo 7: View of horse arena and stables located on the eastern portion of the site.



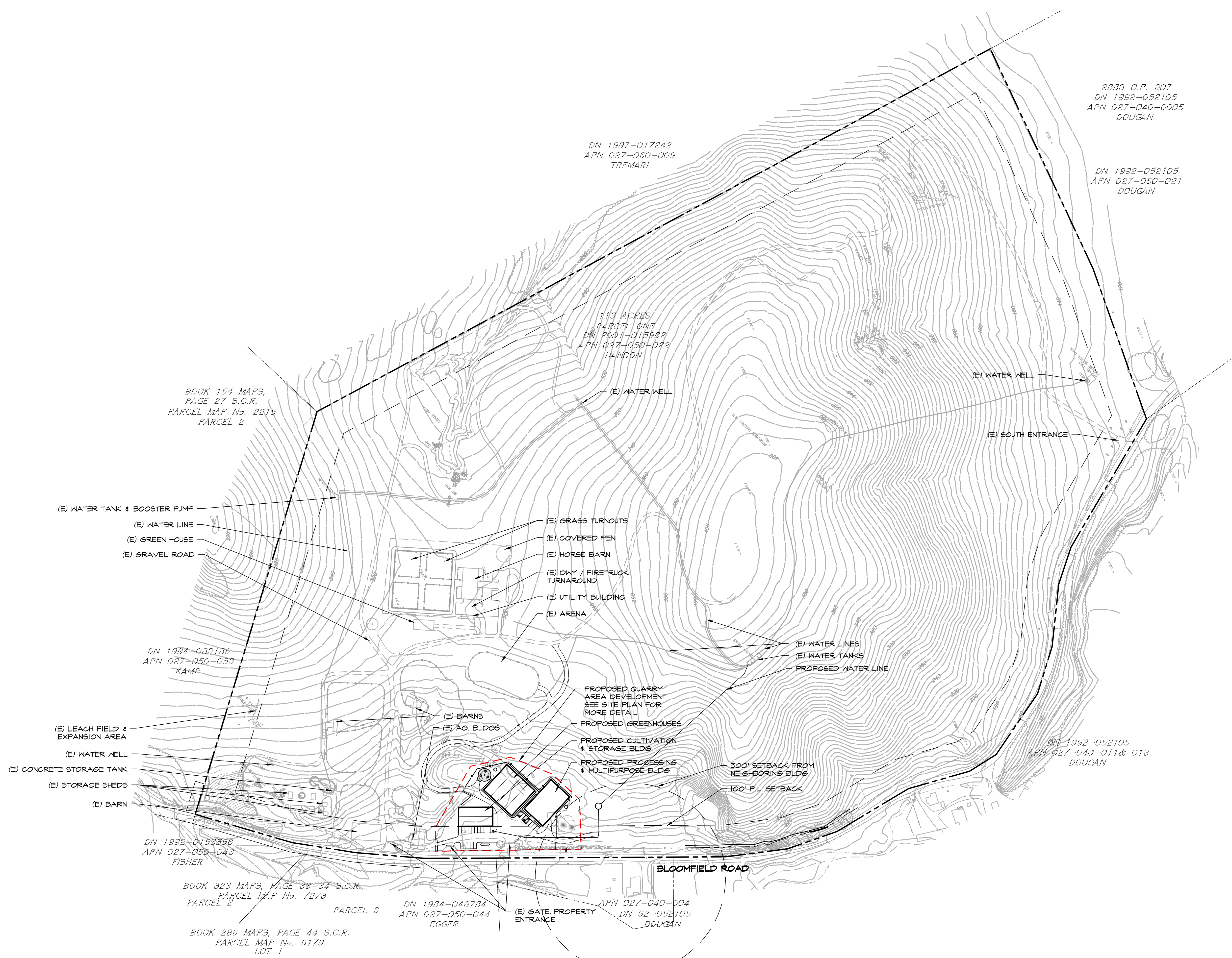
Photo 8: View of small greenhouse used for growing Microgreens.

**APPENDIX B**  
**ENGINEERED SITE PLANS**



**LEGEND**

AD	AREA DRAIN
AE	ACCESS EASEMENT
AS	AGRICULTURE
APN	ASSESSOR'S PARCEL NUMBER
BLDG	BUILDING
BSL	BUILDING SETBACK LINE
CB	CATCH BASIN
DI	DROP INLET
E	EXISTING
FC	FACE OF CURB
FD	FIELD DRAIN
FF	FINISH FLOOR
FS	FINISH SURFACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
HP	HIGH POINT
IFO	IN FAVOR OF
PAE	PRIVATE ACCESS EASEMENT
PDE	PRIVATE DRAINAGE EASEMENT
PG	PAD GRADE
PSE	PRIVATE SEW EASEMENT
PSE	PRIVATE SEWER EASEMENT
RS	ROCK SWALE
SD	STORM DRAIN
SS	SEWER SERVICE
TC	TOP OF CURB
TG	TOP OF GRATE
WM	WATER METER
WS	WATER SERVICE



OVERALL SITE  
MASTER PLAN  
**BLOOMFIELD  
FLOWERS**  
PETALUMA, CALIFORNIA

DECEMBER 04, 2020

SHEET 1 OF 1



CIVIL ENGINEERS • URBAN PLANNERS • LAND SURVEYORS • LANDSCAPE ARCHITECTS  
15 THIRD STREET, SANTA ROSA, CA 95401  
TEL (707) 542-6451 FAX (707) 542-5212

PROJECT No. 2001018.00

12/4/2020 4:16:46 PM Carlile\_Macley - 020012001018.00\Drawings\Map\Overall\_Site\_Plan.dwg [User: jmc] Plot File: 02018-04-CAD; 02018-04-CAD; 02018-04-CAD



**APPENDIX C**  
**WELL COMPLETION REPORTS (11 WELLS)**

STATE OF CALIFORNIA  
**WELL COMPLETION REPORT**

No. **807042**

DWR USE ONLY -- DO NOT FILL IN

**06M09W24**  
 STATE WELL NO. STATION NO.

LATITUDE				LONGITUDE			
APN / TRS / OTHER							

OWNER'S WELL No. 4780

Date Work Began 8/2/02 Ended 8/6/02

Local Permit Agency Sonoma

Permit No. WEL01-0544 Permit Date 9-21-2001

**GEOLOGIC LOG**

WELL OWNER

ORIENTATION Vertical Degree of Angle -----

DEPTH FROM SURFACE DEPTH TO FIRST WATER .....(ft.) BELOW SURFACE

Ft.	Ft.	DESCRIPTION
0	3	topsoil
3	12	yellow sandy clay
12	16	blue sandy clay
16	18	yellow sandy clay
18	45	blue sandy clay
45	50	sandstone
50	70	sandstone w/hard blue sandy clay
70	250	sandstone w/shale
250	300	shale

**WELL LOCATION**

Address 4707 Bloomfield Rd.  
 City Sebastopol County Sonoma  
 Apr Book 027 Page 050 Parcel 022  
 or Township ..... Range ..... Section ..... 1/4 ..... 1/4  
 or Latitude ..... NORTH Longitude ..... WEST  
 Deg. Min. Sec. LOCATION SKETCH Deg. Min. Sec.

TOTAL DEPTH OF BORING 300 (Feet)  
 TOTAL DEPTH OF COMPLETED WELL 297 (Feet)

ACTIVITY NEW WELL PLANNED USE(S) Domestic Water  
 DRILLING METHOD ROTARY AIR FLUID  
 DEPTH OF STATIC WATER LEVEL 140 (Ft.) & DATE MEASURED Aug 6, 2002  
 ESTIMATED YIELD \* 8 (G.P.M.) & TEST TYPE Air/W  
 TEST LENGTH. .4 (Hrs.) TOTAL DRAWDOWN 220 (FT.)  
 \*May not be representative of a well's long-term yield.

CASING						ANNULAR MATERIAL		
DEPTH FROM SURFACE Ft. To Ft.	BORE-HOLE DIA.	TYPE	Material / Grade	Dia.	Gauge Slot size	DEPTH FROM SURFACE Ft. To Ft.	Seal Material	Filter Pack (Type / Size)
0 - 30	10	Blank	F480 PVC	5	200	0 - 30	Bentonite	
30 - 160	7.5	Blank	F480 PVC	5	200	30 - 297		Gravel
160 - 297	7.5	Perfs	F480 PVC	5	200 1/32			1/4 X 1/8

- Attachments
- Geologic Log
  - Well Construction Diagram
  - Geophysical Logs
  - Soil Water Chemical Analyses
  - Other

**CERTIFICATION STATEMENT**  
 I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.  
 NAME Fisch Bros. Drilling, Inc.  
 (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)  
5001 Gravenstein Hwy No. Sebastopol CA 95472  
 Signed Scot Unterseher Carol Higgins 8-7-02 399226  
 WELL DRILLER / AUTHORIZED REPRESENTATIVE DATE SIGNED C- 57 LICENSE NUMBER



ORIGINAL  
File with DWR

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

Do not fill in

DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

No. 253891

License of Intent No. 245482  
Local Permit No. or Date 197-89

027 050

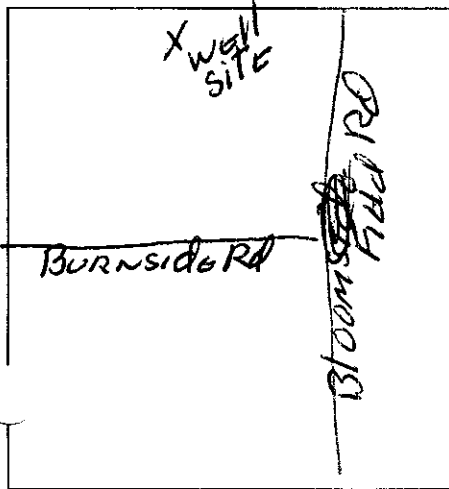
State Well No. \_\_\_\_\_  
Other Well No. 06N09W27

(12) WELL LOG: Total depth 323 ft. Completed depth 306 ft.  
from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions):

County Sonoma Owner's Well Number \_\_\_\_\_  
Well address if different from above 6445 Burnside Rd  
City/Township 027-050-36 Lot 26 Section Sebastopol  
Distance from cities, roads, railroads, fences, etc. 1/2 mile west  
of the intersection of Bloomfield Rd and Burnside Rd.

0 - 2 Top soil  
2 - 19 B2 SAND  
19 - 60 SOFT BLUE SANDSTONE  
60 - BLUE SANDSTONE, HARD LENSES



- (3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 12)

- (4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Municipal   
Other  (Describe)

- (5) EQUIPMENT:  
Rotary  Reverse   
Cable  Air   
Other  Bucket

- (6) GRAVEL RACK:  
Yes  No   
Diameter of bore 8  
Racked from 50 to 323

(7) CASING INSTALLED:

Steel <input type="checkbox"/>	Plastic <input type="checkbox"/>	Concrete <input type="checkbox"/>	
From ft.	To ft.	Dia. in.	Gage or Wall
0	306	5	200

(8) PERFORATIONS:

From ft.	To ft.	Slot size
196	306	.032

(9) WELL SEAL:  
Was surface sanitary seal provided? Yes  No  If yes, to depth 50 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing GROUT

Work started 6-19 1989 Completed 6-20 1989

(10) WATER LEVELS:  
Depth of first water, if known \_\_\_\_\_ ft.  
Standing level after well completion 70 ft.

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:  
Was well test made? Yes  No  If yes, by whom? Driller  
Type of test Pump Bailer  Air lift   
Depth to water at start of test 70 ft. At end of test 250 ft.  
Discharge 10 gal/min after 1 1/2 hours Water temperature \_\_\_\_\_  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Was electric log made? Yes  No  If yes, attach copy to this report

Signed G. Leray Irwin (Well Driller)  
NAME IRWIN WELL DRILLING  
Address 3801 BKS RD 1 NARE  
City FULTON, CA ZIP 95439  
License No. 458649 Date of this report 6-21-89

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

Do Not Fill In

**ORIGINAL** **CONFIDENTIAL LOG**  
File with DWR Water Code Sec. 13752  
DEPARTMENT OF WATER RESOURCES  
**WATER WELL DRILLERS REPORT**

**Nº 97484**

State Well No. \_\_\_\_\_  
Other Well No. **619427**

<p><b>(1) OWNER:</b></p> <p><b>(2) LOCATION OF WELL:</b> County <b>Sonoma</b> Owner's number, if any _____ Township, Range, and Section <b>N7W/ corner Burnside &amp; Bloomfield</b> Distance from cities, roads, railroads, etc. <b>Road, Sebastopol, Calif</b></p> <p><b>(3) TYPE OF WORK (check):</b> New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Destroying <input type="checkbox"/> If destruction, describe material and procedure in Item 11.</p> <p><b>(4) PROPOSED USE (check):</b> Domestic <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Municipal <input type="checkbox"/> Irrigation <input type="checkbox"/> Test Well <input type="checkbox"/> Other <input type="checkbox"/></p> <p><b>(5) EQUIPMENT:</b> Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Other <input checked="" type="checkbox"/> <b>Bucket</b></p> <p><b>(6) CASING INSTALLED:</b> STEEL: <input checked="" type="checkbox"/> OTHER: _____ SINGLE <input checked="" type="checkbox"/> DOUBLE <input type="checkbox"/></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Diam.</th> <th>Gage or Wall</th> <th>Diameter of Bore</th> <th>From ft.</th> <th>To ft.</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>56</td> <td>18"</td> <td>3/16</td> <td>30</td> <td>0</td> <td>56</td> </tr> </tbody> </table> <p>Size of shoe or well ring: _____ Size of gravel: <b>Pea</b></p> <p>Describe joint <b>welded</b></p> <p><b>(7) PERFORATIONS OR SCREEN:</b> Type of perforation or name of screen <b>Torch</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Perf. per row</th> <th>Rows per ft.</th> <th>Size in. x in.</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>56</td> <td>1</td> <td>10</td> <td>3/16 x 6</td> </tr> </tbody> </table> <p><b>(8) CONSTRUCTION:</b> Was a surface sanitary seal provided? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> To what depth <b>20</b> ft. Were any strata sealed against pollution? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, note depth of strata _____ From _____ ft. to _____ ft. From _____ ft. to _____ ft. Method of sealing <b>cement on pack</b></p> <p><b>(9) WATER LEVELS:</b> Depth at which water was first found, if known _____ ft. Standing level before perforating, if known _____ ft. Standing level after perforating and developing <b>39</b> ft.</p> <p><b>(10) WELL TESTS:</b> Was pump test made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, by whom? <b>Bail</b> d: <b>1</b> gal./min. with <b>15</b> ft. drawdown after _____ hrs. Temperature of water <b>cool</b> Was a chemical analysis made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Was electric log made of well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, attach copy _____</p>	From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.	0	56	18"	3/16	30	0	56	From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.	35	56	1	10	3/16 x 6	<p><b>(11) WELL LOG:</b></p> <p>Total depth <b>56</b> ft. Depth of completed well <b>56</b> ft. Formation: Describe by color, character, size of material, and structure</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> <tr> <td>0</td> <td>-</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Brown top soil</b></td> </tr> <tr> <td>3</td> <td>-</td> <td>25</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Brown sandy clay w/ streaks of grey and sandstone</b></td> </tr> <tr> <td>25</td> <td>-</td> <td>30</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Grey sandy clay w/ streaks of sandstone</b></td> </tr> <tr> <td>30</td> <td>-</td> <td>39</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Blue sand w/ streaks of sandstone</b></td> </tr> <tr> <td>39</td> <td>-</td> <td>40</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Blue sand and water</b></td> </tr> <tr> <td>40</td> <td>-</td> <td>55</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Blue sand w/ streaks of sandstone</b></td> </tr> <tr> <td>55</td> <td>-</td> <td>56</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><b>Blue sandstone</b></td> </tr> </table> <p>Work started <b>10-5-</b> 19 <b>72</b>, Completed <b>10-5-</b> 19 <b>72</b></p> <p><b>WELL DRILLER'S STATEMENT:</b> This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.</p> <p>NAME <b>Weeks Drilling and Pump Company</b> (Person, firm, or corporation) (Typed or printed)</p> <p>Address <b>6100 Sebastopol Road</b> <b>Sebastopol, Calif., 95472</b></p> <p>[SIGNED] <b>Gerald G. Thompson</b> (Well Driller) <i>Mary E. Thompson</i></p> <p>by <b>Mary E. Thompson</b></p> <p>License No. <b>177681</b> Dated <b>October 6, 1972</b>, 19____</p>											0	-	3							<b>Brown top soil</b>	3	-	25							<b>Brown sandy clay w/ streaks of grey and sandstone</b>	25	-	30							<b>Grey sandy clay w/ streaks of sandstone</b>	30	-	39							<b>Blue sand w/ streaks of sandstone</b>	39	-	40							<b>Blue sand and water</b>	40	-	55							<b>Blue sand w/ streaks of sandstone</b>	55	-	56							<b>Blue sandstone</b>
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SKETCH LOCATION OF WELL ON REVERSE SIDE

**CONFIDENTIAL LOG**  
Water Code Sec. 13752  
25179-950 9-68 50M TRIP AD OSP

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT 027 050 022

Do not fill in

No. 079758

Permit No. or Date 119-80

State Well No. Other Well No. 06N09W27L

(12) WELL LOG: Total depth 168 ft. Depth of completed well 168 ft. from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions): County Sonoma Owner's Well Number 27-05-22 4705 Bloomfield Rd. Well address if different from above Sebastopol Range Section Distance from cities, roads, railroads, fences, etc.

(3) TYPE OF WORK:

- New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

Table with 3 columns: Depth (ft.), Depth (ft.), Formation. Rows include: 0-1 Topsoil, 1-6 Sandy brown clay, 6-14 Sandy tan clay, 14-16 Sandy tan and brown clay, 16-29 Sandy blue clay with streaks of blue sandstone, 29-51 Sandy brown clay and clayey brown sand, 51-53 Sandy blue clay and clayey blue sand, 53-158 Clayey blue sand with occasional blue sandstone ledges, 158-168 Sandy gray clay.

WELL LOCATION SKETCH

(5) EQUIPMENT: Rotary [X] Reverse [ ] Cable [ ] Air [ ] Other [ ] Bucket [ ]

(6) GRAVEL PACK: Yes [X] No [ ] Size: Fine pea Diameter of bore 10 5/8, 8 3/4 Racked from 20 to 168 ft.

(7) CASING INSTALLED: Steel [ ] Plastic [X] Concrete [ ]

(8) PERFORATIONS: Saw cut Type of perforation or size of screen

Table with 7 columns: From ft., To ft., Dia. in., Gage or Wall, From ft., To ft., Slot size. Row 1: 0, 168, 6 5/8, C1200, 68, 128, 1/8 x 3. Row 2: 148, 168.

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 20 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval ft. Method of sealing Concrete on pack

(10) WATER LEVELS: Depth of first water, if known ft. Standing level after well completion 24 ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [X] Air lift [ ] Depth to water at start of test 24 ft. At end of test 148 ft. Discharge 13 gal/min after 2 1/2 hours Water temperature cool Local analysis made? Yes [ ] No [X] If yes, by whom? Electric log made? Yes [ ] No [X] If yes, attach copy to this report

Work started 4/25 1980 Completed 4/28 1980

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. SIGNED Gerald G. Thompson, By: Mary E. Thompson (Well Driller) NAME WEEKS DRILLING AND PUMP COMPANY (Person, firm, or corporation) (Typed or printed) Address 6100 Sebastopol Rd. City Sebastopol, CA Zip 95572 License No. C57-177681 Date of this report May 12, 1980

No 19423

State Well No. \_\_\_\_\_  
Other Well No. 6N/9W-27  
H80

CONFIDENTIAL LOG  
Water Code Sec. 13752

THE RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

<p>(1) OWNER:</p>				<p>(11) WELL LOG:</p> <p>Total depth <u>301</u> ft. Depth of completed well <u>301</u> ft.</p> <p>Formation: Describe by color, character, size of material, and structure</p> <p style="text-align: right;">ft. to _____ ft.</p>																																																																																							
<p>(2) LOCATION OF WELL:</p> <p>County <u>Sonoma</u> Owner's number, if any _____</p> <p>Township, Range, and Section _____</p> <p>Distance from cities, roads, railroads, etc. <u>1213 Bloomfield Rd.</u> <u>Sebastopol, Calif.</u></p>				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">0</td><td style="width:5%;">-</td><td style="width:5%;">1</td><td style="width:15%;">Topsoil</td></tr> <tr><td>1</td><td>-</td><td>11</td><td>Orange &amp; yellow sandy clay</td></tr> <tr><td>11</td><td>-</td><td>31</td><td>Orange &amp; brown sandstone</td></tr> <tr><td>31</td><td>-</td><td>38</td><td>Clayey blue sand</td></tr> <tr><td>38</td><td>-</td><td>65</td><td>Clayey &amp; Yellow Orange sand</td></tr> <tr><td>65</td><td>-</td><td>78</td><td>Orange &amp; brown sandy clay</td></tr> <tr><td>78</td><td>-</td><td>92</td><td>Cemented orange &amp; brown sand</td></tr> <tr><td>92</td><td>-</td><td>117</td><td>Clayey blue sand</td></tr> <tr><td>117</td><td>-</td><td>202</td><td>Cemented blue sand/ sandstone &amp; clamshell ledges</td></tr> <tr><td>202</td><td>-</td><td>213</td><td>Clayey blue sand</td></tr> <tr><td>213</td><td>-</td><td>223</td><td>Cemented blue sand</td></tr> <tr><td>223</td><td>-</td><td>228</td><td>Grey wackie rock</td></tr> <tr><td>228</td><td>-</td><td>241</td><td>Cemented blue sand</td></tr> <tr><td>241</td><td>-</td><td>249</td><td>Fractured blue sandstone</td></tr> <tr><td>249</td><td>-</td><td>262</td><td>Clayey blue sand</td></tr> <tr><td>262</td><td>-</td><td>273</td><td>Cemented blue sand/ sandstone ledges</td></tr> <tr><td>273</td><td>-</td><td>276</td><td>Very hard grey rock</td></tr> <tr><td>276</td><td>-</td><td>287</td><td>Cemented blue sand</td></tr> <tr><td>287</td><td>-</td><td>292</td><td>Very hard grey rock</td></tr> <tr><td>292</td><td>-</td><td>295</td><td>Cemented blue sand &amp; sandstone</td></tr> <tr><td>295</td><td>-</td><td>301</td><td>Very hard grey rock</td></tr> </table>				0	-	1	Topsoil	1	-	11	Orange & yellow sandy clay	11	-	31	Orange & brown sandstone	31	-	38	Clayey blue sand	38	-	65	Clayey & Yellow Orange sand	65	-	78	Orange & brown sandy clay	78	-	92	Cemented orange & brown sand	92	-	117	Clayey blue sand	117	-	202	Cemented blue sand/ sandstone & clamshell ledges	202	-	213	Clayey blue sand	213	-	223	Cemented blue sand	223	-	228	Grey wackie rock	228	-	241	Cemented blue sand	241	-	249	Fractured blue sandstone	249	-	262	Clayey blue sand	262	-	273	Cemented blue sand/ sandstone ledges	273	-	276	Very hard grey rock	276	-	287	Cemented blue sand	287	-	292	Very hard grey rock	292	-	295	Cemented blue sand & sandstone	295	-	301	Very hard grey rock
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<p>(8) CONSTRUCTION:</p> <p>Was a surface sanitary seal provided? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> To what depth <u>30</u> ft.</p> <p>Were any strata sealed against pollution? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, note depth of strata _____</p> <p>From _____ ft. to _____ ft.</p> <p>From _____ ft. to _____ ft.</p> <p>Method of sealing <u>Cement on pack</u></p>				<p>Work started <u>Nov. 19 70</u>. Completed <u>Nov. 21 70</u></p> <p>WELL DRILLER'S STATEMENT: <i>This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.</i></p> <p>NAME <u>WEEKS DRILLING &amp; PUMPING COMPANY</u> (Person, firm, or corporation) (Typed or printed)</p>																																																																																							
<p>(9) WATER LEVELS:</p> <p>Depth at which water was first found, if known _____ ft.</p> <p>Standing level before perforating, if known _____ ft.</p> <p>Standing level after perforating and developing <u>200</u> ft.</p>				<p>Address <u>6100 Sebastopol Road</u> <u>Sebastopol, Calif.</u></p> <p>[SIGNED] <u>Gerald G. Thompson</u> (Well Driller) <i>Mary E. Thompson</i></p> <p>By <u>Mary E. Thompson</u> License No. <u>177681</u> Dated <u>Nov. 25</u>, 19 <u>70</u></p>																																																																																							
<p>(10) WELL TESTS:</p> <p>Was pump test made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, by whom? <u>Bail</u></p> <p>Yield: <u>12</u> gal./min. with <u>80</u> ft. drawdown after _____ hrs.</p> <p>Temperature of water <u>cool</u> Was a chemical analysis made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Was electric log made of well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, attach copy _____</p>				<p>SKETCH LOCATION OF WELL ON REVERSE SIDE</p>																																																																																							

D  
E

Do not fill in

No. 37084

ORIGINAL

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

File with DWR

DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

State Well No. \_\_\_\_\_  
Other Well No. 6N/9W-26

Notice of Intent No. \_\_\_\_\_  
Local Permit No. or Date \_\_\_\_\_

025 100 020

(12) WELL LOG: Total depth 177 ft. Depth of completed well 177 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	- 1	Fill
1	- 2	Top soil
2	117	Brown sand stone with red streaks & layers of soft white sand stone.
117	172	Blue sand stone with many concretions (wet)
172	177	Hard blue Franciscan sand stone with white quartz stringers.

(2) LOCATION OF WELL (See instructions) Ar. #25-100-20  
 County Sonoma Owner's Well Number \_\_\_\_\_  
 Well address if different from above 4050 Bloomfield Rd.  
 Township Sebastopol Range \_\_\_\_\_ Section \_\_\_\_\_  
 Distance from cities, roads, railroads, fences, etc. 400 ft. north of intersection of Bloomfield Rd. & Burnside Rd. --- 600 ft. east of Burnside Rd.

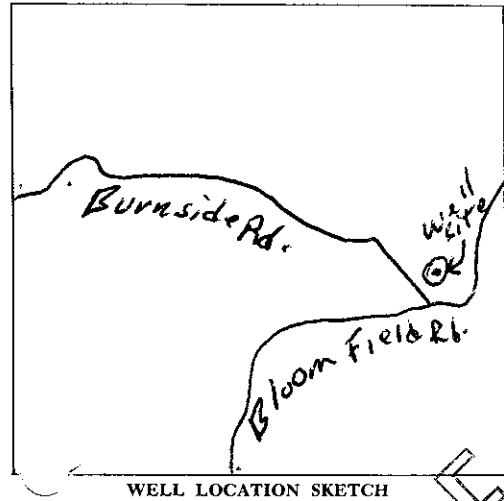
(3) TYPE OF WORK:

- New Well  Deepening
- Reconstruction
- Reconditioning
- Horizontal Well

Destruction  (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

- Domestic
- Irrigation
- Industrial
- Test Well
- Stock
- Municipal
- Other



(5) EQUIPMENT: Rotary  Reverse  Cable  Air  Other  Bucket

(6) GRAVEL PACK: Yes  No  Size 10 1/8" Diameter of bore 10 1/8" Packed from 86 to 120 ft.

(7) CASING INSTALLED: Steel  Plastic  Concrete  (8) PERFORATION: Machine cut  
 Type of perforation or size of screen \_\_\_\_\_

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	123	6 5/8"	.156	103	123	3/32" X 3"

(9) WELL SEAL: Was surface sanitary seal provided? Yes  No  If yes, to depth 86 ft.  
 Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
 Method of sealing 8 sack grout

(10) WATER LEVELS: Depth of first water, if known \_\_\_\_\_ ft.  
 Standing level after well completion 100 ft.

(11) WELL TESTS: Was well test made? Yes  No  If yes, by whom? Driller  
 Type of test Pump  Bailer  Air lift   
 Depth to water at start of test 100 ft. At end of test 177 ft.  
 Discharge 5+ gal/min after 2 hours Water temperature cool  
 Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
 Water log made? Yes  No  If yes, attach copy to this report

Work started 5/13/77 19\_\_\_\_ Completed 5/18/77 19\_\_\_\_

WELL DRILLER'S STATEMENT:  
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
 SIGNED Robert N. Foote Jr. (Well Driller)  
 NAME Ballard & Foote  
 Address 4625 Stoetz Lane  
 City Sebastopol, Calif. Zip 95472  
 License No. 311519 Date of this report 5/20/77

Aprox. well storage-- 115 gallons

Notice of Intent No. \_\_\_\_\_  
Local Permit No. or Date \_\_\_\_\_

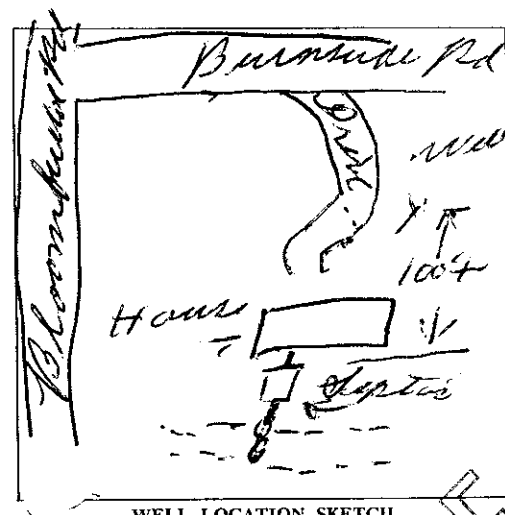
State Well No. \_\_\_\_\_  
Other Well No. 6N19W-26E

25 100 - 32

(12) WELL LOG: Total depth 195 ft. Depth of completed well 195 ft.  
from ft. to ft. Formation (Describe by color, character, size or material)

0	-	1	Sandy Soil
1	-	3	Red sandy clay
3	-	18	Brown "
18	-	31	Br Sand stone
31	-	76	Br Sandy clay
76	-	98	Sand stone
98	-	195	Grey Sand stone with hard streak

(2) LOCATION OF WELL (See instructions):  
County Sonoma Owner's Well Number \_\_\_\_\_  
Well address if different from above 6750 Burnside Rd. Sect. 5  
Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_  
Distance from cities, roads, railroads, fences, etc. 3/4 mile from Bloomfield Rd. Sect. 5



(3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 1)  
(4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Stock   
Municipal   
Other

(5) EQUIPMENT:  
Rotary  Reverse   
Cable  Air   
Other  Bucket

(6) GRAVEL PACK:  
Yes  No  Size \_\_\_\_\_  
Diameter of bore \_\_\_\_\_  
Packed from \_\_\_\_\_ ft.

(7) CASING INSTALLED:  
Steel  Plastic  Concrete

From ft.	To ft.	Dia. in.	Gage or Wall
0	102	8 1/2	188

(8) PERFORATIONS: none

From ft.	To ft.	Slot size
None	None	None

(9) WELL SEAL:  
Was surface sanitary seal provided? Yes  No  If yes, to depth 20 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing Concrete

(10) WATER LEVELS:  
Depth of first water, if known 110 ft.  
Standing level after well completion 105 ft.

(11) WELL TESTS:  
Was well test made? Yes  No  If yes, by whom? \_\_\_\_\_  
Type of test Pump  Bailor  Air lift   
Depth to water at start of test 105 ft. At end of test 135 ft.  
Discharge 10 gal/min after 2 1/2 hours Water temperature Cold  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Electric log made? Yes  No  If yes, attach copy to this report

Work started 4/12 1977 Completed 4/22 1977

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
SIGNED August Orsolini (Well Driller)  
NAME ORSOLINI WELL DRILLING  
(Person, firm, or corporation) (Typed or printed)  
Address 1270 FULTON RD  
City SANTA ROSA, CALIF Zip 95401  
License No. 211747 Date of this report 5/24/77

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

Do not fill in

No. 109960

Permit No. or Date

State Well No.

Other Well No. 6N/9W-23

(2) LOCATION OF WELL (See instructions): 27-270-17 County Sonoma Owner's Well Number 6107 Burnside Rd. Township Sebastopol Range Section Distance from cities, roads, railroads, fences, etc.

(12) WELL LOG: Total depth 210 ft. Depth of completed well 210 ft. from ft. to ft. Formation (Describe by color, character, size or material) 0-1 topsoil 1-8 sandy brown clay and clayee brown sand 8-17 clayee brown sand 17-18 stiff brown clay 18-23 clayee brown sand & sandy brown clay 23-27 clayee brown sand 27-57 clayee tan sand 57-61 clayee tan and orange sand, stks. of blue sand 61-68 clayee blue sand w/stks. of blue sandstone 68-77 blue sand w/stks. of blue sandstone 77-97 clayee brown sand 97-203 blue sand w/occ. stks. of blue sandstone 203-210 sticky sandy blue clay 210 hard blue rock

(3) TYPE OF WORK: New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

WELL LOCATION SKETCH

(5) EQUIPMENT: Rotary [X] Cable [ ] Other [ ] Reverse [ ] Air [ ] Bucket [ ] (6) GRAVEL PACK: Yes [X] No [ ] Size 3/8 pea Diameter of bore 50 to 210 ft. Raked from

(7) CASING INSTALLED: Steel [X] Plastic [ ] Concrete [ ] (8) PERFORATIONS: Type of perforation or size of screen From ft. To ft. Dia. in. Gauge or Wall 0 210 5/8 .156 130 210 3/16 x 6

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 50 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval Method of sealing concrete on pack

(10) WATER LEVELS: Depth of first water, if known ? ft. Standing level after well completion ? ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [ ] Air lift [ ] Depth to water at start of test ? ft. At end of test 190 ft. Discharge 4 gal/min after 3 hours Water temperature cool Local analysis made? Yes [ ] No [X] If yes, by whom? Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. SIGNED Gerald Thompson by Mary Thompson (Well Driller) NAME Weeks Drilling & Pump Co. (Person, firm, or corporation) (Typed or printed) Address 6100 Sebastopol Rd. City Sebastopol, Calif. License No. 177681 Date of this report 6/29/77 Completed 6/30/77

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

Do not fill in No. 080410

of Intent No. Permit No. or Date 460-80

State Well No. Other Well No. 06N09W22Q

(2) LOCATION OF WELL (See instructions): County Sonoma Owner's Well Number 027-270-26 Well address if different from above 6323 Burnside Rd. Township Sebastopol Range 09W Section Distance from cities, roads, railroads, fences, etc.

(12) WELL LOG: Total depth 160 ft. Depth of completed well 160 ft. from ft. to ft. Formation (Describe by color, character, size or material) 0 - 3 Topsoil 3 - 110 Brown sandstone 110 - 120 Blue sandstone 120 - 152 Blue sandstone with some hard ledges 152 - 160 Hard gray rock

(3) TYPE OF WORK: New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

WELL LOCATION SKETCH (5) EQUIPMENT: Rotary [X] Reverse [ ] Cable [ ] Air [ ] Other [ ] Bucket [ ] (6) GRAVEL PACK: Yes [X] No [ ] Size Fine Pea Diameter of bore 10 5/8 9/8 Racked from 40 to 160 ft (7) CASING INSTALLED: Steel [ ] Plastic [X] Concrete [ ] (8) PERFORATIONS: Type of perforation or size of screen From ft. To ft. Dia. in. Gage or Wall From ft. To ft. Slot size 0 160 65/8 C1160 120 160 1/8 x 3

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 40 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval ft. Method of sealing Concrete on pack

(10) WATER LEVELS: Depth of first water, if known ft. Standing level after well completion 97 ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [X] Air lift [ ] Depth to water at start of test 97 ft. At end of test 155 ft. Discharge 7 gal/min after 1 1/2 hours Water temperature cool Chemical analysis made? Yes [ ] No [X] If yes, by whom? Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

Work started 9/23 19 80 Completed 9/24 19 80 WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best knowledge and belief. SIGNED: Gerald G. Thompson, By: Ward Thompson (Well Driller) NAME: WEEKS DRILLING AND PUMP COMPANY (Person, firm, or corporation) (Typed or printed) Address: P. O. Box 176 Sebastopol, CA Zip 95472 License No. C57-177681 Date of this report Oct. 2, 1980

**ORIGINAL**  
**File with DWR**

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
**WATER WELL DRILLERS REPORT**

Do not fill in  
**No. 050385**

Permit No. or Date 62-80

State Well No. \_\_\_\_\_  
Other Well No. 06N09W22

(2) **LOCATION OF WELL** (See instructions):  
County Sonoma Owner's Well Number 27-005-24  
Well address if different from above: 6605 Burnside Rd.  
Township Sebastopol Range \_\_\_\_\_ Section \_\_\_\_\_  
Distance from cities, roads, railroads, fences, etc. \_\_\_\_\_

(12) **WELL LOG:** Total depth 290 ft. Depth of completed well 276 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	1	Topsoil
1	9	Sandy brown clay & clayee sand
9	33	Brown sandstone
33	63	Brown sandstone w/stks blue sandstone & clayee brown sand
63	68	Blue sandstone
68	86	Brown sandstone & clayee sand
86	154	occ trace shells clayee blue sand & clayee sand
154	262	hard blue rock
162	273	clayee blue sand & sandstone
273	279	clayee blue sand w/sandstone ledges
279	285	clayee blue sand w/sandstone ledges
285	290	hard gray rock

(3) **TYPE OF WORK:**  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 12)

(4) **PROPOSED USE:**  
Domestic   
Irrigation   
Industrial   
Test Well   
Stock   
Municipal   
Other

**WELL LOCATION SKETCH**

(5) **EQUIPMENT:**  
Rotary  Reverse   
Cable  Air   
Other  Bucket

(6) **GRAVEL PACK:**  
Yes  No  Size fine pea  
Diameter of bore 10 5/8 - 11 7/8  
Packed from 30 to 276 ft.

(7) **CASING INSTALLED:**  
Steel  Plastic  Concrete

(8) **PERFORATIONS:** saw cut  
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	282	6 5/8	c1200	151	174	1/8x3
				191		"
				231		"

(9) **WELL SEAL:**  
Was surface sanitary seal provided? Yes  No  If yes, to depth 30 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing concrete on pack

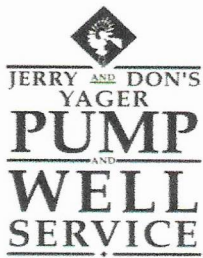
(10) **WATER LEVELS:**  
Depth of first water, if known \_\_\_\_\_ ft.  
Standing level after well completion 140 ft.

(11) **WELL TESTS:**  
Was well test made? Yes  No  If yes, by whom? Weeks  
Type of test Pump  Bailer  Air lift   
Depth to water at start of test 140 ft. At end of test 255 ft.  
Flow rate 5 gal/min after 2 hours Water temperature cool  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Was electric log made? Yes  No  If yes, attach copy to this report

Work started 3-17- 1980 Completed 3-19- 1980

**WELL DRILLER'S STATEMENT:**  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
SIGNED Gerald Thompson by: Mary Thompson  
(Well Driller)  
NAME Weeks Drilling & Pump Co.  
(Person, firm, or corporation) (Typed or printed)  
Address 6100 Sebastopol Rd.  
City Sebastopol, CA Zip 95472  
License No. 057-177681 Date of this report 3-20-80

**APPENDIX D**  
**WELL YIELD TEST**



**Jerry & Don's Yager Pump and Well**  
 1290 Bodega Ave - Petaluma, CA 94952  
 Ph: 707-762-1473 Fax: 707-769-9102  
 License: C-36, C-57 424778

## WELL TEST REPORT

### CUSTOMER INFORMATION

REPORT#:	1493
DATE OF TEST:	09/08/21
CUSTOMER NAME:	Bloomfield Farms
AGENT NAME:	Mike Agins
PROPERTY ADDRESS:	4707 Bloomfield Rd., Petaluma, CA 94952
MAILING ADDRESS:	
CONTACT:	Mike Agins
CONTACT PHONE:	(415) 515-1713
EMAIL:	
FAX:	

### WELL DATA

LOCATION OF WELL:	38° 19' 50" N, 122°50' 42" N
TYPE OF WELL:	Drilled
WELL DEPTH:	296'
CASING SIZE & TYPE:	5" Steel
SANITARY WELL SEAL	Yes
PUMP HP & TYPE:	1 ½ hp - 10GS15
PUMP SETTING:	280'
PUMP STATIC PRESSURE:	140 psi
PRESSURE TANK MODEL:	N/A

### WATER PRODUCTION OPERATING PRESSURE

### RESULTS

WATER LEVEL AT START (STATIC LEVEL):	48'
WATER LEVEL DRAWDOWN:	40'
STABILIZED PUMPING LEVEL:	88'
FINAL PUMPING LEVEL:	88'
DURATION OF CONSTANT PUMPING LEVEL:	6 hours 10 minutes
FLOW RATE OPEN DISCHARGE:	22 GPM
TOTAL LENGTH OF TEST:	8 hours 10 minutes
STABILIZED FLOW RATE (YIELD):	4.0 GPM
TOTAL YIELD - GALLONS:	2,167-gallons

### SYSTEM INSPECTION

### CONDITION

BOOSTER PUMP MODEL:	3SVB1H5CO	
ELECTRICAL:		Good
BOOSTER TANK MODEL:	WX-201	
OPERATING PRESSURE SETTING:	130 psi	
BOOSTER PUMP CAPACITY:		
STORAGE TANK TYPE & SIZE:	(4) 5,000-gal Concrete	
WATER TREATMENT EQUIP:	N/A	

## WATER SAMPLE TESTING

PARAMETER	DATE COLLECTED	RESULTS		RECOMMENDED LEVELS
		Raw	Treated	
HARDNESS	N/A			Less than 3 G.P.G.
PH	N/A			7.0 to 8.5
IRON	N/A			Less than 0.3 P.P.M.
T.D.S.	N/A			Less than 500 P.P.M.
MANGANESE	N/A			Less than 0.05 P.P.M.
ARSENIC	N/A			<10ug/L-EPA Recommended Limit
NITRATE	N/A			<10mg/L-Reported as N -EPA Recommended Limit
VISUAL APPEARANCE	N/A			

## BACTERIA

COLIFORM	N/A			<1.0 Safe to Consume
E. COLI	N/A			<1.0 Safe to Consume

## COMMENTS

**Test completed by Technician: Jacob Emsweiler**

**APPROVED BY: JIM MICKELSON**

This report is for informational use only. It is in lieu of, and supersedes any other representation or statements of the agents or employees of the company, and all other such representations or statements shall be relied upon at the Customer's own risk. The data and conclusions provided herein are based upon the best information available to the company using standard and accepted practices of the water well drilling Industry. However, conditions in water well are subject to dramatic changes even in short periods of time. Therefore, the data and conclusions are valid only as of the date of the test or installation indicated, and should not be relied upon to predict either the future quality or quantity of water that the well will produce. The company makes no warranties, either express or implied, as to such future water production, and expressly disclaims and excludes any liability for consequential or incidental damages arising out of the breach of any express or implied warranty of future water production, or out of any further use of this report by the customer.



CERTIFICATION OF WATER YIELD IN WATER SCARCE AREAS

WLS-010

Permit Sonoma shall be notified 24 hours in advance of this test

Water Yield Number \_\_\_\_\_ Well Permit Number Wel 21-0414

- 1. Individual performing test: Jacob Emschweiler
2. Type of license/registration, number and expiration date: CAL. LIC. C57-424778
3. Location of well:
4. Address: 4707 Bloomfield Rd., Petaluma, CA 94952 APN:
5. Type and model of test pump: 10LS15
6. Test pump setting depth: 280'
7. Maximum reported yield for this pump type at this setting:
8. Type of discharge measurement method: 1 1/4" pipe
9. Type and model of flow meter (or provide an accurate description of weir or orifice plate): Badger 1" NSF61

10. Geographic coordinates (Plane Coordinate Method or distance from fixed landmarks): 38°19' 50" N, 122° 50' 42" W

11. Estimated elevation of well head: 130 ft.

12. Initial static water level (include measuring points such as top of casing, surface seal, access port): 48' from top of casing

13. Date & time of initial static water level measurement: 09 / 08 / 21 8:45am AM/PM

- a. Discharge Rate: 4.0 GPM
b. Dynamic Water Level: 88'
c. Specific Capacity: 0.1
d. Pump Test duration: 8 hours

14. Immediately after the test take the following measurements:
a. Dynamic water level: 88'
b. Final discharge rate: 4.0 GPM

15. Post - Test Measurement:
a. Dynamic water level: 88'
b. Static water level: 36' 7"
c. Percentage of recovery of final static level: 100%

Testing performed by (signature): [Signature] Date: 09/08/2021

Company Jerry & Don's Yager Pump & Well Phone Number: (707) 762-1473

Specialist \_\_\_\_\_ Date \_\_\_\_\_

Approved [ ] Denied [ ]

**CERTIFICATION OF WATER YIELD IN WATER SCARCE AREAS**

**WLS-010**

**WELL PUMP TEST DATA RECORDATION**

ADDRESS:

Date	Time	Interval	SWL	GPM	Comments
09/0/21	9:55	1 Min	48'	22.5	Meter Reading: 63,769
	9:56	1 Min	61.5	22.5	
	9:57	1 Min	74.6'	22.0	
	9:58	1 Min	89.4'	21.1	
	9:59	1 Min	103.1'	19.2	
					Pumped off at 10:02
	10:05	5 Mins	144.7'	3.2	Pumped 232-gallons
	10:10	5 Mins	134.2'	3.2	
	10:15	5 Mins	128.6'	3.2	
	10:20	5 Mins			
	10:25	5 Mins	112.4'	4.4	
	10:30	5 Mins		4.4	
	10:35	5 Mins	108.3'	4.5	
	10:40	5 Mins	106'	4.5	
	10:45	5 Mins	104'	4.5	
	10:50	5 Mins	98.2'	4.5	
	10:55	5 Mins	99'	4.5	
	11:00	5 Mins	94.2'	4.5	
	11:20	20 Mins	88'	4.0	
	11:40	20 Mins	88'	4.0	
	12:00	20 Mins	88'	4.0	
	12:30	30 Mins	88'	4.0	
	1:00	30 Mins	88'	4.0	
	1:30	30 Mins	88'	4.0	
	2:00	30 Mins	88'	4.0	
	2:30	30 Mins	88'	4.0	
	3:00	30 Mins	88'	4.0	
	3:30	30 Mins	88'	4.0	
	4:00	30 Mins	88'	4.0	
	4:30	30 Mins	88'	4.0	
	5:00	30 Mins	88'	4.0	
	5:30	30 Mins	88'	4.0	
	6:00 pm	30 Mins	88'	4.0	Test Completed
		30 Mins			Meter Reading: 65,936
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
09/10/21	6:50 am	72 Hrs. or	36.7'		48.8 hrs from completion of pump test

**CALCULATION OF WELL RECOVERY**

**(Worksheet example taken from Permit Sonoma Number 9-2-28)**

1. Determine the water level draw down by subtracting the initial static water level measurement from the stabilized pumping level. Record this result as the well draw down.
2. Next determine the water level recovery by subtracting the post test (within 72 hours) static water level from the stabilized dynamic pumping level. Record this result as the well recovery.
3. Next determine the percent recovery of the well. Divide the water level recovery by the water level draw down and multiply by 100. Record this result as the percent well recovery.

Example:

a.	Initial static water level:	(measured value)	48'
b.	Post test static water level*:	(measured value)	48'
b.1.	Time (hours) of measurement:	(within 72 hours)	8 hours
c.	Stabilized pumping level**:	(measured value)	88'
d.	Draw down:	(calculate by subtracting A from C)	40'
e.	Recovery:	(calculate by subtracting B from C)	40
f.	Percent recovery:	(calculate by dividing E by D and multiplying result by 100)	100%

Well percent recovery (F) must be 90% or greater within a 72 hour period.

\* The static water level after 72 hours or less post pump test.

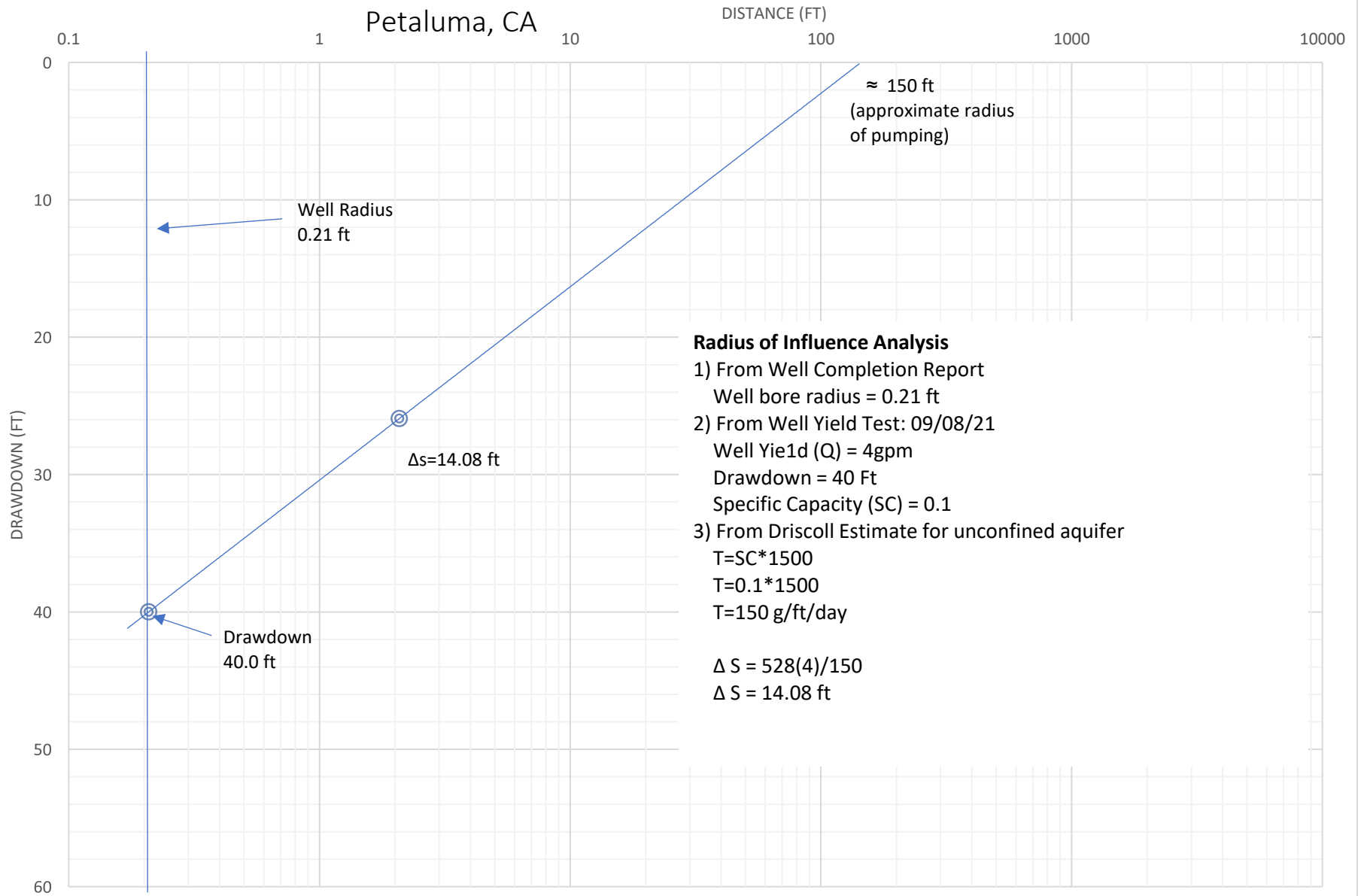
\*\* Kleinfelder refers to this as the dynamic pumping level.

**APPENDIX E**  
**RADIUS OF PUMPING INFLUENCE**

# Radius of Pumping Influence

4707 Bloomfield

Petaluma, CA





January 13, 2021  
Job No. 2554.2

Permit Sonoma  
Attention: Crystal Acker  
2550 Ventura Avenue  
Santa Rosa, CA 95403

Geotechnical Consultation  
APN 027-050-022  
UPC19-0012  
4707 Bloomfield Road  
Petaluma, California

This letter provides comments regarding the proposed use of the subject property, as requested by the applicant Bloomfield Flowers LLC. We understand that the use permit proposes to develop the former quarry area for cannabis use. We have been requested to confirm that landowner's previous use of the property was a quarry and provide comments regarding permeability of the near surface materials.

We have performed geotechnical engineering services elsewhere on the property since 2008. We performed a site specific geotechnical investigation in 2018 for the maintenance and potential development at the former quarry site. In addition, we intermittently observed site grading operations during removal of a thin layer of weak soils and placement of fill materials.

The quarry work either exposed firm, generally impervious bedrock, or left less than 6 inches of soil over the bedrock. We observed equipment parked at the site at the time our 2018 investigation. Indications of other uses for the site were not observed and were not provided to us during our services.

During grading, the weak soils were removed and recompacted and imported fill placed. The imported fill was also compacted. Compacted fill is considered to be low permeability. The grading work performed did not increase site permeability characteristics. We judge that improvements will not create a net increase of impervious surface considering: 1) the presence of existing bedrock; 2) the subsequent grading work and compacted fill; and 3) the proposed project site is comprised of hardscape (i.e. slabs, sidewalks, pavements, etc.) and construction of structures.

Westside Center  
6470 Mirabel Road  
Post Office Box 460  
Forestville, CA 95436  
707.887.2505

UPC19-0012  
4707 Bloomfield Road  
Job No. 2554.2  
January 13, 2021  
Page 2

We trust this provides the information you require at this time. If you have questions or wish to discuss this further, please call.

Very truly yours,

**BAUER ASSOCIATES, INC.**



Arthur H. Graff  
Geotechnical Engineer



AHG/BB (cnslt/bloomfield rd)  
Email: Mr. Michael Agins



County of Sonoma  
Permit & Resource Management Department  
2550 Ventura Avenue, Santa Rosa, CA 95403  
(707) 565-1900 FAX (707) 565-1103

## ***Mitigated Negative Declaration***

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Publication Date:	4/22/2024
Public Review Period:	4/22 – 5/22/2024
State Clearinghouse Number:	2024040916
Permit Sonoma File Number:	UPC19-0012
Prepared by:	Haleigh Frye
Phone:	(707) 565-2477

Pursuant to Section 15071 of the State CEQA Guidelines, this proposed Negative Declaration and the attached Expanded Initial Study, including the identified mitigation measures and monitoring program, constitute the environmental review conducted by the County of Sonoma as lead agency for the proposed project described below:

<b>Project Name:</b>	UPC19-0012; Bloomfield Flowers LLC (Cannabis Cultivation)
<b>Project Applicant/Operator:</b>	Michael Agins, Owner and CEO of Bloomfield Flowers, LLC
<b>Project Location/Address:</b>	4707 Bloomfield Road, Petaluma
<b>APN:</b>	027-050-022
<b>General Plan Land Use Designation:</b>	Land Extensive Agricultural 160-acre density (LEA 160)
<b>Zoning Designation:</b>	Land Extensive Agricultural 160-acre density, Riparian Corridor 50-foot Development Setback Combining District (LIA B6 160, RC50/50)
<b>Decision Making Body:</b>	N/A
<b>Appeal Body:</b>	N/A
<b>Project Description:</b>	See Item III, below

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less than Significant with Mitigation” as indicated in the attached Initial Study and in the summary table below.

**Table 1. Summary of Topic Areas**

<b>Topic Area</b>	<b>Abbreviation*</b>	<b>Yes</b>	<b>No</b>
Aesthetics	VIS		X
Agricultural & Forest Resources	AG		X
Air Quality	AIR	X	
Biological Resources	BIO	X	
Cultural Resources	CUL		X
Energy	ENERGY		X
Geology and Soils	GEO		X
Greenhouse Gas Emission	GHG		X
Hazards and Hazardous Materials	HAZ		X
Hydrology and Water Quality	HYDRO		X
Land Use and Planning	LU		X
Mineral Resources	MIN		X
Noise	NOISE	X	
Population and Housing	POP		X
Public Services	PS		X
Recreation	REC		X
Transportation	TRANS		X
Tribal Cultural Resources	TCR		X
Utility and Service Systems	UTL		X
Wildfire	FIRE		X
Mandatory Findings of Significance	MFS		X

**RESPONSIBLE AND TRUSTEE AGENCIES**

Table 2 lists other public agencies whose approval is required for the project, or who have jurisdiction over resources potentially affected by the project.

**Table 2. Agencies and Permits Required**

<b>Agency</b>	<b>Activity</b>	<b>Authorization</b>
Department of Cannabis Control (DCC)	Cannabis cultivation and processing	State licensing, regulation, and enforcement of commercial cultivation activities, under Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) and DCC regulations (Bus. & Prof. Code, § 26102(a))
Regional Water Quality Control Board – North Coast (RWQCB)	Cannabis cultivation	Cannabis Cultivation Waste Discharge Regulatory Program or Waiver of Waste Discharge Requirements
State Water Resources Control Board (SWRCB)	Generating stormwater (construction, industrial, or municipal)	National Pollutant Discharge Elimination System (NPDES) requires the submittal of NOI
California Department of Fish and Wildlife (CDFW)	Cannabis cultivation	Lake or Streambed Alteration Agreement or Waiver; Fish and Game Code, Section 1600
Sonoma County Fire Prevention Division	Building and infrastructure construction (e.g., roads and fire suppression improvements) use of hazardous chemicals	Sonoma County Fire Safety Ordinance/California Board of Forestry Regulations and Hazardous Materials Regulations
Bay Area Air Quality Management District (BAAQMD)	Stationary air emissions/ Green House Gas Emissions	BAAQMD Rules and Regulations

**ENVIRONMENTAL FINDING:**

Based on the evaluation in the attached Initial Study, I find that the project described above will not have a significant adverse impact on the environment, provided that the mitigation measures identified in the Initial Study are included as conditions of approval for the project and a Mitigated Negative Declaration is proposed. The applicant has agreed in writing to incorporate identified mitigation measures into the project plans.



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## ***Initial Study***

### **Sonoma County Permit and Resource Management Department**

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

## **I. INTRODUCTION**

Bloomfield Flowers, LLC proposes to operate a commercial cannabis operation including centralized processing and up to 15,000 square feet of cultivation, in addition to ancillary processing of site grown cannabis and accessory propagation, as permitted by the Sonoma County Cannabis Ordinance. A referral letter was sent to the appropriate local, state, and federal agencies and interest groups who may wish to comment on the project.

This report is the Initial Study required by the California Environmental Quality Act (CEQA). The report was prepared by Haleigh Frye with the Sonoma County Permit and Resource Management Department, Project Review Division. Information on the project was provided by Bloomfield Flowers, LLC. Technical studies provided by qualified consultants, other reports, documents, maps, and studies referred to in this document are available for review through the Project Planner, or the Permit and Resource Management Department (Permit Sonoma) Records Section.

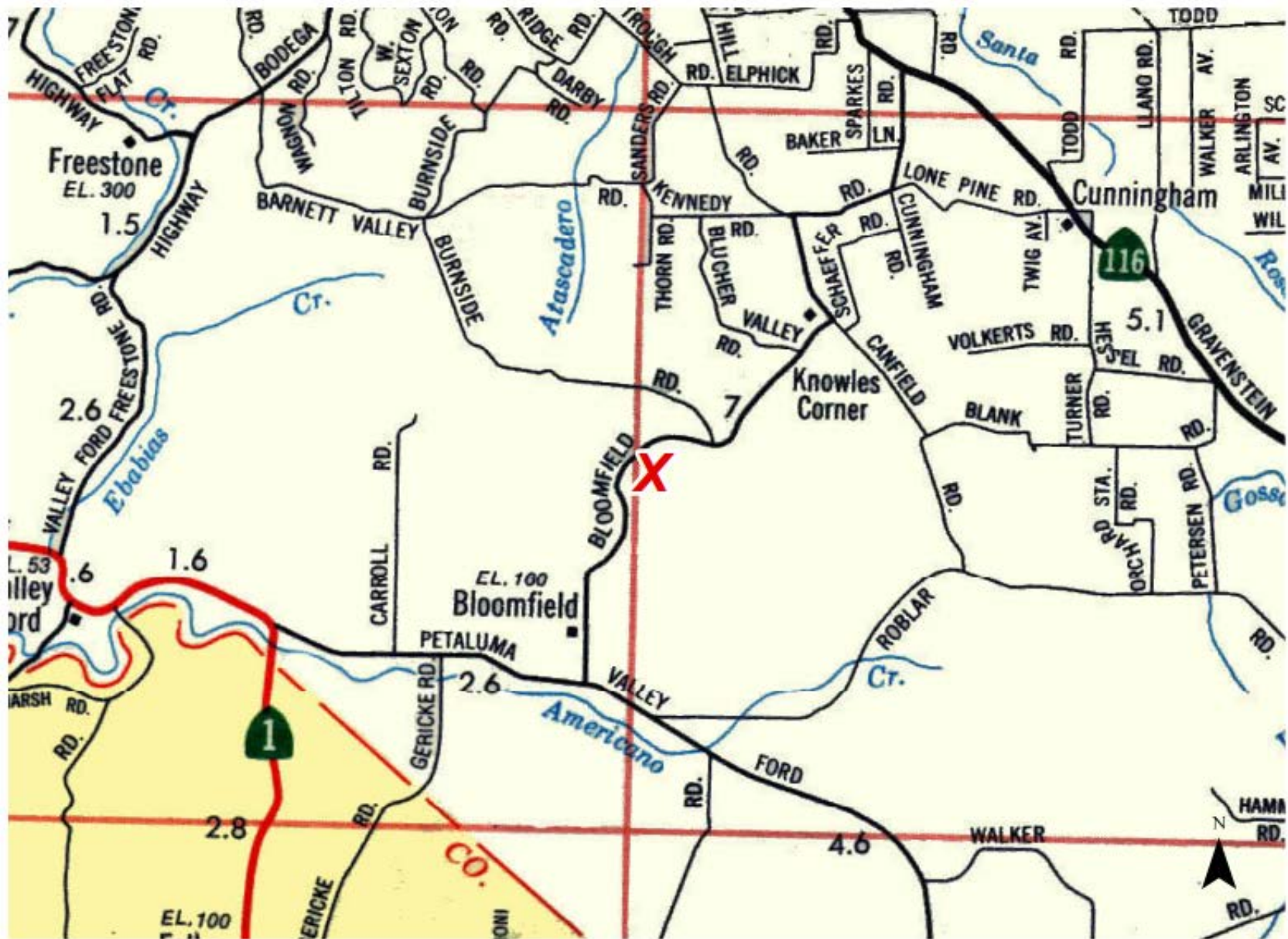
Please contact Haleigh Frye, at (707) 565-2477 or [Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org) for more information.

## **II. EXISTING FACILITY**

The project site is located at 4707 Bloomfield Road, in an unincorporated agricultural area of Sonoma County, about 11 miles southwest of the City of Santa Rosa and about 9 miles northwest of the City of Petaluma (Figure 1 Vicinity Map).

The 113-acre parcel supports a variety of agricultural uses including a commercial vegetable farm, livestock grazing, and bee keeping. Existing structural development includes a horse arena, four barns, one greenhouse, and several outbuildings for the existing agricultural uses (Figure 2 Overall Site Plan). The project parcel contains three active water wells and several water storage tanks. The parcel is not subject to a land conservation contract. The proposed project site is located within the same footprint of a former rock quarry that was decommissioned prior to 1980 and has since been graveled and graded.

The parcel ranges topographically due to a large hill on the southwestern half of the parcel. Development and graded areas are concentrated on the northeastern portion of the parcel, which ranges from relatively flat to gently sloping. The dominant habitat types include ruderal grassland and disturbed lands. The parcel contains a small stand of Eucalyptus and some planted ornamental vegetation. A County designated riparian corridor borders the parcel across Bloomfield Road, an unnamed tributary that drains south to Americano Creek.



4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

Figure 1.  
Vicinity Map



### III. PROJECT DESCRIPTION

Bloomfield Flowers, LLC., proposes to operate a commercial cannabis cultivation operation consisting of mixed light and indoor cultivation, centralized processing, and accessory propagation. The Sonoma County Cannabis Ordinance defines cannabis processing as, *all activities associated with drying, curing, grading, trimming, rolling, storing, packaging, and labeling of nonmanufactured cannabis*. Centralized processing refers to processing of cannabis grown onsite and within the local area. The operation would employ a maximum of 19 employees. No retail sales would be conducted at the facility. The cannabis operation would not be open to the public. New buildings would be constructed for the proposed cannabis operation.

#### Project Overview

The project proposal includes a total of 15,000 square feet of cultivation in the form of 5,000 square feet of indoor cultivation in a new 6,480 square foot structure and 10,000 square feet of mixed light cultivation in a new 12,960 square foot greenhouse, and both processing and accessory indoor propagation in a new 10,000 square foot structure (Figure 3 Site Plan). The proposed project site is located in a previously graded, flat, graveled area on portion of the parcel formerly used as a quarry that was decommissioned prior to 1980 (Figure 4 Site Photos). The project footprint occupies approximately 2.5-acres of the parcel and includes approximately 29,440-square feet of new permanent structures.

The mixed-light and indoor cultivation operations will operate year-round, seven days a week from 8:00 am to 5:00 pm, with extended hours during harvest typically 7:00 am to 7:00 pm. Deliveries and shipping activities would be limited to 8:00 am to 5:00 pm Monday through Friday. Management will be on-call 24 hours a day, seven days per week, to address any operational or emergency issues. The cannabis operation would hire up to 19 employees including full and part time staff. Distribution would be conducted by a licensed third-party company. The operation would not be open to the public.

#### Odor and Climate Control

All buildings used for project operation would be equipped with a self-contained, closed-loop climate control and air filtration system. All cultivation rooms would contain carbon filters and multiple fans to diminish cannabis odor. Carbon filters pull odor out of the air and neutralize odors that pass through the room. Additionally, carbon filters can filter out mold and mildew spores.

The odor filtration system would function in tandem with the climate control system. Air would be continually conditioned and re-circulated around the building interior by blowers to always maintain the exact desired temperature and humidity, year-round. The only exterior component of the system is the chiller unit, which would be ground mounted on a concrete pad outside the cultivation buildings on the east (property interior) side. The processing building would have similar closed loop climate control and carbon filter systems, but with standard residential HVAC units, instead of a commercial chiller.

#### Access and Parking Improvements

Access to the project site will be provided via two existing compacted gravel driveways directly off of Bloomfield Road. The entrances will be gated and secured with commercial-grade non-residential locks. The gated entrance will be designed to be at least 2-feet wider than the lane serving the gate and be located at least 30-feet from the roadway. The project includes 21 compacted gravel parking spaces including one accessible space and path of travel, and one delivery space in front of the proposed processing building. A fire truck turnaround is centrally located in front of all proposed structures.

All vendors and visitors would be required to check in with staff prior to entering the project site and will remain accompanied by staff while on site.

#### Water Supply and storage

Irrigation water will be supplied through a combination of groundwater and rainwater. Groundwater used for cannabis irrigation, will come from the sites primary domestic well located near the southwest corner of the parcel. Rainwater used for cannabis irrigation will be captured off the roofs of the proposed structures and stored in a proposed ~250,000-gallon steel water holding tank. The two other domestic wells onsite will be utilized as backup wells for the site. A 20,000-gallon water tank will be installed for potable water use, irrigation water supply, and emergency fire suppression use.

#### Solid Waste and Wastewater Disposal

Cannabis green waste will be disposed of via a specialized cannabis waste hauler. All other non-cannabis waste would be stored in lidded containers and transferred by an employee of the operation once a week to Sonoma County Solid Waste Transfer Facility located in Guerneville for proper disposal.

Wastewater from the project will be collected from sumps and reused. Domestic wastewater will be disposed of in the proposed septic system.

#### Construction

No existing structures would be used for the proposed project. The project would construct all new structures for project operation. Construction activities are expected to occur over one construction season. Project construction is anticipated to occur over 6-8 months, with work hours from 7:00 am to 7:00 pm Monday – Saturday as weather permits, and no construction grading or heavy construction during holidays. Rough grading activities would include building pad preparation and grading of roads and walkways to elevations shown on final improvement plans, and installation of sediment and erosion control features. Concrete slab foundations for each new structure would be constructed next, followed by vertical construction of new buildings. The final phase would include finished hardscapes, installation of fencing, landscaping, and water storage/irrigation systems. A variety of construction equipment would likely be used, including an excavator, bulldozer, backhoe, grader, cement mixers, pavers, and other general construction equipment.





Left: Looking back at quarry area, facing southeast.  
Below: Project sight facing southwest with Bloomfield Road to the right.

Above: Project location facing southwest towards old quarry  
Right: Close up of hardscape



4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

Figure 4. Site Photos

## IV. SETTING

The project site is located within a rural agricultural area in southwest Sonoma County approximately 11 miles southwest of the City of Santa Rosa and about 9 miles northwest of the City of Petaluma, and about 1.5 miles east of the town of Bloomfield. Nearly all the surrounding land is open grassland and pasture with very low-density residential uses.

The parcel contains three existing onsite wells which supply water for the current agricultural uses and portable water supply for the parcel. The parcel does not contain an existing residence.

The General Plan Land Use Designation on the parcel is Land Extensive Agriculture with a 160-acre density. The site is also designated Land Extensive Agriculture by the Petaluma Dairy Belt Area Plan. The project is not located on an existing or proposed bikeway. The closest proposed Class II bikeway is Valley Ford Road approximately 1.5 miles to the south.

Regional access to the project site is from Bloomfield Road, which is identified as a Minor Collector.

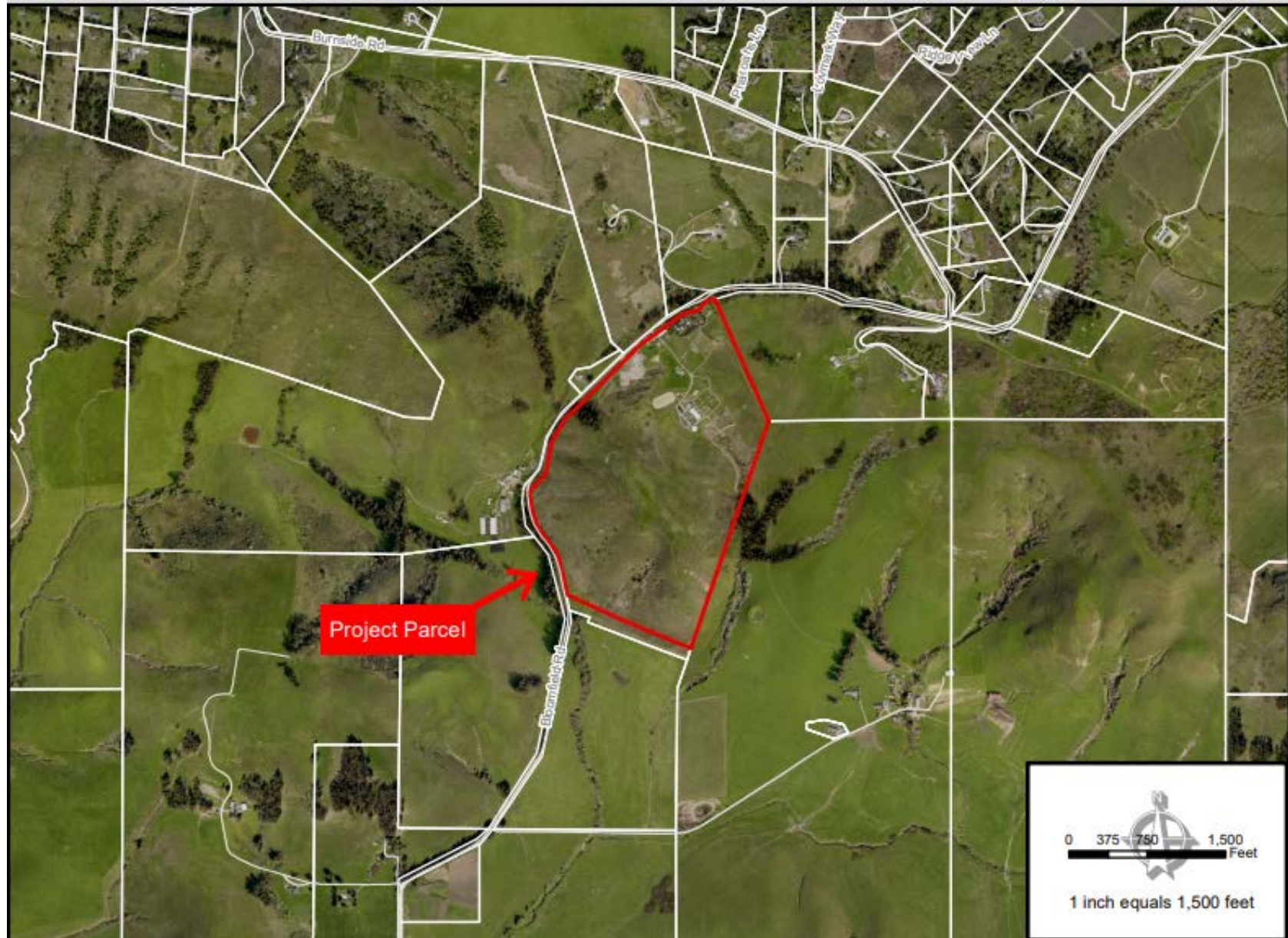
According to the Wildland Fire Hazard Area map in the Sonoma County General Plan, the project site is located within a State Responsibility Area within a Moderate Fire Hazard Severity Zone and not within the wildland urban interface.

The site is located within Sonoma County Groundwater Availability Class 2 (Major natural recharge) groundwater zone, and not within a priority groundwater basin.

The parcel is located within the Estero American Sub-watershed, and there are no Class I or II streams on site, however there are several Class III drainages that originate on site<sup>1</sup>. The nearest creek is an unnamed tributary to the Americano Creek that borders Bloomfield Road. The unnamed tributary is roughly 100-feet from the parcel boundary on the opposite side of Bloomfield Road from the project site. A 50-foot County designated Riparian Corridor setback associated with the off-site drainage extends onto the project parcel in a few locations along Bloomfield Road, but the parcel does not contain any riparian habitat.

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<sup>1</sup> Hurvitz Environmental Services, Inc., "Hydrogeologic Assessment Report, 4707 Bloomfield Rd, Petaluma, CA", dated January 26, 2022.



4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

Figure 1.  
Aerial Map

## **V. ISSUES RAISED BY THE PUBLIC OR AGENCIES**

### **Agency Referral**

On February 2, 2021, a referral packet was circulated to inform and solicit comments from selected relevant local and state agencies and to special districts and special interest groups that were anticipated to take interest in the project. The project planner has received responses to the project referral from:

- Sonoma County Fire Prevention
- Sonoma County Public Infrastructure (formerly Transportation and Public Works)
- Sonoma County Environmental Health
- Permit Sonoma Engineering - Grading and Stormwater Section
- Permit Sonoma Natural Resources Professional Geologist
- The State Water Resources Control Board
- Northwest Information Center

The referral responses included several requests for further information and included recommended draft use permit conditions of approval.

### **Tribal Consultation Under AB52**

Referrals were sent to the following Tribes on February 2, 2021:

- Cloverdale Rancheria of Pomo Indians
- Dry Creek Rancheria Band of Pomo Indians
- Lytton Rancheria of California
- Kashia Pomos Stewarts Point Rancheria
- Federated Indians of Graton Rancheria
- Middletown Rancheria Band of Pomo Indians
- Mishewal Wappo Tribe of Alexander Valley
- Torres Martinez Desert Cahuilla Indians

The AB52 referral period ended on March 2, 2021. No Tribe requested further information and no Tribe requested formal consultation.

### **Public Comments**

A neighborhood notification was distributed to residents within 1,000 feet of the subject property line on January 16, 2020. No public comments have been received.

## **VI. OTHER RELATED PROJECTS**

There are two proposed cannabis operations (UPC23-0001 and UPC23-0002) that are within a two-mile radius of the project site, neither are currently approved nor operating. Both of these projects are located approximately 1.5-miles southwest of this project, and both projects have proposed 10,000 square feet of mixed light cultivation and 33,560 square feet of outdoor cultivation.

There was previously a 10,000 square foot outdoor cannabis operation east of the project site permitted by the Sonoma County Department of Agriculture Weights and Measurements that expired in June 2022. No cannabis is being grown at that site now, though it is currently registered to cultivate hemp. An application for a one-acre outdoor cannabis operation, UPC17-0079, approximately 1.25 miles to the south of UPC19-0012 was withdrawn in August 2023.

## VII. EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts of this project based on the criteria set forth in the State CEQA Guidelines and the County's implementing ordinances and guidelines. For each item, one of four responses is given:

**No Impact: The project would not have the impact described.** The project may have a beneficial effect, but there is no potential for the project to create or incrementally add to the impact described.

**Less Than Significant Impact:** The project would have the impact described, but the impact would not be significant. Mitigation is not required, although the project applicant may choose to modify the project to avoid the impacts.

**Less Than Significant with Mitigation Incorporated:** The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.

**Potentially Significant Impact:** The project would have the impact described, and the impact could be significant. The impact cannot be reduced to less than significant by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The Initial Study includes a discussion of the potential impacts and identifies mitigation measures to substantially reduce those impacts to a level of insignificance where feasible. All references and sources used in this Initial Study are listed in the Reference section at the end of this report and are incorporated herein by reference.

# 1. AESTHETICS:

Except as provided in Public Resources Code Section 21099, would the project:

a) **Have a substantial adverse effect on a scenic vista?**

Comment:

The project is not in an area designated as visually sensitive by the Sonoma County General Plan (i.e., Scenic Landscape Unit, Scenic Corridor, Community Separator) or the Petaluma Dairy Belt Area Plan. The nearest designated visually sensitive area is approximately one-half mile east of the project site on Burnside Road and does not afford views of the project site. The project will include the construction of three new structures consisting of one greenhouse, one indoor cultivation structure, and one indoor propagation and processing structure. The project site will be visible from Bloomfield Road which is not designated as a Scenic Corridor. It is not located on a scenic hillside, nor would it involve tree removal, grading or construction that would affect a scenic vista.

Significance Level: No Impact

b) **Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?**

Comment:

The project is not located on or visible from a state scenic highway. The two officially designated state scenic highways in Sonoma County are Highway 12 and Highway 116. The project would not result in any impacts to scenic resources associated with a state scenic highway.

Significance Level: No Impact

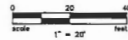
c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Comment:

The existing visual character of the site and surrounding area is rural agricultural, primarily open grassland and grazing land, and rural residential uses. Project structures would be visible from Bloomfield Road, but blend with the agrarian character of the site. Fencing is existing along the property boarding Bloomfield Road. Additional fencing will be constructed surrounding the cannabis premises, and landscaping planted at the front of the parcel boarding Bloomfield Road (See Figure 6 Landscaping Plan). Landscaping would be installed in front of the fence and would consist of drought-tolerant, fire-resistant, trees and shrubs. Although the fencing will be visible, the proposed landscaping would substantially soften the visual appearance. The greenhouse would be setback between the two indoor structures, which will screen most of the greenhouse. Design review of all commercial structures, including fencing, and landscaping will be required as a standard use permit condition of approval to ensure the approved fencing and landscaping is compatible with County requirements and with the surrounding area.

**IRRIGATION CONCEPT STATEMENT**

1. LANDSCAPE SHALL COMPLY WITH APPLICABLE "WATER EFFICIENT LANDSCAPE ORDINANCE."
2. ALL PLANTINGS SHALL BE IRRIGATED BY A PERMANENT, AUTOMATIC, WATER-CONSERVING IRRIGATION SYSTEM.
3. IRRIGATION SYSTEM SHALL BE DIVIDED INTO DISTINCT "HYDROZONES" BASED ON PLANT WATER USE REQUIREMENTS, SOLAR EXPOSURES, AND APPLICATION TYPE.
4. AN IRRIGATION SUBMETER WILL BE INCLUDED IN THE SYSTEM.
5. TREES IRRIGATION SHALL BE CONTROLLED BY A DEDICATED VALVE, SEPARATE FROM SHRUBS AND GROUND COVERS.
6. TREES WILL BE IRRIGATED WITH POINT-SOURCE, BUBBLER DISTRIBUTION DEVICES.
7. SHRUBS AND GROUND COVER PLANTINGS WILL BE IRRIGATED BY POINT-SOURCE, DRIP DISTRIBUTION DEVICES.



Mitigated Negative Declaration, Amended new date/2024  
 File# UPC19-0012  
 Page 17

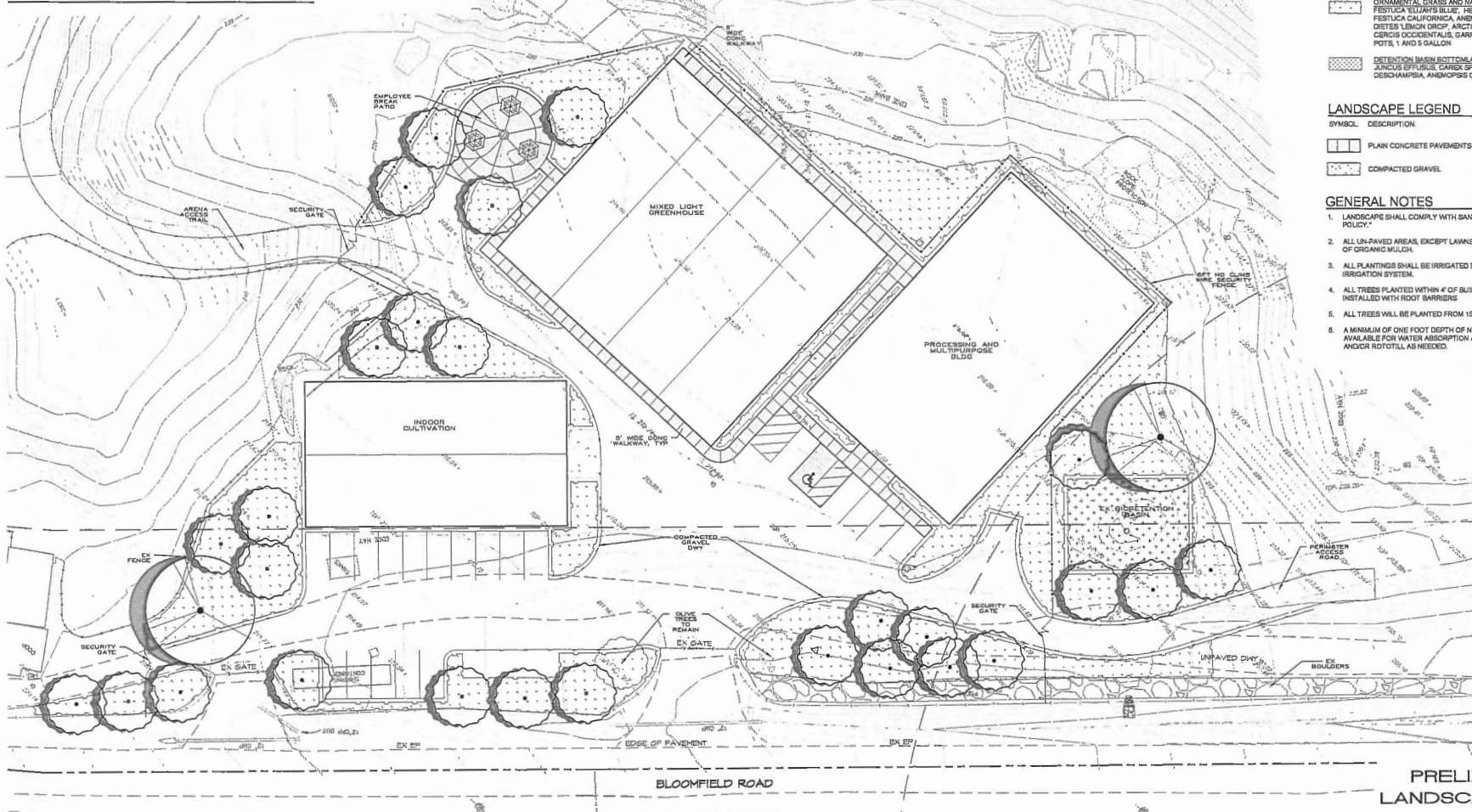


TREES			
KEY:	DESCRIPTION:	SIZE:	WATER USE:
(Large circle with dot)	PRIMARY DECIDUOUS SHADECANOPY TREES QUERCUS UOBATA / VALLEY OAK TO MATCH EXISTING	15 GAL.	LOW
(Small circle with dot)	SMALL DECIDUOUS FLOWERING CANOPY TREES LAGERSTROEMIA INDIAN TRIBES / CRAPE MYRTLES	15 GAL.	LOW

UNDERSTORY PLANTS AND GROUNDCOVERS	
SYMBOL:	DESCRIPTION:
(Dotted pattern)	ORNAMENTAL GRASS AND NATIVE FLOWERING SHRUBS (LOW WATER USE) FESTUCA ELLIOTTIANA BLUE, PHELODENDRON SAPPHIRE, FESTUCA MAURES, FESTUCA CALIFORNICA, ANDRANTHUS ELI, ELEGANNA, DANIELA CULTIVARS, DIETES LEMON DROP, ARCTOSTAPHYLOS WICKMANN, CEANOETHUS 'CONCHA', CEANOETHUS OCCIDENTALIS, CARRYA ELIPTICA, RUBUS, ERIOBOLUM, MIMULUS - 4" POTS, 1 AND 5 GALLON
(Cross-hatched pattern)	RETENTION BASIN BOTTOMLAND PLANTINGS (MEDIUM WATER USE) JUNCUS EFFLUSUS, CAREX SPP., SYSTIRICHUM SPP., FESTUCA RUBRA, DESCHAMPSIA, ANDROPORS CALIFORNICA, GENTHERIA ELATA - HYDRICISED

LANDSCAPE LEGEND	
SYMBOL:	DESCRIPTION:
(Hatched pattern)	PLAIN CONCRETE PAVEMENTS
(Dotted pattern)	COMPACTED GRAVEL

- GENERAL NOTES**
1. LANDSCAPE SHALL COMPLY WITH SANTA ROSA'S "WATER EFFICIENT LANDSCAPE POLICY".
  2. ALL UNPAVED AREAS, EXCEPT LAWNS, SHALL BE TOP-DRESSED WITH A 2"-3" LAYER OF ORGANIC MULCH.
  3. ALL PLANTINGS SHALL BE IRRIGATED BY AN AUTOMATIC, WATER CONSERVING IRRIGATION SYSTEM.
  4. ALL TREES PLANTED WITHIN 4' OF BUILDINGS, WALL CURBS OR PAVEMENTS WILL BE INSTALLED WITH ROOT BARRIERS.
  5. ALL TREES WILL BE PLANTED FROM 15 GALLON CONTAINERS, EXCEPT WHERE NOTED.
  6. A MINIMUM OF ONE FOOT DEPTH OF NON-MECHANICALLY COMPACTED SOIL SHALL BE AVAILABLE FOR WATER ABSORPTION AND ROOT GROWTH IN PLANTED AREAS. RIP AND/OR ROOTBOLL AS NEEDED.



4707 Bloomfield Road, Petaluma  
 UPC19-0012 Bloomfield Flowers, LLC

Figure 6.  
 Landscaping Plan

PRELIMINARY  
 LANDSCAPE PLAN  
**BLOOMFIELD  
 FLOWERS**  
 PETALUMA, CALIFORNIA



CIVIL ENGINEERS • URBAN PLANNERS • LAND SURVEYORS • LANDSCAPE ARCHITECTS  
 15 THIRD STREET, SANTA ROSA, CA 95401  
 TEL (707) 542-6451 FAX (707) 542-5212

Following the County’s Visual Assessment Guidelines, the site sensitivity of the project site would be considered “Moderate” because:

*The site or portion thereof is within a rural land use designation, but the site has no land use or zoning designations protecting scenic resources. The project vicinity is characterized by rural development that may include historic resources or be considered a gateway to the Bloomfield community. This category includes building or construction sites with visible slopes less than 30 percent or where there is significant natural features of aesthetic value that is visible from public roads or public use areas (i.e. parks, trails etc.).<sup>2</sup>*

The visual dominance would be Co-Dominant, applied when proposed project elements would be moderate or prominent within the setting, but still compatible with their surroundings. The proposed buildings, and other site development would be visible from Bloomfield Road, but the fence and landscaping would soften the view.

**Table 3. Thresholds of Significance for Visual Impact Analysis  
 PRMD Visual Assessment Guidelines**

Sensitivity	Visual Dominance			
	<i>Dominant</i>	<i>Co-Dominant</i>	<i>Subordinate</i>	<i>Inevident</i>
<b>Maximum</b>	Significant	Significant	Significant	Less than significant
<b>High</b>	Significant	Significant	Less than significant	Less than significant
<b>Moderate</b>	Significant	Less than significant	Less than significant	Less than significant
<b>Low</b>	Less than significant	Less than significant	Less than significant	Less than significant

Based on the project site’s Moderate visual sensitivity and the proposed project’s Co-Dominant visual dominance, the project would be considered to have a less than significant effect on the existing visual character or quality of the site and its surroundings.

Significance Level: Less than Significant Impact

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Comment:

The proposed mixed light greenhouse buildings would use frosted composite material as roofing and walls, which will limit potential for daytime glare associated with sunlight striking the roof. Proposed security lighting at all locations would be fully shielded, downward casting, and motion sensor controlled. Because of this nighttime lighting spillage from security lighting is anticipated to be minimal. However, as a condition of approval, the project would be required to comply with the following Zoning Code lighting requirement:

<sup>2</sup> Sonoma County. “Visual Assessment Guidelines and Procedure,” January 2019 [Visual Assessment Guidelines \(permitsonoma.org\)](http://www.permitsonoma.org)

*All lighting shall be fully shielded, downward casting and not spill over onto structures, other properties or the night sky. All indoor and mixed light operations shall be fully contained so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise (Sec 26-88-254(f)(19)).*

The condition supports and is consistent with California Bureau of Cannabis Control requirements for project lighting (16 CCR 5502).

Design review is required as a standard use permit condition of approval and includes review of all proposed exterior lighting to ensure it is compatible with County requirements and with the surrounding area.

Significance Level: Less than Significant Impact

## **2. AGRICULTURE AND FOREST RESOURCES:**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

### **Would the project:**

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Comment:

According to the California Department of Conservation's Sonoma County Important Farmland Map, the parcel is designated Farmland of Local Importance, Grazing Land, and other land.<sup>3</sup> Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

Significance Level: No Impact

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act Contract?**

Comment:

The parcel is zoned Land Extensive Agriculture (LEA). This land use designation is intended to enhance and protect lands best suited for permanent agricultural use and capable of relatively low production per acre of land. Agricultural Resource policies focus on establishing and maintaining

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<sup>3</sup> California Department of Conservation. California Important Farmland Finder. [DLRP Important Farmland Finder \(ca.gov\)](#) Accessed January 12, 2023.

parcel sizes that are conducive to continued agricultural production and restricting non-agricultural uses to those that are compatible with agriculture. The Zoning Designation for the project site is also Land Extensive Agriculture, which allows commercial cannabis cultivation (up to 1 acre of cultivation area), including ancillary processing operations, with a use permit (Sec. 26-06-030).

The parcel is not subject to a Williamson Act Land Conservation Contract. Agricultural uses on the parcel include a horse training facility, commercial organic vegetable farm, bee keeping, and sheep grazing, which will continue to operate independent of the cannabis operation. Additionally, the project complies with County Code Section 26-88- 250, Table A1, footnote 2, which limits structural development for cannabis cultivation to previously developed areas. The entire project footprint is within an existing previously developed area of the parcel formerly used as a rock quarry, decommissioned prior to 1980, then utilized as an equipment staging and parking area since at least 2001. The project site has been graded and contains compacted gravel. Therefore, the project would not conflict with the existing zoning for agricultural use, or a Williamson Act Contract.

Significance Level: No Impact

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

Comment:

The project site is not in a Timberland Production zoning district, and no commercial timberland is present. Therefore, the project would not conflict with or cause rezoning of forest land or timberland zoned Timberland Production.

Significance Level: No Impact

- d) Result in the loss of forest land or conversion of forest land to non-forest use?**

Comment:

The project would not be located on land utilized or zoned for forest land, timberland, or timber production. Therefore, the project would not result in the loss or conversion of forest land.

Significance Level: No Impact

- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?**

Comment:

The project does not involve conversion of land currently used for agricultural purposes. Horse training, operation of a commercial vegetable garden, bee keeping, and sheep grazing would continue independently from the proposed cannabis cultivation project. The project would not remove any land currently or recently being used for agriculture from that use.

The proposed cultivation operation would be located on a flat graded and graveled area of the parcel previously used as a quarry prior to 1980. Therefore, the project would not convert a

significant amount of potential farmland to non-agricultural use.

Significance Level: Less than Significant Impact

### 3. AIR QUALITY:

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

#### Would the project:

##### a) Conflict with or obstruct implementation of the applicable air quality plan?

Comment:

The project is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) and within the San Francisco Bay Area Air Basin. According to California standards, the San Francisco Bay Area Air Basin is currently designated as a nonattainment area for particulate matter 2.5 microns or less in diameter (PM<sub>2.5</sub>), particulate matter 10 microns or less in diameter (PM<sub>10</sub>), and ozone. Under national standards, the San Francisco Bay Area Air Basin is currently designated as nonattainment for PM<sub>2.5</sub> and 8-hour ozone. The Air Basin is in attainment (or unclassified) for all other air pollutants (BAAQMD 2020).

The BAAQMD's 2017 Clean Air Plan (BAAQMD 2017a) is the applicable air quality plan for the San Francisco Bay Area Air Basin. The 2017 Clean Air Plan contains 85 individual control measures in nine economic sectors: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants. Many of these control measures require action on the part of the BAAQMD, the California Air Resources Board (CARB), or local communities, and are not directly related to the actions undertaken for an individual development project. The project would not prevent the BAAQMD from implementing these actions and none apply directly to the project. The project size would be well below emission threshold screening levels for ozone precursors (see discussion in 3.b below). As a result, the project would not conflict with or obstruct implementation of the 2017 Clean Air Plan.

Significance Level: No Impact

##### b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Comment:

As summarized in Item 3.a above, the San Francisco Bay Area Air Basin is currently designated as a nonattainment area for PM<sub>2.5</sub>, PM<sub>10</sub>, and ozone under State standards. Under national standards, the San Francisco Bay Area Air Basin is currently designated as nonattainment for PM<sub>2.5</sub> and 8-hour ozone. The Air Basin is in attainment (or unclassified) for all other air pollutants (BAAQMD 2020). Based on the current Air Basin designations, the non-attainment pollutants of concern are ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>.

*Short-Term Construction Emissions:* The BAAQMD's 2017 CEQA Air Quality Guidelines provides screening criteria for determining if a project could result in significant construction-phase impacts

from criteria pollutants and precursors.<sup>4</sup> Criteria air pollutants and precursors include reactive organic gases, nitrogen oxides, PM10, PM2.5, and carbon monoxide.

Cannabis cultivation is not listed as a land use type in the BAAQMD screening criteria; however, a general comparison can be made to a similar land use. The applicable construction-related screening size for a general light industrial land use is 259,000 square feet of facilities and/or a project construction site that is 11 acres or greater in size. The project would include approximately 29,440-square feet of facilities on an approximately 2.5-acre portion of a 113-acre parcel. The project size would be considerably less than the BAAQMD's construction related criteria pollutant and precursor screening level. Following use of the screening criteria found in the BAAQMD Air Quality Guidelines, a detailed air quality study for construction related air emissions is not required for the project. The project would not be anticipated to encounter asbestos-containing materials during construction. Construction would not involve the simultaneous occurrence of more than two construction phases, or construction of more than one land-use type. Construction would not involve extensive site preparation or material transport as balanced cut and fill would be used with a small amount of engineered fill for spread footings and slab-on-grade support. The project would not have a cumulative effect on ozone because it would not exceed the BAAQMD's thresholds of significance for ozone precursors during construction. The project would result in a short-term increase in fugitive dust emissions during construction (which would include PM2.5 and PM10). With implementation of the BAAQMD's recommended basic construction measures identified in Mitigation Measure AIR-1, the impact of construction emissions would be less than significant.

*Operation:*

The applicable BAAQMD operational screening size for a light industrial facility is 541,000 square feet of facility, or a site that is 72 acres in size, or a project that includes 1,249 employees. The project would include approximately 29,440-square feet of facilities on an approximately 2.5-acre portion of a 113-acre parcel and would include up to 19 employees. The project would be less than the BAAQMD's operational criteria pollutant and precursor screening level and would not result in substantial long-term operational emissions of criteria air pollutants. Therefore, the project's contribution to a cumulative nonattainment criteria pollutant impact would be less than significant. The BAAQMD screening analysis for a carbon monoxide hotspot is whether a project would increase traffic volumes at a nearby intersection to more than 44,000 vehicles per hour. The project would generate an average of 23 trips on a daily basis. This amount of vehicle trips would not generate significant emissions, and therefore, would not significantly contribute to formation of a carbon monoxide hotspot in the project area. The project would have no long-term effect on PM2.5 and PM10, as ground surfaces would be paved, landscaped or otherwise treated to stabilize bare soils after construction, and dust generation would be minimal. The project would generate ozone precursors from new vehicle trips, but would not have a cumulative effect on ozone as the project would not exceed the BAAQMD's thresholds of significance for ozone precursor

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

**Mitigation Measure AIR-1 Construction Dust and Air Quality Control:**

The following dust and air quality control measures shall be included in the project:

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<sup>4</sup> Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. [BAAQMD CEQA Guidelines - May 2017](#), Accessed January 12, 2023.

- a. Construction Coordinator shall be designated by the project applicant, and a sign shall be posted on the site including the Coordinator's 24-hour phone number for public contact regarding dust, trackout, and air quality complaints. The Coordinator shall respond and take corrective action within 48 hours. The Coordinator shall report all complaints and their resolutions to Permit Sonoma staff.
- b. Water or alternative dust control method shall be sprayed to control dust on construction areas, soil stockpiles, and staging areas during construction as directed by the County.
- c. Trucks hauling soil, sand, and other loose materials over public roads shall cover the loads, or shall keep the loads at least two feet below the level of the sides of the container, or shall wet the load sufficiently to prevent dust emissions.
- d. Vehicle speeds on unpaved areas shall be limited to 15 miles per hour.
- e. Final surfacing (i.e., pavement or concrete, gravel, landscaping) shall be completed as soon as possible after earthwork is finished, unless seeding or soil binders are used.
- f. Idling time of diesel-powered construction equipment shall be limited to five minutes. Signs shall be posted reminding workers of this idling restriction at all access points and equipment staging areas during construction of the proposed project.
- g. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications and shall have a CARB-certified visible emissions evaluator check equipment prior to use at the site.
- h. Trackout shall not be allowed at any active exit from the project site onto an adjacent paved public roadway or shoulder of a paved public roadway that exceeds cumulative 25 linear feet and creates fugitive dust visible emissions without cleaning up such trackout within 4 hours of when the Construction Coordinator identifies such excessive trackout, and shall not allow more than 1 quart of trackout to remain on the adjacent paved public roadway or the paved shoulder of the paved public roadway at the end of any workday.
- i. Visible emissions of fugitive dust shall not be allowed during cleanup of any trackout that exceeds 20 percent opacity as determined by the Environmental Protection Agency in Method 203B - Opacity Determination for Time Exception Regulations (August 2017).

Trackout is defined by BAAQMD in Regulation 6, Rule 6: Prohibition of Trackout (August 2018) as any sand, soil, dirt, bulk materials or other solid particles from a site that adhere to or agglomerate on the exterior surfaces of vehicles (including tires), and subsequently fall or are dislodged onto a paved public roadway or the paved shoulder of a paved public roadway on the path that vehicles follow at any exit and extending 50 feet out onto the paved public roadway beyond the boundary of the site. Material that has collected on the roadway from erosion is not trackout.

Mitigation Monitoring:

**Mitigation Monitoring AIR-1 Construction Dust and Air Quality Control:**

Permit Sonoma staff shall verify that the AIR-1 measures are included on all site alteration, grading,

building or improvement plans prior to issuance of grading or building permits. The applicant shall submit documentation to Permit Sonoma staff that a Construction Coordinator has been designated and that appropriate signage has been posted including the coordinator's phone number. Documentation may include photographic evidence or a site inspection, at the discretion of Permit Sonoma staff.

**c) Expose sensitive receptors to substantial pollutant concentrations?**

Comment:

Sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. The project site is located in a predominantly rural area, away from institutional receptors (the nearest known school is Twin Hills Middle School over 3 miles to the northeast). The proposed cultivation areas meet the required 300-foot setback to offsite residences required by County Code.

Based on the analysis in Section 3.a and 3.b, the project would not result in substantial pollutant exposure due to operations. However, as described in section 3.b, there could be significant short-term increase in construction vehicle emissions or emission dust (which would include PM2.5 and PM10) during the construction. Project construction activities and associated DPM emissions would occur intermittently during the daytime weekday period (i.e., they would not be a continuous source of emissions). The intermittent nature of project construction activities would provide time for emitted pollutants to disperse on an hourly and daily basis according to the local wind patterns. Construction activities would be short in duration, occurring over 7-8 months. This means nearby receptors would be exposed to construction emissions for a duration that is substantially less than the 70-year lifetime exposure duration used by the Office of Environmental Health Hazard Assessment to estimate adverse health risks from air pollutants.<sup>5</sup> Any construction period effects on air quality (i.e., dust, diesel exhaust), would be reduced to a less than significant level with implementation of Mitigation Measure AIR-1.

The project would include emergency backup power via a permanently installed diesel-powered generator. A backup emergency generator would only be used when power is lost and when the generator is exercised for maintenance purposes. The operational impact on sensitive receptors to substantial pollutant concentrations would be less than significant.

Significance Level: Less than Significant with Mitigation Incorporated

Mitigation:

**Mitigation Measure AIR-1 Mitigation**

Monitoring:

**Mitigation Monitoring AIR-1**

**d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

Comment:

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<sup>5</sup> OEHHA, 2015. Air Toxics Hot Spots Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Accessed January 12,2023.

*Construction Odors:* Construction equipment may generate odors during project construction; however, construction activities would be short-term, intermittent, and would cease upon completion of project construction. In addition, implementation of Mitigation Measure AIR-1 would reduce construction vehicle emissions which could contribute to odor and would not affect a substantial number of people. Therefore, the construction-related odor impact would be less than significant with mitigation described in mitigation measure AIR-1.

*Cannabis Odors:* Much of the odor associated with cannabis cultivation, as well as commercial cannabis products, comes from a class of aromatic, organic compounds known as terpenes. Terpenes are not specific to cannabis; they are among the most common compounds produced by flowering plants, vary widely between plants, and are responsible for the fragrance of many flowers typically associated with non-objectionable odors, such as lavender. Different strains of cannabis emit a wide variety of odors with differing levels of potency. The odor may be detectable beyond the cultivation site property boundaries depending on the size of the facility and the specific climatic and topographic conditions that prevail near the cultivation site. In general, cannabis odors tend to lessen during cooler temperatures and worsen with higher temperatures, and wind patterns have the potential to increase or decrease the intensity of cannabis odors depending on whether winds are blowing towards or away from nearby receptors. As noted in the County's 2016 IS/ND, outdoor cultivation has the greatest potential to expose receptors to odors particularly during the final phase of the growing cycle (i.e., typically late summer or early fall). Indoor and mixed light cultivation can have year-round growing cycles, but generally do not affect surrounding receptors due to required odor-control and ventilation systems.

The distinctive odor generated by cannabis cultivation, processing, and manufacturing may or may not be perceived as objectionable, offensive, or a nuisance, depending on the particular individual's olfactory sensitivity. The BAAQMD CEQA Air Quality Guidelines (BAAQMD 2017, page 7-1), state that odors are generally regarded as an annoyance rather than as a health hazard. Individual reactions to odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache), and the ability to detect odors varies considerably from person to person and is considered to be subjective. An odor that is offensive to one person may not be offensive to another person. Unfamiliar odors are more easily detected and are more likely to cause complaints than familiar odors, as a person can become desensitized to almost any odor over time (this is known as odor fatigue). In general, the quality and intensity of an odor would influence a person's reaction. The quality of an odor indicates the nature of the smell experience (flowery, putrid, etc.). The intensity of an odor depends on its concentration in the air. When an odor sample is progressively diluted, the odor concentration decreases. As this occurs, the odor intensity weakens and eventually becomes low enough that the odor is no longer detectable. The BAAQMD CEQA Air Quality Guidelines contain odor screening distances for a variety of land uses typically associated with odors such as wastewater treatment plants, landfill and composting facilities, and chemical manufacturing facilities. The recommended screening distance for most of these facilities is one mile. New odor sources located further than one mile from sensitive receptors would not likely result in a significant odor impact; however, cannabis facilities are not listed as a type of land use in the BAAQMD odor screening criteria, and the BAAQMD CEQA Air Quality Guidelines state these screening distances should not be considered "as absolute screening criteria, rather as information to consider along with odor parameters" (BAAQMD, 2017, page 3-4).

*Greenhouse and Indoor Cultivation and Processing Odors:* Cannabis cultivation facilities are not listed as an odor-generating use in the BAAQMD California Environmental Quality Act Air Quality

Guidelines (May 2017). However, the County's cannabis ordinance requires compliance with the following Zoning Code Operating Standard:

*All indoor and mixed light cultivation operations and any drying, aging, trimming and packing facilities shall be equipped with odor control filtration and ventilation system(s) to control odors, humidity, and mold (Sec. 26-88-254(g)(2).*

The project proposes on site processing of cannabis as well as indoor and mixed light cultivation. Both indoor and mixed light facilities will be equipped with odor control filtration and ventilation systems. The project includes self-contained closed-loop climate control systems, including carbon filtration to clean the air and control odor, for all cultivation and processing structures in order to contain odors. Therefore, regular project operation would result in less than significant odor impacts.

Significance Level: Less than Significant Impact

## 4. BIOLOGICAL RESOURCES:

### Regulatory Framework

The following discussion identifies federal, state and local environmental regulations that serve to protect sensitive biological resources relevant to the California Environmental Quality Act (CEQA) review process.

#### Federal

##### ***Federal Endangered Species Act (FESA)***

FESA establishes a broad public and federal interest in identifying, protecting, and providing for the recovery of threatened or endangered species. The Secretary of Interior and the Secretary of Commerce are designated in FESA as responsible for identifying endangered and threatened species and their critical habitat, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on listed species. The USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) are charged with implementing and enforcing the FESA. USFWS has authority over terrestrial and continental aquatic species, and NOAA Fisheries has authority over species that spend all or part of their life cycle at sea, such as salmonids.

Section 9 of FESA prohibits the unlawful "take" of any listed fish or wildlife species. Take, as defined by FESA, means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such action." USFWS's regulations define harm to mean "an act which actually kills or injures fish or wildlife." Such an act "may include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR § 17.3). Take can be permitted under FESA pursuant to sections 7 and 10. Section 7 provides a process for take permits for federal projects or projects subject to a federal permit, and Section 10 provides a process for incidental take permits for projects without a federal nexus. FESA does not extend the take prohibition to federally listed plants on private land, other than prohibiting the removal, damage, or destruction of such species in violation of state law.

### ***Critical Habitat***

Critical habitat is a term defined in the FESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The FESA requires federal agencies to consult with USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery, whether or not those lands are occupied by the subject species. In many cases, this level of protection is similar to that already provided to species by the FESA jeopardy standard (which is applied to ensure that a federal action would not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat).

### ***Essential Fish Habitat***

Essential Fish Habitat (EFH) is regulated by NOAA Fisheries. Protection of Essential Fish Habitat is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 USC 1802(10)]. NOAA Fisheries further defines EFH as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" EFH can include the water column, certain bottom types such as sandy or rocky bottoms, vegetation such as eelgrass or kelp, or structurally complex coral or oyster reefs. Under regulatory guidelines issued by NOAA Fisheries, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NOAA Fisheries (50 CFR 600.920).

### ***The Migratory Bird Treaty Act of 1918 (MBTA)***

The U.S. MBTA (16 USC §§ 703 et seq., Title 50 Code of Federal Regulations [CFR] Part 10) states it is "unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill; attempt to take, capture or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest or egg thereof..." In short, under MBTA it is illegal to disturb a nest that is in active use, since this could result in killing a bird, destroying a nest, or destroying an egg. The USFWS enforces MBTA. The MBTA does not protect some birds that are non-native or human-introduced or that belong to families that are not covered by any of the conventions implemented by MBTA. In 2017, the USFWS issued a memorandum stating that the MBTA does not prohibit incidental take; therefore, the MBTA is currently limited to purposeful actions, such as directly and knowingly removing a nest to construct a project, hunting, and poaching.

### ***The Clean Water Act (CWA)***

The CWA is the primary federal law regulating water quality. The implementation of the CWA is the

responsibility of the U.S. Environmental Protection Agency (EPA). However, the EPA depends on other agencies, such as the individual states and the U.S. Army Corps of Engineers (USACE), to assist in implementing the CWA. The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Section 404 and 401 of the CWA apply to activities that would impact waters of the U.S. The USACE enforces Section 404 of the CWA and the California State Water Resources Control Board enforces Section 401.

#### ***Section 404***

As part of its mandate under Section 404 of the CWA, the EPA regulates the discharge of dredged or fill material into “waters of the U.S.”. “Waters of the U.S. include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high-water marks. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3(b)). The discharge of dredged or fill material into waters of the U.S. is prohibited under the CWA except when it is in compliance with Section 404 of the CWA. Enforcement authority for Section 404 was given to the USACE, which it accomplishes under its regulatory branch. The EPA has veto authority over the USACE’s administration of the Section 404 program and may override a USACE decision with respect to permitting. Substantial impacts to waters of the U.S. may require an Individual Permit. Projects that only minimally affect waters of the U.S. may meet the conditions of one of the Nationwide Permits, provided that such permit’s other respective conditions are satisfied. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions (see below).

#### ***Section 401***

Any applicant for a federal permit to impact waters of the U.S. under Section 404 of the CWA, including Nationwide Permits where pre-construction notification is required, must also provide to the USACE a certification or waiver from the State of California. The “401 Certification” is provided by the State Water Resources Control Board through the local Regional Water Quality Control Board (RWQCB). The RWQCB issues and enforces permits for discharge of treated water, landfills, storm-water runoff, filling of any surface waters or wetlands, dredging, agricultural activities and wastewater recycling. The RWQCB recommends the “401 Certification” application be made at the same time that any applications are provided to other agencies, such as the USACE, USFWS, or NOAA Fisheries. The application is not final until completion of environmental review under CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE. It must include a description of the habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards.

#### **State**

##### ***California Endangered Species Act (CESA)***

Provisions of CESA protect state-listed threatened and endangered species. The CDFW is charged with establishing a list of endangered and threatened species. CDFW regulates activities that may result in “take” of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take”

under the California Fish and Game Code (CFGC), but CDFW has interpreted “take” to include the killing of a member of a species which is the proximate result of habitat modification.

### ***Fish and Game Code 1600-1602***

Sections 1600-1607 of the CFGC require that a Notification of Lake or Streambed Alteration Agreement (LSAA) application be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions in the application and, if necessary, prepares a LSAA that includes measures to protect affected fish and wildlife resources, including mitigation for impacts to bats and bat habitat.

### ***Nesting Birds***

Nesting birds, including raptors, are protected under CFGC Section 3503, which reads, “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” In addition, under CFGC Section 3503.5, “it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Passerines and non-passerine land birds are further protected under CFGC 3513. As such, CDFW typically recommends surveys for nesting birds that could potentially be directly (e.g., actual removal of trees/vegetation) or indirectly (e.g., noise disturbance) impacted by project-related activities. Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFW.

### ***Non-Game Mammals***

Sections 4150-4155 of the CFGC protects non-game mammals, including bats. Section 4150 states “A mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a nongame mammal. A non-game mammal may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.” The non-game mammals that may be taken or possessed are primarily those that cause crop or property damage. Bats are classified as a non-game mammal and are protected under the CFGC.

### ***California Fully Protected Species and Species of Special Concern***

The classification of “fully protected” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibians and reptiles at §5050, birds at §3503 and §3511, and mammals at §4150 and §4700) dealing with “fully protected” species state that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections dealing with “fully protected” species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

California Species of Special Concern (CSC) are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or because they historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologists, and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under the CEQA during project review. Plant species on California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Bat species designated as “High Priority” by the Western Bat Working Group (WBWG) qualify for legal protection under Section 15380(d) of the CEQA Guidelines. Species designated “High Priority” are defined as “imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.”

### ***Porter-Cologne Water Quality Control Act***

The intent of the Porter-Cologne Water Quality Control Act (Porter-Cologne) is to protect water quality and the beneficial uses of water, and it applies to both surface and ground water. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under Porter-Cologne, referred to as “waters of the State,” include isolated waters that are not regulated by the USACE. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State are required to comply with the terms of the Water Quality Certification Program. If a proposed project does not require a federal license or permit, any person discharging, or proposing to discharge, waste (e.g., dirt) to waters of the State must file a Report of Waste Discharge and receive either waste discharge requirements (WDRs) or a waiver to WDRs before beginning the discharge.

### **Local**

#### ***Sonoma County General Plan***

The Sonoma County General Plan contains policies to protect natural resource lands including, but not limited to, watershed, fish and wildlife habitat, biotic areas, and habitat connectivity corridors.

#### ***Riparian Corridor (RC) Combining Zone***

The RC combining zone (Zoning Code Sec. 26-65) is established to protect biotic resource communities, including critical habitat areas within and along riparian corridors, for their habitat and environmental value, and to implement the provisions of the General Plan Open Space and Resource Conservation and Water Resources Elements. These provisions are intended to protect and enhance riparian corridors and functions along designated streams, balancing the need for agricultural production, urban development, timber and mining operations and other land uses with the preservation of riparian vegetation,

protection of water resources, floodplain management, wildlife habitat and movement, stream shade, fisheries, water quality, channel stability, groundwater recharge, opportunities for recreation, education and aesthetic appreciation and other riparian functions and values.

### ***Biotic Habitat (BH) Combining Zone***

The BH combining zone (Zoning Code Sec. 26-66) is established to protect and enhance Biotic Habitat Areas for their natural habitat and environmental values and to implement the provisions of the General Plan Open Space and Resource Conservation Element, Area Plans and Specific Plans. Protection of these areas helps to maintain the natural vegetation, support native plant and animal species, protect water quality and air quality, and preserve the quality of life, diversity and unique character of the County.

### ***Valley Oak Habitat (VOH) Combining District***

The VOH combining district (Zoning Code Sec. 26-67) is established to protect and enhance valley oaks and valley oak woodlands and to implement the provisions of General Plan Resource Conservation Element Section 5.1. Design review approval may be required of projects in the VOH, which would include measures to protect and enhance valley oaks on the project site, such as requiring that valley oaks shall comprise a minimum of fifty percent (50%) of the required landscape trees for the development project.

### ***Sonoma County Tree Protection Ordinance***

The Sonoma County Tree Protection Ordinance (Zoning Code Sec. 26-88-010 (m)) establishes policies for protected tree species in Sonoma County. Protected trees are defined (Zoning Code Sec. 26-02-140) as the following species: big leaf maple (*Acer macrophyllum*), black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizenii*), madrone (*Arbutus menziesii*), oracle oak (*Quercus morehus*), Oregon oak (*Quercus garryana*), redwood (*Sequoia sempervirens*), valley oak (*Quercus lobata*), California bay (*Umbellularia californica*), and their hybrids.

## **Project Analysis**

### **Would the project:**

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

#### Comment:

A Biological Resources Report was prepared for the project site to identify special-status plant and wildlife species and sensitive habitats (including wetlands) that have the potential to occur on or in the vicinity of the project site<sup>6</sup>. The assessment included literature and database searches in addition to two field surveys to determine what special-status plant and wildlife species and sensitive habitats (including wetlands) have the potential to occur on or in the vicinity of the project site. The information and data collected for the assessment have been used as the basis of this biological resources analysis.

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<sup>6</sup> Bill Arnerich "Biological Resource Assessment, 4707 Bloomfield Road, Petaluma, Sonoma County, California, 94952" December 11, 2019.

### **Description of On-site Habitat**

The parcel ranges from relatively flat to moderately sloping in some areas. The parcel contains grassland, some planted ornamentals, and a stand of Eucalyptus over 300 feet to the west of the project site. The project site is graded and flat composed of compacted gravel, bare dirt, gravel access roads, and areas of sparse ruderal vegetation.

### **Special-Status Plant Species**

A literature review revealed eight (8) documented occurrences of special status plant species within Study Area. Although considered important biological resources regionally, none of these plants are expected to occur on the project site because their primary habitat requirements are lacking. Almost all of the species are associated with habitat types which do not occur on or adjacent to the project, such as vernal pools and seasonal wetlands, chaparral, coastal prairie and coastal scrub, forest, and woodland. Many species also require special soil types, such as adobe clay, volcanic, serpentine, or sand, all of which are lacking in the project site. The project site consists of previously graded and disturbed areas, where former quarry uses have removed most of the topsoil and native seedbank.

Surveys were performed within the project site January 6, and November 30, 2019. No special-status plant species were observed during the surveys. Although the surveys were conducted outside the blooming period of most plant species, the biologist was able to conclude that the sparse ruderal grassland habitats within the project site would have low potential to support special status plant species, and that no significant impacts to special status plants or potentially suitable habitat would occur.

### **Special Status Amphibian and other Aquatic Species**

The site is not within designated critical habitat for any known special status amphibian or aquatic species. The project site does not support suitable habitat capable of supporting listed special status amphibian species such as California tiger salamander (CTS) or California red legged frog (CRLF), or other special status aquatic species such as Coho salmon. There is no known occurrence of CTS within a two-mile radius of the project site. No small mammal burrows were found to indicate potential over-summering habitat for frogs or salamanders at the time of the survey, and no work is proposed within a riparian zone or other water sources required to support this species or Coho salmon.

The biologist was able to conclude there is low potential for CTS, CRLF, or Coho salmon to occur within the Study Area and project site, and no significant impacts to special status amphibian or other aquatic species is likely to occur. Standard construction best management practices as required by Chapter 11 and Chapter 11A of the Sonoma County Code would be implemented to avoid secondary indirect impacts to any nearby water sources. In addition, Mitigation Measure BIO-1 prohibits use of plastic erosion control netting to protect wildlife from injury due to entanglement.

### **Special-Status Avian Species**

Birds and raptors are protected under the federal Migratory Bird Treaty Act (50 CFR 10.13), and their nest, eggs, and young are also protected under the California Fish and Wildlife Code (§3503, §3503.5, and §3800). In addition, raptors such as the white-tailed kite are "fully protected" under the Fish and Wildlife Code (§3511). Fully protected raptors cannot be taken or possessed at any time. No special status birds or burrows appropriate for burrowing owl were observed during the field survey. Eucalyptus trees approximately 300-feet to the west of the project site may provide

suitable nesting habit for birds; other trees on the property provide only marginally suitable nesting habitat. No trees are proposed for removal. However, if nesting birds were present in trees at the project site, construction noise would have the potential to impact these species. Mitigation Measure BIO-2 would reduce the impact to nesting birds to a less than significant level.

### **Special-Status Bat Species**

Bats may roost in tree cavities or old structures, such as barns. There is one occurrence of the western red bat, a special-status bat species, within two miles of the project site. No tree removal or use of existing structures are proposed. There are no structures with suitable bat habitat, but the eucalyptus stand (300-feet away) could be used as suitable habitat. Mitigation Measure BIO-3 would reduce any potential impact to special status bats to a less than significant level.

### **American Badger**

As the 113-acre parcel contains undeveloped land and grazing land, this could provide habitat for American badger. However, suitable habitat for the badger is not present within or immediately adjacent to the project site as the entire project site was the location of a former rock quarry which has since been graveled and graded and adjacent areas consist of steep slopes or are developed. Additionally, a Geotechnical Memo prepared for this project (Geotechnical Memo) notes that the grading work within the project site (quarry site) either exposed firm, generally impervious bedrock, or left less than 6 inches of soil over the bedrock and that weak soils were removed and recompacted and imported fill placed which was also compacted.

The project would not result in a loss of potential badger habitat as none exists within the project site. In addition, the project site is separated from the rest of the parcel by development and the steep slope created during operation of the quarry and most project activities would occur within structures. Therefore, it is unlikely that badgers which may be present elsewhere on the 113-acre parcel outside of the boundaries of the project site would be disturbed by indirect project impacts, such as noise. Therefore, no impacts to American badger or potential habitat would occur as a result of the project, and no mitigation is warranted.

### **Light Pollution**

The proposed greenhouse would include large, opaque, electronically controlled curtains designed to fully contain the interior lights such that no light would escape between sunset and sunrise. Proposed security lighting would be fully shielded, downward casting, and motion-sensor controlled to remain off unless needed. Therefore, the proposed project would not create a new source of substantial artificial light affecting wildlife and associated ecosystems.

Significance Level: Less than Significant Impact with Mitigation Incorporated

### Mitigation:

**Mitigation Measure BIO-1: Prohibition on Plastic Erosion Control Netting.** Plastic monofilament or loosely woven erosion control netting, or any similar materials that may entangle special-status wildlife, shall not be installed. Suitable erosion control measures include natural materials that are 100% biodegradable, such as natural fiber netting and straw.

**Mitigation Monitoring BIO-1 Prohibition on Plastic Erosion Control Netting.** Prior to issuance of

grading or building permits, Permit Sonoma staff shall ensure that mitigation measures are listed on all site alteration, grading, building or improvement plans. Prior to final of grading or building permits, Permit Sonoma staff shall confirm installation of wildlife friendly erosion control measures by site visit or photographic documentation.

**Mitigation Measure BIO-2: Prevent Disturbance to Nesting Birds.** The following measures shall be taken to avoid potential inadvertent destruction or disturbance of nesting birds on and near the project site as a result of construction-related vegetation removal and site disturbance:

- a. To avoid impacts to nesting birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (generally prior to February 1 or after August 31). Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest.
- b. If construction-related activities are scheduled to occur during the nesting season (generally February 1 through August 31), a qualified biologist shall conduct a habitat assessment for nesting birds, including ground nesting species such as burrowing owl. Habitat assessments related to burrowing owl shall be performed following Appendix C of the CDFW Staff Report on Burrowing Owl Mitigation ([2012 CDFW Staff Report](#)) and shall extend at least 150 meters (492 feet) from the Project site boundary and include burrows and burrow surrogates. If suitable habitat exists then a qualified biologist shall conduct pre-construction surveys for nesting birds, including ground nesting species such as burrowing owl, no more than fourteen (14) days prior to initiation of work. Specifically if suitable burrowing owl habitat is determined to be present, then surveys shall be conducted following the methodology described in Appendix D (Breeding and Non-breeding Season Surveys) of the 2012 CDFW Staff Report. The qualified biologist conducting the surveys shall be familiar with local nesting bird and ground-nesting species including burrowing owl. Surveys shall be conducted at the appropriate times of day during periods of peak activity (i.e., early morning or dusk) and shall be of sufficient duration to observe movement patterns. Surveys shall be conducted within the project area and 250 feet of the construction limits for nesting non-raptors and 500 feet for nesting raptors and burrowing owls as feasible as disturbance distances vary dependent on species, time of year, and geographical location. If the survey area is found to be absent of nesting birds, no further mitigation is required. However, if project activities are delayed by more than seven days, an additional nesting bird survey shall be performed.
- c. If pre-construction nesting bird surveys identify active nests and or burrows, no site disturbance (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading) shall occur until a qualified biologist has established a temporary protective buffer around the nest(s). For any raptor species, a Qualified Biologist, experienced in raptor behavior should be assigned to monitor the behavior of any raptors nesting within disturbance distance of Project activities. The buffer shall be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified biologist. The Qualified Biologist shall have authority to order the cessation of all Project activities within disturbance distance of any raptor nest if the birds exhibit abnormal nesting behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young). No-work buffers are species- and site-specific, as determined by a qualified biologist. Typically, the no-work radius is 100-250 feet for songbirds and up to 1,000 feet for

special-status raptors and owls. The nest buffer, where it intersects the project site, shall be staked with orange construction fencing or orange lath staking. Any active nests and burrows shall be monitored by a qualified biologist to ensure compliance with the relevant Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF) requirements. The biologist shall document monitoring efforts and provide documentation to the applicant and County. No-work nest protection buffers may be removed and/or reduced if the qualified biologist determines the young have fledged the nest, the nest has otherwise become inactive due to natural cause (i.e., storm events or predation), or if the qualified biologist determines in coordination with CDFW that construction activities are not likely to adversely affect the nest. The qualified biologist and CDFW may agree upon an alternative monitoring schedule depending on the construction activity, season, and species potentially subject to impact.

- d. A report of the findings shall be prepared by a qualified biologist and submitted to the County prior to the initiation of construction-related activities that have the potential to disturb any active nests and or burrows. The report shall include recommendations required for establishment of protective buffers as necessary to protect nesting birds and ground nesting species. A copy of the report shall be submitted to the County and applicable regulatory agencies prior to the issuance of a grading permit.

**Mitigation Measure BIO-3 Roosting Bat Pre-Construction Survey(s):** ) : If initial ground disturbance or building demolition occurs during the bat maternity roosting season (May 1 through July 31), a qualified biologist shall conduct a bat roost assessment of trees and structures within 300 feet of the construction site to determine if they contain suitable bat habitat (e.g., cavities, crevices, deep bark fissures). If any trees contain such habit, bat presence shall be presumed. Surveys shall be conducted immediately prior to construction (within 1 to 2 days). If the biologist determines there is potential for maternity roosting bats to be present within 300 feet of the project site, nighttime emergence surveys shall be performed to determine if maternity roosting bats are present. If bat maternity roosts are present, the biologist shall establish an appropriate exclusion zone around the maternity roost. Once the biologist has determined that all young have become independent of the roost, construction may take place in the former exclusion zone.

**Mitigation Monitoring: BIO-2 and BIO-3 Pre- Construction Surveys:** Prior to construction and through completion of initial site disturbance, Permit Sonoma staff shall verify that all surveys have been conducted according to applicable protocols and shall review the results of all pre-construction surveys and any measures recommended by the biologist to avoid sensitive habitat or species and ensure compliance. If the survey determines protective buffers are necessary, ground disturbing activities shall not be initiated until the applicant provides evidence that nest protection buffers are flagged and fenced off and active nest monitoring has been initiated.

A final monitoring report shall be submitted to the County within 30 days of the completion of ground disturbing activities.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Comment:

Field surveys conducted for the project confirmed that the only habitat types present within the project footprint are non-sensitive disturbed and ruderal land. A total of two sensitive biological

communities were found to occur in the vicinity of the proposed Project Site: Non-native Grassland and Seasonal Wetlands are adjacent and to the south of the Study Area. The project site does not contain any seasonal wetlands or designated riparian corridors. The project will be set back at least 50 feet from any seasonal wetland and is located beyond the 50-foot designated streamside conservation area established by the county. This conservation area applies to the designated riparian corridor across the street from the project site. The project site is located down gradient from both sensitive habitats and over 150-feet from the designated Riparian Corridor, and no work is proposed in a riparian zone. Therefore, the project would not affect riparian habitat or any other sensitive natural community.

Significance Level: Less than Significant Impact

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Comment:

The proposed project would not fill any waterway or wetlands. There would be no removal or hydrological interruption with project approval. The project is not in a wetland area. All development would be approximately 150 feet from the nearest seasonal wetland, which is adequate to ensure no indirect impacts to wetlands would occur. Therefore, the project would not affect wetland habitat.

Significance Level: No Impact

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Comment:

The project site is located within a former rock quarry, which was decommissioned prior to 1980, and has since been graded to control storm water runoff. The site consists of compacted gravel, bare dirt and gravel access roads and areas of sparse ruderal vegetation cover. The project site is located within an existing graveled area, which has historically been used for agricultural equipment staging and parking since at least 2001 when the parcel came under current ownership. There are a few ornamental trees and a stand of eucalyptus over 300-feet west of the project site. The project site does not contain suitable habitat for any sensitive species and does not contain any sensitive habitat types. Although there are two sensitive habit types in the vicinity of the Study Area, the project site is downgradient from both, and not within a riparian area as stated in 4b.

Although the project does not propose to remove trees, which could supply habitat for nesting birds or roosting bats, impacts could occur during construction activities if noise or other disturbance were to cause the birds or bats to abandon an active nest or an active roosting site. Because most of the construction impacts from project development would be confined to an area of disturbed and ruderal habitat, project impacts on special-status species would largely be limited to potential inadvertent destruction or disturbance of nesting birds on and near the project site as a result of a construction-related tree and/or vegetation removal and site disturbance.

Migratory bird species could potentially occur onsite. Many common bird species including their eggs and young are given special protection under the Migratory Bird Treaty Act of 1918 (Migratory Bird Act). Impacts to migratory birds are typically avoided by removing vegetation and conducting ground-disturbing activities only between September 1 and February 15 to avoid bird-nesting season, by having a qualified biologist verify absence immediately prior to vegetation removal, or by employing exclusionary bird netting during the nesting season. Mitigation Measure BIO-2 would reduce potential project impacts on nesting birds and roosting bats to a less than significant level.

Significance Level: Less than Significant Impact with Mitigation Incorporated

Mitigation:

**Mitigation Measure BIO-2: Prevent Disturbance to Nesting Birds.**

Mitigation Monitoring:

**Mitigation Monitoring: BIO-2 and BIO 3 Pre-Construction Surveys**

- e) **Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?**

Comment:

The project site is located in an area with a 50-foot Riparian Corridor protection designation (RC 50-Riparian Corridor), however no work is proposed in a riparian zone and the nearest County designated Riparian Corridor is located across Bloomfield Road over 150-feet from the proposed project site. Additionally, no tree removal is proposed. Therefore, the project would not conflict with any local resource protection policies or ordinances. No impact would occur.

Significance Level: No Impact

- f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?**

Comment:

Habitat conservation plans and natural community conservation plans are site-specific plans to address effects on sensitive species of plants and animals. There are no adopted habitat conservation plans or natural community conservation plans covering the project area, nor is the project site located in the Santa Rosa Plain. Therefore, the proposed project would not be subject to any habitat conservation plan or natural community conservation plan and would not conflict with any such plans.

Significance Level: No Impact

## 5. CULTURAL RESOURCES:

Would the project:

- a) **Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?**

Comments:

The project site is graded and flat within an existing graveled area. The project site was previously utilized a rock quarry, formerly known as Bloomfield Quarry, according to the 1980 Aggregated Resources Management plan. The quarry was decommissioned sometime prior to 1980, and the site been used for agricultural equipment staging and parking since at least 2001 when the parcel came under current ownership. There are no permanent structures within the proposed project site. The project site was graded to manage water flow, storm water run-off and sediment and erosion control in 2019.

Significance Level: No Impact

**b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

Comment:

The project was referred to the Northwest Information Center (NWIC) on February 2, 2021. A response was received on February 25, 2021, stating the proposed project area has a low possibility of containing unrecorded archaeological sites, and therefore did not recommend a study. Therefore, no impacts to archaeological resources are anticipated.

On February 2, 2021, Permit Resource Management Department (PRMD) staff referred the project application to Native American Tribes within Sonoma County to request consultation under AB52 (the request for consultation period ended 30 days later March 4, 2021). No requests for consultation were received.

The project proposes construction of new structures within the former Bloomfield Quarry site as discussed in 5a. The NWIC concluded that there is a low possibility the project site contains unrecorded archaeological sites. In addition, the County also has a standard “accidental discovery” condition of approval that work be halted if unanticipated buried cultural resources are encountered during construction. The condition is applied to all use permits that involve ground disturbance, and requires that the following notes be printed on all grading and building permit plans involving ground disturbing activities:

“If prehistoric or historic archaeological resources, paleontological resources, or tribal cultural resources are encountered during ground-disturbing work, all work in the immediate vicinity shall be halted and the operator must immediately notify the Permit and Resource Management Department (PRMD) – Project Review staff of the find. The applicant shall be responsible for the cost to have a qualified paleontologist, archaeologist or tribal cultural resource specialist under contract to evaluate the find and make recommendations to protect the resource in a report to PRMD. Paleontological resources include fossils of animals, plants or other organisms. Prehistoric resources include humanly modified stone, shell, or bones, hearths, firepits, obsidian and chert flaked-stone tools (e.g., projectile points, knives, choppers), midden (culturally darkened soil containing heat-affected rock, artifacts, animal bone, or shellfish remains), stone milling equipment, such as mortars and pestles, and certain sites features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe. Historic resources include all by-products of human use greater than fifty (50) years of age including, backfilled privies, wells, and refuse pits; concrete, stone, or wood structural elements

or foundations; and concentrations of metal, glass, and ceramic refuse.

If human remains are encountered, work in the immediate vicinity shall be halted and the operator shall notify PRMD and the Sonoma County Coroner immediately. At the same time, the operator shall be responsible for the cost to have a qualified archaeologist under contract to evaluate the discovery. If the human remains are determined to be of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification so that a Most Likely Descendant can be designated and the appropriate measures implemented in compliance with the California Government Code and Public Resources Code.”

Therefore, the proposed project would not result in substantial adverse change in the significance of archaeological resource as defined in CEQA Guidelines Section 15064.5.

Significance Level: Less than Significant Impact

**c) Disturb any human remains, including those interred outside of formal cemeteries?**

Comment:

No burial sites are known in the vicinity of the project area, and the site was previously excavated and disturbed by its former use as a quarry, which has since been decommissioned. Although the site would be disturbed by construction activities; based on comments from NWIC there is a low potential for buried archaeological sites in the project footprint. In the unlikely event the site contains a burial site, compliance with Sections 11-14-050 and 26-88-254(14) of the Sonoma County Code noted above would ensure necessary steps are taken to protect the resource.

Significance Level: Less than Significant Impact

## **6. ENERGY:**

**a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Comment:

Project construction would include temporary use of equipment such as bulldozers, excavators, skid steers, compactors, and boom lifts for limited periods. Long-term energy demand would result from employees working on the project site and from employee vehicle trips as discussed in section 17, Transportation. The proposed cannabis operation would also result in energy usage from electricity for lighting, odor reducing fans, the security system (e.g., alarm, lights, cameras), and water and wastewater pumps.

The proposed project in Sonoma County is expected to increase energy consumption compared to the current conditions due to the nature of indoor and mixed-light cultivation operations. These operations involve the use of energy-intensive lighting and ventilation systems that may run 24 hours a day and require year-round irrigation. To mitigate energy usage and enhance efficiency, the project includes the use of high-efficiency LED lighting for both artificial cultivation lighting and standard building lighting, as well as the installation of high-efficiency insulation for all indoor structures. All HVAC equipment will use zero Chlorofluorocarbons (CFCs) or Halons, bicycle parking would be installed for employees, and employees for the cannabis operation and contractors for construction would be sourced locally to decrease vehicle miles travelled. In addition, Sonoma

County Code requires that electrical power for cannabis cultivation and processing operations be obtained from a renewable source; the applicant proposes to purchase 100 percent renewable energy from the Sonoma Clean Power EverGreen program.

Non-cultivation activities will involve minimal energy and water use for security systems, lighting and heating/cooling systems in employee offices and breakrooms, and breakroom appliances. The lighting plan includes night lighting for security and safety purposes only. All security lighting would be equipped with motion sensors to only be used when needed. The project incorporates a rainwater capture system and the recycling and reuse of greywater to reduce as well as a timer/sensor-driven drip irrigation system to improve efficiency and conserve water. Rainwater capture systems primarily use gravity to move water throughout a system whereas pumping only through the well would require more energy. Therefore, the project is not expected to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Significance Level: Less than Significant Impact

**b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

Comment:

The proposed project would be required to comply with local energy efficiency standards as defined in County Code Chapter 7 (Building Regulations), which specifies Title 24, Part 6 of the California Code of Regulations, California Energy Code (Building Energy Efficiency Standards), as the County standard for buildings.

Significance Level: No Impact

## **7. GEOLOGY AND SOILS:**

Existing geologic conditions that could affect new development are considered in this analysis. Impacts of the environment on the project are analyzed as a matter of County policy and not because such analysis is required by CEQA.

**Would the project:**

**a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Comment:

The project site is not within a fault hazard zone as defined by the Alquist-Priolo fault maps.<sup>7</sup> The nearest fault line is the San Andreas Fault approximately 8.5 miles west of the project site.

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<sup>7</sup> California Department of Conservation, Earthquake Zones of Required Investigation, [Earthquake Zones of Required Investigation \(ca.gov\)](https://www.dnr.ca.gov/resources/land-use-planning/earthquake-zones-of-required-investigation), accessed January 15, 2023.

Significance Level: No Impact

**ii. Strong seismic ground shaking?**

Comment:

All of Sonoma County is subject to seismic shaking that would result from earthquakes along the San Andreas, Healdsburg-Rodgers Creek, and other faults. The site's proximity to the San Andreas fault (8.5 miles west of project site), indicates that the intensity of ground shaking and damage from anticipated future earthquakes in the project area is categorized as 'Very Strong' according to the County's General Plan Public Safety Element.<sup>8</sup>

Predicting seismic events is not possible, nor is providing mitigation that can entirely reduce the potential for injury and damage that could occur during a seismic event. However, by applying geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismic activity can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. The design and construction of new structures are subject to engineering standards of the California Building Code (CBC), which take into account soil properties, seismic shaking and foundation type. Standard conditions of approval require that building permits be obtained for all construction and that the project meet all standard seismic and soil test/compaction requirements. Therefore, the potential impact from strong seismic ground shaking would be less than significant.

Significance Level: Less than Significant Impact

**iii. Seismic-related ground failure, including liquefaction?**

Comment:

Strong ground shaking can result in liquefaction, the sudden loss of shear strength in saturated sandy material, resulting ground failure. Areas of Sonoma County most at risk of liquefaction are along San Pablo Bay and in alluvial valleys. According to the General Plan Public Safety Element Liquefaction Hazard Areas Map<sup>9</sup> the project site is not located in area with a designated Liquefaction Hazard rating (Medium, High, or Very High). As stated above, structures are subject to engineering standards of the California Building Code, which require that the project meet all standard seismic and soil test/compaction requirements. Therefore, the potential impact from liquefaction would be less than significant.

Significance Level: Less than Significant Impact

**iv. Landslides?**

Comment:

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<sup>8</sup> Sonoma County. 2008. Sonoma County General Plan 2020. Public Safety Element, "Earthquake Ground Shaking Hazard Areas Figure PS-1a." [Public Safety: Earthquake Ground Shaking Hazard Areas \(permitsonoma.org\)](https://permitsonoma.org), January 15, 2023.

<sup>9</sup> Sonoma County. 2008. Sonoma County General Plan 2020. Public Safety Element, "Liquefaction Hazard Areas Fig. PS-1c." Accessed 1/12/2023, [Public Safety: Liquefaction Hazard Areas \(permitsonoma.org\)](https://permitsonoma.org), January 15, 2023.

Steep slopes characterize much of Sonoma County, particularly the northern and eastern portion of the County. Where these areas are underlain by weak or unconsolidated earth materials landslides are a hazard. According to the ABAG Hazard Viewer maps the project site is located in area designated as "Flat Land" <sup>10</sup>. Additionally, according to the General Plan Public Safety Element Landslide Hazard Areas Map (Figure PS-1d), the project site has a Slope Class of 0 and is not located in a designated Landslide Hazard Area <sup>11</sup>.

Significance Level: No Impact

**b) Result in substantial soil erosion or the loss of topsoil?**

Comment:

The project proposes construction of all new facilities and is located on an existing graded graveled area. The project site was graded to manage water flow, storm water run-off and sediment and erosion control in 2019. Furthermore, erosion and sediment control provisions of the Drainage and Storm Water Management Ordinance (Chapter 11 Construction Grading and Drainage and Chapter 11A Stormwater Quality, Sonoma County Code) and Building Ordinance (Chapter 7, Sonoma County Code) requires implementation of flow control best management practices to reduce runoff. The Ordinance requires treatment of runoff from the two-year storm event. Required inspection by Permit Sonoma staff ensures that all grading and erosion control measures are constructed according to the approved plans. These ordinance requirements and adopted best management practices are specifically designed to maintain potential water quantity impacts at a less than significant level during and post construction. If project construction were to occur during wet weather however, it is possible that stormwater could carry soil offsite into local storm drains. This impact can be reduced to less than significant by using standard construction erosion control measures at the project site.

In regard to water quality impacts, County grading ordinance design requirements, adopted County grading standards and best management practices (such as silt fencing, straw wattles, construction entrances to control soil discharges, primary and secondary containment areas for petroleum products, paints, lime and other materials of concern, etc.), mandated limitations on work in wet weather, and standard grading inspection requirements, are specifically designed to maintain potential water quality impacts at a less than significant level during project construction.

For post construction water quality impacts, adopted grading permit standards and best management practices require that storm water to be detained, infiltrated, or retained for later use. Other adopted water quality best management practices include storm water treatment devices based on filtering, settling, or removing pollutants. These construction standards are specifically designed to maintain potential water quality grading impacts at a less than significant level.

Significance Level: Less than Significant Impact

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<sup>10</sup> MTC/ABAG, 2021. "Hazard Viewer Map," Available at: <https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8> last accessed January 15, 2023.

<sup>11</sup> Sonoma County General Plan 2020. Public Safety Element, Landslide Hazard Areas Figure PS-1d, <https://permitsonoma.org/x105619>, January 15, 2023.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

Comment:

The project site is not located within a High or Very High Liquefaction Hazard Area, or a designated Landslide Hazard Area. The project site is graded and flat within an existing graveled area. No project construction or operation is proposed on any non-graded area of the parcel. Additionally, the design and construction of new structures are subject to engineering standards of the California Building Code (CBC), which consider soil properties, seismic shaking and foundation type. The project would therefore not expose people to substantial risk of injury from seismic shaking. Therefore, the potential impact from landslides or liquefaction would be less than significant.

Significance Level: Less than Significant Impact

- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

Comment:

Table 18-1-B of the Uniform Building Code is an index of the relative expansive characteristics of soil as determined through laboratory testing. The project site is located within the boundary of a former rock quarry and consists of imported, non-native soil made of up of crushed rock and compacted gravel. According to the Natural Resources Conservation Service (NRCS), soils near the project site consist of Los Osos Clay Loam (15-30% slopes) which has a moderate to high shrink swell potential and Steinbeck Loam (2-9% slopes) which has a low shrink swell potential<sup>12</sup>. Additional compliance with standard Building Code requirements would ensure that potential soil expansion at the project site would be mediated through professional engineering design and practice. Therefore, risks from expansive soils would be less than significant.

Significance Level: Less than Significant Impact

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

Comment:

The project site is not in an area served by public sewer. Soils on-site are capable of adequately supporting the use of septic tanks. The project site will include the construction of three new structures which will be served by a single new septic system. This septic system and leach field will be located west of the proposed structures and would comply with County regulations related to the disposal of wastewater.

Significance Level: Less than Significant Impact

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Comment:

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<sup>12</sup> Natural Resources Conservation Services Web Soil Survey.  
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>, accessed January 15, 2023.

The proposed project area has a low possibility of containing unrecorded paleontological resources or unique geologic feature. All native soils have already been removed and disturbed due to the former quarry use. No significant impacts are anticipated. However, to further reduce impacts Sonoma County Code Section 26-88-254(f)(14) provides standard procedures for protection of paleontological resources encountered during work at the project location:

*“The following minimum standards shall apply to cultivation permits involving ground disturbance. All grading and building permits shall include the following notes on the plans:*

*“If paleontological resources or prehistoric, historic-period or tribal cultural resources are encountered during ground-disturbing work at the project location, all work in the immediate vicinity shall be halted and the operator must immediately notify the agency having jurisdiction of the find. The operator shall be responsible for the cost to have a qualified paleontologist, archaeologist and tribal cultural resource specialist under contract to evaluate the find and make recommendations in a report to the agency having jurisdiction.*

*“Paleontological resources include fossils of animals, plants or other organisms. Historic-period resources include backfilled privies, wells, and refuse pits; concrete, stone, or wood structural elements or foundations; and concentrations of metal, glass, and ceramic refuse. Prehistoric and tribal cultural resources include obsidian and chert flaked-stone tools (e.g., projectile points, knives, choppers), midden (culturally darkened soil containing heat-affected rock, artifacts, animal bone, or shellfish remains), stone milling equipment, such as mortars and pestles, and certain sites features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe.”*

Significance Level: Less than Significant Impact

## **8. GREENHOUSE GAS EMISSIONS:**

**Would the project:**

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Comment:

Section 15064.4 of the State CEQA Guidelines assists lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 gives lead agencies the discretion to assess emissions quantitatively or qualitatively. The CEQA Guidelines do not establish a threshold of significance. Lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or other experts, so long as any threshold chosen is supported by substantial evidence.

The Bay Area Air Quality Management District’s (BAAQMD) 2022 *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects* acknowledges that evaluating climate impacts under CEQA can be challenging because global climate change is inherently a cumulative problem, rather than the result of a single source of greenhouse gas (GHG) emissions. With that in mind, the BAAQMD has recommended thresholds of significance as to whether a proposed project would have a “cumulatively considerable” contribution to the significant cumulative impact on climate change.

For land use development projects, the BAAQMD recommends using an approach which evaluates a project based on its effect on California's efforts to meet the State's long-term climate goals. Using this approach, a project that is consistent with and would contribute its "fair share" towards achieving those long-term climate goals can be found to have a less-than-significant impact on climate change under CEQA because the project would, in effect, help to solve the problem of global climate change. Applying this approach, the Air District has analyzed what will be required of new land use development projects to achieve California's long-term climate goal of carbon neutrality by 2045.

Because GHG emissions from the land use sector come primarily from building energy use and from transportation, these are the areas that the BAAQMD evaluated to ensure that a project can and will do its fair share to achieve carbon neutrality. With respect to building energy use, the BAAQMD recommends replacing natural gas with electric power and eliminating inefficient or wasteful energy usage. This will support California's transition away from fossil fuel-based energy sources and will bring a project's GHG emissions associated with building energy use down to zero as the state's electric supply becomes 100 percent carbon free. With respect to transportation, the BAAQMD recommends that projects be designed to reduce project-generated Vehicle Miles Travelled (VMT) and to provide sufficient electric vehicle (EV) charging infrastructure to support a shift to EVs over time.

The BAAQMD has found, based on this analysis, that a new land use development project being built today either must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b), or must incorporate the following design elements to achieve its "fair share" of implementing the goal of carbon neutrality by 2045:

- A. Projects must include, at a minimum, the following project design elements:
  1. Buildings
    - a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
    - b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
  2. Transportation
    - a. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's (OPR) 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA:
      - i. Residential projects: 15 percent below the existing VMT per capita
      - ii. Office projects: 15 percent below the existing VMT per employee
      - iii. Retail projects: no net increase in existing VMT
    - b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

There is currently no applicable local GHG reduction strategy, like an adopted Climate Action Plan, for Sonoma County. Therefore, the project was analyzed under criterion A above, as discussed

below.

Buildings: As discussed in the Energy Section 6a, the project includes new construction. Plans for the new structures do not include the use of natural gas appliances or natural gas plumbing, the site will purchase electrical power from Sonoma Clean Power. The project does include the installation of a 2,000-gallon propane tank exclusively for emergency backup generator use. Emergency generators can be used only during power shut offs and other emergencies when on-grid power is not available. The aggregate use of new structures for non-cultivation activities would result in energy use similar to any small agricultural processing structure, including powering of lighting, heating/cooling systems, and employee support spaces, like offices and restrooms. However, indoor and mixed light cultivation operations include the use of energy intense lighting and ventilation systems, which could operate 24 hours per day. To minimize energy use and greenhouse gas emissions, the project incorporates several strategies: the use of high-efficiency LED lighting for cultivation and standard building lighting, the use of high-efficiency insulation for indoor structures, and HVAC equipment that does not use chlorofluorocarbons (CFCs) or halons. Additionally, the project encourages employee carpooling, hiring local employees, sourcing materials such as organic fertilizers locally, and composting green waste onsite. Therefore, impacts due to energy consumption would be less than significant.

Transportation: The cultivation project does not include new residences, office buildings, or commercial retail, and therefore, does not contribute any VMT to these three land use categories of concern. (Note that “office projects” refers to commercial office spaces, not to a small ancillary office space associated with another land use). The project would include construction of one greenhouse, one indoor cultivation structure, and one indoor propagation and centralized processing structure for commercial use.

As discussed in the Transportation Section 17b, VMT refers to the amount and distance of automobile travel attributable to a project. The County of Sonoma has not yet adopted specific VMT policies or thresholds of significance. However, the OPR Technical Advisory includes a screening threshold for small projects that generate or attract fewer than 110 trips per day, stating this level of vehicle activity may generally be assumed to result in a less than significant transportation impact. The maximum average daily vehicle trips associated with the project is below the aforementioned threshold. The project also proposes to implement a local hiring plan, so although distance travelled for employee trips has not been estimated, it is reasonable to assume that employees would primarily be hired from the local area and would generate relatively few travel miles associated with in-county commuter trips.

The maximum number of employee generated daily trips is 57 (if all 19 employees were to travel to the site in a day); delivery/vendor truck trips are estimated at 217 truck trips per year (approximately four truck trips per week or less than one trip per day). Therefore, the total average daily trips estimated for the project would conservatively round up to 58, well below the OPR threshold of 110 trips per day. Distance-related vehicle miles are anticipated to be low due to the proposed plan to hire from the local workforce, encouraging employees to carpool, proposed bicycle parking, and offering centralized processing to support cultivation operations in west county. Currently, Sonoma County has two operational centralized cannabis processing facilities, one in north Santa Rosa near the Sonoma County Airport industrial area, and one in central Sonoma Valley at the intersection of Trinity Road and Highway 12 in Glen Ellen. There are currently no operational centralized cannabis processing facilities located in or serving west Sonoma County. Although truck

trips are a small component of the overall project VMT, the project would be expected to lead to a reduction in regional VMT for cannabis processing truck trips, as cannabis growers in western Sonoma County would be most likely to transport their crops to the nearest processing facility. The proposed centralized processing facility would allow approved local operators an alternative to transporting cannabis to Santa Rosa, Sonoma Valley, or outside of the County to be processed, reducing overall VMT. The project is expected to have a less than significant VMT impact.

The latest California Green Building Standards Code (CALGreen) was published in 2022 and went into effect, with any local amendments, on January 1, 2023. The 2022 CALGreen Tier 2 requirements for EV charging stations apply to new non-residential buildings and require that off-street EV capable spaces be provided for new non-residential development projects with 10 or more parking spaces (note there are separate EV requirements for residential projects). The cultivation project proposes 21 all-weather parking spaces, including designated EV capable charging stations as required by the current CALGreen Standards.

The BAAQMD 2022 guidance does not propose construction-related climate impact thresholds, stating that GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions, and that land use project thresholds are better focused on addressing operational GHG emissions, which represent the vast majority of project GHG emissions. Project construction activities would result in a less than significant impact.

Because the project does not propose the use of natural gas, would use minimal energy, does not include new residential, office, or retail uses, would generate low VMT, and meets 2022 CALGreen requirements for EV charging stations, the project would contribute its "fair share" towards achieving the State's long-term climate goals, and therefore, would have a less-than-significant impact on climate change.

Significance Level: Less than Significant Impact

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Comment:

The County does not have an adopted Climate Action Plan but has adopted a Climate Change Action Resolution (May 8, 2018) which resolved to reduce GHG emissions by 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050, and noted twenty strategies for reducing GHG emissions, including increasing carbon sequestration, increasing renewable energy use, and reducing emissions from the consumption of good and services. The project has proposed to incorporate many GHG reduction strategies, including: limited use of petrochemical fertilizers, utilization of local vendors for deliveries, and the hiring of local employees for the on-site workforce, thereby reducing vehicle emissions from daily trips.

By incorporating multiple GHG reduction strategies, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Significance Level: No Impact

## 9. HAZARDS AND HAZARDOUS MATERIALS:

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Comment:

Construction and operation of the project may involve the intermittent transport, storage, use and disposal of potentially hazardous materials, including fuels and lubricants, paints, solvents, and other materials commonly used in construction. During construction activities, any on-site hazardous materials that may be used, stored, or transported would be required to follow standard protocols (as determined by the U.S. EPA, California Department of Health and Safety, and Sonoma County) for maintaining health and safety. Improper transit, storage, or handling of these materials could result in spills. This potential impact would be reduced to a less than significant level with implementation of standard approved construction methods for handling hazardous materials.

In addition, plant nutrients, fertilizers, fungicides, and approved algaecides may be used during the cultivation operation. Quantities of bulk nutrients are normally transported and stored in plastic containers and then diluted with water to a solution for use on plants. Plant nutrients and fertilizers would be stored in a secure locked enclosure without exposure to weather, sunlight, or wind. These materials would be stored on pallets and/or shelving to minimize the possibility of spills and leaks going undetected. Liquid products would be stored in secondary containment, where needed. Generally, there is no disposal of agricultural chemicals since they are applied to and taken up by the plants. Any disposal of unused plant chemicals would be minor, and the material would be taken to an appropriate solid waste disposal location as identified in product disposal instructions (most are safe for landfill disposal). No impacts are anticipated related to the routine transport, use, or disposal of small amounts of agricultural chemicals. As a condition of approval, the project would be required to comply with the following Operating Standard:

*“All cultivation operations that utilize hazardous materials shall comply with applicable hazardous waste generator, underground storage tank, above ground storage tanks, and any AB 185 (hazardous materials handling) requirements and maintain any applicable permits for these programs from the Fire Prevention Division, Certified Unified Program Agency (CUPA) of Sonoma County Fire and Emergency Services Department, or the Agricultural Commissioner (Sec 26-88- 254(g)(4)).”*

Project operation is also required to be consistent with California Department of Food and Agriculture Cannabis Regulations (CDFACR) Sections 8102(q), 8106(a)(3), 8304(f) and 8307 which further regulate hazardous materials. With existing General Plan policies and federal, State, and local regulations and oversight of hazardous materials, and project compliance with County Code standards, the potential threat to public health and safety or the environment from hazardous materials transport, use or disposal would represent a less than significant impact.

Significance Level: Less than Significant Impact

- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Comment:

The project proposes to use organic pesticides, herbicides, and/or fungicides and would maintain a plan for appropriate use and disposal of these materials, subject to review by Sonoma County and CDFACR. As discussed in section 9.a above, during construction there could be spills of hazardous materials, however potential impacts would be reduced to a less than significant level with implementation of standard approved construction methods for handling hazardous materials. See 9(a) above. Agricultural chemicals such as plant nutrients, fertilizers, approved pesticides and fungicides, will be stored in a manner which allows leaks to be easily detected and contained. After being diluted in water the agricultural chemicals will be administered to the plants in a controlled irrigation system which will be monitored for leaks and repaired immediately if damaged.

As discussed in section 9.a, with existing General Plan policies and federal, State, and local regulations, oversight of hazardous materials, and project compliance with County Code standards, the potential threat to public health and safety or the environment from accidental release of hazardous materials into the environment would be less than significant.

Significance Level: Less than Significant Impact

**c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Comment:

No existing or proposed schools are located within one-quarter mile of the project site. The nearest school, Twin Hills Middle School, is over 3 miles to the northeast of the project parcel.

Significance Level: No Impact

**d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Comment:

There are no known hazardous materials sites on the project site or within 5,000 feet, based on a review of the following databases (commonly known as the Cortese List) on March 23, 2023.

1. The State Water Resources Control Board Geotracker database,<sup>13</sup>
2. The California Department of Toxic Substances Control EnviroStor database (formerly known as Calsites),<sup>14</sup> and
3. The CalRecycle Solid Waste Information System (SWIS)<sup>15</sup>.

Significance Level: No Impact

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<sup>13</sup> State Water Resources Control Board. "Geotracker Database," <https://geotracker.waterboards.ca.gov/>, accessed March 23, 2023.

<sup>14</sup> Department of toxic Substances Control. "Envirostor Database", <https://www.envirostor.dtsc.ca.gov/public/>, accessed March 23, 2023.

<sup>15</sup> Cal Recycle. "Waste Information System (SWIS) Facility/Site Search," <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>, accessed March 23, 2023.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

Comment:

The site is not within the Airport Referral Area as designated by the Sonoma County Comprehensive Airport Land Use Plan, or within two miles of the Petaluma Municipal Airport, or other Public Use Airport.

Significance Level: No Impact

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Comment:

The project would not impair implementation of, or physically interfere with, the County's adopted emergency operations plan. There is no separate emergency evacuation plan for the County. The project would not change existing circulation patterns, would not generate substantial new traffic, and would not affect emergency response routes. Refer to Section 17 - Transportation, for further discussion of emergency access and project traffic.

Significance Level: No Impact

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

Comment:

According to the Wildland Fire Hazard Area Map (Figure PS-1g)<sup>16</sup> in the Sonoma County General Plan, the project site is located in the lowest Fire Hazard Severity Zone designated as Moderate and is not within a Wildland Urban Interface. Moderate Zones are generally located in grasslands and valleys, away from significant forested or chaparral wildland vegetation, as is the case with the project site. Both State Fire Safe Regulations (14 CCR 1270.00 et seq.) and County Code require projects located in High and Very High Fire Severity Zones to have a detailed vegetation management plan developed and reviewed by the Sonoma County Fire Prevention Division before a building permit can be issued. This requirement does not apply to projects located in a Moderate Zone. However, all construction projects must comply with County Code Fire Safe Standards (Chapter 13), including but not limited to, installing fire sprinklers in buildings, providing emergency vehicle access, and maintaining a dedicated fire-fighting water supply on-site, and vegetation management.<sup>17</sup> The proposed project is not located in a High or Very High Wildland Fire Hazard Area and would comply with all Fire Safe Standards. Therefore, the project would not be likely to expose people or structures to a significant risk of loss, injury or death involving wildland fires.

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<sup>16</sup> Sonoma County General Plan 2020, Public Safety Element Figure PS-1g.  
[https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Archive/Department%20Information/Cannabis%20Program/Documents/General-Plan-Map\\_PS1g.pdf](https://permitsonoma.org/Microsites/Permit%20Sonoma/Documents/Archive/Department%20Information/Cannabis%20Program/Documents/General-Plan-Map_PS1g.pdf), accessed March 23, 2023.

<sup>17</sup> Permit Sonoma Fire Prevention and Hazardous Materials Hazardous Vegetation Inspection & Abatement webpage.  
<https://permitsonoma.org/divisions/firepreventionandhazmat/servicesandfees/vegetationmanagement/services>, accessed March 23, 2023.

Significance Level: Less than Significant Impact

## 10. HYDROLOGY AND WATER QUALITY:

Would the project:

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Comment:

The project includes new construction on a previously graded and flat area within existing within an existing graveled area.

The project site located adjacent to a County designated Riparian Corridor, an unnamed tributary of Americano Creek, with a 50-foot development setback to protect the riparian corridor. The project is located across Bloomfield Road over 100-feet away from the Riparian Corridor exceeding the setback. No outdoor cultivation is proposed, and the site was previously graded in order to control storm water runoff. The project is subject to additional regulations intended to protect surface and groundwater quality, as described below.

On October 17, 2017, the State Water Resources Control Board adopted the Cannabis Cultivation Policy (Cannabis Policy) and the Statewide Cannabis General Order WQ 2017-0023-DWQ (Cannabis General Order) for General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities. The Cannabis Policy and Cannabis General Order include requirements to reduce impacts of waste discharges and surface water diversions associated with cannabis cultivation. The Order requires submittal of a Site Management Plan describing BMPs to protect water quality, and may also require a Site Erosion and Sediment Control Plan, Disturbed Area Stabilization Plan, and/or Nitrogen Management Plan, depending on size and site characteristics of the operation. All outdoor commercial cultivation operations that disturb an area equal to or greater than 2,000 square feet of soil are required to enroll. Most commercial indoor cannabis cultivation operations are conditionally exempt but must enroll in the program to obtain documentation of their conditionally exempt status. Compliance with the Cannabis General Order is a standard condition of approval for all cannabis permits.

The Sonoma County Department of Agriculture/ Weights & Measures has prescribed cannabis cultivation Best Management Practices related to pesticide and fertilizer storage and use, riparian protection, water use and storage, waste management, erosion control/grading and drainage, and items related to indoor cultivation. Annual inspections are required to confirm compliance with these standards.

Project construction and grading would be minimal but would still need to meet all applicable County grading and drainage requirements (County Code Chapter 11--Construction Grading and Drainage Ordinance). Required inspections by Permit Sonoma staff would ensure that water quality standards and erosion control measures would be maintained according to the approved project plans and applicable policy regulations.

Application of these standard County requirements, State wastewater discharge requirements, and County conditions of approval would reduce project stormwater runoff and water quality impacts to a less than significant level.

Significance Level: Less than Significant Impact

**b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Comment:

The site is located within a Class 2 - Major natural recharge groundwater availability area, and within a very low priority groundwater basin, as designated by the Sustainable Groundwater Management Act. A Hydrogeologic Report was prepared to address potential groundwater impacts under CEQA.<sup>18</sup>

The hydrogeologic report identified the cumulative amount of development and uses allowed in the area and assessed the impact of the proposed project’s groundwater use on overdraft conditions, land subsidence, surface water resources, and neighboring wells.

**Table 4. Onsite Water Use:**

<b>Cultivation Water Use</b>	
Mixed Light Cultivation:	344,560 gallons/year
Indoor Cultivation:	143,374 gallons/year
Propagation:	24,517 gallons/year
Employees:	<u>27,375 gallons/year</u>
<b>Total Cultivation Water Use</b>	<b>539,826 gallons/year or ~1.66 acre-feet/year</b>
Rainwater Capture:	275,101 gallons/year
Recycled Water (captured from onsite uses):	<u>65,700 gallons/year</u>
<b>Total Offsets</b>	<b>340,801 gallons/year or ~1.05 acre-feet/year</b>
<b>Total NET Cultivation Groundwater Use</b>	<b>199,025 gallons/year or ~0.61 acre-feet/year</b>
<b>Other Groundwater Use</b>	
Horses:	8,541 acre-feet/year
Landscaping:	<u>205,286 gallons/year</u>
<b>Total Other Groundwater Use</b>	<b>213,827 gallons/year or ~0.66 acre-feet</b>
So, total groundwater use onsite can now be calculated as follows:	
199,025 gallons/year (groundwater used for cannabis) + 213,827 gallons/year (groundwater used for horses, landscaping) =	
<b>412,852 gallons/year or 1.27 acre-feet/year = Total Groundwater Use Onsite</b>	

<sup>18</sup> Hurvitz Environmental Services, Inc., “Hydrogeologic Assessment Report, 4707 Bloomfield Rd, Petaluma, CA”, dated January 26, 2022.

### **Water Use Impact Analysis**

The hydrogeologic assessment evaluated potential cumulative impacts based on the known geologic, hydrologic, and groundwater characteristics in the area. Given the generally large parcel size in the area the cumulative impact area (CIA) for the study was a 925-acre polygon with the project site in the approximate center. The CIA encompassed 37 separate properties, ranging in size from 1.57-acres to 480-acres. Most are engaged in commercial agriculture (grazing); thirty-two (32) are developed with at least one primary residence, five (5) are pasture only with no residence.

The total aquifer storage value in the area was calculated at 11,933 acre-feet with an annual recharge rate of 247 acre-feet, and 123.5 acre-feet during drought years. The total CIA annual onsite water demand, excluding the project, was estimated to be 54.25 acre-feet (21.9% of non-drought year recharge, and 43.9% of drought year recharge), and estimated potential future demand to be 72.68 acre-feet (29.4% of non-drought year recharge, and 58.8% of drought year recharge), which are both less than 1 percent of the total calculated aquifer storage capacity in the cumulative impact area. The estimated annual water demand for the cannabis project is 1.66 acre-feet (including employees), however almost two-thirds (1.05 acre-feet/year) of the annual cannabis irrigation water demand will come from the applicants proposed onsite rainwater capture and recycled water systems, leaving the total groundwater demand at 0.61 acre-feet. Recycled water will come from a series of dehumidifiers placed in the indoor and mixed light cultivation structures that will capture water from the air to be re-used for irrigation purposes. The study concluded that total annual water demand proposed for the site including cannabis, landscaping, gardens, and livestock use (approximately 2.3 acre-feet per year without estimated offsets; 1.27 acre-feet/year with water re-use and rainwater capture offsets) is sustainable based on current and future development within the CIA.

In addition, the study found that ground water demand proposed for the Site is not significant with respect to the potential future conditions (approx. 0.8%) in the Cumulative Impact Area. Therefore, the report concluded that pumping and groundwater extraction from the Site for the proposed cannabis project is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future. The study determined that pumping and groundwater extraction at the proposed Project Irrigation Well will not significantly impact neighboring wells or stream flow conditions in nearby creeks.

Conditions of approval require well monitoring and limit groundwater use in accordance with the proposal to employ rainwater capture and water reuse. Although the hydrogeologic study determined that no significant impact to groundwater resources would result from on-site water use of 2.3 acre-feet per year, to further reduce potential groundwater impacts, total well water use for the project, inclusive of employee uses and irrigation of cannabis, will be limited to 1.0 acre-feet per year by condition of approval. This condition of approval allows flexibility for years when the project maximum amount of rainwater capture or recycled water re-use cannot be obtained (340,801 gallons or 1.05 acre-feet), but also requires that at least 215,000 gallons (0.66 acre-feet) be obtained, or that irrigation, and corresponding canopy amount, be reduced to protect and conserve water resources. Based on the hydrogeologic study and as enforced through conditions of approval, the project will have a less than significant groundwater impact.

Significance Level: Less than Significant Impact

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**i. Result in substantial erosion or siltation on- or off-site?**

Comment:

Construction activities associated with the proposed project are not anticipated to alter the existing drainage pattern of the site or area in a way that would result in downstream erosion and/or sedimentation. The project is located on previously disturbed land formerly utilized as a rock quarry and is within an existing graveled area. Additionally, all construction activities are required to adhere to Sonoma County Code Sections 11-14-040 and 26-88254 requiring that best management practices be incorporated in project activity to further control surface water runoff. Runoff and stormwater control requirements for cannabis cultivation prohibit draining of runoff to the storm drain system, waterways, or adjacent lands. Prior to beginning grading or construction, the operator is required to prepare a storm water management plan and an erosion and sediment control plan for County review and approval, including best management practices for erosion control during and after construction and permanent drainage and erosion control measures pursuant to Chapter 11 of the County Code. All cultivation operators are required to comply with the best management practices for cannabis cultivation issued by the Agricultural Commissioner for management of wastes, water, erosion control and management of fertilizers and fires, Section 26-88-254(f)(20).

Compliance with SWRCB Cannabis General Order WQ 2019-0001-DWQ (Cannabis General Order) for General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities, effective as of April 16, 2019, requires submittal of a Site Management Plan describing best management practices (BMPs) to protect water quality and may also require a site erosion and sediment control plan, disturbed area stabilization plan, and/or nitrogen management plan, depending on size and site characteristics of the operation.

Significance Level: Less than Significant Impact

**ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Comment:

The project is located on previously disturbed land formerly utilized as a rock quarry, which is composed of crushed rock. The site does not contain any onsite watercourses. Additionally, during project construction, silt fencing and straw wattles would be installed around all construction areas, and straw would be spread on all disturbed surfaces, which would reduce any potential runoff during construction.

Existing site elevations and topography would remain largely unchanged after project construction, and overall drainage patterns would remain essentially the same. New development would occur only within the former quarry footprint. The project would collect and store rainwater from the roof of the new greenhouse/indoor cultivation building, and would construct a bioswale to capture overland runoff within the fenced area around the building. New hardscape would be installed for the paved driveway; other access roads would be improved gravel or dirt. The project would be subject to a grading permit, which requires that all new runoff from new impervious surfaces be

contained and treated onsite. Because overall drainage patterns would not change, the project would not result in substantial new surface runoff or flooding on- or off-site, either during construction or post-construction and the flooding impact would be less than significant.

Significance Level: Less than Significant Impact

**iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Comment:

Permit Sonoma Grading and Stormwater Section staff reviewed the project referral on February 24, 2021 and provided conditions of approval to ensure project compliance with the County Construction Grading and Drainage Ordinance (Zoning Code Chapter 11) and the Storm Water Quality Ordinance (Zoning Code Chapter 11A). The project would require a grading permit, which would not be issued until all recommended feasible stormwater treatment options have been incorporated into project design in compliance with all applicable standards of the County Code which would ensure that runoff water would not exceed drainage capacity or substantially add to polluted runoff.

Significance Level: Less than Significant Impact

**iv. Impede or redirect flood flows?**

Comment:

There are no blue line streams on the project site and the parcel is not in the 100-year flood zone or Special Flood Hazard Area (SFHA)<sup>19</sup> (i.e., the area that would be inundated by the flood event has a one percent chance of being equaled or exceeded in any given year). Refer to responses 10.c.ii and 10.c.iii above for discussion of hydrological impacts.

Significance Level: Less than Significant Impact

**d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

Comment:

According to Sonoma General Plan Figure PS-1f<sup>20</sup>, the project site is not located in an area that would be subject to flooding as a result of levee or dam failure. The project site is not located in a tsunami or seiche zone.

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<sup>19</sup> Sonoma County. General Plan 2020 Public Safety Element. "Flood Hazard Areas Fig. PS-1e," <https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/generalplan/organizationandoverview/publicsafety/publicsafetymaps/publicsafetyfloodhazardareas>, accessed March 29, 2023.

<sup>20</sup> Sonoma County. General Plan 2020 Safety Element. "Dam Failure Inundation Hazard Areas, Figure PS-1f," <https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/generalplan/organizationandoverview/publicsafety/publicsafetymaps/publicsafetydamfailureinundationhazardareas>, accessed March 29, 2023.

Significance Level: No Impact

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

Comment:

Though the County does not have a comprehensive water quality control plan, it achieves water quality control through enforcement of relevant requirements written into the General Plan and County Code. The project would be required to comply with all applicable water quality control requirements, including those related to cannabis cultivation, construction activities, wastewater discharge, and stormwater runoff.

The project site is not located in a priority groundwater basin as defined under the Sustainable Groundwater Management Act (SGMA). The nearest SGMA basin is the Santa Rosa Valley-Santa Rosa Plain Medium Priority Groundwater Basin, nearest boundary of which is located proximately 3 miles east of the project site. Though the project would not be subject to a sustainable groundwater plan, compliance with the County requirements discussed above in this section would protect against groundwater depletion or use of groundwater in an unsustainable manner.

The project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan.

Significance Level: Less than Significant Impact

## **11. LAND USE AND PLANNING:**

### **Would the Project:**

**a) Physically divide an established community?**

Comment:

The project would not physically divide the community. It does not involve the construction of a large physical structure (such as a major transportation facility) or removal of a primary access route (such as a road or bridge) that could impair mobility within an established community or between a community and outlying areas. All improvements associated with the buildout of the project would be constructed within the boundaries of the project site. The project does not include or propose expansion beyond the parcel boundaries nor does the project include changes to the existing roadway layout.

Significance Level: No Impact

**b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

Comment:

The project would not conflict with any applicable land use plan adopted for the purpose of avoiding or mitigating environmental effects, including the Sonoma County General Plan and Zoning Ordinance, or the Petaluma Dairy Belt Area Plan. The General Plan Land Use and zoning designation

on the parcel is Land Intensive Agriculture. The Petaluma Dairy Belt Area Plan land use designation for the parcel is also Land Extensive Agriculture. This land use designation is intended to enhance and protect lands capable of and generally used for animal husbandry and the production of food, fiber, and plant materials in areas where soil and climate conditions typically result in relatively low production per acre of land. Agricultural Resource policies focus on establishing and maintaining parcel sizes that are conducive to continued agricultural production and restricting non-agricultural uses to those that are compatible with agriculture.

The proposed project would also be generally consistent with goals, policies, and objectives in the Sonoma County General Plan 2020 related to avoiding or mitigating an environmental effect, including:

- Protection against intensive development of lands constrained by natural hazards and proliferation of growth in areas where there are inadequate public services and infrastructure (General Plan Land Use Element 2.7- Natural Resource Land Use Policy): The project site is not constrained by steep slopes, biotic or scenic areas, poor soils or water, geologic hazards, or fire and flood-prone areas. Development on the site is limited to less than 2 acres of the 113-acre parcel and no new public services or infrastructure are needed to serve the project.
- The project is designed in harmony with the natural and scenic qualities of the local area (Policy LU-12g), as the project would be setback at least 100-feet from the property line, screened by proposed landscaping, and structures will be agricultural and nature and subject to design review.
- Preservation of biotic and scenic resources (General Plan Goal LU-10, Objective LU-10.1, Goal OSRC-2, Objective OSRC-2.1, Objective OSRC-2.2, Objective OSRC-2.3, Policy OSC-2d, Goal OSC-3, Policy OSRC-3a, Policy OSRC-3b, Policy OSRC-3c, Goal OSRC-6, Objective OSRC-6.1, and Policy OSRC-6a): The project would be consistent with regulations pertaining to avoiding biotic resources and would also be consistent with regulations designed to maintain the scenic qualities of the area. (See Section 1, Aesthetics, for further discussion).
- Wastewater (General Plan Policy LU0-8a): The project would comply with regional waste discharge requirements and County regulations to minimize stormwater, surface water, and groundwater pollution.
- Maintaining very low residential densities (General Plan Objective LU-12.6): The project does not propose to increase residential density or construct new residences.
- Nighttime lighting and preservation of nighttime skies and visual character of rural areas (General Plan Goal OSRC-4, Objective OSRC-4.1, Objective OSRC-4.2, Policy OSRC-4a, Policy OSRC-4b, and Policy OSRC-4c): The project would use minimal, motion-activated exterior lights and all night lighting from mixed light greenhouse will be contained within the structures, which would comply with County requirements related to location, shielding, and light levels.
- Renewable Energy (General Plan Policy LU-11b, Goal OSRC-14, and Objective OSRC-14.2): The project would use 100 percent renewable. This is consistent with the County's goals to

conserve energy and improve efficiency.

- Protection of Water Resources (General Plan Goal LU-8, Objective LU-8.1, Goal, Policy LU-8a): The project would be consistent with regulations pertaining to protecting Sonoma County's water resources and would be consistent with regulations designed to avoid long-term declines in available groundwater resources or water quality.
- Noise (General Plan Goal NE-1): Project construction and operations, including cannabis cultivation and processing, would not exceed the general plan noise standards Table NE-2 (See Section 12, Noise, for further discussion).

Within the Land Extensive Agriculture land use and zoning designation, commercial cannabis operations including centralized processing and cultivation (up to one acre of cultivation area) operations are allowed land uses with a use permit. The proposed project would be consistent with the County Code for the LEA zoning designation as well as the Development Criteria and Operating Standards from the Code intended to avoid and minimize potential environmental impacts (Section 26-88-250 through 254).

The primary use of any parcel within one of the three agricultural land use categories (LIA, LEA, DA) must involve agricultural production and related processing, support services, and visitor serving uses. Allowed non-agricultural land uses must be conducive to continued agricultural production. The parcel maintains a horse training facility, an organic vegetable farming operation, bee keeping, and sheep grazing, which will continue on the project parcel. A condition of approval will require that onsite agricultural uses (or other comparable agricultural use) be continued as long as the permit is active.

No conflicts with other general plan or area plan policies related to scenic, cultural, or biotic resource protection, noise, or transportation have been identified. No conflicts with the Development Criteria or Operating Standards have been identified and no exceptions or reductions to standards would be necessary. Therefore, the project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Significance Level: Less than Significant Impact

## 12. MINERAL RESOURCES:

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

Comment:

Although the project site was used as a rock quarry in the past, it is not located within a designated mineral resource deposit area.<sup>21</sup> Sonoma County has adopted an Aggregate Resources Management

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<sup>21</sup> Sonoma County. "Aggregate Resources Management Plan," Available at: <https://permitsonoma.org/longrangeplans/adoptedlong-rangeplans/aggregateresourcesmanagement>, accessed March 29, 2023.

Plan that identifies aggregate resources of statewide or regional significance (areas classified as MRZ-2 by the State Geologist).

The project site does not contain any active mines or known mineral resources that would require preservation and/or be impacted by the project.

Significance Level: No Impact

**b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

Comment:

The project site is not zoned MR (Mineral Resources) and is not located within a locally-important mineral resource recovery site. No locally-important mineral resources are known to occur at the site.

Significance Level: No Impact

## **13. NOISE:**

**Would the project result in:**

**a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Comment:

Noise may be defined as loud, unpleasant, or unwanted sounds. The frequency (pitch), amplitude (intensity or loudness), and duration of noise all contribute to the effect on a listener or receptor, and whether the receptor perceives the noise as objectionable, disturbing, or annoying. The decibel scale (dB) is a unit of measurement that indicates the relative amplitude of a sound. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a tenfold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 more intense, and so on. In general, there is a relationship between the subjective noisiness, or loudness of a sound, and its amplitude, or intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. There are several methods of characterizing sound. The most common method is the "A-weighted sound level," or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is typically most sensitive. Thus, most environmental measurements are reported in dBA, meaning decibels on the A-scale.

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. Theoretically, the sound level of a point source attenuates, or decreases, by 6dB with each doubling of distance from a point, or stationary, source of a sound, and 3 dB for each doubling of distance from a mobile source of the sound. Sound levels are also affected by certain environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and attenuation by barriers. When more than one-point source contributes to the sound pressure level at a receiver point, the overall sound level is determined by combining the contributions of each source.

Decibels, however, are logarithmic units and cannot be directly added or subtracted together. Under the dB scale, a doubling of sound energy corresponds to a 3 dB increase in noise levels. For example, if one noise source produces a sound power level of 70 dB, two of the same sources would not produce 140 dB – rather, they would combine to produce 73dB.

County noise standards for non-transportation operational noise (as indicated in Table NE-2 of the General Plan) establish a maximum allowable exterior noise exposure of 50 dBA in the daytime (7:00 AM to 10:00 PM) and 45 dBA in the nighttime (10:00 PM to 7:00 AM), as measured using the L50 value (the value exceeded 50 percent of the time, or 30 minutes in any hour – i.e., the median noise level).

**Table 5. Maximum Allowable Exterior Noise Exposures for Non-transportation Noise Sources (Table NE-2 from General Plan)**

Hourly Noise Metric <sup>1</sup> (dBA)	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (5 minutes in any hour)	60	55
L02 (1 minute in any hour)	65	60
<sup>1</sup> The sound level exceeding n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level.		

Potential sources of noise associated with cannabis operations can include emergency generators, HVAC equipment such as fans circulation, ventilation, exhaust, etc., blowers and heaters, and alarms (on equipment such as forklifts). County Code Section 26-88-254(g)(6) includes the following standard pertaining to cannabis: “Cultivation operations shall not exceed the General Plan Noise Standards table NE-2, measured in accordance with the Sonoma County Noise Guidelines.” In addition, the Code includes a provision that “the use of generators as a primary source of power shall be prohibited.”

Traffic. Transportation noise would be generated by employee vehicles (19 total employees) as well as deliveries to the project site. Most employees would work during daytime hours and deliveries would occur between the hours of 8:00 am to 5:00 pm. Bloomfield Road is a Minor Collector Road as designated by Sonoma Public Infrastructure with an average daily traffic volume of 547 vehicles per day.<sup>22</sup> The function of collector roads is to gather traffic from Local Roads and funnel them to the Arterial Network. Generally, Minor Collector routes are shorter in length, have higher connecting driveway densities, have lower speed limits, are spaced at lower intervals, have lower annual average traffic volumes, and may have fewer travel lanes than their Major Collector counterparts.

The parcels in the immediate vicinity of the project parcel are generally large, ranging in size from approximately 30 to 200 acres. Directly across the road from the project parcel, there is one smaller parcel that is about 1.5 acres in size. These parcels are primarily used for agricultural operations. Some are developed with primary residences in addition to accessory structures such as barns and other outbuildings. There are four residences within an approximately 1,000-foot radius of the project site. Given the low number of vehicle trips and the project site’s location off of Bloomfield

<sup>22</sup> Sonoma County Interactive GIS Map Website: Sonoma County GIS Mapping Portal URL: <https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=82e364c2c425408e8bedb308afe5da22> Accessed: February 21, 2023.

Road, transportation noise would not be likely to result in a significant contribution to the existing ambient traffic noise level in the area.

Short-Term (Temporary) Noise. Construction noise would be temporary and short term as the impact would cease upon completion of construction. While residents could experience temporary noise from construction equipment and transport of construction materials, construction would be conducted within the allowable hours of 8:00 am and 5:00 pm. Extreme noise generating construction methods, such as impact pile driving, are not proposed. The nearest offsite residence is approximately 330-feet west of the proposed project site, there are two residences approximately 1,200-feet north, and one approximately 1,200-feet to the southwest all across Bloomfield Road. Due to the temporary short term nature of construction noise and distance to nearby receptors no significant impacts are anticipated for short term temporary noise.

Long-Term (Operational) Noise. Project operations would not require any heavy equipment or machinery. A permanently installed generator would be utilized only when there are power outages. The primary noise source that would be audible outside the proposed structures would be from fans required for ventilation. All HVAC equipment and the emergency generator would be located in the rear of all proposed structures, as delineated in the site plan (Figure 3) and contained within an acoustic enclosure either provided by the manufacturer or solid walls constructed of brick, masonry, or other robust materials. Further sound attenuation would be achieved via the landscaping in front of the proposed operation along the property line. The nearest offsite residence would be located over 400-feet across the road from the proposed location of exterior HVAC equipment and the emergency generator. Mitigation Measure Noise 1 requiring acoustical enclosures for HVAC equipment and Emergency Generators will reduce noise impacts to sensitive receptors to a less than significant level.

Significance Level: Less than Significant Impact with mitigation incorporated.

Mitigation:

**Mitigation Measure NOISE-1 HVAC and Emergency Generator Sound Enclosures:** HVAC and Generator noise emissions shall be less than 70 decibels as measured at any point 25 feet from the unit(s) when operating (this typically can be obtained with a Level II acoustic enclosure from the equipment manufacturer). The applicant shall submit sound level specification sheet(s) for HVAC and generator equipment and for any accompanying acoustic enclosures, if applicable, to demonstrate compliance with this noise limit. A separate structure (e.g., a sound wall) may also be constructed to meet this standard; if construction of a separate structure is proposed, the applicant shall also submit documentation prepared by a qualified noise consultant that the structure will attenuate the noise level in compliance with this noise limit.

**Mitigation Monitoring NOISE-1 HVAC and Emergency Generator Sound Enclosures:** Permit Sonoma staff shall verify that all required acoustic enclosures or sound walls are in place prior to issuance of a Use Permit Certificate to Operate the use. Verification shall include photographic documentation and/or a site visit, at the discretion of Permit Sonoma staff.

**b) Generation of excessive groundborne vibration or noise levels?**

Comment:

The project would include construction activities that may generate minor ground borne vibration and noise from conventional construction equipment, but no intensive vibratory noise would occur, such as pile-driving or jackhammering. All construction noise would be short-term, temporary, and limited to daytime hours. There are no other activities or uses associated with the project that would expose persons to or generate excessive ground borne vibration or ground borne noise levels.

Significance Level: Less than Significant Impact

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

Comment:

The site is not within an Airport Referral Area as designated by the Sonoma County Comprehensive Airport Land Use Plan. The closest public use airports Sonoma County Airport, which is greater than 10 miles northeast of the project site.

Significance Level: No Impact

## **14. POPULATION AND HOUSING:**

**Would the project:**

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Comment:

The proposed project does not include the construction of new housing, nor would it generate significant new demand for housing in the area (a maximum of 19 employees, including full-time and part-time staff, is proposed). This increase in employment opportunities is not anticipated to result in an indirect increase in population as it is anticipated that employees would be existing residents of the area. Therefore, the project would not induce substantial population growth in the area.

Significance Level: Less than Significant Impact

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

Comment:

No existing people or housing would be displaced by the project and no replacement housing is proposed to be constructed.

Significance Level: No Impact

## 15. PUBLIC SERVICES:

Would the project:

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:**

Comment:

Construction of the project would not involve substantial adverse physical impacts associated with provision of public facilities or services. The proposed project does not propose new housing, nor would it generate significant new demand for housing in the area (a maximum of 19 employees are proposed). This small increase in employment opportunities is not anticipated to result in an indirect increase in population requiring construction of new or altered government facilities. Therefore, the project would not necessitate or facilitate construction of new public facilities.

Significance Level: No Impact

**i. Fire protection?**

Comment:

The project is located within the State Responsibility Area (SRA), under CalFire jurisdiction. The parcel is located in the Gold Ridge Fire Protection District. The nearest fire station to the site is the Bloomfield Volunteer Fire Department which is 3 minutes (1.9 miles) from the project site.

Sonoma County Fire Prevention reviewed the project description and plans on February 15, 2021, and required that the project include fire protection methods such as alarm systems, extinguishers, vegetation management, hazardous materials management, and management of flammable or combustible liquids and gases. These are standard conditions of approval required by the County Code. Because none of the conditions or requirements requires the construction of new or expanded fire protection or emergency medical facilities, project impacts on fire protection and emergency medical services would be less than significant.

Significance Level: Less than Significant Impact

**ii. Police?**

Comment:

The Sonoma County Sheriff would continue to serve this area. There would be no increased need for police protection resulting from the project.

The proposed project does not include the development of housing. The project would generate up to 19 jobs as part of the operation. The project would not include the construction of a substantial number of homes or businesses or an amount of infrastructure and therefore would not induce substantial population growth. Existing police protection facilities would be adequate to serve the proposed project.

Significance Level: Less than Significant Impact

**iii. Schools?**

Comment:

Development fees to offset potential impacts on public services, including school impact mitigation fees, are required by Sonoma County Code and state law for new subdivisions and residential developments. The project does not include residential development and no new schools are reasonably foreseeable as a result. The project would not contribute to an increase in the need for expanded or additional schools.

Significance Level: No Impact

**iv. Parks?**

Comment:

The proposed project does not include the development of residential uses and thus would not result in the need for new or expanded park facilities.

Significance Level: No Impact

**v. Other public facilities?**

Comment:

The project would not be served by public sewer or water facilities. Expansion or construction of additional types of public facilities is not anticipated as a result of this project.

Significance Level: No Impact

## **16. RECREATION:**

**Would the project:**

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Comment:

The proposed project would not involve activities that would cause or accelerate substantial physical deterioration of parks or recreational facilities. The proposed project does not include any residential use and as such would not lead to an increase in the use of existing neighborhood or regional parks or other recreational facilities.

Significance Level: No Impact

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Comment:

The proposed project does not involve or require the construction of recreational facilities. The proposed project does not involve the construction of new housing, which is the typical type of development that requires expansion of recreational facilities. No impact would occur.

Significance Level: No Impact

## 17. TRANSPORTATION:

Would the project:

- a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

Comment:

The maximum number of employee generated daily trips is 57 (if all 19 employees were to travel to the site in a day); delivery/vendor truck trips are estimated at 217 truck trips per year (approximately four truck trips per week or less than one trip per day). Therefore, the total average daily trips estimated for the project would conservatively round up to 58, well below the OPR threshold of 110 trips per day.

Access to the project site would be from Bloomfield Road, which is a County-Maintained Road classified as a Minor Collector, nearby connecting roads include Valley Ford Road which is a Major Collector, and Burnside Road which is a Local Road according to the County Maintained Road System Map.<sup>23</sup> According to the most recent traffic volume data Average Daily Traffic volume is calculated to be 547 vehicles per day on Bloomfield Road, 4,606 vehicles per day on Valley Ford Road, and 337 vehicles on Burnside Road.<sup>24</sup> Given the minimal number of average daily trips that would be generated by the project and the existing volumes of vehicles on local roadways, the project would have a less than significant impact on the traffic circulation system.

The area is not served by public transit. The closest public transit stop is served by Sonoma County Transit at the intersection of Highway 116, Hessel, and Blank Road, approximately 4.5 miles from the project site. The project is also located in a rural area with no designated bikeways, sidewalks, or other bicycle or pedestrian facilities. Therefore, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities.

Significance Level: Less than Significant Impact

- b) **Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

Comment:

Traffic impacts under CEQA have traditionally been assessed based on increases in intersection

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<sup>23</sup> Sonoma County. 2020. General Plan Road Inventory, "County Maintained Road Postmile System Map." [County-Maintained Road System \(arcgis.com\)](#), accessed February 21, 2023.

<sup>24</sup> Sonoma County Department of Transportation & Public Works. 2020. County Roads Functional Classification Map. Accessed [Functional Classification \(arcgis.com\)](#), accessed February 21, 2023.

delays measured by Level of Service (LOS). However, with the passage of SB 743, transportation impacts under CEQA are now assessed based on the vehicle miles traveled (VMT) generated by a project (effective July 1, 2020).

Sonoma County has not yet adopted a VMT standard, nor has the County adopted a policy or threshold of significance regarding VMT. The Governor's Office of Planning and Research (OPR) has issued a "Technical Advisory on Evaluating Transportation Impacts in CEQA" (2018) to determine if the project's VMT may or may not cause a significant transportation impact. The screening threshold for small projects indicates projects that generate or attract fewer than 110 trips per day would result in a less than significant transportation impact.

The Cannabis Trip Generation form completed by the applicant on February 16, 2021, stated the project could generate a maximum of 58 trips per day (assuming all 19 employees were working onsite at the same time and if one of the four weekly delivery trips also happened on that day), which is below the threshold, indicating a less than significant impact.

Significance Level: Less than Significant Impact

**c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Comment:

The project would not increase hazards because it would not change the existing alignment of the roadway.

Significance Level: No Impact

**d) Result in inadequate emergency access?**

Comment:

Emergency vehicle access would be provided directly via Bloomfield Road, which is a County-maintained two-lane roadway at least 20-feet wide. The project site will contain two locked, gated entrances, which will be designed to be at least 2-feet wider than the lane serving the gate and the gate will be located at least 30-feet from the roadway to allow an emergency vehicle to stop without obstructing traffic. Both entrances will be equipped with Knox Boxes to allow emergency responders full access whenever needed. The project site will contain a fire truck turnaround central to the project site. Additionally, project plans would require review by the Sonoma County Fire Prevention Division during the building permit process to ensure compliance with emergency access issues.

The project site is accessible via existing gates off of Bloomfield Road. Employee parking would be provided near the front of the parcel and in front of the proposed indoor cultivation and processing structures, less than 50-feet from the entrances to the site. State Fire Safe Regulations (14 CCR 1270.00 et seq.) provide road standards to ensure concurrent civilian evacuation and access for emergency wildfire equipment. Access to the site via Bloomfield Road complies with State Fire Safe Regulations, including improvements required in conditions of approval. The driveways from each gated entrance will be at least 20-feet wide and are relatively flat throughout, a fire safe turnaround will be constructed central to the operation. Conditions of approval require that the project be designed to meet State Fire Safe Regulations.

Due to the low number of employees, Fire Safe Regulations-compliant emergency access via Bloomfield Road, and internal access design, there would be adequate emergency access to the project and the impact would be less than significant.

Significance Level: Less than Significant Impact

## 18. TRIBAL CULTURAL RESOURCES:

Would the project:

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**
- i. **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**
  - ii. **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Comment:

California Native American tribes were notified according to Public Resources Code section 21080.3.1 on February 2, 2021. The request for consultation period ended on March 4, 2021, with no Native American tribes requesting consultation for the project. No Tribe requested further information and no Tribe requested formal consultation.

The entire project site was operated as a quarry and decommissioned prior to 1980 resulting in removal of all native soils. Due to the fact that there are no remaining native soils no impacts are anticipated. Although no impacts are anticipated the County standard "Accidental Discovery" Condition of Approval applies to previously undiscovered TCR's or unique archaeological resources that may be accidentally encountered during project implementation.

Significance Level: Less than Significant Impact

## 19. UTILITIES AND SERVICE SYSTEMS:

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Comment:

Domestic wastewater disposal would be provided via a new onsite septic system and potable water would be provided by an existing private well. A rainwater harvesting system and greywater system would also be constructed to supplement irrigation. The project would require connecting new structures to the electrical grid. Operation of the proposed project would increase energy usage relative to existing conditions in Sonoma County. The project is designed to reduce its energy consumption as much as possible by utilizing high-efficiency LED lighting for both artificial cultivation lighting and standard building lighting, as well as the installation of high-efficiency insulation for all indoor structures. The project will not utilize natural gas and there are no natural gas facilities in the area.

The proposed project would not require or result in construction of new public roads, sidewalks, or storm water drainage facilities. A rainwater harvesting system would be installed to capture up to 275,101 gallons of water annually from the roofs of all proposed structures. Grading and Stormwater Section staff reviewed the project referral and provided conditions of approval to comply with the County Construction Grading and Drainage Ordinance (Zoning Code Chapter 11) and the Storm Water Quality Ordinance (Zoning Code Chapter 11A). The project would require a grading permit, which would not be issued until all recommended feasible stormwater treatment options have been incorporated in compliance with all applicable standards of the County Code.

Significance Level: Less than Significant Impact

**b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Comment:

As discussed throughout Section 10 Hydrology and Water Quality, the project would use water from existing onsite wells in addition to a rainwater catchment and greywater system for project operations. The project is located within a Class 2 Groundwater Area. A County-required hydrogeologic report determined that the existing well would provide enough water to sufficiently serve the project and that the project is unlikely to cause a decline in groundwater elevations or deplete groundwater resources over time. Domestic water uses from the existing on-site well would be negligible.

The quantity of groundwater to be used for the Project and within the Cumulative Impact Area compared to the quantity of available groundwater based on average rainfall conditions indicates that pumping for the Project is unlikely to result in significant declines in groundwater resources over time. Based on further analysis provided in the Hydrogeologic Assessment, even under drought conditions, project operations would constitute less than two percent of the water demand within the designated Cumulative Impact Area in a typical drought year.

Significance Level: Less than Significant Impact

**c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Comment:

The project site would be served by a new septic system installed and serviced by a licensed septic system contractor. The project would be required to obtain permits for a process wastewater disposal system and a separate domestic sewage disposal system. The system would require design by a registered civil engineer or registered environmental health specialist. Soils analysis, percolation, and wet weather testing may be required to ensure the sewage system is properly sited and the sewage system would meet peak flow discharge from all sources granted in the use permit. Further, the project is required to apply for annual wastewater discharge requirements with the North Coast Water Quality Control Board. The proposed project would not be served by public wastewater and would not impact the capacity of public facilities.

Significance Level: No Impact

**d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

Comment:

Sonoma County has a solid waste management program in place that provides solid waste collection and disposal services for the entire County. The program can accommodate the permitted collection and disposal of the solid waste that would result from the proposed project.

Additionally, the project would be required to comply with the following operating standard for commercial cannabis cultivation facilities contained in County Zoning Code Section 26-88-254(g)(8):

*A waste management plan addressing the storing, handling, and disposing of all waste by-products of the cultivation and processing activities in compliance with the best management practices issued by the agricultural commissioner shall be submitted for review and approval by the agency having jurisdiction. The plan shall characterize the volumes and types of waste generated, and the operational measures that are proposed to manage and dispose, or reuse the wastes in compliance with best management practices and county standards. All garbage and refuse on the site shall be accumulated or stored in non-absorbent, water-tight, vector resistant, durable, easily cleanable, galvanized metal or heavy plastic containers with tight fitting lids. No refuse container shall be filled beyond the capacity to completely close the lid. All garbage and refuse on the site shall not be accumulated or stored for more than seven (7) calendar days, and shall be properly disposed of before the end of the seventh day in a manner prescribed by the solid waste local enforcement agency. All waste, including but not limited to refuse, garbage, green waste and recyclables, must be disposed of in accordance with local and state codes, laws and regulations. All waste generated from cannabis operations must be properly stored and secured to prevent access from the public.*

The project proposes evaluating and re-using materials that might ordinarily be disposed of or recycled (e.g. cardboard, metals, etcetera) to reduce solid waste. The project is conditioned so that the applicant must provide a cannabis solid waste management plan detailing the disposal of cannabis waste for destruction, as well as a standard solid waste program covering all other types of waste. All cannabis waste shall be ground, chipped or shredded as necessary and mixed with suitable materials and composted until it is no longer recognizable as cannabis by sight or smell. Waste containing cannabis must be made unusable and unrecognizable prior to leaving the licensed premises by grinding and incorporating the cannabis waste with non-consumable, solid wastes listed below, such that the resulting mixture is at least 50 percent non-cannabis waste: a. Paper waste; b.

Cardboard waste; c. Food waste; or other compostable oil waste; and other wastes approved by the County that would render the cannabis waste unusable and unrecognizable.

The conditions described herein support and are consistent with California Department of Cannabis Control (DCC) Sections 8102(s), 8305 & 8306 regarding Utility and Service Systems.

Significance Level: Less than Significant Impact

**e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Comment:

No applicable federal solid waste regulations would apply to the project. At the State level, the Integrated Waste Management Act mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. Sonoma County has access to adequate permitted landfill capacity and reduction, reuse, and recycling programs to serve the proposed project. Construction and operational waste generated as a result of the project would require management and disposal in accordance with local and state regulations. The project would not conflict with or impede implementation of such programs.

Significance Level: Less than Significant Impact

## **20. WILDFIRE:**

According to the Sonoma GIS tool, the proposed project and surrounding area is located in a State Responsibility Area, with a Fire Hazard Severity Zone (FHSZ) designated as Moderate<sup>25</sup>. As noted in the General Plan Public Safety Element (p. PS-14): *the Moderate Fire Hazard Severity Zone includes: a) wildland areas of low fire frequency supporting modest fire behavior; and b) developed/urbanized areas with a very high density of non-burnable surfaces and low vegetation cover that is highly fragmented and low in flammability.*

**If located in or near state responsibility areas or lands classified as very high fire severity zones, would the project:**

**a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

Comment:

The project would not impair implementation of an adopted emergency response plan. There is no adopted emergency evacuation plan for the County, and the project would not change existing circulation patterns or effect emergency response routes. Project development plans would be required to be reviewed by a Fire Prevention Fire Inspector during the building permit process to ensure adequate emergency access is provided to the site.

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<sup>25</sup> Sonoma County. 2020. Permit Sonoma GIS, Cannabis Site Evaluation. <https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=0b784d90045941798d780f288b6f7003>, Accessed February 23, 2023.

Significance Level: Less than Significant Impact

**b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

Comment:

Wildfire risk is dependent upon existing environmental conditions, including but not limited to the amount of vegetation present, topography, and climate. The site is located in western Sonoma County composed of gently sloping hills and flat areas. Vegetation consists predominantly of pastureland grasses and scattered riparian vegetation near water courses. There is no significant forested or chaparral wildland vegetation, which carries wildfire, in the vicinity. Climate in the area is characterized as Mediterranean, with cool wet winters and hot dry summers.

According to the Wildland Fire Hazard Area Map (Figure PS-1g) in the Sonoma County General Plan, the project site is located in the State Responsibility Area and within a Fire Hazard Severity Zone designated as Moderate, and is not within a Wildland Urban Interface. Projects located in High and Very High Fire Severity Zones are required by state and county code to have a detailed vegetation management plan developed and reviewed by the Sonoma County Fire Prevention Division before a building permit can be issued. This requirement does not apply to projects such as this one located in a Moderate Zone. However, all construction projects must comply with County Fire Code (Chapter 13) and Fire Safe Regulations, including but not limited to, installing fire sprinklers in buildings, providing emergency vehicle access, and maintaining a dedicated fire-fighting water supply on-site. Construction and operation at the site must conform with adopted State standards as determined and implemented by CALFIRE and Sonoma County Fire officials intended to reduce the risk of wildfire to less than significant.

There are no existing residences on the project parcel. No more than 19 employees would be on site at any given time. Therefore, the project would have a less than significant impact regarding exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Significance Level: Less than Significant Impact

**c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

Comment:

According to the Sonoma GIS tool the proposed project is located in a State Responsibility Area, with a Fire Hazard Severity Zone (FHSZ) designated as Moderate. Operation of the proposed project would require maintenance of associated infrastructure; however, it would not exacerbate fire risk or result in temporary or ongoing impacts on the environment. Ongoing vegetation maintenance of the property to reduce wildfire risk would occur throughout the year. As discussed in Sections 10.a and 20.b, the project includes a Fire Prevention Plan that includes reduction of fuel loads, turnaround space, vegetation management, and fire break maintenance. Due to these requirements, the installation or maintenance of associated infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts on the environment.

Significance Level: Less than Significant Impact

- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes?**

Comment:

The project site is not located in an area at high risk for flooding, such as a 100-year flood hazard area. Additionally, drainage patterns at the project site would remain essentially the same as under existing conditions.

The project site is located on gently sloping ground surfaces and is not located within a deep seated landslide area, or on a mapped landslide complex or debris flow source area. It is unlikely that a landslide would occur on-site as a result of runoff, post-fire slope instability, or drainage changes. Therefore, it is not anticipated that the project would expose people or structures to significant risks including flooding or landslides as a result of runoff, post fire instability, or drainage changes

Significance Level: Less than Significant Impact

## **21. MANDATORY FINDINGS OF SIGNIFICANCE:**

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Potential project impacts on special status plant and fish/wildlife species and habitats are addressed in Section 4. With the implementation of the required mitigation measures BIO-1 through BIO-3, impacts to the habitat of a fish or wildlife species would be less than significant.

The project site is located within a former rock quarry decommissioned prior to 1980, then used as a staging area for farm equipment and vehicles, additionally the site was graded in 2019 in order to manage stormwater runoff. As discussed in Section 5, the NWIC stated the proposed project area has a low possibility of containing unrecorded archaeological sites, and therefore did not recommend a study. No requests for consultation were received from any Native American Tribes in response to the AB52 referral. The project is not expected to impact or eliminate important examples of major periods of California history or prehistory and no mitigations were proposed.

Significance Level: Less than Significant Impact

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Section 15355 of the CEQA Guidelines state: *Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.* Cumulative impacts can result from individually minor but collectively

significant actions taking place over a period of time. A search was undertaken to identify reasonably foreseeable projects in the vicinity of the proposed project area that might have overlapping or cumulative impacts.

As discussed in Section VI. of the Initial Study, Other Related Projects, there are two other proposed cannabis operations within a two-mile radius of the project site, neither project is approved or currently operating. One project is located 1-mile to the southeast on Roblar Road, UPC17-0079, and proposes 43,560 square feet of outdoor cannabis cultivation and onsite processing in an existing barn. The second project is located 1.5-miles southwest off of Mill Street, UPC23-0001, and proposes 10,000 square feet of mixed light cultivation and 33,560 square feet of outdoor cultivation. There was previously a 10,000 square foot outdoor cannabis operation east of the project site permitted by the Sonoma County Department of Agriculture Weights and Measurements that expired in June 2022, and is currently registered to cultivate hemp.

The proposed project located off Mill Street may be accessed via Bloomfield Road or Valley Ford Road. That project currently proposes less than 10 employees (including full and part time staff) and estimates a maximum of 15 daily trips during peak activity periods (e.g., harvest) which would contribute an estimated 5 trips during peak morning and evening commute hours. Given the minimal number of peak hour trips that would be generated by both projects and the existing volumes of vehicles on local roadways, the projects would have a less than significant impact on level of service standards.

Project-related construction activities are relatively benign and would result in limited, minimal, and short-term impacts. Further, the relatively large average parcel size in the surrounding area reduces potential for cumulative aesthetic impacts related to additional construction or commercial activity that could occur in the area. Such future uses would be separated enough to diminish the visual impact of the overall viewshed from any particular location. Additionally, each operation is located over 1-mile from one another, and is either not visible from a scenic resource, or meets the required setback from a scenic resource.

As discussed in Section 10, Hydrology and Water Quality, the groundwater impacts considered demand and use within a cumulative impact area (CIA) within a 925-acre polygon with the project site in the approximate center. Groundwater from onsite wells in combination with a rainwater catchment and greywater recycling system will supply water for the project. The total cumulative impact area annual onsite water demand, excluding the project, was estimated to be 54.25 acre-feet (21.9% of non-drought year recharge, and 43.9% of drought year recharge), and potential future demand to be 72.68 acre-feet (29.4% of non-drought year recharge, and 58.8% of drought year recharge), which are both less than 1 percent of the total calculated aquifer storage capacity in the cumulative impact area. The study concluded that total annual water demand proposed for the site including cannabis, landscaping, gardens, and livestock use (~2 acre-feet/year) is sustainable based on current and future development and is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future, indicating that combined project contributions would not result in a cumulatively considerable impact.

The project would contribute to cumulative impacts related to air quality, biological resources, and greenhouse gas, and noise, but County standards, BMPs, and mitigations would ensure that the project's cumulative contributions would not be considerable.

Significance Level: Less than Significant

**c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Cannabis operations have the potential to cause substantial adverse impacts on human beings, both directly and indirectly. However, all potential impacts and adverse effects on human beings (resulting from air quality/odors, hazards, traffic) were analyzed and would be less than significant.

Significance Level: Less than Significant

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July 9, 2024

Attn: Emily Galli, Environmental Scientist, and Wesley Stokes, Senior Environmental Scientist  
California Department of Fish and Wildlife, Bay Delta Region  
2825 Cordelia Road, Suite 100  
Fairfield, CA 94534

Re: UPC19-0012 Bloomfiled Flowers LLC., Initial Study/Mitigated Negative Declaration, SCH No.  
2024040916, Sonoma County

This letter is in response to comments provided on a draft Initial Study/Mitigated Negative Declaration by your office on May 20, 2024.

An amended Mitigated Negative Declaration was prepared to address your agency's comments, which were primarily concerned with expanding protections to species already addressed in the CEQA document. All requested revisions to mitigation measures are substitutions that are equivalent or more effective than previously proposed. Thus, these measures can be substituted pursuant to CEQA Guidelines Section 15074.1 and no recirculation is required. Additionally, all other changes to the MND do not constitute substantial revisions and merely clarify or amplify the prior analysis and thus also do not require recirculation. (CEQA Guidelines Section 15073.5.) The complete MND and Mitigation and Monitoring Program are available here: <https://share.sonoma-county.org/link/F3gtLYF7dmU/>

**COMMENT 1: Lake or Streambed Alteration Notification**

The California Department of Fish and Wildlife is included as a public agency requiring a permit or waiver in *Table 2. Agencies and Permits Required*, on page 3 of the document.

**COMMENT 2: Special Status Plant Surveys**

The parcel on which the proposed project is located is 113-acres in size, while the project site itself is approximately 2.5-acres (see Figure 1. Project Parcel vs. Project Site). The project site is the location of a former rock quarry; this area of the parcel was previously graveled and graded under an approved grading permit to manage stormwater flow as the quarry operation left the site with highly compacted surface materials which were relatively impermeable to rainwater infiltration. The project site is located near the front of the parcel accessed from and adjacent to Bloomfield Road. An existing horse arena and associated infrastructure including barns are located to the southeast of the proposed project site on the project parcel. The majority of the parcel is undeveloped land and grazing land.

The County recognizes that the biological assessment was conducted outside of the blooming period for most sensitive plant species. A Special Status Plant Survey was not required by the County as no native seed bank exists within the proposed project site due to the former use as a rock quarry and the former



grading and graveling of the project site. The quarry use resulted in excavation down into the substratum and bedrock, leaving no surface soils or seedbank. The post-quarry grading and graveling conducted for stormwater management impedes formation of new topsoil. Although some ruderal vegetation has begun to grow on the site, there is no habitat for native or sensitive plant species (See Figure 2 Site Photos 2019, Figure 3 Site Photos 2024, Attachment 1 Geotechnical Memo).

As noted in your comment, there is potential habitat for special status plants on the 113-acre parcel. However, there is no potential habitat within or immediately adjacent to the project site, which is separated from the rest of the parcel by development and the steep slope created during operation of the quarry. Therefore, no impacts to special status plant species or potential habitat would occur as a result of the project, and no mitigation is warranted.

### **COMMENT 3: Migratory Birds and Nesting Raptors**

The following will be added to the existing mitigation measure BIO-2 to incorporate CDFW's recommendations under items b and c of the applicable mitigation measure.

#### **Mitigation Measure Bio-2 Prevent Disturbance to Nesting Birds.**

- a. To avoid impacts to nesting birds, all construction-related activities (including but not limited to mobilization and staging, clearing, grubbing, vegetation removal, fence installation, demolition, and grading) should occur outside the avian nesting season (generally prior to February 1 or after August 31). Active nesting is present if a bird is sitting in a nest, a nest has eggs or chicks in it, or adults are observed carrying food to the nest.
  
- b. If construction-related activities are scheduled to occur during the nesting season (generally February 1 through August 31), a qualified biologist shall conduct a habitat assessment for nesting birds, including ground nesting species such as burrowing owl. Habitat assessments related to burrowing owl shall be performed following Appendix C of the CDFW Staff Report on Burrowing Owl Mitigation (2012 CDFW Staff Report) and shall extend at least 150 meters (492 feet) from the Project site boundary and include burrows and burrow surrogates. If suitable habitat exists then a qualified biologist shall conduct pre-construction surveys for nesting birds, including ground nesting species such as burrowing owl, no more than fourteen (14) days prior to initiation of work. Specifically if suitable burrowing owl habitat is determined to be present, then surveys shall be conducted following the methodology described in Appendix D (Breeding and Non-breeding Season Surveys) of the 2012 CDFW Staff Report. The qualified biologist conducting the surveys shall be familiar with local nesting bird and ground-nesting species including burrowing owl. Surveys shall be conducted at the appropriate times of day during periods of peak activity (i.e., early morning or dusk) and shall be of sufficient duration to observe movement patterns. Surveys shall be conducted within the project area and 250 feet of the construction limits for nesting non-raptors and 500 feet for nesting raptors and burrowing owls as feasible as disturbance distances vary dependent on species, time of year, and geographical location. If the survey area is found to be absent of nesting birds, no further mitigation is required. However, if project activities



are delayed by more than seven days, an additional nesting bird survey shall be performed.

- c. If pre-construction nesting bird surveys identify active nests and or burrows, no site disturbance (including but not limited to equipment staging, fence installation, clearing, grubbing, vegetation removal, demolition, and grading) shall occur until a qualified biologist has established a temporary protective buffer around the nest(s). For any raptor species, a Qualified Biologist, experienced in raptor behavior should be assigned to monitor the behavior of any raptors nesting within disturbance distance of Project activities. The buffer shall be of sufficient size to protect the nesting site from construction-related disturbance and shall be established by a qualified biologist. The Qualified Biologist shall have authority to order the cessation of all Project activities within disturbance distance of any raptor nest if the birds exhibit abnormal nesting behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young). No-work buffers are species- and site-specific, as determined by a qualified biologist. Typically, the no-work radius is 100-250 feet for songbirds and up to 1,000 feet for special-status raptors and owls. The nest buffer, where it intersects the project site, shall be staked with orange construction fencing or orange lath staking. Any active nests and burrows shall be monitored by a qualified biologist to ensure compliance with the relevant Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG) requirements. The biologist shall document monitoring efforts and provide documentation to the applicant and County. No-work nest protection buffers may be removed and/or reduced if the qualified biologist determines the young have fledged the nest, the nest has otherwise become inactive due to natural cause (i.e., storm events or predation), or if the qualified biologist determines in coordination with CDFW that construction activities are not likely to adversely affect the nest. The qualified biologist and CDFW may agree upon an alternative monitoring schedule depending on the construction activity, season, and species potentially subject to impact.
- d. A report of the findings shall be prepared by a qualified biologist and submitted to the County prior to the initiation of construction-related activities that have the potential to disturb any active nests and or burrows. The report shall include recommendations required for establishment of protective buffers as necessary to protect nesting birds and ground nesting species. A copy of the report shall be submitted to the County and applicable regulatory agencies prior to the issuance of a grading permit.

#### **COMMENT 4: Western Burrowing Owl**

As described above under Comment 2 response, the 113-acre parcel contains undeveloped land and grazing land, which could provide habitat for burrowing owl. However, no suitable habitat exists within or immediately adjacent to the project site for this species (see page 11 of the MND for site photos). The Geotechnical Memo included as Attachment 1 notes that the grading work within the project site (quarry site) either exposed firm, generally impervious bedrock, or left less than 6 inches of soil over the



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bedrock and that weak soils were removed and recompact and imported fill placed which was also compacted. Compacted soil inhibits animals to dig burrows. No unnatural features such as debris piles, culverts, or pipes are located within the project site. While the project site itself is generally flat, steeper slopes surround the site as a result of the former rock quarry use and equipment digging into the hillside (see Figures 1 and 2).

Although it is unlikely that burrowing owl would be present within the project site due to lack of habitat, the original mitigation measure in the MND required a habitat assessment and pre-construction surveys if construction activities are to occur during the nesting season. Mitigation Measure BIO-2 subsection b and c above has been revised per the recommendations of CDFW as described in Comment 2 response above.

#### **COMMENT 5: Bats**

While there is some landscaping along the front of the parcel including small trees and vines, these border Bloomfield Road, a regularly trafficked road providing the main access for parcels within the vicinity with an average daily traffic count of 547 vehicles per day. This road is classified as a minor collector road which is used to funnel traffic from local roads to the arterial network (e.g., interstates, freeways, expressways, and other main arterial routes radiating from an urban center). Landscaping along Bloomfield Road is not expected to provide habitat for bats. However, there is a stand of eucalyptus trees approximately 300 feet to the west of the project site which could provide habitat.

No outdoor nighttime activities are proposed as part of the project. Cultivation activities within the greenhouse could occur during nighttime hours; however, the zoning code requires the following related to lighting associated with cannabis businesses ([26-88-254\(f\)\(19\)](#)):

*All lighting shall be fully shielded, downward casting and not spill over onto structures, other properties or the night sky. All indoor and mixed light operations shall be fully contained so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise.*

All light will be contained within the proposed indoor and mixed light cultivation structures. The mixed light greenhouse is located between the two proposed indoor structures providing a buffer between the eucalyptus trees and mixed light structure. Any other lighting associated with the project will be motion sensor activated and for security purposes only as required by the zoning code ([Sec. 26-88-254\(f\)\(21\)](#))

The following will be added to the existing mitigation measure to incorporate CDFWs recommendations.

Mitigation Measure BIO-3 Roosting Bat Pre-Construction Survey(s):

If initial ground disturbance or building demolition occurs during the bat maternity roosting season ([April 1 through July 31](#)), a qualified biologist shall conduct a bat roost assessment of trees and structures within 300 feet of the construction site to determine if they contain suitable bat habitat (e.g., cavities, crevices, deep bark fissures). If any trees contain such habitat, bat presence shall be presumed. Surveys shall be conducted immediately prior to construction (within 1 to 2 days). If the biologist determines there is potential for maternity roosting bats to



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be present within 300 feet of the project site, nighttime emergence surveys shall be performed to determine if maternity roosting bats are present. If bat maternity roosts are present, the biologist shall establish an appropriate exclusion zone around the maternity roost. Once the biologist has determined that all young have become independent of the roost, construction may take place in the former exclusion zone.

**COMMENT 6: American Badger**

As described above under Comment 2 response, the 113-acre parcel contains undeveloped land and grazing land, which could provide habitat for American badger. However, suitable habitat for the badger is not present within or immediately adjacent to the project site as the entire project site was the location of a former rock quarry which has since been graveled and graded and adjacent areas consist of steep slopes or are developed (see Figures 1 and 2). Additionally, a Geotechnical Memo prepared for this project (Attachment 1) notes that the grading work within the project site (quarry site) either exposed firm, generally impervious bedrock, or left less than 6 inches of soil over the bedrock and that weak soils were removed and recompacted and imported fill placed which was also compacted.

The project would not result in a loss of potential badger habitat as none exists within the project site. In addition, the project site is separated from the rest of the parcel by development and the steep slope created during operation of the quarry and most project activities would occur within structures. Therefore, it is unlikely that badgers which may be present elsewhere on the 113-acre parcel outside of the boundaries of the project site would be disturbed by indirect project impacts, such as noise. Therefore, no impacts to American badger or potential habitat would occur as a result of the project, and no mitigation is warranted.

**COMMENT 7: Fencing Hazards**

The project conditions of approval include the following:

All hollow posts and pipes used for the project (e.g., fence posts, property line stakes, signs, etc.) shall be capped to prevent wildlife entrapment.

**COMMENT 8: Water Use and Cumulative Impacts**

The analyses in Section 10b of the MND is based on the findings contained within the Hydrogeologic Assessment Report (Report) prepared for the project by Hurvitz Environmental Services Inc. dated January 26, 2022 (see Attachment 2 Hydrogeologic Assessment Report) which has been peer reviewed by the County's staff Geologist and concludes that the project would have a less than significant impact on groundwater resources. Below is a summary of this Section 10b of the MND, more details can be found beginning on page 51 of the MND.

The site is located within a Class 2 - Major natural recharge groundwater availability area, and within a very low priority groundwater basin, as designated by the Sustainable Groundwater Management Act. A Hydrogeologic Report was prepared to address potential groundwater impacts under CEQA. The Report identified the cumulative amount of development and uses allowed in the area and assessed the impact of the proposed project's groundwater use on overdraft conditions, land subsidence, surface water resources, and neighboring wells within a 925-acre Cumulative Impact Area (CIA) for the water budget analysis.



The Report determined that total annual water demand for the entire parcel inclusive of the proposed cannabis operation to be 2.3-acre feet/year. Without proposed water conservation offsets water demand for the proposed project is estimated to be 1.66-acre feet/year. Under proposed conditions, including proposed water conservation measures, the project itself has an expected groundwater use of 0.61-acre feet/year for cannabis irrigation and employee uses. The project proposes numerous water conservation measures including the following:

1. Rainwater catchment collecting water from roughly 23,000 square feet of roof area, with a water storage tank of 250,000 gallons with an estimated rainwater capture of 275,101 gallons/year (0.84-acre feet/year);
2. Recycled water collection and reuse through installation of dehumidifiers in both the greenhouse and indoor structures with an estimated re-capture of 65,700 gallons/year (0.2-acre feet/year).

Annual groundwater use of the parcel, including existing non-cannabis agriculture and grazing, was estimated to be 412,852 gallons (1.27-acre feet). This equates to an average well pumping rate of 0.79 gpm. Well yield results submitted and included within the Report (Attachment 2 page 22-24 analysis, page 57-63 Well Yield Test) are interpreted to indicate the project well can sustainably support this rate of pumping.

The Report concludes that based on the findings within that pumping and groundwater extraction from the parcel for the proposed cannabis project is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future. Additionally, pumping and groundwater extraction at the proposed project irrigation well will not significantly impact neighboring wells or stream flow conditions in nearby creeks.

The project will be conditioned to require that a well monitoring easement be recorded with the County, all wells to serve project shall be metered, and groundwater use reported annually. Further conditions limit total well water use for the project, inclusive of employee uses and irrigation of cannabis to no more than 1.0-acre foot per year. The operator will also be required to install the rainwater capture system and tank as well as the condensate capture system prior to commencement of the use.

## REGULATORY REQUIREMENTS

The County acknowledges all regulatory requirements stated in the letter received from CDFW.

If you have any questions about the additional information provided, please contact me at [Haleigh.frye@Sonoma-County.org](mailto:Haleigh.frye@Sonoma-County.org) or by phone at (707) 565-2477.

Sincerely,



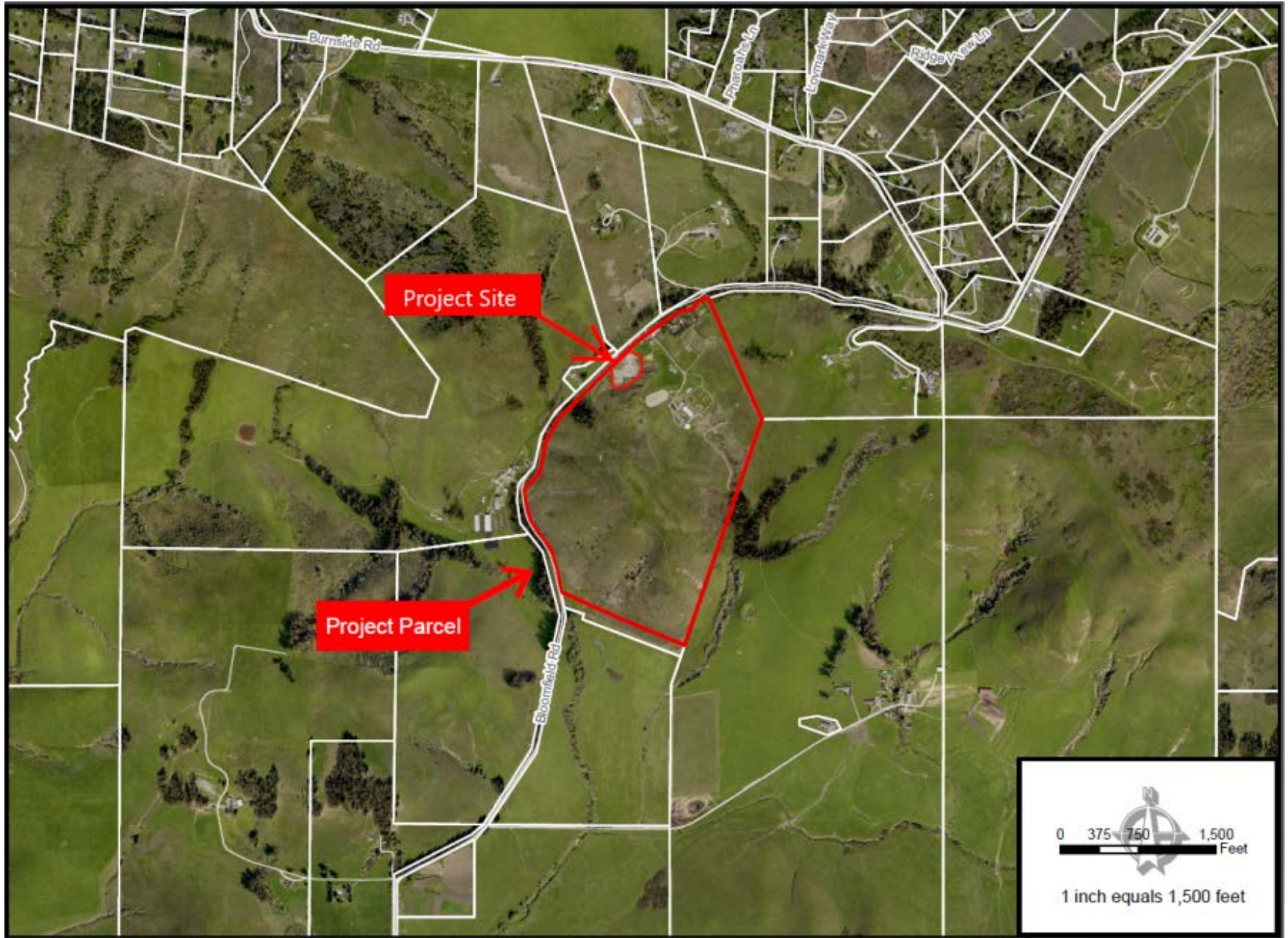
Haleigh Frye  
Project Planner



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4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

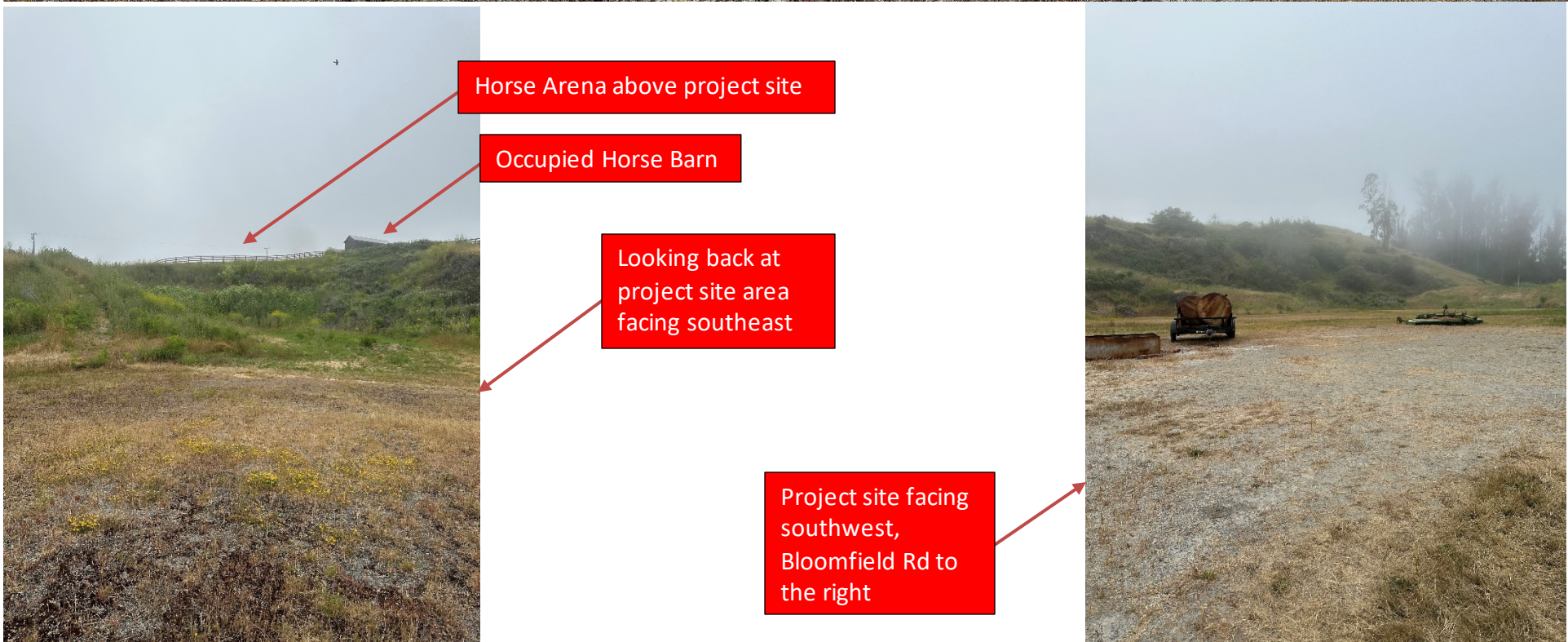
Figure 1. Project Parcel  
vs. Project Site



Left: Looking back at quarry area, facing southeast.  
Below: Project sight facing southwest with Bloomfield Road to the right.



Above: Project location facing southwest towards old quarry  
Right: Close up of hardscape



4707 Bloomfield Road, Petaluma  
UPC19-0012 Bloomfield Flowers, LLC

Figure 3. Site Photos 2024

Attachment 1 UPC19-0012 Geotechnical Memo



January 13, 2021  
Job No. 2554.2

Permit Sonoma  
Attention: Crystal Acker  
2550 Ventura Avenue  
Santa Rosa, CA 95403

Geotechnical Consultation  
APN 027-050-022  
UPC19-0012  
4707 Bloomfield Road  
Petaluma, California

This letter provides comments regarding the proposed use of the subject property, as requested by the applicant Bloomfield Flowers LLC. We understand that the use permit proposes to develop the former quarry area for cannabis use. We have been requested to confirm that landowner's previous use of the property was a quarry and provide comments regarding permeability of the near surface materials.

We have performed geotechnical engineering services elsewhere on the property since 2008. We performed a site specific geotechnical investigation in 2018 for the maintenance and potential development at the former quarry site. In addition, we intermittently observed site grading operations during removal of a thin layer of weak soils and placement of fill materials.

The quarry work either exposed firm, generally impervious bedrock, or left less than 6 inches of soil over the bedrock. We observed equipment parked at the site at the time our 2018 investigation. Indications of other uses for the site were not observed and were not provided to us during our services.

During grading, the weak soils were removed and recompacted and imported fill placed. The imported fill was also compacted. Compacted fill is considered to be low permeability. The grading work performed did not increase site permeability characteristics. We judge that improvements will not create a net increase of impervious surface considering: 1) the presence of existing bedrock; 2) the subsequent grading work and compacted fill; and 3) the proposed project site is comprised of hardscape (i.e. slabs, sidewalks, pavements, etc.) and construction of structures.

Westside Center  
6470 Mirabel Road  
Post Office Box 460  
Forestville, CA 95436  
707.887.2505

UPC19-0012  
4707 Bloomfield Road  
Job No. 2554.2  
January 13, 2021  
Page 2

We trust this provides the information you require at this time. If you have questions or wish to discuss this further, please call.

Very truly yours,

**BAUER ASSOCIATES, INC.**



Arthur H. Graff  
Geotechnical Engineer



AHG/BB (cnslt/bloomfield rd)  
Email: Mr. Michael Agins

Attachment 2 UPC19-0012 Hydrogeological Report

# Hydrogeologic Assessment Report

4707 Bloomfield Road  
Petaluma, CA  
APN 027-050-022

Prepared For:

Bloomfield Flowers  
c/o Mr. Michael Agins  
74 New Montgomery St. Suite 602  
San Francisco, CA 94105

January 26, 2022

Prepared By:

**HURVITZ ENVIRONMENTAL SERVICES INC.**  
105 Morris Street, Suite 188  
Sebastopol, California 95472

Lee S. Hurvitz, PG #7573 CHG #1015  
Certified Hydrogeologist

Project No. 5181.01



January 26, 2022

Bloomfield Flowers  
c/o Mr. Michael Agins  
74 New Montgomery St. Suite 602  
San Francisco, CA 94105

Re: Hydrogeologic Assessment Report  
4707 Bloomfield Road, Petaluma, CA 94952  
APN 027-050-022  
Hurvitz Environmental Project No. 5181.01

Dear Mr. Agins:

Hurvitz Environmental Services, Inc. (HES) is pleased to submit this Hydrogeologic Assessment Report (HAR) for the above referenced property. HES prepared this HAR in accordance with the Sonoma County Permit and Resource Management Division (PRMD) Policy and Procedure Number 8-1-14 and General Plan Policy WR-2e. The purpose of this HAR was to evaluate the water usage for the proposed project and how it may impact the aquifer conditions at the Site, which is located within a Class 2 - Major natural recharge groundwater availability area, and to determine if the proposed groundwater usage will cause aquifer overdraft conditions, interference of neighboring wells, or impact nearby stream-flow.

Based on the information and assessments contained herein, we conclude that the well's discharge capacity and rate of recharge are sufficient to sustainably provide for the proposed project. The quantity of groundwater to be used for the project and within the Cumulative Impact Area compared to the quantity of available groundwater indicates that pumping for the Project is unlikely to result in significant declines in groundwater resources over time. Based on the findings of this report, pumping and groundwater extraction at the Project well will not significantly impact neighboring wells or stream flow conditions in nearby tributaries to the Americano Creek.

We appreciate the opportunity to provide you with these services. Please do not hesitate to contact us at your convenience, should have any questions or comments regarding this report or our recommendations.

Sincerely,  
**HURVITZ ENVIRONMENTAL SERVICES, INC**

Lee S. Hurvitz, PG# 7573 CHG #1015  
Certified Hydrogeologist

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## 1.0 INTRODUCTION AND SCOPE OF SERVICES

We understand that Michael Agins (the Applicant) plans to develop the property located 4707 Bloomfield Road, Petaluma, California (the Site) as a cannabis cultivation facility (Project) that will partially rely on groundwater resources for irrigation. The Site is located within Sonoma County Groundwater Availability Class 2 (Major natural recharge)<sup>1</sup>. Typically, projects located in a Class 2 groundwater zone do not require hydrogeologic assessment studies however we understand that Permit Sonoma has specifically requested a groundwater use and conservation assessment for this project.

Therefore, on behalf of the Applicant, Hurvitz Environmental Services (HES) conducted a Hydrogeologic Assessment for the Site in accordance with the Sonoma County Permit and Resource Management Division (PRMD) Procedures for Groundwater Analysis and Hydrogeologic Reports (Policy No. 8-1-14).

Sonoma County General Plan Policy WR-2e states that procedures for proving adequate groundwater should consider groundwater overdraft, land subsidence, saltwater intrusion, and the expense of such study in relation to the water needs of the project.

Therefore, this groundwater report includes the following elements:

- Delineation of a Cumulative Impact Area.
- Estimates of existing and potential water uses within the Cumulative Impact Area based on established usage rates.
- Characterization of local hydrogeologic conditions within the Site watershed and sub-basin.
- Compilation of Well Completion Reports (drillers' logs) from the area.
- Evaluation of well yield test data collected from the proposed project irrigation well.
- Detailed discussion on proposed rain water catchment and irrigation water conveyance systems.
- Estimates of annual groundwater storage and recharge relative to existing and proposed groundwater uses.
- Assess potential for well interference between the project well and neighboring wells and between the project well and nearby Creeks.

---

<sup>1</sup> Groundwater Availability Map, Sonoma County Permit and Resource Management Division, April 1, 2004

## 2.0 SITE DESCRIPTION

The Site is located in an unincorporated, rural residential and agricultural community approximately 13 miles northwest of downtown Petaluma, California (**PLATE 1 – Site Location Map**). The Site address is 4707 Bloomfield Road, Petaluma, CA and is further identified as Assessor's Parcel No. (APN) 027-050-022 (**PLATE 2 – Assessor Parcel Map**). The parcel is deeded 113.00 acres and is located in the Petaluma Dairy Belt Area Plan. The Site is not a Williamson Act parcel and is under the jurisdiction of the North Coast Regional Water Quality Control Board. Photographs are presented in **APPENDIX A**.

Access to the parcel is from the east side of Bloomfield Road on to an existing gravel driveway **PLATE 3- Site Plan** and **APPENDIX B – Engineered Site Plan**. The applicant proposes to use the Site for a ~0.34-acre cannabis cultivation development. Specifically, the applicant proposes a 12,960 ft<sup>2</sup> mixed light greenhouse cultivation building and a 6,480 ft<sup>2</sup> indoor cultivation building **PLATE 3A- Site Plan-detail** and **APPENDIX B – Engineered Site Plan**. The Site is currently developed with several barns, horse pastures, animal pens / arenas, a small orchard, a kitchen garden (0.125-acre) and a greenhouse for micro greens. The parcel has three domestic water supply wells, four (4) 5,000- gallon metal water storage tanks, two (2) 5,000-gallon concrete storage tanks and one 10,000-gallon concrete storage tank.

### 2.1 USGS 7.5 MINUTE QUADRANGLE MAP

HES reviewed the most recent United States Geological Survey (USGS) 7.5-Minute Quadrangle Map, 2015 Two Rock, California (**PLATE 4 USGS Topographic Map**). Topographically the parcel contains a large hill with the highest elevation at ~413 feet mean sea level (MSL). Cultivation will be located in a former quarry area on the north west side of the property at an elevation of ~224 feet MSL. Surface water predominantly flows down from the hill top onsite to the south and west across the site however all surface waters eventually drain to the south from unnamed tributaries to Americano Creek. Americano Creek flows west and eventually to Estero de Americano which flows to the Pacific Ocean south of Bodega Bay.

The parcel is in the Estero American Sub-watershed (HUC12- 180500050302). There are no Class I or Class II streams onsite however there are several Class III drainages that originate onsite. The proposed cultivation area is not within 100 feet of any surface water drainages. The areas proposed for cannabis development are flat and underground drains have been installed. The drains capture water that accumulates on the graded area and moves it underground to a small groundwater recharge area located south of the proposed development onsite. The recharge basin is approximately 200 ft<sup>2</sup> in size and less than 5 feet deep. Overflow from the recharge basin is directed to the roadside ditch on Bloomfield Road via underground culverts.

### 2.2 HISTORICAL AERIAL PHOTOGRAPHY

HES reviewed aerial photographs from years 1985-2021 depicting the Site and vicinity to obtain information about historical development and other surficial features. In 1993, there appears to be a residence, large barn and several out building along Bloomfield Road along the northwest side of the property. By February 2003, the residence has been removed and 6 small structures are installed

in the area around the former residence. By 2003, there are several fenced pasture areas most of which exist today. By September 2003, the arena area is developed along with two barns near the fenced pastures. By June of 2009 the microgreens greenhouse has been installed. By September 2018 the upper barn and irrigated pasture areas are installed and by February 2021, the quarry area has been graded.

### **2.3 NEIGHBORING PROPERTIES**

Land use in the vicinity of the Site is zoned as Rural Residential (RR), and Land Extensive Agriculture (LEA) with a mixture of pasture lands, single-family residential development, and dairies (as discussed further in Section 4.0 - Cumulative Impact Area). The developed properties are serviced by private septic systems and groundwater wells.

### 3.0 SITE WATER USE

#### 3.1 SITE DEVELOPMENT AND WATER USE

We understand that the proposed cannabis project will include a total of 10,000 ft<sup>2</sup> of mixed light greenhouse cultivation canopy and 5,000 ft<sup>2</sup> of indoor cultivation canopy as shown in **Appendix B – Engineered Site Plans**. The project plans also include the development of a 10,000 ft<sup>2</sup> processing building. The proposed cannabis plants will be irrigated by a combination of captured rainwater and groundwater. Groundwater used for cannabis irrigation will come from the sites primary domestic well located near the southwest corner of the site (Project Irrigation Well). Rainwater used for cannabis irrigation will be captured off of the proposed greenhouse and processing buildings and will be stored in a proposed ~250,000-gallon steel water holding tank. The two other domestic wells onsite will be utilized as backup wells for the site. The approximate locations of the proposed cultivation areas, water wells and holding tanks are shown on **PLATE 3A Site Plan** and in **Appendix B – Engineered Site Plans**. The total anticipated water usage for the entire parcel including cultivation, livestock, residential, and employees is described below and summarized in **Table 1 – Estimated Annual Site Water Usage**.

#### 3.2 Mixed Light Cultivation Area (10,000 ft<sup>2</sup>, 0.23 acre)

The Applicant proposes to develop 10,000 ft<sup>2</sup> of mixed light cannabis canopy in a 12,960 ft<sup>2</sup> greenhouse on the Site (**Appendix B – Engineered Site Plan**). The mixed light greenhouse will house plants from early in the vegetative stage all the way through the flowering stage. The Applicant estimates that the mixed light cultivation water usage rate will average 944 gallons/day. This usage rate is based on data from a similar cultivation site in another county. Based on this usage rate, and a proposed “year-round” mixed light cultivation season, we have estimated the annual water use required for this proposed facility.

$$944 \text{ gallon/day} \times 365 \text{ days} = \\ \mathbf{344,560 \text{ gallons/year or } 1.06 \text{ acre-feet/year} = \text{Mixed Light Water Use}}$$

Therefore, it is estimated that the mixed light greenhouse will require 1.06 ac-ft/year/acre. In Sonoma County, typical year-round greenhouse cultivation water usage rates are in the range of 4-acre-feet/acre/year. Using this water usage rate, and scaling to the applicant’s project (0.23-acre) we see that the applicants estimate of 1.06 acre-feet/year is consistent with the scaled Sonoma County averages (4 acre-feet/acre/year x 0.23 acre = 0.92 acre-feet/year). A breakdown of the anticipated monthly water usage is presented on **TABLE 1 – Estimated Annual Site Water Usage**.

### 3.3 Indoor Cultivation Area (5,000 ft<sup>2</sup>, 0.11 acre)

The applicant proposes to develop a 5,000 ft<sup>2</sup> indoor cannabis cultivation canopy within a 6,480 ft<sup>2</sup> facility onsite (**Appendix B – Engineered Site Plan**). The indoor facility will operate year-round with 4-5 harvest per year. Water use rates for the indoor cultivation facility is expected to be consistent with the Sonoma County averages for year-round mixed light cultivation. Based on this usage rate (4 acre-feet/acre/year) and the anticipated cultivation area (0.11-acre) the estimated annual water is calculated below.

$$4 \text{ acre-feet/acre/year (So. Co. average)} \times 0.11\text{-acre (indoor cultivation area)} = \\ \mathbf{0.44 \text{ acre-feet/year or } 143,374 \text{ gallons/year} = \text{Indoor Cultivation Water Use}}$$

### 3.4 Propagation Water Use

As part of the cannabis cultivation onsite the applicant plans to operate a small area (~2500 ft<sup>2</sup>) for cannabis propagation. The onsite propagation area will be indoors and shortly after seeds/clones are rooted they will be transferred to the mixed light or indoor cultivation facilities for flowering. Water use for the cannabis propagation area is expected to be approximately 1/3 that of the indoor and mixed light cultivation facilities. Using this water use estimate and the approximately area of the propagation space we can estimate water use for the proposed propagation area.

$$4 \text{ acre-feet/acre/year (So. Co. average)} \times 0.33 \text{ (irrigation rate scaling factor)} \times \\ 0.057\text{-acre (~propagation area)} = \\ \mathbf{0.08 \text{ acre-feet/year or } 24,517 \text{ gallons/year} = \text{Propagation Water Use}}$$

### 3.5 Employee Water Usage

It is anticipated that the project will require the use of one full time and several part time employees. The applicant has estimated that the project may require as many as 19 employees on any given day. However, for the purpose of this assessment, we have estimated that the site will have the equivalent of five (5) full-time employees working 365 days a year. Using the Sonoma County Water Availability Guidance Document<sup>2</sup> estimate of 15 gallons of water utilized per day per cultivation worker on site, we calculated the following additional water usage for the cultivation project:

$$5 \text{ (employees)} \times 15 \text{ gallons/day (daily water usage)} \times 365 \text{ days/year} = \\ \mathbf{27,375 \text{ gallons/year} = 0.08 \text{ acre-feet/year} = \text{Employee Groundwater Use}}$$

### 3.6 Additional Site Water Usage

Additional water uses onsite include a private horse facility, a greenhouse for micro greens and a vegetable garden. Irrigation for gardening and water for horses is also provided from the primary Irrigation Well with the other two site wells providing backup water supply if needed. There are no

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<sup>2</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

permanent residences onsite and there are no immediate plans to develop a residence onsite. However, water use associated with future development of the property for residential purposes is accounted for in Section 4.1.2 – Future Water Demand in Cumulative Impact Area.

We understand that the site contains horse barns and stables and that the owner currently maintains three (3) horses onsite. The widely accepted water use rate for the maintenance of horses is 7.8 gallons/day for an average adult nonbreeding, nonworking horse (500 kg body weight)<sup>3</sup> Therefore, we estimate the annual water consumption of the three horses to be:

$$3 \text{ horses} \times 7.8 \text{ gallons/day} \times 365 \text{ days/year} =$$

**8,541 gallons (0.026 acre-ft) = Annual Livestock Usage**

Between the planted gardens and the existing micro green greenhouse, we estimate that approximately 0.35-acres of the site is planted with gardens. According to the Sonoma County Water Use Guidelines<sup>4</sup> water use for landscaping averages 1.8 acre-feet/acre/year. Therefore, based on these water usage rates and the estimated area under consideration (0.35-acres) we have estimated the additional water use from gardening below.

$$1.8 \text{ acre-feet/acre/year (Sonoma County Landscape irrigation rate)} \times 0.35 \text{ acre (acres used for gardening)} =$$

**0.63 acre-feet/year or 205,286 gallons/year = Annual Gardening Water Use**

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<sup>3</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7956953/> Freeman D.E., (2021) Effect of Feed Intake on Water Consumption in Horses: Relevance to Maintenance Fluid Therapy, Frontiers in Veterinary Science

<sup>4</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

**TABLE 1 – ESTIMATED ANNUAL SITE WATER USAGE**

Source	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
	-----Gallons-----												
<b>Mixed Light Cultivation</b>	28,000	28,000	28,000	28,000	28,000	30,000	30,000	30,000	30,000	29,000	28,000	27,560	<b>344,560 gallons</b>
<b>Indoor Cultivation</b>	11,948	11,948	11,948	11,948	11,948	11,948	11,947	11,947	11,948	11,948	11,948	11,948	<b>143,374 gallons</b>
<b>Propagation</b>	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,043	2,044	<b>24,517 gallons</b>
<b>Employees</b>	2,281	2,281	2,281	2,281	2,282	2,282	2,282	2,281	2,281	2,281	2,281	2,281	<b>27,375 gallons</b>
<b>Horses</b>	700	700	700	700	700	750	750	750	750	700	700	641	<b>8,541 gallons</b>
<b>Gardens</b>	8,800	11,000	14,000	17,000	21,000	23,000	23,000	23,000	23,000	21,000	12,000	8,486	<b>205,286 gallons</b>
<b>Total</b>	<b>53,772</b>	<b>55,972</b>	<b>58,972</b>	<b>61,972</b>	<b>65,973</b>	<b>70,023</b>	<b>70,022</b>	<b>70,021</b>	<b>70,022</b>	<b>66,972</b>	<b>56,971</b>	<b>52,960</b>	<b>753,653 gallons</b>

**3.7 Rainwater Catchment**

The applicant is designing the cultivation facility to utilize a combination of rainwater and groundwater for cannabis irrigation. When available, rainwater will be the primary irrigation water source and groundwater will only be used when rainwater resources are depleted. The proposed rainwater system will capture water from the 12,960 ft<sup>2</sup> greenhouse and from the 10,000 ft<sup>2</sup> processing building. The captured rainwater will be collected in 5,000-gallon tanks at each location and then transferred to a proposed 250,000 rainwater tank located just north of the proposed cultivation areas. Therefore, a total of 260,000 gallons in rainwater storage will be available for collection.

Mean seasonal precipitation maps from Sonoma County Water Agency<sup>5</sup> indicate the mean annual rainfall in the Site vicinity is about 32 inches or 2.67-feet over the entire rain water capture area, (**PLATE 7- Precipitation Map**). Based on the average annual rainfall and the rainwater capture area we have estimated the rainwater capture potential at the site.

$$2.67 \text{ feet (rainfall average)} \times 0.527\text{-acre (rainfall capture area)} \times 0.6 \text{ (efficiency factor)} = \mathbf{0.844 \text{ acre-feet/year or } 275,101 \text{ gallons/year} = \text{Rainwater Capture Potential}}$$

<sup>5</sup> Sonoma County Mean Seasonal Precipitation in Flood Control Design Criteria manual: Plate No. B-3, Sonoma County Water Agency, Revised January 2005.

### 3.8 Recycled Water Use

The applicant plans to operate dehumidifiers in the both the mixed light greenhouses and the indoor cultivation rooms. The applicant has estimated that a total of nine (9) dehumidifiers will be used onsite with six (6) designated for the mixed light greenhouses and three (3) designated for the indoor cultivation rooms. It is estimated that each dehumidifier will capture 20-gallons of water from the air each day and the applicant plan is to contain this water within the respective buildings and reuse it for cannabis irrigation. Using the estimate of 20-gallons/day/dehumidifier and assuming that the site will operate 365 days/year we can calculate the amount of recycled water that will be used for the project irrigation.

$$9 \text{ dehumidifiers} \times 20 \text{ gallons/day} \times 365 \text{ days/year} = \\ \mathbf{65,700 \text{ gallons or } 0.2 \text{ acre-feet/year} = \text{Recycled Water Use}}$$

### 3.9 Site Water Use Summary

Based on these estimates presented above, the total site water usage is expected to be approximately 753,653 gallons/year or ~2.31 acre-feet/year. The average daily water demand for all site activities will be approximately **2,065 gallons/day**.

However, as stated in Section 3.1, water slated for cannabis irrigation will come from a combination of rainwater catchment and groundwater from the Project Irrigation Well. All other property water use will also be derived from the Site's additional domestic groundwater wells. Therefore, in order to fully estimate groundwater demand, we must first differentiate between the water needed for cannabis irrigation and all other water use onsite.

#### Cultivation Water Use

Mixed Light Cultivation:	344,560 gallons/year
Indoor Cultivation:	143,374 gallons/year
Propagation:	24,517 gallons/year
Employees:	<u>27,375 gallons/year</u>
<b>Total Cultivation Water Use</b>	<b>539,826 gallons/year or ~1.66 acre-feet/year</b>
Rainwater Capture:	-275,101 gallons/year
Recycled Water:	<u>- 65,700 gallons/year</u>
<b>Total Cultivation Groundwater Use</b>	<b>199,025 gallons/year or ~0.61 acre-feet/year</b>

#### Other Groundwater Use

Horses:	8,541 gallons/year
Landscaping:	<u>205,286 gallons/year</u>
<b>Total Other Groundwater Use</b>	<b>213,827 gallons/year or ~0.66 acre-feet</b>

So, total groundwater use onsite can now be calculated as follows:

$$199,025 \text{ gallons/year (groundwater used for cannabis)} + 213,827 \text{ gallons/year} \\ \text{(groundwater used for horses, landscaping)} = \\ \mathbf{\underline{412,852 \text{ gallons/year or } 1.27 \text{ acre-feet/year} = \text{Total Groundwater Use Onsite}}}$$

#### 4.0 CUMULATIVE IMPACT AREA

HES reviewed available water well records obtained from Sonoma County PRMD and California Department of Water Resources (DWR) and assessed information obtained from peer-reviewed scientific publications as referenced in this report to determine an appropriate Cumulative Impact Area (CIA) for the Site. HES delineated the CIA based on known geologic, hydrologic and groundwater characteristics in the area. The CIA is a polygon shaped area with the Site located in the approximate center. The total area of the CIA is approximately 925 acres.

HES identified 38 parcels in the CIA including the Site parcel (#1). Therefore, the CIA includes the entire Site and all or portions of the other 37 properties (**PLATE 3A – Site Plan**). The property uses, and parcel sizes in the CIA range from rural residences at 1.57-acre to pasturelands at 480-acres. A HUC-12 watershed boundary defines the CIA along the northeast side with surface water draining to the south.

Based on zoning and land use data acquired from Permit Sonoma County<sup>6</sup>, of the 38 parcels in the CIA:

- Five (5) are currently used for pasture use only
- Three (3) are dairies with residences
- Twenty-nine (29) parcels have at least one primary residence
- Three (3) of those parcels are also zoned for two or more residences
- Two (2) parcels with permitted accessory dwelling units (ADUs)
- Three (3) parcels are vacant homesites

This means there is a total thirty-two (32) existing primary residences and two (2) permitted ADUs in the CIA. The majority of the parcels, twenty-four (24), are located in Land Extensive Agriculture (LEA) zoning and the other fourteen (14) are located in Rural Residential (RR) zoning. Zoning in this area is unlikely to change so future development is anticipated to be consistent with currently allowed conditions. Descriptions of each parcel within the Cumulative Impact Area is presented on **Table 2 – Cumulative Impact Area Properties**.

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<sup>6</sup> <https://sonomacounty.maps.arcgis.com/>

**TABLE 2 – CUMULATIVE IMPACT AREA PROPERTIES**

<b>Item No.</b>	<b>APN</b>	<b>Address(s)</b>	<b>Acres</b>	<b>Zoning Code</b>	<b>General Land Use</b>
1	027-050-022	4707 BLOOMFIELD RD, BLOOMFIELD	113.0	LEA 160	Pasture w/Misc Imps
2	027-050-053	4201 BLOOMFIELD RD, SEBASTOPOL	46.16	LEA 160	Rural Res/single Res
3	027-060-009	5767 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, BLOOMFIELD	292.92	LEA 160	Dairy W/residence
4	027-040-005	5775 BLOOMFIELD RD, BLOOMFIELD	57.76	LEA 160	Pasture
5	027-040-013	5110 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, PETALUMA	100	LEA 160	Irrigated Pasture
6	027-040-019	5110 BLOOMFIELD RD, BLOOMFIELD 5116 BLOOMFIELD RD, BLOOMFIELD	206.14	LEA 160	Dairy w/Residence
7	027-030-004	12520 VALLEY FORD RD, PETALUMA	277.8	LEA 160	Pasture
8	027-040-017	5600 BURNSIDE RD, SEBASTOPOL 5665 BURNSIDE RD, SEBASTOPOL	74.42	LEA 60	Pasture
9	027-040-018	5700 BURNSIDE RD, SEBASTOPOL	19.91	LEA 160	Irrigated Pasture w/Residence
10	076-170-004	5335 BURNSIDE RD, SEBASTOPOL	211.09	LEA 60	Dairy w/Residence
11	027-050-038	6000 BURNSIDE RD, BLOOMFIELD	10.61	LEA 60	Rural Res/Single Residence
12	027-050-044	4760 BLOOMFIELD RD, BLOOMFIELD 4770 BLOOMFIELD RD, BLOOMFIELD	33.55	LEA 60	Rural Residential SFD w/Granny Unit
13	027-050-043	4700 BLOOMFIELD RD, BLOOMFIELD	32.05	LEA 60	Rural Res/Single Residence
14	027-050-036	4500 BLOOMFIELD RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
15	027-050-033	4400 BLOOMFIELD RD, BLOOMFIELD	18.55	LEA 60	Rural Res/2 or More Residence
16	025-100-031	4050 BLOOMFIELD RD, SEBASTOPOL	5.23	RR 5	Rural Res/Single Residence
17	025-100-032	6750 BURNSIDE RD, SEBASTOPOL	3.77	RR 5	Rural Res/Single Residence
18	025-100-021	6695 BURNSIDE RD, SEBASTOPOL 6697 BURNSIDE RD, SEBASTOPOL	3.12	RR 5	Rural Res/2 or More Residences
19	027-050-030	6695 BURNSIDE RD, BLOOMFIELD	2.86	RR 5	Rural Res/Vacant Homesite
20	027-050-041	6005 BURNSIDE RD, BLOOMFIELD 6605 BURNSIDE RD, BLOOMFIELD	2.67	RR 5	Rural Res/2 or More Residences

21	027-050-040	6495 BURNSIDE RD, BLOOMFIELD	4.23	RR 5	Rural Res/Single Residence
22	027-050-034	6500 BURNSIDE RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
23	027-050-035	6320 BURNSIDE RD, BLOOMFIELD	8.20	LEA 60	Rural Res/Single Residence
24	027-050-042	6200 BURNSIDE RD, BLOOMFIELD	8.43	LEA 60	Rural Res/Single Residence
25	027-050-039	6100 BURNSIDE RD, BLOOMFIELD	10.96	LEA 60	Rural Res/Single Residence
26	027-270-033	6107 BURNSIDE RD, BLOOMFIELD	3.48	RR 5	Rural Res/Single Residence
27	027-270-032	6103 BURNSIDE RD, BLOOMFIELD	3.48	RR 5	Rural Res/Single Residence
28	027-270-014	6255 BURNSIDE RD, BLOOMFIELD	5.0	RR 5	Rural Res/Single Residence
29	027-270-027	6257 BURNSIDE RD, BLOOMFIELD	3.84	RR 5	Rural Res/Vacant Development w/Util
30	027-270-026	6323 BURNSIDE RD, BLOOMFIELD	4.44	RR 5	Rural Res/Single Residence
31	027-280-001	6425 LOVMARK WAY, SEBASTOPOL	6.29	RR 10	Rural Res/Single Residence
32	027-050-048	6545 BURNSIDE RD, BLOOMFIELD	11.83	RR 10	Rural Res/Single Residence
33	027-050-049	6545 BURNSIDE RD, BLOOMFIELD 6575 BURNSIDE RD, BLOOMFIELD	8.18	RR 10	Rural Res/Single Residence
34	027-050-052	4201 BLOOMFIELD RD, SEBASTOPOL 4211 BLOOMFIELD RD, 4213 BLOOMFIELD RD, BLOOMFIELD	8.37	LEA 160	Rural Residential SFD w/Granny Unit
35	025-100-006	3514 BLOOMFIELD RD, SEBASTOPOL 3845 BLOOMFIELD RD, TWIN HILLS	51.15	LEA 160	Pasture w/Residence
36	027-070-004	5767 BLOOMFIELD RD, PETALUMA 5775 BLOOMFIELD RD, PETALUMA	480.26	LEA 160	Pasture
37	024-040-004	4880 BLOOMFIELD RD, PETALUMA	1.57	LEA 160	Rural Res/Single Residence
38	027-050-021	5355 BLOOMFIELD RD, PETALUMA	2.48	LEA 160	Rural Res/vacant Homesite

## 4.1 GROUNDWATER USAGE

Based on available information including a Google Earth February 2021 aerial photograph, HES estimated the land use acreage within the 925-acre Cumulative Impact Area as follows:

133 acres	Woodlands/Riparian/Windbreaks
705 acres	Livestock grazing pasturelands
87 acres	Residential use including Houses and Landscaping (~3 acres/developed parcel)

The wooded land within the Cumulative Impact Area primarily consists of planted wind breaks on the ridges and riparian vegetation so further reduction of existing wooded land may not be feasible or pursued.

### 4.1.1 Current Domestic Water Use in the Cumulative Impact Area

According to the USGS, the average person within the Santa Rosa Plain Watershed uses 0.19 acre-feet/year for domestic purposes<sup>7</sup>. In addition, the United States Census Bureau reported in 2020 that the average household in Sonoma County has 2.59 residents<sup>8</sup>. Therefore, for the purpose of this assessment we used a conservative number of three (3) residents per primary residence within the Cumulative Impact Area and assumed that each person uses 0.19 acre-feet of groundwater per year.

Of the properties identified in the Cumulative Impact Area, 29 appear to be developed with primary residences and three (3) of those parcels were zoned for two or more residences. So, we can assume that 29 parcels within the CIA are currently developed with a total of 32 primary residential homes. In addition, there are two (2) parcels with permitted ADUs. Therefore, if we assume that 3 people live in each primary residence (96 people), and 2 people live in each ADU (4 people), we estimate that 100 people currently live within the defined CIA. Therefore, CIA domestic water usage is calculated as follows:

$$\begin{aligned} &32 \text{ residences (29 primary + 3 secondary)} \times 3 \text{ (people per residence)} = 96 \text{ people} \\ &2 \text{ permitted ADUs} \times 2 \text{ (residents)} = 4 \text{ people} \\ &100 \text{ people (96 primary and 4 ADUs)} \times 0.19 \text{ acre-feet/year} = \\ &\mathbf{19.0 \text{ acre-feet/year} = \text{Current Domestic Water Usage}} \end{aligned}$$

This estimate for residential demand assumes that all domestic water is supplied from groundwater; other sources of water (rainwater, reservoirs or surface water) were not included.

### 4.1.2 Future Potential Domestic Water Demand in the Cumulative Impact Area

For future potential groundwater demand we first assume that the nine (9) undeveloped parcels, *including the project parcel*, will be developed with a primary residence and that all properties over 2-acres that do not currently have ADU's (35) will develop an ADU at some point. We assume that those primary residences will be occupied by three (3) residents and the ADU's will be occupied by

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<sup>7</sup> Santa Rosa Plain Groundwater Management Plan, Sonoma County Water Agency, 2014

<sup>8</sup> <https://www.census.gov/quickfacts/sonomacountycalifornia>

two (2) residents each. Therefore, the CIA has a future potential of 97 additional residents. With these projections, the additional future potential groundwater demand for domestic purposes can be calculated follows:

$$9 \text{ undeveloped parcels} \times 3 \text{ residents/parcel} \times 0.19 \text{ acre-feet/year (domestic water use)} = \\ \mathbf{5.13 \text{ acre-feet/year} = \text{Future Potential Water Demand from Primary Residences}}$$

$$35 \text{ potential ADU's} \times 2 \text{ residents/ADU} \times 0.19 \text{ acre-feet/year (domestic water use)} = \\ \mathbf{13.30 \text{ acre-feet/year} = \text{Future Potential Water Demand from ADUs}}$$

Therefore, total future potential domestic water usage can be estimated as follows:

$$5.13 \text{ acre-feet/year (increased from potential primary residences)} = \\ 13.30 \text{ acre-feet/year (increase from potential ADU's)} + \\ \mathbf{18.43 \text{ acre-feet/year} = \text{Total Future Potential Domestic Groundwater Demand}}$$

#### **4.1.3 Current / Future Pasture Water Use in the Cumulative Impact Area**

In order to estimate the amount of land that is used for livestock we assumed that all pasture land is either currently used for grazing, or will be used be used for grazing in the future. With an estimated 705-acres of pasture/livestock grazing land within the CIA we can estimate grazing water use using Sonoma County established water usage rates. Sonoma County estimates that Livestock (sheep or cows) water usage rate is 0.05 acre-feet/year/acre<sup>9</sup>. Therefore, pasture land annual water usage can be calculated as follows:

$$705\text{-acres (pastureland acres)} \times 0.05 \text{ acre-feet/acre/year (water usage)} = \\ \mathbf{35.25 \text{ acre-feet/year} = \text{Current/Future Pasture Grazing Water Demand}}$$

Pasture land water use is not expected to change due to zoning as most parcels are part of the Petaluma Dairy Belt Area plan and many have Williamson Act contracts<sup>10</sup>.

#### **4.1.4 Total Water Demand in Cumulative Impact Area**

The current total groundwater use and the future potential groundwater demand within the entire Cumulative Impact Area, including the proposed project are summarized on **TABLE 3 – Estimated Groundwater Usage in Cumulative Impact Area.**

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<sup>9</sup> Permit Sonoma 8-2-1 Water Supply, Use and Conservation Assessment Guidelines version 1/7/2020

<sup>10</sup> Permit Sonoma GIS Online Service Map Gallery, Williamson Act Land Contracts Data 2017

**TABLE 3– ESTIMATED GROUNDWATER USAGE IN CUMULATIVE IMPACT AREA**

<b>Groundwater Uses</b>	<b>Number of uses</b>	<b>Rate of Use (acre-feet)</b>	<b>Annual Water Use (acre-feet)/year</b>
32 Residences (29 primary and 3 secondary)	3 people/residence = 96 residents	0.19 acre-ft/resident	<b>18.24</b>
2 Permitted ADUs	2 residents per ADU = 4 residents	0.19 acre-ft/resident	<b>0.76</b>
Pasture/Livestock	705 acres of pastures	0.05 acre-ft/acre	<b>35.25</b>
<b>Total Estimated Current Water Usage</b>			<b>54.25</b>
35 potential new ADUs (properties larger than 2 acres)	2 residents per new ADU = 70 residents	0.19 acre-ft/resident	<b>13.3</b>
9 potential new residences on undeveloped parcels	3 residents per homestead= 27 residents	0.19 acre-ft/resident	<b>5.13</b>
<b>Total Potential Future Domestic Uses</b>			<b>18.43</b>
Proposed Cannabis Cultivation	Mixed light, indoor, propagation, and employees	~4 acre-ft/acre/year	<b>0.61</b>
<b>Total Existing &amp; Proposed Water Usage Estimates</b>		<b>Without Cannabis</b>	<b>72.68</b>
		<b>With Cannabis</b>	<b>73.29</b>
Note: Projected water usage for cannabis cultivation provided by the property owner and estimates on household domestic water use are based on 2014 USGS study of the Santa Rosa Plain Watershed and 2020 Census Data for Sonoma County.			

Based on the conservative assumptions discussed above, HES has provided the following estimates for the Current and Future annual groundwater demand (in acre-feet/year) within the Cumulative Impact Area, *excluding* the cannabis cultivation project:

- Current groundwater demand in CIA (excluding proposed cannabis) = 54.25 acre-feet/year
- Potential future increased groundwater demand in CIA (excluding proposed cannabis) = 18.43 acre-feet/year
- Total potential groundwater demand in CIA (excluding proposed cannabis) = 72.68 acre-feet/year

The Cultivation Project’s groundwater demand of 0.61 acre-feet/year increases the current total water demand within the CIA by 1.1% and increases the future potential groundwater demand by 0.8%.

## 5.0 HYDROLOGICAL CONDITIONS

According to USGS maps, the project Site is located within the Estero Americano Sub-watershed (**PLATE 4 – USGS Topography Map**) and within the jurisdiction of North Coast Regional Water Quality Control Board (NCRWQCB).

The northern most and southern most portions of the Site are mapped by California Department of Water Resources (DWR) as the Wilson Grove Formation Highlands Basin (designated 1-55.01) a very low priority groundwater basin<sup>11</sup>. The central portion of the Site is mapped as the Franciscan Formation which is known to have highly variable groundwater yields. The proposed Site Irrigation Well is located at the southern corner of the property and within the Wilson Grove Formation.

### 5.1 WILSON GROVE FORMATION

The portions of the site including the location of the project irrigation well is underlain by the Wilson Grove Formation as shown on **PLATE 5 -- GEOLOGIC MAP**. The Miocene to Pliocene aged Wilson Grove Formation consists of fine- to medium-grained, thick-bedded to massively-bedded, moderate- to well-sorted, uncemented to weakly cemented fossiliferous marine sandstone. The Wilson Grove Formation is generally 650 to 950 feet thick based on outcrop exposures and drillers logs in the northwest and may be as much as 3,000 feet thick in the Wilson Grove Formation Highlands Basin<sup>12</sup>.

The Wilson Grove Formation forms a single, continuous aquifer unit, due to general lithologic homogeneity and the absence of faults. The sand and sandstones of the Wilson Grove Formation are generally productive aquifers, with reported specific yield of 10 to 20 percent<sup>13</sup> and a range in specific capacity of 0.05 to 0.5 gpm/ft<sup>14</sup>. The yields of wells in the Wilson Grove Formation range from 100 to 1,500 gpm<sup>15</sup>. Recharge to the Wilson Grove aquifer in the vicinity of the Site is through direct infiltration of precipitation as well as from stream bed recharge from near site creeks and drainages.

### 5.2 FRANCISCAN FORMATION

The central portion of the site including the location of the proposed cannabis cultivation is underlain by the Franciscan Complex as shown on **PLATE 5 - GEOLOGIC MAP**. The Franciscan Complex is also present below the Wilson Grove Formation at the site. The

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<sup>11</sup> California Department of Water Resources (DWR). 2020. Sustainable Groundwater Management Act 2019 Basin Prioritization, Process and Results. May.

<sup>12</sup> Powell, C.L., Allen, J.R., and P.J. Holland (Powell). 2004. Invertebrate Paleontology of the Wilson Grove Formation (Late Miocene to Late Pliocene), Sonoma and Marin Counties, California, with some Observations on Its Stratigraphy, Thickness, and Structure. U.S. Geological Survey Open-File Report 2004-1017.

<sup>13</sup> Herbst, C.M. 1982. Evaluation of Ground Water Resources: Sonoma County, Volume 3: Petaluma Valley. California Department of Water Resources Bulletin 118-4. 94 p.

<sup>14</sup> [https://petalumavalleygroundwater.org/wp-content/uploads/00\\_PVGSP-Sect3\\_Basin-Setting\\_SONOMA-WATER-REVISED\\_Final\\_08252021.pdf](https://petalumavalleygroundwater.org/wp-content/uploads/00_PVGSP-Sect3_Basin-Setting_SONOMA-WATER-REVISED_Final_08252021.pdf) (Sweetkind and Teague, in review)

<sup>15</sup> California Department of Water Resources (DWR). 2014. Petaluma Valley groundwater basin: Bulletin 118 groundwater basin descriptions–Update June 30, 2014. 5 p.

Franciscan Complex (KJfs), is Cretaceous and Jurassic in age and is made up of sheared shale and sandstone with resistant masses of chert, greenstone, and meta greenstone, and less resistant serpentinite. Based on review of the Well Drillers Reports from nearby wells, the aquifer beneath the site and within the Cumulative Impact Area appears to consist of fractured sandstone and shale indicating the two formations are interfingering in this area.

Fractured rock aquifers are distinct from groundwater systems which are hosted in sedimentary deposits. While sedimentary aquifers store and transmit water through pore spaces between individual sediment granules, fractured rock aquifers store and transmit water through crevices, joints and fractures in an otherwise impervious rock mass. As a result, fractured rock aquifers exhibit hydraulic characteristics which are distinct from those observed in sedimentary aquifer systems with water availability (commonly observed in terms of bore yield) generally dependent on the nature (number, size and extent) of discontinuities in the rock mass and their degree of interconnection. This means the long-term yield available from bores screened in fractured rock aquifers is generally dependent on the localized extent and interconnection of discontinuities in the overall rock masses rather than permeability of the geological materials in the immediate vicinity of the abstraction point.

Fractured rock aquifers may also exhibit different recharge characteristics to other aquifer types, particularly unconfined aquifers. In addition, due to the age of the geological units forming fractured rock aquifers (typically pre-Tertiary age) extensive weathering commonly occurs along the upper surface of the rock mass. This weathering commonly results in the alteration of the rock materials to form clay minerals which inhibit the vertical movement of water. Permeability in fractured rock aquifers may also be reduced with depth due to the progressive reduction in open space along joints and fractures due to the weight of the overlying rock mass. Shear zones associated with faults can create areas of secondary permeability and in these areas well yields can increase substantially.

### **5.3 DOMESTIC WELL INFORMATION**

The Site is located in unincorporated Sonoma County and is surrounded by agricultural and rural residential properties. According to modeling done as part of the Petaluma Valley GSP the density of water supply wells adjacent to the Site is low (0.1-8.9 wells/square mile)<sup>16</sup>

HES investigated all parcels within the 925-acre Cumulative Impact Area (**Plate 3A - Site Plan**), and identified domestic well log information for (11) wells on 10 separate properties (**TABLE 4 - Well Inventory**). Available well logs are included in **APPENDIX C**.

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<sup>16</sup> [https://petalumavalleygroundwater.org/wp-content/uploads/PVGSP-Section2\\_Plan-Area\\_FINAL\\_08202021.pdf](https://petalumavalleygroundwater.org/wp-content/uploads/PVGSP-Section2_Plan-Area_FINAL_08202021.pdf) Figure 2-6

**TABLE 4 - WELL INVENTORY**

APN/Well Number	Well Install Year	Distance to Project Well (Feet)	Surface Elevation (Feet, msl)	Total Well Depth (Feet)	Screen Interval/ (Feet)	Total Screen Thickness (Feet)	Well Yield (GPM)	Draw-down (Feet)	Specific Capacity (GPM/FT)
027-050-022 / 807042	2002	Irrigation Well	130	297	160-297	137	8	80	0.1
027-050-022 / 079758	1980	2,380	250	168	68-128 148-168	80	13	124	0.105
027-050-052 / 19423	1970	3,900	500	301	301-221	80	12	80	0.15
027-050-036 / 253891	1989	4,000	380	306	196-306	110	10	180	0.056
027-050-044 / 561469	1996	3,600	400	325	125-325	200	15	275	0.55
025-100-031 / 37084	1977	4,700	470	177	103-123	20	5	77	0.065
025-050-033 / 97484	1972	4,300	370	56	36-56	20	1	15	0.067
025-100-032 / 34355	1977	5,000	460	195	102-195	93	10	30	0.333
027-050-041 / 050385	1980	5,000	500	290	151-171 191-211 231-276	85	5	115	0.043
027-270-026 / 080410	1980	5,100	530	160	120-160	40	7	58	0.121
027-270-033 / 109960	1977	5,400	650	210	130-210	80	4	NA	NA
Average Well Total Depth 226= feet					Average Screen Thickness = 86 Feet				

The well logs identified within 5,000 feet of the Site well show that the subsurface is composed of materials described as sandstone, shale, seashells, and clay. Five (5) of the wells identified were completed to total depths of 290 feet or greater and the remaining six (6) wells had total depths ranging between 56-210 feet below grade. In general, wells drilled at higher surface elevations had deeper well casing installed. The average well depth within the cumulative impact area is 226 feet. The average screened interval thickness is 86 feet and the average specific capacity is 0.16 gpm/foot drawdown. While additional wells are present within the cumulative impact area, there are no wells within 1,200 feet of the proposed Project Irrigation Well. Jerry and Dons Yager Pump and Well Service performed a well yield test on the project well in September 8, 2021 details on the well yield test are provided below in Section 5.3.2

### 5.3.1 Onsite Well Information

Three domestic groundwater wells are located on the property as shown on **PLATE 3A – Site Plan**. Well Completion Reports for two of the wells were readily available including the Project Irrigation Well, **APPENDEIX C – Well Completion Reports**. A brief description of each well is provided below.

**Primary Irrigation Well** - The proposed cannabis irrigation well is located near the southwest corner of the site. The well pumps groundwater from a 5,000-gallon concrete storage tank located at the well head to four (4) 5,000-gallon steel holding tanks located on the hillside approximately 1,300 feet to the north. From the steel holding tanks the applicant has proposed a dedicated water line that will distribute irrigation water for cannabis as needed. Currently there are water lines connected to the steel holding tanks that distribute the water past Backup Well #1 and over to the northeastern portion of the site where it is contained in a 10,000-gallon concrete water tank. From the 10,000-gallon tank the water is routed to another 10,000-gallon concrete storage tank located near the northwestern corner of the site and proximate to Backup Well # 2. All pipping is established and underground, details of the existing and proposed water distribution system are presented in **APPENDIX B- Engineered Site Plan**.

**Backup Well # 1** – This well is located near the eastern property boundary and is dedicated as the secondary backup well for the site. The Well Completion Report for the Backup Well #1 Well (Well No. 807042) indicates that the well was installed in 2002 and is constructed with 5-inch diameter PVC well casing installed to a total depth of 297 feet below grade. The well is equipped with a submersible pump and surface mounted booster pump. The well was constructed with a 30-foot annual seal.

**Backup Well # 2** – This well is located near the northwest corner of the site and is dedicated and the tertiary well for the site. The Well Completion Report for this well (Well No. 079758) indicates that it was installed in 1980 and is constructed with a 6 5/8-inch diameter PVC casing installed to an approximate depth of 168 feet below grade. This well is equipped with a submersible pump and booster pump. The well has a 20-foot annular seal and at the time of installation it produced 13 gallons per minute (gpm).

### 5.3.2 Well Yield Test

On September 8, 2021, Jerry and Dons Yager Pump and Well Service conducted an 8-hour “dry season” well yield test on the proposed Cannabis Irrigation Well located on the southwest portion of the Site. The existing 1.5 hp submersible pump that was set in the well at a depth of approximately 280 feet was used for the test.

The initial static water level was measured at 48 feet below the top of the well casing (TOC). The yield test began at 9:55 am and ended at 6:00 pm (8 hours 5 minutes or 485 minutes). The well was pumped consistently throughout the test at 4 gpm and had a stabilized water level of 88 feet. A total of 2,167-gallons of water was pumped from the well during the 485-minutes of pumping. The specific capacity was calculated to be 0.1 gpm/foot of drawdown (i.e., 4 gpm/40ft). The well yield test data and calculations are attached in **APPENDIX D**. The specific

capacity was consistent with the well test performed during installation and with the average for the Cumulative Impact Area.

Well recovery data was collected 48 hours following completion of the pump test and the static water level had recovered to a depth of 36.7 feet, indicating 100% recovery of initial static levels. This indicates that pumping 2,167-gallons from the well did not create an aquifer overdraft.

Based on the recorded flow rate of 4 gpm and the average daily project demand of 1,450 gallons/day, we estimate that it would require approximately 6 hour and 3 minutes (363 minutes) of pumping to meet the Sites daily cannabis irrigation demand. Based on the results of the well yield test and recovery observations it appears that the well can produce the water necessary for the proposed cultivation project without creating aquifer overdraft conditions.

## 6.0 POTENTIAL IMPACTS to STREAMS & NEIGHBORING WELLS

To evaluate potential well pumping impacts to surface water bodies or wells on other properties, the potential lateral extent of pumping from the planned project well was estimated. Using general relationships discussed in Driscoll (1986)<sup>17</sup>, we estimated the lateral pumping influence using information from the September 8, 2021, well yield test. An approximate relationship between specific capacity calculated from the well drillers log, and aquifer transmissivity was used to obtain aquifer characteristics and estimate a potential radius of pumping influence. Transmissivity was estimated for an unconfined aquifer, using the relationship of Specific Capacity (yield/drawdown) x the coefficient of 1,500. To develop the slope of the drawdown curve from the pumping well, the value of  $\Delta s$  (drawdown over one log graph cycle) was calculated for a distance-drawdown relationship as follows.

$$T = 528 \times \text{Well Yield (gpm)} / \Delta s \text{ (Driscoll, 1986, Equation 9.11).}$$

The analysis is shown on the attached semi-log plot, **APPENDIX E – Radius of Pumping Influence**

As estimated, pumping the project well at 4 gpm with a drawdown of 40 feet indicates a specific capacity of 0.10 gpm/foot drawdown. Using this data and applying it to the Site, we calculated a zone of pumping influence extending approximately 150 feet from the well for an unconfined aquifer.

The closest domestic well to the proposed Project Irrigation Well is approximately 1,200 feet away on parcels 027-040-019. The radius of pumping influence graph indicates that the well at this location is outside the radius of pumping influence and is not likely to be affected by pumping for the proposed project.

There closest creek to the site is an unnamed tributary to the Americano Creek located approximately 300 feet south/southwest of the propose irrigation well. The Class II tributary creek is outside of the direct pumping influence of the irrigation well, and the irrigation well is drawing water from depth of 160 feet and greater. Therefore, it is not likely that pumping from the irrigation will have a significant effect on streamflow. Consequently, stream depletion from the proposed project pumping is not considered a concern to this assessment.

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<sup>17</sup> Groundwater and Wells, Second Edition, Fletcher G. Driscoll, 1986, published by Johnson Division, St. Paul Minnesota, 1089p.

## 7.0 WATER BALANCE INFORMATION

USGS and DWR studies that included the Petaluma Valley area provided water balance information that was used to assess groundwater sustainability within the Cumulative Impact Area.

### 7.1 GROUNDWATER STORAGE

HES used well log information from the surrounding shallow wells to estimate the aquifer thickness beneath the Cumulative Impact Area. The average screened interval for the eleven (11) wells was 86 feet. Based on the aquifer consisting primarily of Wilson Grove Formation we estimated the specific yield of the aquifer is 15 percent (0.15)<sup>18</sup>. Therefore, the Aquifer Storage can be conservatively estimated using the following equation:

$$\text{Aquifer Thickness (86 feet) x Specific Yield (0.15) x Cumulative Impact Area (925 acres) =} \\ \text{Aquifer Storage} = 11,933 \text{ acre-feet}$$

### 7.2 PRECIPITATION

Precipitation, primarily as rainfall and stream flow are the major sources of inflow to the aquifers in the Cumulative Impact Area. Mean seasonal precipitation maps from Sonoma County Water Agency<sup>19</sup> indicate the mean annual rainfall in the Site vicinity is about 32 inches or 2,470 acre-feet over the entire Cumulative Impact Area, (**PLATE 7- Precipitation Map**).

### 7.3 GROUNDWATER RECHARGE

Recharge to aquifers in the Subbasin primarily occurs through direct precipitation as well as through ephemeral drainages within the Stemple Creek and Petaluma Valley Watersheds. Recharge that reaches the deeper aquifer zones is more poorly defined and likely comes from a combination of leakage from overlying shallow aquifers and mountain front recharge along the margins of the valley<sup>20</sup>.

Soil textures in the Cumulative Impact Area consist predominantly of weakly cemented marine-deposited sandstone, with volcanic ash intervals<sup>12</sup>. These soils are rich clean sand with a low degree of cementation which allows for higher specific yield rates than any of the other rocks or sediments in the Santa Rosa Plain Watershed. However, the other geologic formations in the area consists of hard bedrock and low producing well yields.

To estimate the groundwater recharge within the Cumulative Impact Area HES first assumed that the recharge to the aquifer is primarily through rainfall and that most of the rainfall accumulated within the 925-acre Cumulative Impact Area drains to the creeks proximate to the

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<sup>18</sup> Hydrologic and Geochemical Characterization of the Santa Rosa Plain Watershed, Sonoma County, California, U.S. Geological Survey, Scientific Investigations Report 2013–5118.

<sup>19</sup> Sonoma County Mean Seasonal Precipitation in Flood Control Design Criteria manual: Plate No. B-3, Sonoma County Water Agency, Revised January 2005.

<sup>20</sup> Sonoma Valley Groundwater Sustainability Agency. <http://sonomavalleygroundwater.org/gsp/>

Site. Therefore, the annual recharge to the Cumulative Impact Area can be initially estimated using the following data and equation.

$$\text{Estimated groundwater recharge from rainfall} = 925\text{-acres} \times 32 \text{ inches (2.67 feet)} = 2,470 \text{ acre-feet/year.}$$

However, this estimate does not account for surface run-off, stream underflow, and evapotranspiration that was discussed above and that occurs in all watersheds. To further evaluate the percentage of rainfall that contributes to recharge of the aquifer HES reviewed the Santa Rosa Plain Watershed Groundwater Management Plan<sup>21</sup> which discusses hydrogeology in the Region as well as the USGS Scientific Investigation Report 2006-51157. Estimates for recharge found in these documents are considered to be generally reliable for our Site evaluation. Average recharge to the ground-water system for the entire Santa Rosa Plain, including mountainous zones, is derived from an estimated average of 531,000 acre-feet of precipitation falling within the entire watershed. After accounting for runoff (188,400 acre-feet/year) and evapotranspiration (262,000 acre-feet/year), the amount of water available for recharging the Santa Rosa Plain Watershed equates to 80,600 acre-feet/year, or approximately 15.2% of the annual rainfall. However significant variations to this value can occur based on topography, soil infiltration rates, geology etc., and according to these USGS and Sonoma County Water Agency Reports, the long-term average precipitation that recharges groundwater in these regions can be as low as 1.67%. Therefore, based on topography, geology, soil types and regional studies, we estimate that the long-term average precipitation that recharges groundwater within our defined Cumulative Impact Area is at least 10%. With this data and the precipitation data presented above, we can re-calculate the groundwater recharge within the Cumulative Impact Area using the following equation.

$$925 \text{ acres} \times 2.67 \text{ feet (annual precip. CIA)} \times 0.10 \text{ (long term average for recharge)} = \mathbf{247 \text{ acre-feet} = \text{Estimated Annual Aquifer Recharge}}$$

Potential drought conditions in California could alter the recharge potential presented in this assessment. To account for drought conditions, we have assumed that the rainfall would only be 50% of average, which would correlate to only 50% of average recharge to aquifers in the Cumulative Impact Area. Using this assumption, we can re-calculate the aquifer recharge potential in a drought year using the following equation.

$$2.67 \text{ feet/year (average rainfall)} \times 0.5 \text{ (drought year multiplier)} \times 925\text{-ares (CIA)} \times 0.10 \text{ (long term recharge rate)} = \mathbf{123.5 \text{ acre-feet/year} = \text{Annual Recharge during Drought Conditions}}$$

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<sup>21</sup> Santa Rosa Plain Groundwater Management Plan, Sonoma County Water Agency, 2014

## 8.0 Water Quality

A limited water quality assessment of the project irrigation well was performed as part of this Hydrogeologic Assessment Report. In addition, a search for contaminated groundwater Sites within 1,000 feet of the irrigation well was performed on the States Geotracker Database. No contaminated groundwater Sites were identified within 1,000- feet of the project well. The water quality testing results for bacteria, nitrates, arsenic and other common contaminants are tabulated on below on **TABLE 5 – Water Quality Results** and the laboratory analytical report is attached in **APPENDIX D**.

**TABLE 5 – WATER QUALITY RESULTS for LOCATION / APN 027-050-022**

pH	Hardness (gpg)	Iron (ppm)	TDS (ppm)	Manganese (ppm)	Arsenic (µg/L)	Nitrate (µg/L)	E-Coli Bacteria	Total Coliform
7-8.5	<3.0	<0.3	<500	<0.05	<10	<10	<1.0	<1.0
gpg = grains per gallon								

## 9.0 CONCLUSIONS

The Site aquifer consists of sands and sediments that are consistent with the Wilson Grove Formation interfingering with the Franciscan Complex. Recharge to the aquifers likely occurs primarily from direct rainfall, near-Site ephemeral drainages and intermittent streams. The aquifers penetrated by wells within the Cumulative Impact Area have an estimated average thickness of ~86 feet extending over the 925-acre area. With an estimated aquifer specific yield of 15%, we estimate the total aquifer storage value of 11,933 acre-feet is available within the Cumulative Impact Area. The annual recharge to the aquifer is estimated to be 247-acre feet. The current annual water demand within the Cumulative Impact Area is conservatively estimated to be 54.25 -acre feet and future water demand in the CIA is estimated to be 72.68. The estimated annual water demand for the proposed cannabis cultivation including employees is 1.66-acre feet. However, almost two thirds of the annual cannabis irrigation water (1.05 acre-feet/year) will come from the applicants proposed rainwater capture and recycled water systems, leaving the total groundwater demand at approximately 0.61 acre-feet/year. The total annual water demand proposed for the Site including cannabis, landscaping, gardens and livestock use (~2. acre-feet/year) is sustainable based on current and future development within the Cumulative Impact Area.

In summary:

11,933	Aquifer storage in Cumulative Impact Area (acre-feet)
247	Annual Recharge to Aquifer (acre-feet)
123.5	Annual Recharge to Aquifer During Drought (acre-feet)
54.25	Current Annual Water Use in Cumulative Impact Area (acre-feet)
72.68	Future Potential Water Use in Cumulative Impact Area w/o Cannabis (acre-feet/yr.)
2.31	Total Annual Site Water Use (acre-feet)
1.66	Annual Water Use for Proposed Cannabis Project (acre-feet)
0.84	Annual Rainwater Capture and Storage (acre-feet)
0.20	Annual Recycled Water Use
0.61	Net Annual Groundwater Demand for Cannabis (acre-feet)

Based on the assumptions and estimates presented in this report, future development of available remaining land to the extent possible within the Cumulative Impact Area is not likely to create unsustainable groundwater demand in the Cumulative Impact Area. In addition, the groundwater demand proposed for the Site is not significant with respect to the potential future conditions (approx. 0.8%) in the Cumulative Impact Area. Therefore, the findings of this report indicate that pumping and groundwater extraction from the Site for the proposed cannabis project is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future.

Based on the findings of this report, pumping and groundwater extraction at the proposed Project Irrigation Well will not significantly impact neighboring wells or stream flow conditions in nearby creeks. In addition, based on the relative distance to the coastal areas, the depth of the Project Irrigation Well and the proposed water usage rates, salt water intrusion is not considered to be a concern to this Assessment.

## **10.0 Limitations**

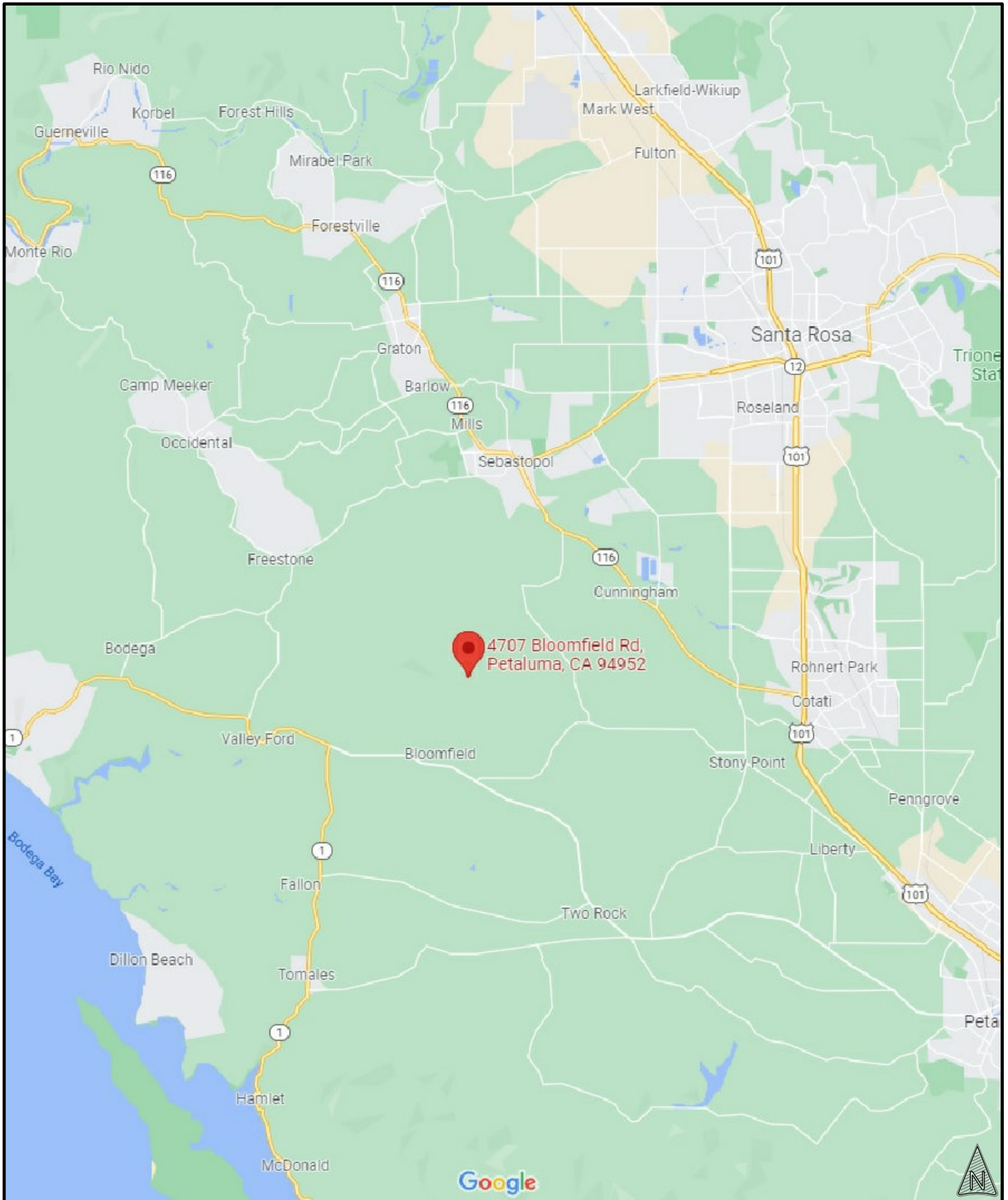
HES is not responsible for the independent conclusions, opinions or recommendations made by others based on the records review, site inspection, field exploration, laboratory test data and interpretations presented in this report.

Groundwater systems of Sonoma County are typically complex, and available data rarely allows for more than general assessment of groundwater conditions and delineation of aquifers. Hydrogeologic interpretations are based on the drillers' reports made available to us through the California Department of Water Resources, available geologic maps and hydrogeologic studies and professional judgment. This analysis is based on limited available data and relies significantly on interpretation of data from disparate sources of disparate quality.

It should be noted that hydro-geological assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. Additionally, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated.

This study is not intended to assess if any soil contamination, waste emplacement, or groundwater contamination exists by subsurface sampling through the completion of soil borings and the installation of monitoring wells. The scope of work, determined by the client, did not include these activities.

This Report is for the exclusive use Michael Agins, his affiliates, designates and assignees and no other party shall have any right to rely on any service provided by Hurvitz Environmental Services without prior written consent.



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**SITE LOCATION MAP**

027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

JOB NUMBER:  
 5181.01

DATE:  
 12/20/21

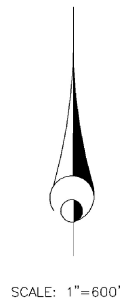
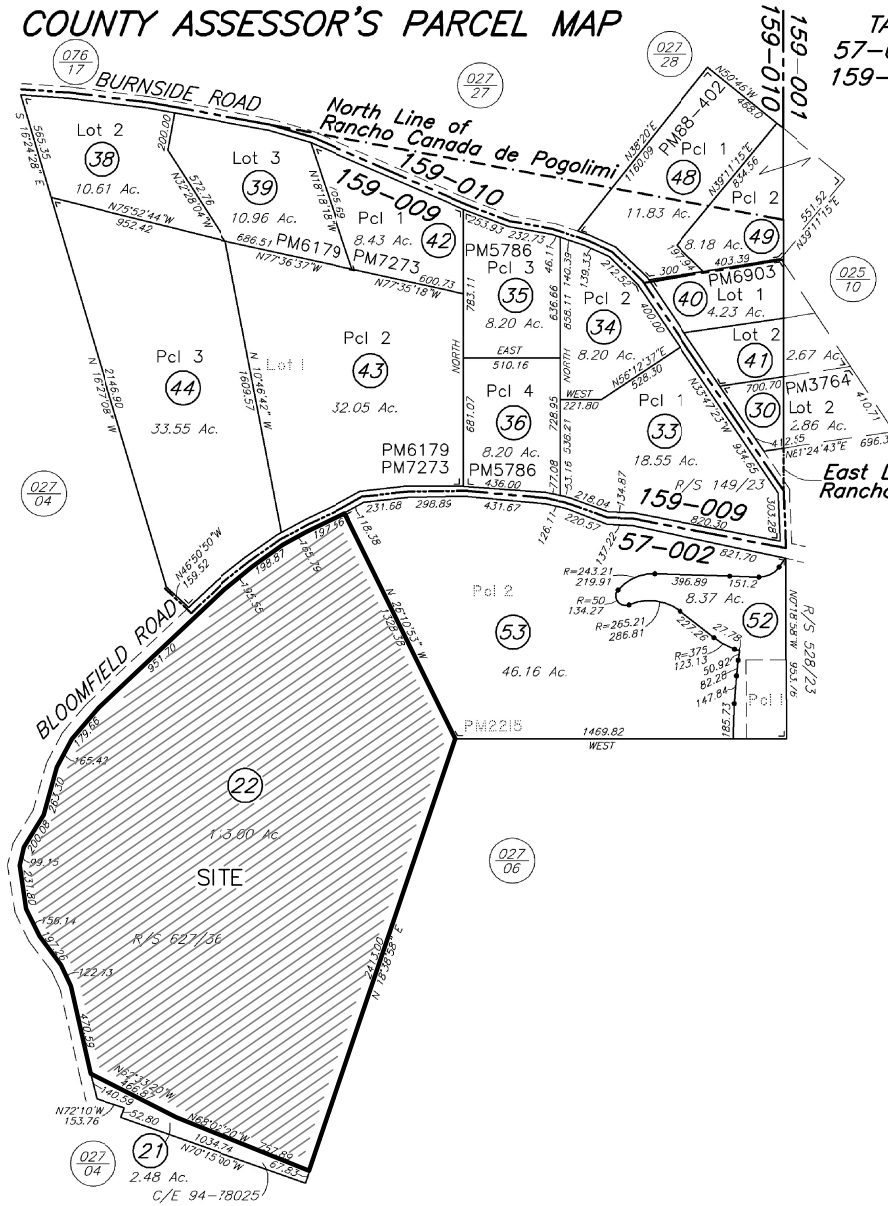
PLATE:  
 1

# COUNTY ASSESSOR'S PARCEL MAP

TAX RATE AREA  
57-002 159-001  
159-009 159-010

027-05

- Parcel Map No. 2215  
REC. 03-08-1971 IN BK.154 , MAPS, PGS. 29-00
- Ptn. Parcel Map No. 3764  
REC. 07-18-1973 IN BK.194 , MAPS, PGS. 06-00
- Parcel Map No. 5786  
REC. 06-09-1977 IN BK.253 , MAPS, PGS. 11-00
- Parcel Map No. 6179  
REC. 05-21-1979 IN BK.286 , MAPS, PGS. 44-00
- Ptn. Parcel Map No. 6903  
REC. 12-07-1979 IN BK.299 , MAPS, PGS. 05-00
- Parcel Map No. 7273  
REC. 06-22-1981 IN BK.323 , MAPS, PGS. 33-34
- Parcel Map No. 88-402  
REC. 09-19-1989 IN BK.443 , MAPS, PGS. 38-40



REVISED  
02-07-90=49-KR  
09-26-91=SUB-KT  
02-22-95=51-KT  
12-04-96=53-KT

NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps, recorded deeds, prior assessment maps, etc.)

NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.

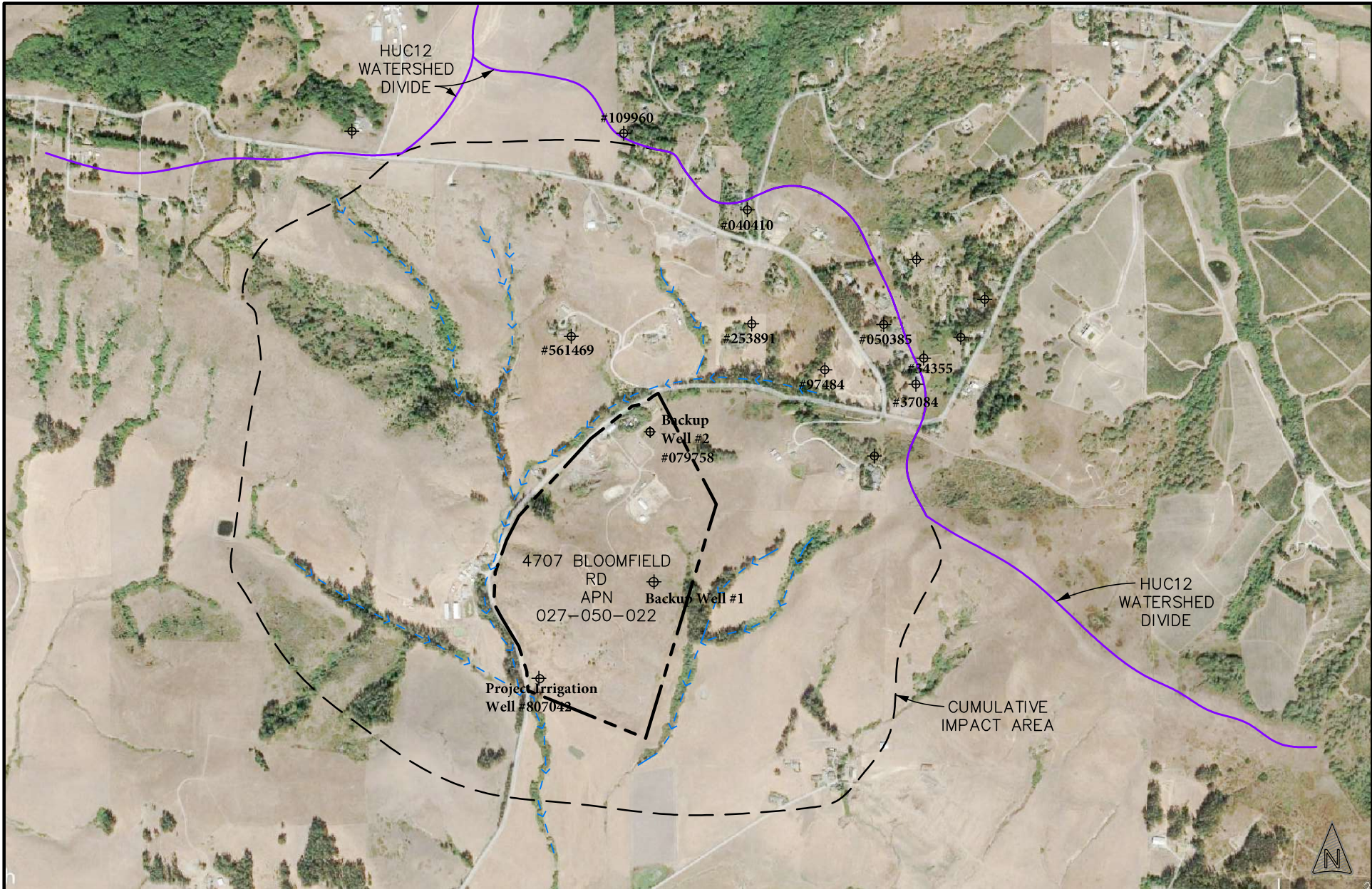
Assessor's Map Bk.027, Pg.05  
Sonoma County, Calif. (ACAD)  
KEY 04/16/2015 KR

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**ASSESSORS PARCEL MAP**

027-050-022  
4707 BLOOMFIELD RD  
PETALUMA, CALIFORNIA 94952

JOB NUMBER: <b>5181.01</b>
DATE: <b>12/20/21</b>
PLATE: <b>2</b>



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**SITE PLAN**  
 027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

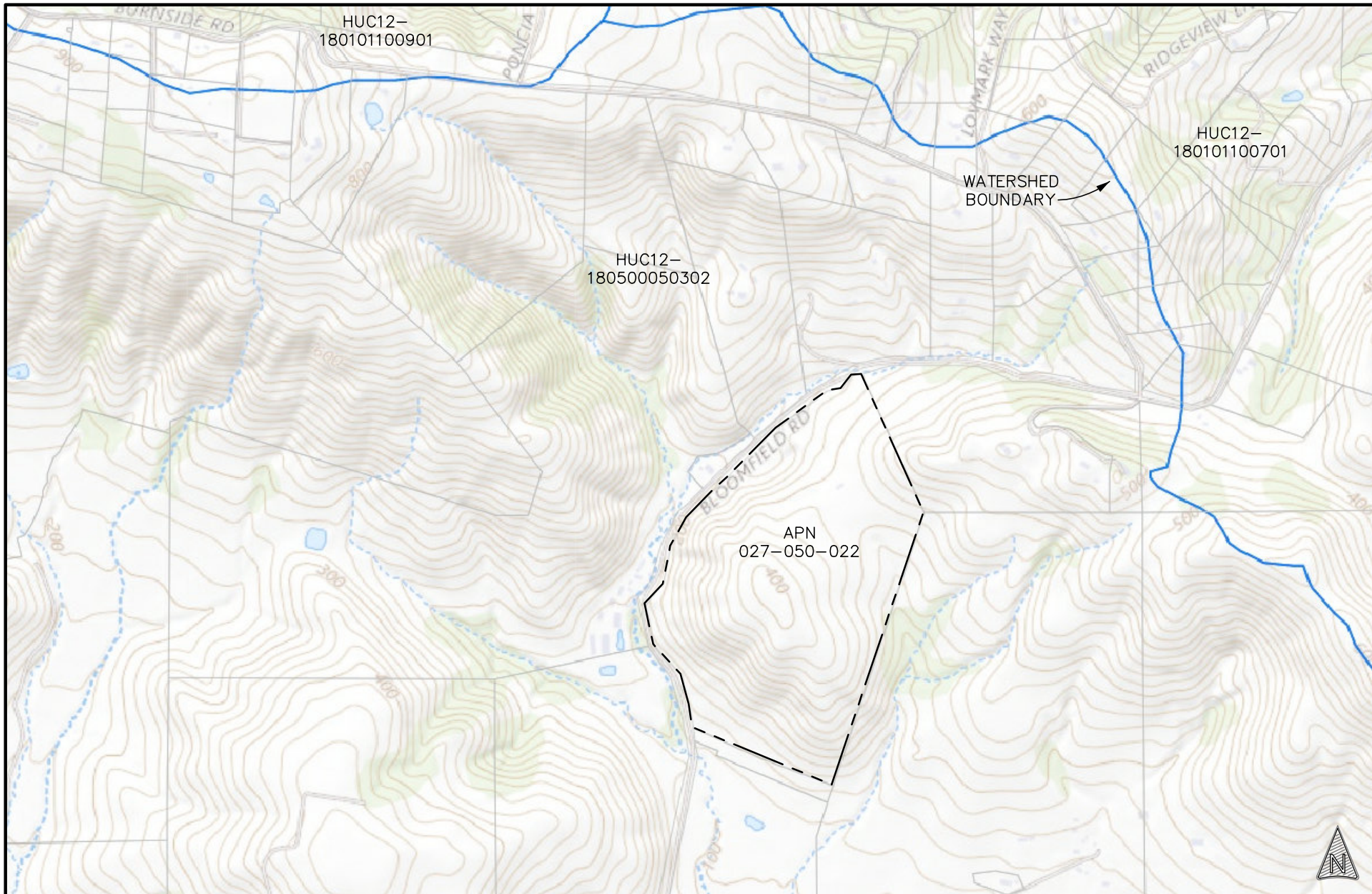
JOB NUMBER:  
**5181.01**  
 DATE:  
**12/20/21**  
 PLATE:  
**3A**



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**SITE PLAN DETAIL**  
 027-050-022  
 4707 Bloomfield Road  
 Petaluma, CA 94952

JOB NUMBER: 5181.01
DATE: 01-18,22
PLATE: 3B



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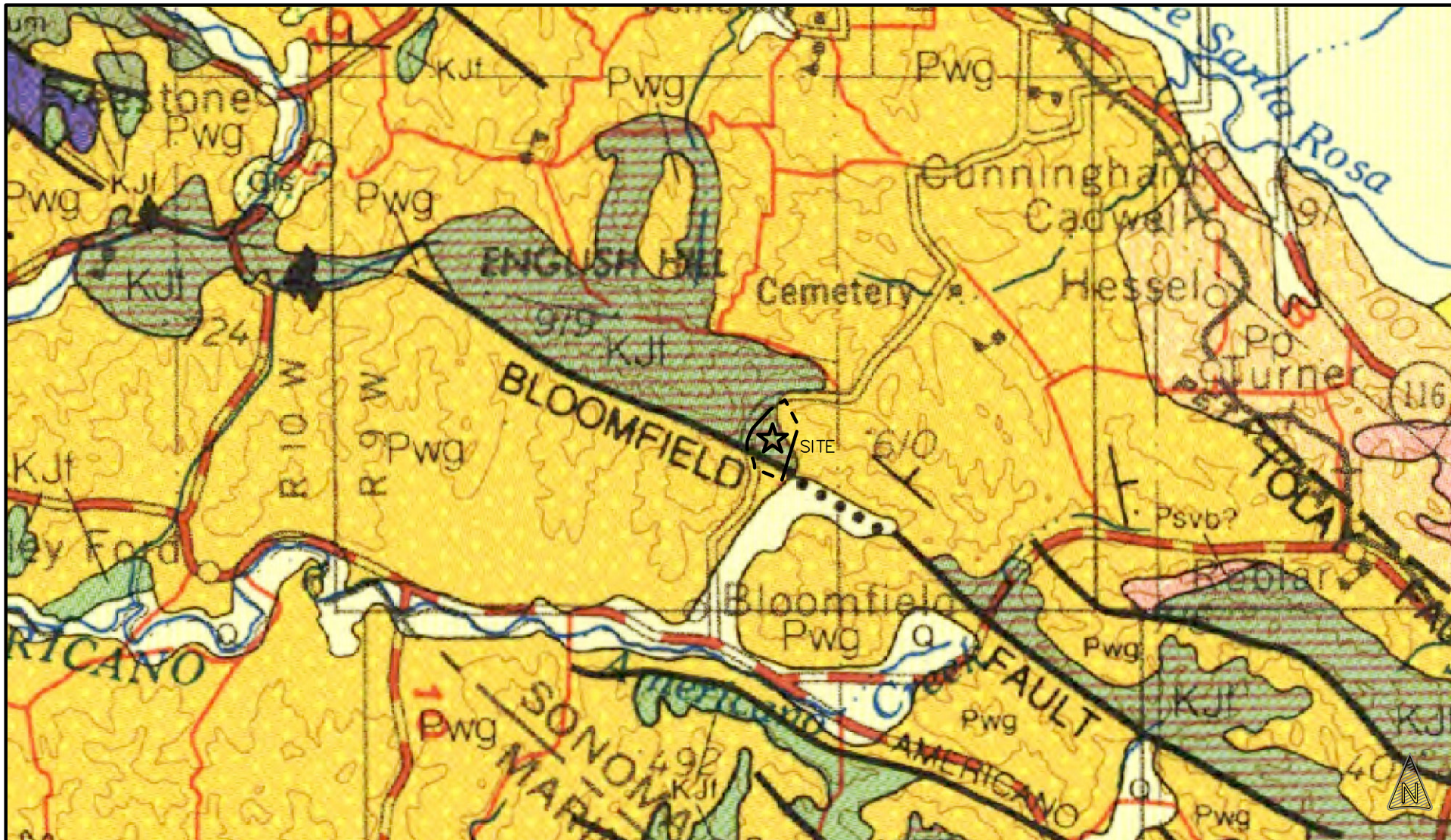
## TOPOGRAPHIC MAP

027-050-022  
4707 BLOOMFIELD RD  
PETALUMA, CALIFORNIA 94952

JOB NUMBER:  
5181.01

DATE:  
12/20/21

PLATE:  
3



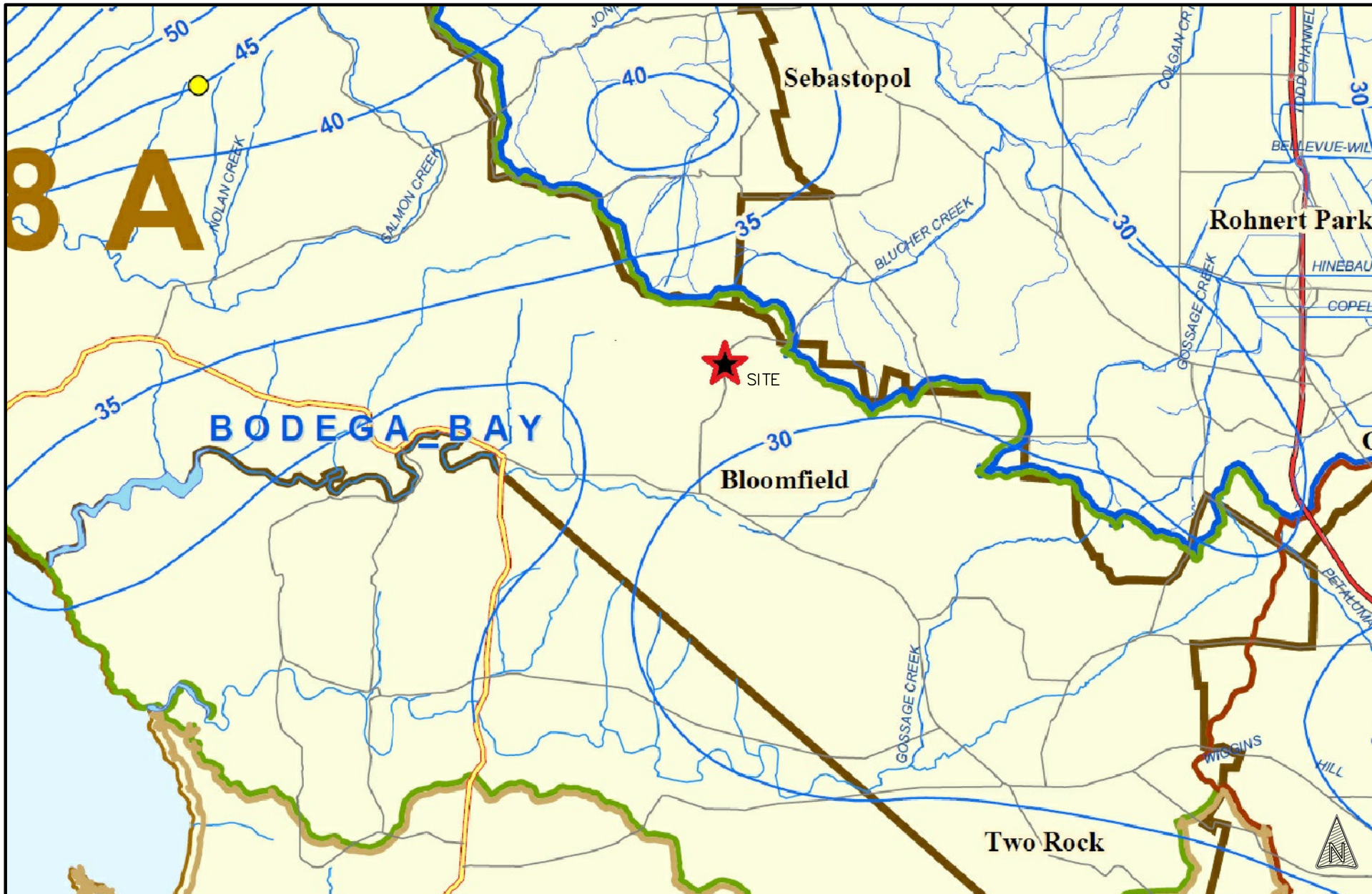
SOURCE: GEOLOGIC MAP OF THE SANTA ROSA QUADRANGLE, CALIFORNIA, 1:250,000, CALIFORNIA DIVISION OF MINES AND GEOLOGY, COMPILATION BY D.L. WAGNER AND E.J. BORTUGNO, PUBLISHED 1982.

Pwg - WILSON GROVE FORMATION: PLIOCENE AGED MARINE SANDSTONE, CONGLOMERATE AND TUFF. ALLUVIUM IN SMALL VALLEYS; SAND, GRAVEL, SILTS, AND CLAY.  
 Kjf - FRANCISCAN COMPLEX - JURASSIC AGED SANDSTONE, SHALE, CONGLOMERATE, CHERT, GREENSTONE, METAGRAYWACKE.

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<b>GEOLOGIC MAP</b>
027-050-022
4707 BLOOMFIELD RD
PETALUMA, CALIFORNIA 94952

JOB NUMBER: 5181.01
DATE: 12/20/21
PLATE: 5



**HURVITZ ENVIRONMENTAL**  

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**PRECIPITATION MAP**  
 027-050-022  
 4707 BLOOMFIELD RD  
 PETALUMA, CALIFORNIA 94952

JOB NUMBER: 5181.01
DATE: 12/20/21
PLATE: 6

**APPENDIX A**  
**PHOTOGRAPHIC LOG**

## SITE PHOTOGRAPHS



Photo 1: View of Irrigation well shed and associated concrete holding tank.



Photo 2: Closeup View of Project Irrigation Well.

SITE PHOTOGRAPHS



Photo 3: View of proposed greenhouse cultivation area.



Photo 3: View site drain feature located adjacent to the proposed cultivation areas.

SITE PHOTOGRAPHS



Photo 5: View of small recharge basin located south of cultivation area.



Photo 6: View of four (4) steel water tanks used to store water from the irrigation well.

## SITE PHOTOGRAPHS

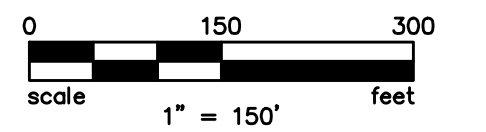


Photo 7: View of horse arena and stables located on the eastern portion of the site.



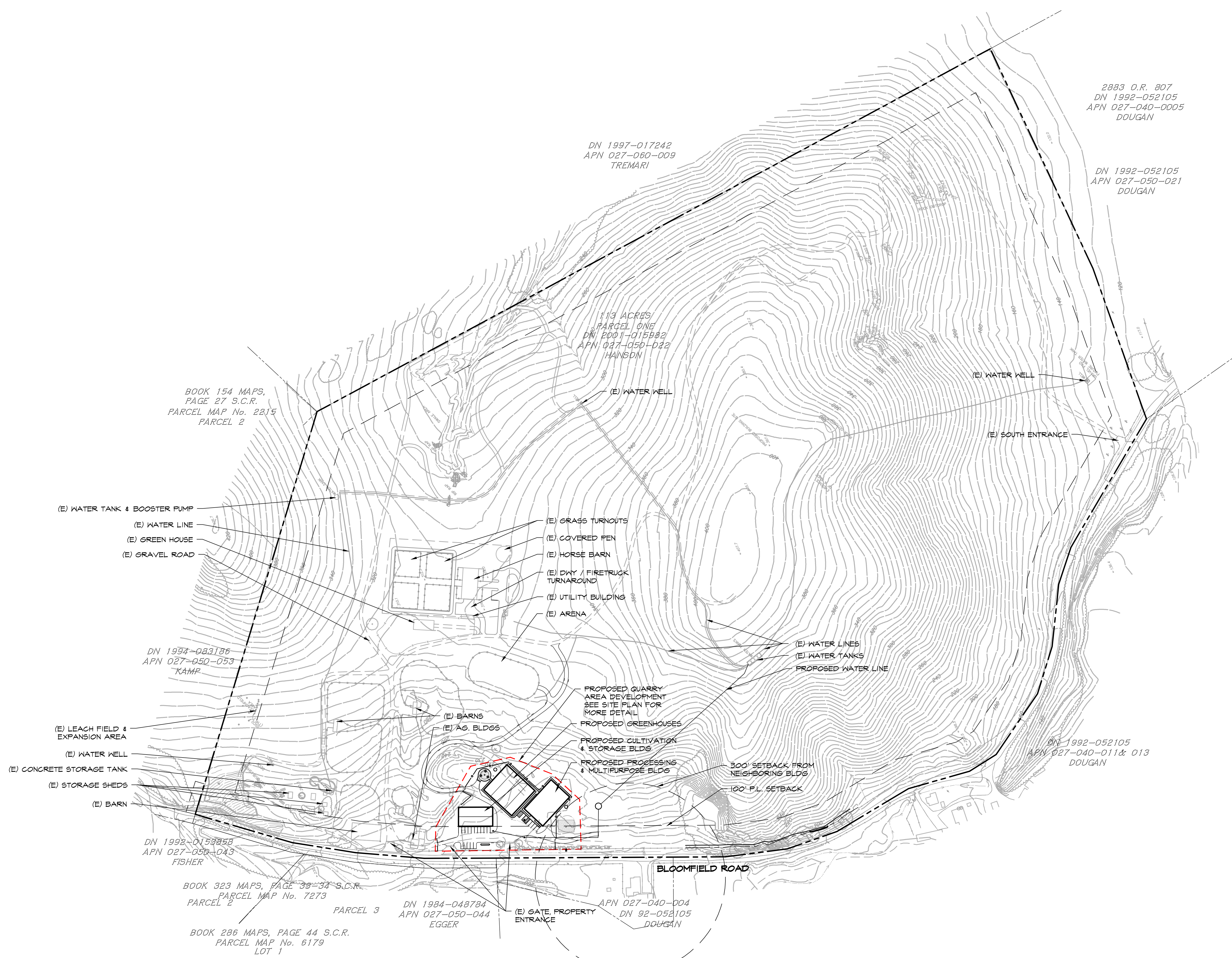
Photo 8: View of small greenhouse used for growing Microgreens.

**APPENDIX B**  
**ENGINEERED SITE PLANS**



**LEGEND**

AD	AREA DRAIN
AE	ACCESS EASEMENT
AS	AGRICULTURE
APN	ASSESSOR'S PARCEL NUMBER
BLDG	BUILDING
BSL	BUILDING SETBACK LINE
CB	CATCH BASIN
DI	DROP INLET
E	EXISTING
FC	FACE OF CURB
FD	FIELD DRAIN
FF	FINISH FLOOR
FS	FINISH SURFACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
HP	HIGH POINT
IFO	IN FAVOR OF
PAE	PRIVATE ACCESS EASEMENT
PDE	PRIVATE DRAINAGE EASEMENT
PG	PAD GRADE
PSE	PRIVATE SEW EASEMENT
PSE	PRIVATE SEWER EASEMENT
RS	ROCK SWALE
SD	STORM DRAIN
SS	SEWER SERVICE
TC	TOP OF CURB
TG	TOP OF GRATE
WM	WATER METER
WS	WATER SERVICE



OVERALL SITE  
MASTER PLAN  
**BLOOMFIELD  
FLOWERS**  
PETALUMA, CALIFORNIA

DECEMBER 04, 2020

SHEET 1 OF 1



CIVIL ENGINEERS • URBAN PLANNERS • LAND SURVEYORS • LANDSCAPE ARCHITECTS  
15 THIRD STREET, SANTA ROSA, CA 95401  
TEL (707) 542-6451 FAX (707) 542-5212

PROJECT No. 2001018.00

12/4/2020 4:16:46 PM Carlile\_Macys.dwg C:\Users\jmac\OneDrive\Documents\2001018.00\Drawings\SitePlan\Overall Site Plan.dwg [User: jmac] 0:018-10-C-020; 0:018-10-C-020; 0:018-10-C-020; 0:018-10-C-020



**APPENDIX C**  
**WELL COMPLETION REPORTS (11 WELLS)**

STATE OF CALIFORNIA  
**WELL COMPLETION REPORT**

No. **807042**

DWR USE ONLY — DO NOT FILL IN

**06M09W24**  
 STATE WELL NO. STATION NO.

LATITUDE				LONGITUDE			
APN / TRS / OTHER							

OWNER'S WELL No. 4780

Date Work Began 8/2/02 Ended 8/6/02

Local Permit Agency Sonoma

Permit No. WEL01-0544 Permit Date 9-21-2001

**GEOLOGIC LOG**

WELL OWNER

ORIENTATION Vertical Degree of Angle -----

DEPTH FROM SURFACE DEPTH TO FIRST WATER .....(ft.) BELOW SURFACE

Ft.	Ft.	DESCRIPTION
0	3	topsoil
3	12	yellow sandy clay
12	16	blue sandy clay
16	18	yellow sandy clay
18	45	blue sandy clay
45	50	sandstone
50	70	sandstone w/hard blue sandy clay
70	250	sandstone w/shale
250	300	shale

**WELL LOCATION**

Address 4707 Bloomfield Rd.  
 City Sebastopol County Sonoma  
 Apr Book 027 Page 050 Parcel 022  
 or Township ..... Range ..... Section ..... 1/4 ..... 1/4  
 or Latitude ..... NORTH Longitude ..... WEST  
 Deg. Min. Sec. LOCATION SKETCH Deg. Min. Sec.

TOTAL DEPTH OF BORING 300 (Feet)  
 TOTAL DEPTH OF COMPLETED WELL 297 (Feet)

ACTIVITY NEW WELL PLANNED USE(S) Domestic Water  
 DRILLING METHOD ROTARY AIR FLUID  
 DEPTH OF STATIC WATER LEVEL 140 (Ft.) & DATE MEASURED Aug 6, 2002  
 ESTIMATED YIELD \* 8 (G.P.M.) & TEST TYPE Air/W  
 TEST LENGTH. .4 (Hrs.) TOTAL DRAWDOWN 220 (FT.)  
 \*May not be representative of a well's long-term yield.

CASING						ANNULAR MATERIAL		
DEPTH FROM SURFACE	BORE-HOLE DIA.	TYPE	Material / Grade	Dia.	Gauge Slot size	DEPTH FROM SURFACE	Seal Material	Filter Pack (Type / Size)
0	30	Blank	F480 PVC	5	200	0	Bentonite	
30	160	Blank	F480 PVC	5	200	30		Gravel
160	297	Perfs	F480 PVC	5	200 1/32			1/4 X 1/8

- Attachments
- Geologic Log
  - Well Construction Diagram
  - Geophysical Logs
  - Soil Water Chemical Analyses
  - Other

**CERTIFICATION STATEMENT**  
 I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.  
 NAME Fisch Bros. Drilling, Inc.  
 (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)  
5001 Gravenstein Hwy No. Sebastopol CA 95472  
 Signed Scot Unterseher Carol Higgins 8-7-02 399226  
 WELL DRILLER / AUTHORIZED REPRESENTATIVE DATE SIGNED C- 57 LICENSE NUMBER

DWR USE ONLY - DO NOT FILL IN

06N109W07

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

APN/TRS/OTHER

Page 1 of 1

Owner's Well No. 1

No. **561469**

Date Work Began 4/30/96, Ended 5/3/96

Local Permit Agency DEPARTMENT OF PERMITS & RESOURCE MANAGEMENT

Permit No. 96-0039

Permit Date \_\_\_\_\_

**GEOLOGIC LOG**

WELL OWNER \_\_\_\_\_

ORIENTATION (∠)		DEPTH TO FIRST WATER (Ft.) BELOW SURFACE		DESCRIPTION <i>Describe material, grain size, color, etc.</i>
<input checked="" type="checkbox"/> VERTICAL	<input type="checkbox"/> HORIZONTAL			
DEPTH FROM SURFACE	Ft. to Ft.			
0	5			TOP SOIL
5	35			YELLOW SAND AND CLAY
35	55			BLUE SANDSTONE & CLAY
55	115			BLUE SANDSTON W/SANDY BLUE CLAY
115	285			HARD BLUE SANDSTONE W/ QUARTZ
285	295			FREE SANDSTONE
295	315			HARD SANDSTONE
315	330			HARD SANDSTONE

**WELL LOCATION**

Address 4760 BLOOMFIELD ROAD

City SEBASTOPOL, CA. 95472

County SONOMA

APN Book 027 Page 050 Parcel 044

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_

Latitude \_\_\_\_\_ North Longitude \_\_\_\_\_ West

**LOCATION SKETCH**

NORTH \_\_\_\_\_ SOUTH \_\_\_\_\_

WEST \_\_\_\_\_ EAST \_\_\_\_\_

Illustrate or Describe Distance of Well from Landmarks such as Roads, Buildings, Fences, Rivers, etc. PLEASE BE ACCURATE & COMPLETE.

**ACTIVITY (∠)**

NEW WELL

MODIFICATION/REPAIR

Deepen

Other (Specify) \_\_\_\_\_

DESTROY (Describe Procedures and Materials Under "GEOLOGIC LOG")

**PLANNED USE(S) (∠)**

MONITORING

**WATER SUPPLY**

Domestic

Public

Irrigation

Industrial

"TEST WELL"

CATHODIC PROTECTION

OTHER (Specify) \_\_\_\_\_

**DRILLING METHOD** ROTARY AIR FLUID \_\_\_\_\_

**WATER LEVEL & YIELD OF COMPLETED WELL**

DEPTH OF STATIC 50' (Ft.) & DATE MEASURED 5/3/96

WATER LEVEL \_\_\_\_\_ (Ft.)

ESTIMATED YIELD 15 GPM (GPM) & TEST TYPE AIR LIFT

TEST LENGTH 4 (Hrs.) TOTAL DRAWDOWN 320 (Ft.)

\* May not be representative of a well's long-term yield.

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING(S)							
		TYPE (∠)	MATERIAL/ GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)			
Ft. to Ft.		BLANK	SCREEN	COR. DIAMETER	FILL PIPE				
0	125	8"	X			P480	5"	200#	
125	325	"	XX			"	"	"	.032

DEPTH FROM SURFACE	ANNULAR MATERIAL			
	TYPE			
Ft. to Ft.	CE-MENT (∠)	BEN-TONITE (∠)	FILL (∠)	FILTER PACK (TYPE/SIZE)
0	20	XX		
20	325			1/4 X 1/8

**ATTACHMENTS (∠)**

Geologic Log

Well Construction Diagram

Geophysical Log(s)

Soil/Water Chemical Analyses

Other \_\_\_\_\_

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

**CERTIFICATION STATEMENT**

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME LES PETERSEN DRILLING & PUMP, INC. **266**

(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 5434 OLD REDWOOD HIGHWAY SANTA ROSA, CA. 95403

Signed LUPE VASQUEZ DATE SIGNED 5/8/96 CITY SANTA ROSA STATE CA ZIP 95403

WELL DRILLER/AUTHORIZED REPRESENTATIVE DATE SIGNED C-57 LICENSE NUMBER

ORIGINAL  
File with DWR

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

Do not fill in

DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

No. 253891

027 050

License of Intent No. 245482

State Well No. \_\_\_\_\_

Local Permit No. or Date 197-89

Other Well No. 06N09W27

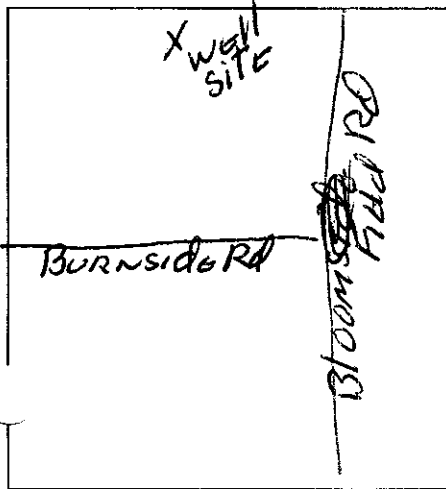
(12) WELL LOG: Total depth 323 ft. Completed depth 306 ft.  
from ft. to ft. Formation (Describe by color, character, size or material)

0 - 2 Top soil  
2 - 19 B2 SAND  
19 - 60 SOFT BLUE SANDSTONE  
60 - BLUE SANDSTONE, HARD LENSES

(2) LOCATION OF WELL (See instructions):

County Sonoma Owner's Well Number \_\_\_\_\_  
Well address if different from above 6445 BURNSIDE RD  
APNs 27-050-36 Lot # \_\_\_\_\_ Section Sebastopol

Distance from cities, roads, railroads, fences, etc. 1/2 mile west  
of the intersection of Bloomfield Rd and Burnside Rd.



- (3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 12)

- (4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Municipal   
Other  (Describe)

- (5) EQUIPMENT:  
Rotary  Reverse   
Cable  Air   
Other  Bucket

- (6) GRAVEL RACK:  
Yes  No   
Diameter of bore 8" Size  
Racked from 50' to 323'

- (7) CASING INSTALLED:  
Steel  Plastic  Concrete

- (8) PERFORATIONS:  
Types of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	306	5	200	196	306	.032

- (9) WELL SEAL:  
Was surface sanitary seal provided? Yes  No  If yes, to depth 50 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing GROUT

Work started 6-19-89 Completed 6-20-89  
WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Signed G. Leray Irwin (Well Driller)  
NAME IRWIN WELL DRILLING  
Address 3801 BURNSIDE RD  
City FULTON, CA ZIP 95439  
License No. 458649 Date of this report 6-21-89

- (10) WATER LEVELS:  
Depth of first water, if known \_\_\_\_\_ ft.  
Standing level after well completion 70 ft.  
(11) WELL TESTS:  
Was well test made? Yes  No  If yes, by whom? Driller  
Type of test Pump  Bailer  Air lift   
Depth to water at start of test 70 ft. At end of test 250 ft.  
Discharge 10 gal/min after 1 1/2 hours Water temperature \_\_\_\_\_  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Was electric log made? Yes  No  If yes, attach copy to this report

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

Do Not Fill In

**ORIGINAL** **CONFIDENTIAL LOG**  
File with DWR Water Code Sec. 13752  
DEPARTMENT OF WATER RESOURCES  
**WATER WELL DRILLERS REPORT**

**Nº 97484**

State Well No. \_\_\_\_\_  
Other Well No. **619427**

<p><b>(1) OWNER:</b></p> <p><b>(2) LOCATION OF WELL:</b> County <b>Sonoma</b> Owner's number, if any _____ Township, Range, and Section <b>N7W/ corner Burnside &amp; Bloomfield</b> Distance from cities, roads, railroads, etc. <b>Road, Sebastopol, Calif</b></p> <p><b>(3) TYPE OF WORK (check):</b> New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Destroying <input type="checkbox"/> If destruction, describe material and procedure in Item 11.</p> <p><b>(4) PROPOSED USE (check):</b> Domestic <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Municipal <input type="checkbox"/> Irrigation <input type="checkbox"/> Test Well <input type="checkbox"/> Other <input type="checkbox"/></p> <p><b>(5) EQUIPMENT:</b> Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Other <input checked="" type="checkbox"/> <b>Bucket</b></p> <p><b>(6) CASING INSTALLED:</b> STEEL: <input checked="" type="checkbox"/> OTHER: _____ SINGLE <input checked="" type="checkbox"/> DOUBLE <input type="checkbox"/> _____ If gravel packed _____</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Diam.</th> <th>Gage or Wall</th> <th>Diameter of Bore</th> <th>From ft.</th> <th>To ft.</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>56</td> <td>18"</td> <td>3/16</td> <td>30</td> <td>0</td> <td>56</td> </tr> </tbody> </table> <p>Size of shoe or well ring: _____ Size of gravel: <b>Pea</b></p> <p>Describe joint <b>welded</b></p> <p><b>(7) PERFORATIONS OR SCREEN:</b> Type of perforation or name of screen <b>Torch</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From ft.</th> <th>To ft.</th> <th>Perf. per row</th> <th>Rows per ft.</th> <th>Size in. x in.</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>56</td> <td>1</td> <td>10</td> <td>3/16 x 6</td> </tr> </tbody> </table> <p><b>(8) CONSTRUCTION:</b> Was a surface sanitary seal provided? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> To what depth <b>20</b> ft. Were any strata sealed against pollution? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, note depth of strata _____ From _____ ft. to _____ ft. From _____ ft. to _____ ft. Method of sealing <b>cement on pack</b></p> <p><b>(9) WATER LEVELS:</b> Depth at which water was first found, if known _____ ft. Standing level before perforating, if known _____ ft. Standing level after perforating and developing <b>39</b> ft.</p> <p><b>(10) WELL TESTS:</b> Was pump test made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, by whom? <b>Bail</b> d: <b>1</b> gal./min. with <b>15</b> ft. drawdown after _____ hrs. Temperature of water <b>cool</b> Was a chemical analysis made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Was electric log made of well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, attach copy _____</p>	From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.	0	56	18"	3/16	30	0	56	From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.	35	56	1	10	3/16 x 6	<p><b>(11) WELL LOG:</b></p> <p>Total depth <b>56</b> ft. Depth of completed well <b>56</b> ft. Formation: Describe by color, character, size of material, and structure _____ ft. to _____ ft.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align: center;">0</td> <td style="width:10%; text-align: center;">-</td> <td style="width:10%; text-align: center;">3</td> <td style="width:10%; text-align: center;">Brown top soil</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">-</td> <td style="text-align: center;">25</td> <td style="text-align: center;">Brown sandy clay w/ streaks of grey and sandstone</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> <td style="text-align: center;">Grey sandy clay w/ streaks of sandstone</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">39</td> <td style="text-align: center;">Blue sand w/ streaks of sandstone</td> </tr> <tr> <td style="text-align: center;">39</td> <td style="text-align: center;">-</td> <td style="text-align: center;">40</td> <td style="text-align: center;">Blue sand and water</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">55</td> <td style="text-align: center;">Blue sand w/ streaks of sandstone</td> </tr> <tr> <td style="text-align: center;">55</td> <td style="text-align: center;">-</td> <td style="text-align: center;">56</td> <td style="text-align: center;">Blue sandstone</td> </tr> </table> <p>Work started <b>10-5-</b> 19 <b>72</b>, Completed <b>10-5-</b> 19 <b>72</b></p> <p><b>WELL DRILLER'S STATEMENT:</b> This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.</p> <p>NAME <b>Weeks Drilling and Pump Company</b> (Person, firm, or corporation) (Typed or printed)</p> <p>Address <b>6100 Sebastopol Road</b> <b>Sebastopol, Calif., 95472</b></p> <p>[SIGNED] <b>Gerald G. Thompson</b> (Well Driller) <i>Mary E. Thompson</i></p> <p>by <b>Mary E. Thompson</b> License No. <b>177681</b> Dated <b>October 6, 1972</b>, 19 _____</p>	0	-	3	Brown top soil	3	-	25	Brown sandy clay w/ streaks of grey and sandstone	25	-	30	Grey sandy clay w/ streaks of sandstone	30	-	39	Blue sand w/ streaks of sandstone	39	-	40	Blue sand and water	40	-	55	Blue sand w/ streaks of sandstone	55	-	56	Blue sandstone
From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.																																															
0	56	18"	3/16	30	0	56																																															
From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.																																																	
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39	-	40	Blue sand and water																																																		
40	-	55	Blue sand w/ streaks of sandstone																																																		
55	-	56	Blue sandstone																																																		

SKETCH LOCATION OF WELL ON REVERSE SIDE

**CONFIDENTIAL LOG**  
Water Code Sec. 13752  
25179-950 9-68 50M TRIP AD OSP

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT 027 050 022

Do not fill in

No. 079758

Permit No. or Date 119-80

State Well No. Other Well No. 06N09W27L

(12) WELL LOG: Total depth 168 ft. Depth of completed well 168 ft. from ft. to ft. Formation (Describe by color, character, size or material)

(2) LOCATION OF WELL (See instructions): County Sonoma Owner's Well Number 27-05-22 4705 Bloomfield Rd. Well address if different from above Sebastopol Range Section Distance from cities, roads, railroads, fences, etc.

Table with 3 columns: Depth (ft.), Depth (ft.), Formation. Rows include: 0-1 Topsoil, 1-6 Sandy brown clay, 6-14 Sandy tan clay, 14-16 Sandy tan and brown clay, 16-29 Sandy blue clay with streaks of blue sandstone, 29-51 Sandy brown clay and clayey brown sand, 51-53 Sandy blue clay and clayey blue sand, 53-158 Clayey blue sand with occasional blue sandstone ledges, 158-168 Sandy gray clay.

(3) TYPE OF WORK:

- New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

WELL LOCATION SKETCH

(5) EQUIPMENT: Rotary [X] Reverse [ ] Cable [ ] Air [ ] Other [ ] Bucket [ ]

(6) GRAVEL PACK: Yes [X] No [ ] Size: Fine pea Diameter of bore 10 5/8, 8 3/4 Racked from 20 to 168 ft.

(7) CASING INSTALLED: Steel [ ] Plastic [X] Concrete [ ]

(8) PERFORATIONS: Type of perforation or size of screen Saw cut

Table with 7 columns: From ft., To ft., Dia. in., Gage or Wall, From ft., To ft., Slot size. Row 1: 0, 168, 6 5/8, C1200, 68, 128, 1/8 x 3. Row 2: 148, 168.

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 20 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval ft. Method of sealing Concrete on pack

(10) WATER LEVELS: Depth of first water, if known ft. Standing level after well completion 24 ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [X] Air lift [ ] Depth to water at start of test 24 ft. At end of test 148 ft. Discharge 13 gal/min after 2 1/2 hours Water temperature cool Local analysis made? Yes [ ] No [X] If yes, by whom? Electric log made? Yes [ ] No [X] If yes, attach copy to this report

Work started 4/25 1980 Completed 4/28 1980

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. SIGNED Gerald G. Thompson, By: Mary E. Thompson (Well Driller) NAME WEEKS DRILLING AND PUMP COMPANY (Person, firm, or corporation) (Typed or printed) Address 6100 Sebastopol Rd. City Sebastopol, CA Zip 95572 License No. C57-177681 Date of this report May 12, 1980

No 19423

State Well No. \_\_\_\_\_  
Other Well No. 6N/9W-27  
H80

CONFIDENTIAL LOG  
Water Code Sec. 13752

THE RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

<p>(1) OWNER:</p>				<p>(11) WELL LOG:</p> <p>Total depth <u>301</u> ft. Depth of completed well <u>301</u> ft.</p> <p>Formation: Describe by color, character, size of material, and structure</p> <p style="text-align: right;">ft. to _____ ft.</p>																																																																																							
<p>(2) LOCATION OF WELL:</p> <p>County <u>Sonoma</u> Owner's number, if any _____</p> <p>Township, Range, and Section _____</p> <p>Distance from cities, roads, railroads, etc. <u>1213 Bloomfield Rd.</u> <u>Sebastopol, Calif.</u></p>				<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td style="width:5%;">0</td><td style="width:5%;">-</td><td style="width:5%;">1</td><td style="width:15%;">Topsoil</td></tr> <tr><td>1</td><td>-</td><td>11</td><td>Orange &amp; yellow sandy clay</td></tr> <tr><td>11</td><td>-</td><td>31</td><td>Orange &amp; brown sandstone</td></tr> <tr><td>31</td><td>-</td><td>38</td><td>Clayey blue sand</td></tr> <tr><td>38</td><td>-</td><td>65</td><td>Clayey &amp; Yellow Orange sand</td></tr> <tr><td>65</td><td>-</td><td>78</td><td>Orange &amp; brown sandy clay</td></tr> <tr><td>78</td><td>-</td><td>92</td><td>Cemented orange &amp; brown sand</td></tr> <tr><td>92</td><td>-</td><td>117</td><td>Clayey blue sand</td></tr> <tr><td>117</td><td>-</td><td>202</td><td>Cemented blue sand/ sandstone &amp; clamshell ledges</td></tr> <tr><td>202</td><td>-</td><td>213</td><td>Clayey blue sand</td></tr> <tr><td>213</td><td>-</td><td>223</td><td>Cemented blue sand</td></tr> <tr><td>223</td><td>-</td><td>228</td><td>Grey wackie rock</td></tr> <tr><td>228</td><td>-</td><td>241</td><td>Cemented blue sand</td></tr> <tr><td>241</td><td>-</td><td>249</td><td>Fractured blue sandstone</td></tr> <tr><td>249</td><td>-</td><td>262</td><td>Clayey blue sand</td></tr> <tr><td>262</td><td>-</td><td>273</td><td>Cemented blue sand/ sandstone ledges</td></tr> <tr><td>273</td><td>-</td><td>276</td><td>Very hard grey rock</td></tr> <tr><td>276</td><td>-</td><td>287</td><td>Cemented blue sand</td></tr> <tr><td>287</td><td>-</td><td>292</td><td>Very hard grey rock</td></tr> <tr><td>292</td><td>-</td><td>295</td><td>Cemented blue sand &amp; sandstone</td></tr> <tr><td>295</td><td>-</td><td>301</td><td>Very hard grey rock</td></tr> </table>				0	-	1	Topsoil	1	-	11	Orange & yellow sandy clay	11	-	31	Orange & brown sandstone	31	-	38	Clayey blue sand	38	-	65	Clayey & Yellow Orange sand	65	-	78	Orange & brown sandy clay	78	-	92	Cemented orange & brown sand	92	-	117	Clayey blue sand	117	-	202	Cemented blue sand/ sandstone & clamshell ledges	202	-	213	Clayey blue sand	213	-	223	Cemented blue sand	223	-	228	Grey wackie rock	228	-	241	Cemented blue sand	241	-	249	Fractured blue sandstone	249	-	262	Clayey blue sand	262	-	273	Cemented blue sand/ sandstone ledges	273	-	276	Very hard grey rock	276	-	287	Cemented blue sand	287	-	292	Very hard grey rock	292	-	295	Cemented blue sand & sandstone	295	-	301	Very hard grey rock
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<p>(3) TYPE OF WORK (check):</p> <p>New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Destroying <input type="checkbox"/></p> <p>If destruction, describe material and procedure in Item 11.</p>				<p>(5) EQUIPMENT:</p> <p>Rotary <input checked="" type="checkbox"/></p> <p>Cable <input type="checkbox"/></p> <p>Other <input type="checkbox"/></p>																																																																																							
<p>(4) PROPOSED USE (check):</p> <p>Domestic <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Municipal <input type="checkbox"/></p> <p>Irrigation <input type="checkbox"/> Test Well <input type="checkbox"/> Other <input type="checkbox"/></p>				<p>(6) CASING INSTALLED:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">STEEL:</td> <td colspan="2">OTHER:</td> <td colspan="3" rowspan="2">If gravel packed</td> </tr> <tr> <td>SINGLE <input checked="" type="checkbox"/></td> <td>DOUBLE <input type="checkbox"/></td> <td colspan="2"></td> </tr> <tr> <th>From ft.</th> <th>To ft.</th> <th>Diam.</th> <th>Gage or Wall</th> <th>Diameter of Bore</th> <th>From ft.</th> <th>To ft.</th> </tr> <tr> <td>0</td> <td>301</td> <td>6"</td> <td>10</td> <td>9"</td> <td>0</td> <td>215</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>8 1/2"</td> <td>215</td> <td>301</td> </tr> </table> <p>Size of shoe or well ring: _____ Size of gravel: <u>Pea</u></p> <p>Describe joint <u>Welded</u></p>				STEEL:		OTHER:		If gravel packed			SINGLE <input checked="" type="checkbox"/>	DOUBLE <input type="checkbox"/>			From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.	0	301	6"	10	9"	0	215					8 1/2"	215	301																																																				
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				8 1/2"	215	301																																																																																					
<p>(7) PERFORATIONS OR SCREEN:</p> <p>Type of perforation or name of screen <u>Tordh</u></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>From ft.</th> <th>To ft.</th> <th>Perf. per row</th> <th>Rows per ft.</th> <th>Size in. x in.</th> </tr> <tr> <td>221</td> <td>301</td> <td>4</td> <td>1</td> <td>6 x 3/16</td> </tr> </table>				From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.	221	301	4	1	6 x 3/16	<p style="text-align: center;">CONFIDENTIAL LOG Water Code Sec. 13752</p>																																																																													
From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.																																																																																							
221	301	4	1	6 x 3/16																																																																																							
<p>(8) CONSTRUCTION:</p> <p>Was a surface sanitary seal provided? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> To what depth <u>30</u> ft.</p> <p>Were any strata sealed against pollution? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, note depth of strata _____</p> <p>From _____ ft. to _____ ft.</p> <p>From _____ ft. to _____ ft.</p> <p>Method of sealing <u>Cement on pack</u></p>				<p>Work started <u>Nov. 19 70</u>. Completed <u>Nov. 21 70</u></p> <p>WELL DRILLER'S STATEMENT: <i>This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.</i></p> <p>NAME <u>WEEKS DRILLING &amp; PUMPING COMPANY</u> (Person, firm, or corporation) (Typed or printed)</p>																																																																																							
<p>(9) WATER LEVELS:</p> <p>Depth at which water was first found, if known _____ ft.</p> <p>Standing level before perforating, if known _____ ft.</p> <p>Standing level after perforating and developing <u>200</u> ft.</p>				<p>Address <u>6100 Sebastopol Road</u> <u>Sebastopol, Calif.</u></p> <p>[SIGNED] <u>Gerald G. Thompson</u> (Well Driller) <i>Mary E. Thompson</i></p> <p>By <u>Mary E. Thompson</u> License No. <u>177681</u> Dated <u>Nov. 25</u>, 19 <u>70</u></p>																																																																																							
<p>(10) WELL TESTS:</p> <p>Was pump test made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, by whom? <u>Bail</u></p> <p>Yield: <u>12</u> gal./min. with <u>80</u> ft. drawdown after _____ hrs.</p> <p>Temperature of water <u>cool</u> Was a chemical analysis made? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Was electric log made of well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, attach copy _____</p>				<p>SKETCH LOCATION OF WELL ON REVERSE SIDE</p>																																																																																							

D/E

Do not fill in

No. 37084

ORIGINAL

STATE OF CALIFORNIA  
THE RESOURCES AGENCY

File with DWR

DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

State Well No. \_\_\_\_\_  
Other Well No. 6N/9W-26

Notice of Intent No. \_\_\_\_\_  
Local Permit No. or Date \_\_\_\_\_

025 100 020

(12) WELL LOG: Total depth 177 ft. Depth of completed well 177 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 1 Fill

1 - 2 Top soil

2 117 Brown sand stone with red streaks & layers of soft white sand stone.

117 172 Blue sand stone with many concretions (wet)

172 177 Hard blue Franciscan sand stone with white quartz stringers.

(2) LOCATION OF WELL (See instructions) Ar. #25-100-20

County Sonoma Owner's Well Number \_\_\_\_\_

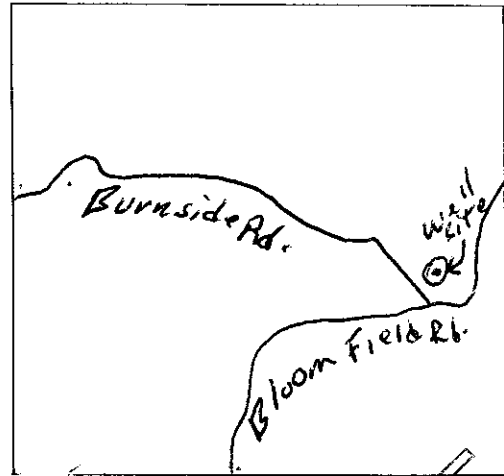
Well address if different from above 4050 Bloomfield Rd.

Township Sebastopol Range \_\_\_\_\_ Section \_\_\_\_\_

Distance from cities, roads, railroads, fences, etc. 400 ft. north of

intersection of Bloomfield Rd. & Burnside

Rd. --- 600 ft. east of Burnside Rd.



(3) TYPE OF WORK:

New Well  Deepening

Reconstruction

Reconditioning

Horizontal Well

Destruction  (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic

Irrigation

Industrial

Test Well

Stock

Municipal

Other

(5) EQUIPMENT:

Rotary

Cable

Other

Reverse

Air

Bucket

(6) GRAVEL PACK:

Yes  No  Size 10 1/8" pea

Diameter of bore 10 5/8"

Packed from 86 to 120 ft.

(7) CASING INSTALLED:

Steel  Plastic  Concrete

(8) PERFORATION: Machine cut

Type of perforation or size of screen \_\_\_\_\_

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	123	6 5/8"	.156	103	123	3/32" X 3"

(9) WELL SEAL:

Was surface sanitary seal provided? Yes  No  If yes, to depth 86 ft.

Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.

Method of sealing 8 sack grout

Work started 5/13/77 19\_\_\_\_ Completed 5/18/77 19\_\_\_\_

(10) WATER LEVELS:

Depth of first water, if known \_\_\_\_\_ ft.

Standing level after well completion 100 ft.

(11) WELL TESTS:

Was well test made? Yes  No  If yes, by whom? Driller

Type of test Pump  Bailer  Air lift

Depth to water at start of test 100 ft. At end of test 177 ft.

Discharge 5+ gal/min after 2 hours Water temperature cool

Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_

Water log made? Yes  No  If yes, attach copy to this report

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

SIGNED Robert N. Foote Jr. (Well Driller)

NAME Ballard & Foote

(Person, firm, or corporation) (Typed or printed)

Address 4625 Stoetz Lane

City Sebastopol, Calif. Zip 95472

License No. 311519 Date of this report 5/20/77

Aprox. well storage-- 115 gallons

Notice of Intent No. \_\_\_\_\_  
Local Permit No. or Date \_\_\_\_\_

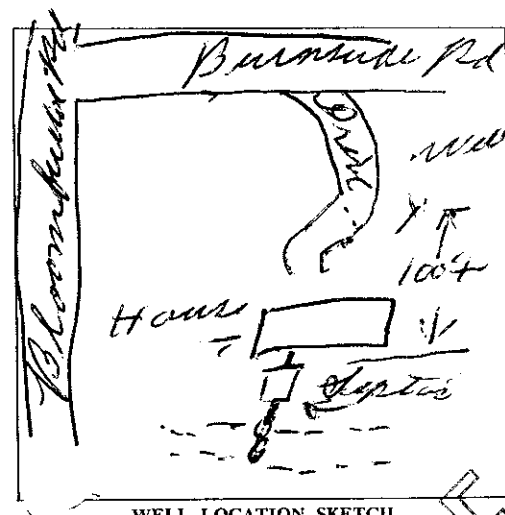
State Well No. \_\_\_\_\_  
Other Well No. 6N19W-26E

25 100 - 32

(12) WELL LOG: Total depth 195 ft. Depth of completed well 195 ft.  
from ft. to ft. Formation (Describe by color, character, size or material)

0	-	1	sandy soil
1	-	3	Red sandy clay
3	-	18	Brown "
18	-	31	Br Sand stone
31	-	76	Br Sandy clay
76	-	98	Sand stone
98	-	195	Grey Sand stone with hard streak

(2) LOCATION OF WELL (See instructions):  
County Sonoma Owner's Well Number \_\_\_\_\_  
Well address if different from above 6750 Burnside Rd. Sect.  
Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_  
Distance from cities, roads, railroads, fences, etc. 3/4 mile from Bloomfield Rd. Sect.



(3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 1)  
(4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Stock   
Municipal   
Other

(5) EQUIPMENT:  
Rotary  Reverse   
Cable  Air   
Other  Bucket

(6) GRAVEL PACK:  
Yes  No  Size \_\_\_\_\_  
Diameter of bore \_\_\_\_\_  
Packed from \_\_\_\_\_ ft.

(7) CASING INSTALLED:  
Steel  Plastic  Concrete

From ft.	To ft.	Dia. in.	Gage or Wall
0	102	8 1/2	188

(8) PERFORATIONS: none

From ft.	To ft.	Slot size
None	None	None

(9) WELL SEAL:  
Was surface sanitary seal provided? Yes  No  If yes, to depth 20 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing Concrete

Work started 4/12 1977 Completed 4/22 1977

(10) WATER LEVELS:  
Depth of first water, if known 110 ft.  
Standing level after well completion 105 ft.

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

(11) WELL TESTS:  
Was well test made? Yes  No  If yes, by whom? \_\_\_\_\_  
Type of test Pump  Bailor  Air lift   
Depth to water at start of test 105 ft. At end of test 135 ft.  
Discharge 10 gal/min after 2 1/2 hours Water temperature Cold  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Electric log made? Yes  No  If yes, attach copy to this report

SIGNED August Orsolini  
(Well Driller)  
NAME ORSOLINI WELL DRILLING  
(Person, firm, or corporation) (Typed or printed)  
Address 1270 FULTON RD  
City SANTA ROSA, CALIF Zip 95401  
License No. 211747 Date of this report 5/24/77

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

Do not fill in

No. 109960

Permit No. or Date

State Well No.

Other Well No. 6N/9W-23

(2) LOCATION OF WELL (See instructions): 27-270-17 County Sonoma Owner's Well Number 6107 Burnside Rd. Township Sebastopol Range Section Distance from cities, roads, railroads, fences, etc.

(12) WELL LOG: Total depth 210 ft. Depth of completed well 210 ft. from ft. to ft. Formation (Describe by color, character, size or material) 0-1 topsoil 1-8 sandy brown clay and clayee brown sand 8-17 clayee brown sand 17-18 stiff brown clay 18-23 clayee brown sand & sandy brown clay 23-27 clayee brown sand 27-57 clayee tan sand 57-61 clayee tan and orange sand, stks. of blue sand 61-68 clayee blue sand w/stks. of blue sandstone 68-77 blue sand w/stks. of blue sandstone 77-97 clayee brown sand 97-203 blue sand w/occ. stks. of blue sandstone 203-210 sticky sandy blue clay 210 hard blue rock

(3) TYPE OF WORK: New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

WELL LOCATION SKETCH

(5) EQUIPMENT: Rotary [X] Cable [ ] Other [ ] Reverse [ ] Air [ ] Bucket [ ] (6) GRAVEL PACK: Yes [X] No [ ] Size 3/8 pea Diameter of bore 50 to 210 ft. Raked from

(7) CASING INSTALLED: Steel [X] Plastic [ ] Concrete [ ] (8) PERFORATIONS: Type of perforation or size of screen From ft. To ft. Dia. in. Gauge or Wall 0 210 5/8 .156 130 210 3/16 x 6

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 50 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval Method of sealing concrete on pack

(10) WATER LEVELS: Depth of first water, if known ? ft. Standing level after well completion ? ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [ ] Air lift [ ] Depth to water at start of test ? ft. At end of test 190 ft. Discharge 4 gal/min after 3 hours Water temperature cool Local analysis made? Yes [ ] No [X] If yes, by whom? Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief. SIGNED Gerald Thompson by Mary Thompson (Well Driller) NAME Weeks Drilling & Pump Co. (Person, firm, or corporation) (Typed or printed) Address 6100 Sebastopol Rd. City Sebastopol, Calif. License No. 177681 Date of this report 6/29/77 Completed 6/30/77

ORIGINAL

File with DWR

STATE OF CALIFORNIA THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES WATER WELL DRILLERS REPORT

Do not fill in No. 080410

of Intent No. Permit No. or Date 460-80

State Well No. Other Well No. 06N09W22Q

(2) LOCATION OF WELL (See instructions): County Sonoma Owner's Well Number 027-270-26 Well address if different from above 6323 Burnside Rd. Township Sebastopol Range 09W Section Distance from cities, roads, railroads, fences, etc.

(12) WELL LOG: Total depth 160 ft. Depth of completed well 160 ft. from ft. to ft. Formation (Describe by color, character, size or material) 0 - 3 Topsoil 3 - 110 Brown sandstone 110 - 120 Blue sandstone 120 - 152 Blue sandstone with some hard ledges 152 - 160 Hard gray rock

(3) TYPE OF WORK: New Well [X] Deepening [ ] Reconstruction [ ] Reconditioning [ ] Horizontal Well [ ] Destruction [ ] (Describe destruction materials and procedures in Item 12) (4) PROPOSED USE: Domestic [X] Irrigation [ ] Industrial [ ] Test Well [ ] Stock [ ] Municipal [ ] Other [ ]

WELL LOCATION SKETCH (5) EQUIPMENT: Rotary [X] Reverse [ ] Cable [ ] Air [ ] Other [ ] Bucket [ ] (6) GRAVEL PACK: Yes [X] No [ ] Size Fine Pea Diameter of bore 10 5/8" Racked from 40 to 160 ft (7) CASING INSTALLED: Steel [ ] Plastic [X] Concrete [ ] (8) PERFORATIONS: Type of perforation or size of screen From ft. To ft. Dia. in. Gage or Wall From ft. To ft. Slot size 0 160 5 5/8 C1160 120 160 1/8 x 3

(9) WELL SEAL: Was surface sanitary seal provided? Yes [X] No [ ] If yes, to depth 40 ft. Were strata sealed against pollution? Yes [ ] No [ ] Interval Method of sealing Concrete on pack

(10) WATER LEVELS: Depth of first water, if known Standing level after well completion 97 ft.

(11) WELL TESTS: Was well test made? Yes [X] No [ ] If yes, by whom? Weeks Type of test Pump [ ] Bailer [X] Air lift [ ] Depth to water at start of test 97 ft. At end of test 155 ft. Discharge 7 gal/min after 1 1/2 hours Water temperature cool Chemical analysis made? Yes [ ] No [X] If yes, by whom? Was electric log made? Yes [ ] No [X] If yes, attach copy to this report

Work started 9/23 19 80 Completed 9/24 19 80 WELL DRILLER'S STATEMENT: This well was drilled under my jurisdiction and this report is true to the best knowledge and belief. SIGNED: Gerald G. Thompson, By: Ward Thompson (Well Driller) NAME: WEEKS DRILLING AND PUMP COMPANY (Person, firm, or corporation) (Typed or printed) Address: P. O. Box 176 Sebastopol, CA Zip 95472 License No. C57-177681 Date of this report Oct. 2, 1980

**ORIGINAL**  
File with DWR

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF WATER RESOURCES  
WATER WELL DRILLERS REPORT

Do not fill in  
No. 050385

Permit No. or Date 62-80

State Well No. \_\_\_\_\_  
Other Well No. 06N09W22

(2) LOCATION OF WELL (See instructions):  
County Sonoma Owner's Well Number 27-005-24  
Well address if different from above 6605 Burnside Rd.  
Township Sebastopol Range \_\_\_\_\_ Section \_\_\_\_\_  
Distance from cities, roads, railroads, fences, etc. \_\_\_\_\_

(12) WELL LOG: Total depth 290 ft. Depth of completed well 276 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	1	Topsoil
1	9	Sandy brown clay & clayee sand
9	33	Brown sandstone
33	63	Brown sandstone w/stks blue sandstone & clayee brown sand
63	68	Blue sandstone
68	86	Brown sandstone & clayee sand
86	154	occ trace shells clayee blue sand & clayee sand
154	262	hard blue rock
162	273	clayee blue sand & sandstone
273	279	clayee blue sand w/sandstone ledges
279	285	clayee blue sand w/sandstone ledges
285	290	hard gray rock

(3) TYPE OF WORK:  
New Well  Deepening   
Reconstruction   
Reconditioning   
Horizontal Well   
Destruction  (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:  
Domestic   
Irrigation   
Industrial   
Test Well   
Stock   
Municipal   
Other

WELL LOCATION SKETCH

(5) EQUIPMENT:  
Rotary  Reverse   
Cable  Air   
Other  Bucket

(6) GRAVEL PACK:  
Yes  No  Size fine pea  
Diameter of bore 10 5/8 - 11 7/8  
Packed from 30 to 276

(7) CASING INSTALLED:  
Steel  Plastic  Concrete

(8) PERFORATIONS: saw cut  
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Cage or Wall	From ft.	To ft.	Slot size
0	282	5 7/8	c1200	151	174	1/8x3
				191		"
				231		"

(9) WELL SEAL:  
Was surface sanitary seal provided? Yes  No  If yes, to depth 30 ft.  
Were strata sealed against pollution? Yes  No  Interval \_\_\_\_\_ ft.  
Method of sealing concrete on pack

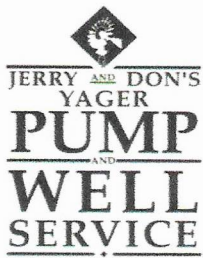
(10) WATER LEVELS:  
Depth of first water, if known \_\_\_\_\_ ft.  
Standing level after well completion 140 ft.

(11) WELL TESTS:  
Was well test made? Yes  No  If yes, by whom? Weeks  
Type of test \_\_\_\_\_ Pump  Bailer  Air lift   
Depth to water at start of test 140 ft. At end of test 255 ft.  
Flow rate 5 gal/min after 2 hours Water temperature cool  
Chemical analysis made? Yes  No  If yes, by whom? \_\_\_\_\_  
Was electric log made? Yes  No  If yes, attach copy to this report

Work started 3-17- 19 80 Completed 3-19- 19 80

WELL DRILLER'S STATEMENT:  
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.  
SIGNED Gerald Thompson by: Mary Thompson  
(Well Driller)  
NAME Weeks Drilling & Pump Co.  
(Person, firm, or corporation) (Typed or printed)  
Address 6100 Sebastopol Rd.  
City Sebastopol, CA Zip 95472  
License No. 057-177681 Date of this report 3-20-80

**APPENDIX D**  
**WELL YIELD TEST**



**Jerry & Don's Yager Pump and Well**  
 1290 Bodega Ave - Petaluma, CA 94952  
 Ph: 707-762-1473 Fax: 707-769-9102  
 License: C-36, C-57 424778

## WELL TEST REPORT

### CUSTOMER INFORMATION

REPORT#:	1493
DATE OF TEST:	09/08/21
CUSTOMER NAME:	Bloomfield Farms
AGENT NAME:	Mike Agins
PROPERTY ADDRESS:	4707 Bloomfield Rd., Petaluma, CA 94952
MAILING ADDRESS:	
CONTACT:	Mike Agins
CONTACT PHONE:	(415) 515-1713
EMAIL:	
FAX:	

### WELL DATA

LOCATION OF WELL:	38° 19' 50" N, 122°50' 42" N
TYPE OF WELL:	Drilled
WELL DEPTH:	296'
CASING SIZE & TYPE:	5" Steel
SANITARY WELL SEAL	Yes
PUMP HP & TYPE:	1 ½ hp - 10GS15
PUMP SETTING:	280'
PUMP STATIC PRESSURE:	140 psi
PRESSURE TANK MODEL:	N/A

### WATER PRODUCTION OPERATING PRESSURE

### RESULTS

WATER LEVEL AT START (STATIC LEVEL):	48'
WATER LEVEL DRAWDOWN:	40'
STABILIZED PUMPING LEVEL:	88'
FINAL PUMPING LEVEL:	88'
DURATION OF CONSTANT PUMPING LEVEL:	6 hours 10 minutes
FLOW RATE OPEN DISCHARGE:	22 GPM
TOTAL LENGTH OF TEST:	8 hours 10 minutes
STABILIZED FLOW RATE (YIELD):	4.0 GPM
TOTAL YIELD - GALLONS:	2,167-gallons

### SYSTEM INSPECTION

### CONDITION

BOOSTER PUMP MODEL:	3SVB1H5CO	
ELECTRICAL:		Good
BOOSTER TANK MODEL:	WX-201	
OPERATING PRESSURE SETTING:	130 psi	
BOOSTER PUMP CAPACITY:		
STORAGE TANK TYPE & SIZE:	(4) 5,000-gal Concrete	
WATER TREATMENT EQUIP:	N/A	

## WATER SAMPLE TESTING

PARAMETER	DATE COLLECTED	RESULTS Raw / Treated	RECOMMENDED LEVELS
HARDNESS	N/A		Less than 3 G.P.G.
PH	N/A		7.0 to 8.5
IRON	N/A		Less than 0.3 P.P.M.
T.D.S.	N/A		Less than 500 P.P.M.
MANGANESE	N/A		Less than 0.05 P.P.M.
ARSENIC	N/A		<10ug/L-EPA Recommended Limit
NITRATE	N/A		<10mg/L-Reported as N -EPA Recommended Limit
VISUAL APPEARANCE	N/A		

## BACTERIA

COLIFORM	N/A		<1.0 Safe to Consume
E. COLI	N/A		<1.0 Safe to Consume

## COMMENTS

**Test completed by Technician: Jacob Emsweiler**

**APPROVED BY: JIM MICKELSON**

This report is for informational use only. It is in lieu of, and supersedes any other representation or statements of the agents or employees of the company, and all other such representations or statements shall be relied upon at the Customer's own risk. The data and conclusions provided herein are based upon the best information available to the company using standard and accepted practices of the water well drilling Industry. However, conditions in water well are subject to dramatic changes even in short periods of time. Therefore, the data and conclusions are valid only as of the date of the test or installation indicated, and should not be relied upon to predict either the future quality or quantity of water that the well will produce. The company makes no warranties, either express or implied, as to such future water production, and expressly disclaims and excludes any liability for consequential or incidental damages arising out of the breach of any express or implied warranty of future water production, or out of any further use of this report by the customer.



**CERTIFICATION OF WATER YIELD IN WATER SCARCE AREAS**

**WLS-010**

Permit Sonoma shall be notified 24 hours in advance of this test

Water Yield Number \_\_\_\_\_ Well Permit Number Wel 21-0414

1. Individual performing test: Jacob Emschweiler

2. Type of license/registration, number and expiration date: CAL. LIC. C57-424778

3. Location of well: \_\_\_\_\_

4. Address: 4707 Bloomfield Rd., Petaluma, CA 94952 APN: \_\_\_\_\_

5. Type and model of test pump: 10LS15

6. Test pump setting depth: 280'

7. Maximum reported yield for this pump type at this setting: \_\_\_\_\_

8. Type of discharge measurement method: 1 1/4" pipe

9. Type and model of flow meter (or provide an accurate description of weir or orifice plate): Badger 1" NSF61

10. Geographic coordinates (Plane Coordinate Method or distance from fixed landmarks): 38°19' 50" N, 122° 50' 42" W

11. Estimated elevation of well head: 130 ft.

12. Initial static water level (include measuring points such as top of casing, surface seal, access port): 48' from top of casing

13. Date & time of initial static water level measurement: 09 / 08 / 21 8:45am AM/PM

- a. Discharge Rate: 4.0 GPM
- b. Dynamic Water Level: 88'
- c. Specific Capacity: 0.1
- d. Pump Test duration: 8 hours

14. Immediately after the test take the following measurements:  
a. Dynamic water level: 88'  
b. Final discharge rate: 4.0 GPM

15. Post - Test Measurement:  
a. Dynamic water level: 88'  
b. Static water level: 36' 7"  
c. Percentage of recovery of final static level: 100%

Testing performed by (signature): [Signature] Date: 09/08/2021

Company Jerry & Don's Yager Pump & Well Phone Number: (707) 762-1473

Specialist \_\_\_\_\_ Date \_\_\_\_\_

Approved  Denied

**CERTIFICATION OF WATER YIELD IN WATER SCARCE AREAS**

**WLS-010**

**WELL PUMP TEST DATA RECORDATION**

ADDRESS:

Date	Time	Interval	SWL	GPM	Comments
09/0/21	9:55	1 Min	48'	22.5	Meter Reading: 63,769
	9:56	1 Min	61.5	22.5	
	9:57	1 Min	74.6'	22.0	
	9:58	1 Min	89.4'	21.1	
	9:59	1 Min	103.1'	19.2	
					Pumped off at 10:02
	10:05	5 Mins	144.7'	3.2	Pumped 232-gallons
	10:10	5 Mins	134.2'	3.2	
	10:15	5 Mins	128.6'	3.2	
	10:20	5 Mins			
	10:25	5 Mins	112.4'	4.4	
	10:30	5 Mins		4.4	
	10:35	5 Mins	108.3'	4.5	
	10:40	5 Mins	106'	4.5	
	10:45	5 Mins	104'	4.5	
	10:50	5 Mins	98.2'	4.5	
	10:55	5 Mins	99'	4.5	
	11:00	5 Mins	94.2'	4.5	
	11:20	20 Mins	88'	4.0	
	11:40	20 Mins	88'	4.0	
	12:00	20 Mins	88'	4.0	
	12:30	30 Mins	88'	4.0	
	1:00	30 Mins	88'	4.0	
	1:30	30 Mins	88'	4.0	
	2:00	30 Mins	88'	4.0	
	2:30	30 Mins	88'	4.0	
	3:00	30 Mins	88'	4.0	
	3:30	30 Mins	88'	4.0	
	4:00	30 Mins	88'	4.0	
	4:30	30 Mins	88'	4.0	
	5:00	30 Mins	88'	4.0	
	5:30	30 Mins	88'	4.0	
	6:00 pm	30 Mins	88'	4.0	Test Completed
		30 Mins			Meter Reading: 65,936
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
		30 Mins			
09/10/21	6:50 am	72 Hrs. or	36.7'		48.8 hrs from completion of pump test

**CALCULATION OF WELL RECOVERY**

**(Worksheet example taken from Permit Sonoma Number 9-2-28)**

1. Determine the water level draw down by subtracting the initial static water level measurement from the stabilized pumping level. Record this result as the well draw down.
2. Next determine the water level recovery by subtracting the post test (within 72 hours) static water level from the stabilized dynamic pumping level. Record this result as the well recovery.
3. Next determine the percent recovery of the well. Divide the water level recovery by the water level draw down and multiply by 100. Record this result as the percent well recovery.

Example:

a.	Initial static water level:	(measured value)	<u>48'</u>
b.	Post test static water level*:	(measured value)	<u>48'</u>
b.1.	Time (hours) of measurement:	(within 72 hours)	<u>8 hours</u>
c.	Stabilized pumping level**:	(measured value)	<u>88'</u>
d.	Draw down:	(calculate by subtracting A from C)	<u>40'</u>
e.	Recovery:	(calculate by subtracting B from C)	<u>40</u>
f.	Percent recovery:	(calculate by dividing E by D and multiplying result by 100)	<u>100%</u>

Well percent recovery (F) must be 90% or greater within a 72 hour period.

\* The static water level after 72 hours or less post pump test.

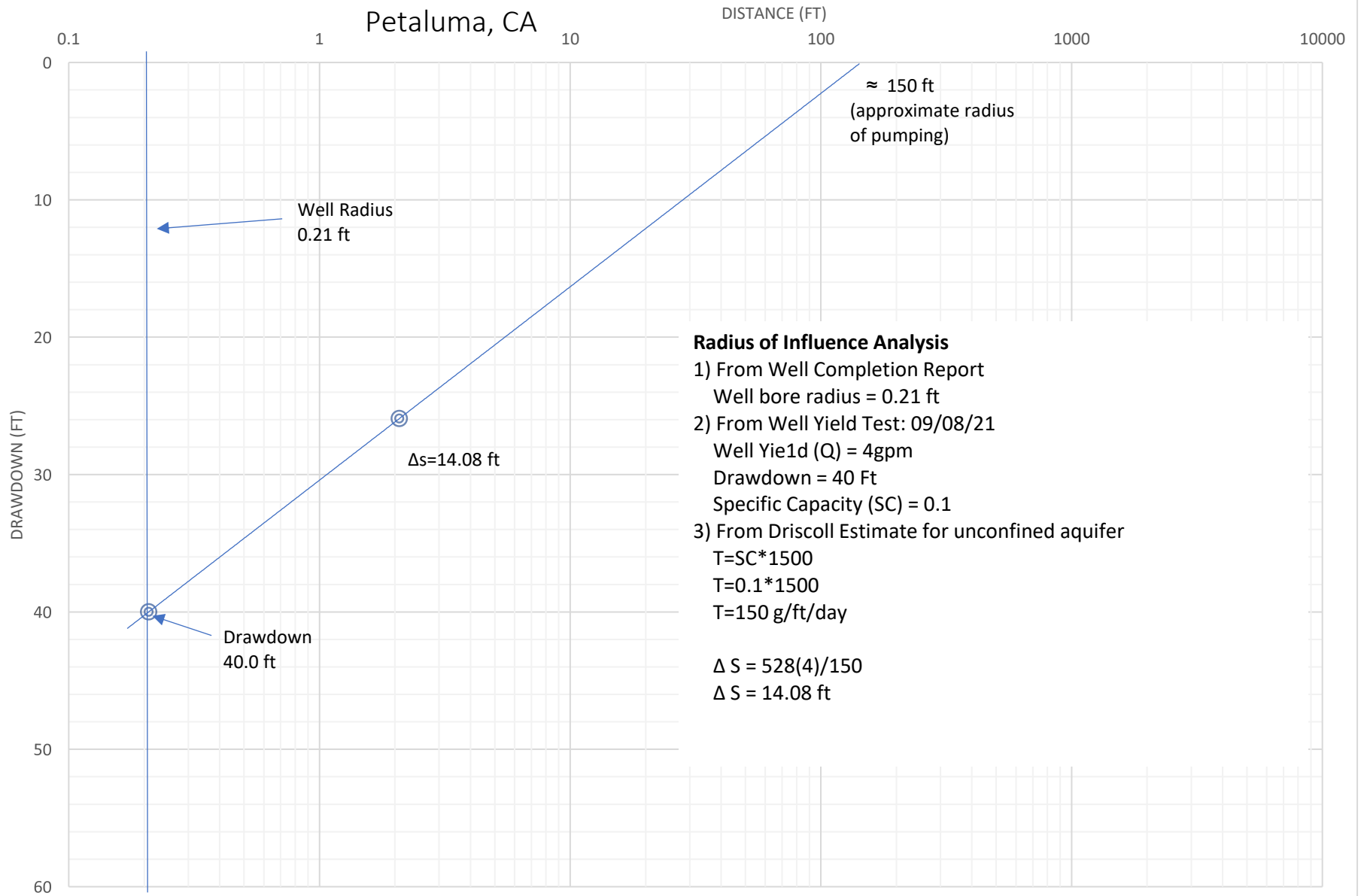
\*\* Kleinfelder refers to this as the dynamic pumping level.

**APPENDIX E**  
**RADIUS OF PUMPING INFLUENCE**

# Radius of Pumping Influence

4707 Bloomfield

Petaluma, CA



## Haleigh Frye

---

**From:** Hoff, David A@CHP <DAHoff@chp.ca.gov>  
**Sent:** Tuesday, May 14, 2024 11:20 AM  
**To:** Haleigh Frye; State.Clearinghouse@opr.ca.gov  
**Cc:** Abrahams, Kristen@CHP  
**Subject:** FW: Environmental Document Review – SCH # 2024040916 – Due to Lead Agency by 5/22/2024

### EXTERNAL

Good morning,

While the impact of this project on the local traffic will likely be minimal, we have certainly seen an increase in violent crime in and around more rural cannabis operations. Violent crime would include armed robberies of the processing facilities which obviously puts public safety at risk as well as expends local law enforcement resources.

Thank You,  
Dave

*Dave Hoff*, Captain  
Commander  
California Highway Patrol  
Santa Rosa Area  
6100 Labath Avenue  
Rohnert Park, CA 94928  
Office – (707) 806-5600  
Cell – (707) 529-8086



---

**From:** CHP-EIR <[EIR@chp.ca.gov](mailto:EIR@chp.ca.gov)>  
**Sent:** Wednesday, May 8, 2024 4:39 PM  
**To:** Ingels, Ross@CHP <[Ringels@chp.ca.gov](mailto:Ringels@chp.ca.gov)>; Hoff, David A@CHP <[DAHoff@chp.ca.gov](mailto:DAHoff@chp.ca.gov)>  
**Cc:** CHP-30AAdesk <[30AAdesk@chp.ca.gov](mailto:30AAdesk@chp.ca.gov)>; Abrahams, Kristen@CHP <[Kristen.Abrahams@chp.ca.gov](mailto:Kristen.Abrahams@chp.ca.gov)>  
**Subject:** Environmental Document Review – SCH # 2024040916 – Due to Lead Agency by 5/22/2024

Good afternoon,

Special Projects Section (SPS) recently received the referenced Notice of Environmental Impact document from the State Clearinghouse (SCH) outlined in the following Web site:

[UPC19-0012 Bloomfiled Flowers LLC. \(ca.gov\)](https://www.ca.gov)

Due to the project's geographical proximity, please use the attached checklist to assess its potential impact to local operations and public safety. **If impact is determined**, responses should be e-mailed directly to the Lead Agency with cc to SCH and myself. **If there is no impact**, please do not include SCH or the Lead Agency in your response.

For more information on the EIR review process, please check out: [Power Point Commanders EIR Training.pptx \(sharepoint.com\)](#).

Please feel free to e-mail me if you have any questions.

Thank you,

**Kristen Abrahams** (Lange), AGPA  
Special Projects Section, Transportation Planning Unit  
CHP Headquarters  
601 N. 7<sup>th</sup> Street  
Sacramento, CA 95811  
Office: (916) 843-3370  
Direct: (916) 843-3386

THIS EMAIL ORIGINATED OUTSIDE OF THE SONOMA COUNTY EMAIL SYSTEM.

**Warning:** If you don't know this email sender or the email is unexpected, **do not** click any web links, attachments, and **never** give out your user ID or password.

## Haleigh Frye

---

**From:** Hoff, David A@CHP <DAHoff@chp.ca.gov>  
**Sent:** Wednesday, May 15, 2024 3:29 PM  
**To:** Haleigh Frye  
**Subject:** RE: Environmental Document Review – SCH # 2024040916 – Due to Lead Agency by 5/22/2024  
**Attachments:** MX-5071\_20240515\_142539.pdf

**Follow Up Flag:** Follow up  
**Due By:** Monday, May 20, 2024 4:00 PM  
**Flag Status:** Completed

### EXTERNAL

As discussed. Please feel free to call with any other questions.

Thanks,  
Dave

*Dave Hoff*, Captain  
Commander  
California Highway Patrol  
Santa Rosa Area  
6100 Labath Avenue  
Rohnert Park, CA 94928  
Office – (707) 806-5600  
Cell – (707) 529-8086



---

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**Sent:** Tuesday, May 14, 2024 11:20 AM  
**To:** haleigh.frye@sonoma-county.org; State.Clearinghouse@opr.ca.gov  
**Cc:** Abrahams, Kristen@CHP <Kristen.Abrahams@chp.ca.gov>  
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**Cc:** CHP-30AAdesk <[30AAdesk@chp.ca.gov](mailto:30AAdesk@chp.ca.gov)>; Abrahams, Kristen@CHP <[Kristen.Abrahams@chp.ca.gov](mailto:Kristen.Abrahams@chp.ca.gov)>  
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Thank you,

**Kristen Abrahams** (Lange), AGPA  
Special Projects Section, Transportation Planning Unit  
CHP Headquarters  
601 N. 7<sup>th</sup> Street  
Sacramento, CA 95811  
Office: (916) 843-3370  
Direct: (916) 843-3386



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Bay Delta Region  
2825 Cordelia Road, Suite 100  
Fairfield, CA 94534  
(707) 428-2002  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



May 20, 2024

Ms. Haleigh Frye  
Sonoma County Permit Sonoma  
2550 Ventura Avenue  
Santa Rosa, CA 95403  
[Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org)

Subject: UPC19-0012 Bloomfiled Flowers LLC., Initial Study/Mitigated Negative Declaration, SCH No. 2024040916, Sonoma County

Dear Ms. Frye:

The California Department of Fish and Wildlife (CDFW) has reviewed the Initial Study/Mitigated Negative Declaration (IS/MND) from the County of Sonoma (County) for the UPC19-0012 Bloomfiled Flowers LLC. (Project) pursuant the California Environmental Quality Act (CEQA).

CDFW is submitting comments on the IS/MND to inform the County, as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project. CDFW is providing these comments and recommendations regarding those activities involved in the Project that are within CDFW's area of expertise and relevant to its statutory responsibilities (Fish & G. Code, § 1802), and/or which are required to be approved by CDFW (CEQA Guidelines, §§ 15086, 15096 & 15204).

## **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines, § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting these comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority over the Project pursuant to the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration (LSA) regulatory authority. (Fish & G. Code, § 1600 et seq.)

Likewise, to the extent the Project may result in “take,” as defined by state law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** Michael Agin (Applicant)

**Description and Location:** The Project site is located at 4707 Bloomfield Road, in the City of Petaluma, Sonoma County, California 95476; APN: 027-050-022.

The proposed Project consists of the development of a new commercial cannabis operation, including centralized cannabis processing, 5,000 square-feet of indoor cultivation, and 10,000 of mixed light cultivation, in addition to accessory propagation (for on-site use). The operation would occupy a total area of approximately 2.5-acre portion of a 113-acre parcel.

## **SPECIES POTENTIAL**

Threatened, endangered, and other special-status species that are known to occur, or have the potential to occur in or near the Project site, include, but are not limited to:

- California red-legged frog (*Rana draytonii*; FT, SSC)
- Western pond turtle (*Actinemys marmorata*; SSC)
- Western red bat (*Lasiurus frantzii*; SSC)
- Burrowing owl (*Athene cunicularia*; SSC)
- White-tailed kite (*Elanus leucurus*; SFP)
- Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*; 1B.2)
- Contra Costa goldfields (*Lasthenia conjugens*; FE)
- American badger (*Taxidea taxus*; SSC)

FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened; SFP = State Fully Protected; SSC = State Species of Special Concern

### California Rare Plant Rank (CRPR)

- 1B = Rare, Threatened, or Endangered in California and Elsewhere

### CRPR Threat Ranks

- 0.1-Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)

## COMMENTS AND RECOMMENDATIONS

CDFW offers the below comments and recommendations to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

### COMMENT 1: Lake and Streambed Alteration Notification

**Issue:** Cannabis cultivators applying for an Annual License from the Department of Cannabis (DCC), <https://cannabis.ca.gov/>, must have an LSA Agreement or written verification that one is not needed. CDFW requires an LSA Agreement when a project activity may substantially adversely affect fish and wildlife resources. LSA Agreements provide actions to avoid and minimize adverse impacts and provide protections to California's fish and wildlife resources. CDFW does not currently have a record of LSA notification on file for this Project.

**Recommendations:** CDFW recommends the Applicant submit an LSA notification for the Project pursuant to Fish and Game Code section 1602 well in advance of Project construction. Additional information about the LSA notification process for cannabis cultivation projects is described on CDFW's website at <https://wildlife.ca.gov/Conservation/Cannabis/Permitting>.

### COMMENT 2: Special-Status Plant Surveys

**Issue:** The IS/MND states that the Project parcel has the potential for multiple special-status plants to occur on-site, including, but not limited to the following: congested-headed hayfield tarplant and Contra Costa goldfields. The IS/MND also states that none of these plants are expected to occur on the Project site because their primary habitat requirements are lacking and were not observed during surveys performed within the Project site on January 6 and November 30, 2019. However, the timing of botanical surveys was conducted outside the appropriate season to accurately detect occurrences. Additionally, congested-headed tarplant may occur within grassland

habitat, which is present on-site where cannabis activities are proposed. Contra Costa goldfields observations have also been documented approximately one mile to the west of the Project site (California Natural Diversity Database [CNDDDB], Accessed May 2024). Although Contra Costa goldfields are often found in vernal pool habitat and swale habitat, they also may occur in other depression areas within grassland habitat. Due to the presence of grassland habitat on-site, Contra Costa goldfields may potentially be present on-site.

**Recommendations:** A Qualified Biologist should conduct surveys during the appropriate blooming period and include considerations to reference sites for all special-status plants that have the potential to occur on the Project site prior to the start of construction. Multiple survey seasons may be needed. Surveys should be conducted following *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities*, prepared by CDFW, dated March 20, 2018. The protocol can be found here: <https://www.wildlife.ca.gov/Conservation/SurveyProtocols#377281280-plants>. If special-status plants are found during surveys, the IS/MND shall outline which species of special-status plants will be impacted and how the Project would be re-designed to avoid, minimize and/or mitigate impacts to those special-status plants.

Results of the updated botanical surveys should be included in a revised IS/MND to ensure that all impacts to rare plants and/or rare vegetation communities are disclosed and can be mitigated to a level of less-than-significant. Any positive detections of special-status plant species found as a result of Project surveys should be submitted to the CNDDDB within 30 days of survey completion.

### **COMMENT 3: Migratory Birds and Nesting Raptors**

**Issue:** The IS/MND acknowledges there is foraging bird habitat and potential nesting habitat on adjacent parcels that may be impacted by Project disturbance. The IS/MND indicates site disturbance may occur during the nesting bird season (February 1 through August 31). Avoidance and minimization measure BIO-2 specifies a Qualified Biologist shall conduct a habitat assessment and pre-construction nesting bird and ground nesting species no more than seven (7) days prior to initiation of work and that buffer distance requirements would be species-dependent as determined by the Qualified Biologist. CDFW agrees with the implementation of these measures. However, CDFW has additional recommendations related to Qualified Biologist authority and raptor behavior.

**Recommendations:** In addition to the measure BIO-2 language included, CDFW recommends specifying that a Qualified Biologist, experienced in raptor behavior, be assigned to monitor the behavior of any raptors nesting within disturbance distance of Project activities. Even within species, disturbance distances can vary according to time of year or geographical location. The Qualified Biologist shall have authority to order the cessation of all Project activities within disturbance distance of any raptor nest if the

birds exhibit abnormal nesting behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young). Abnormal nesting behaviors which may cause reproductive harm include but are not limited to; defensive flights/vocalizations directed towards Project personnel, standing up from a brooding position, interrupted feeding patterns, and flying away from the nest. Project activities within line of sight of the nest should not resume until the Qualified Biologist has consulted with CDFW and both the Qualified Biologist and CDFW confirm that the bird's behavior has normalized, or the young have left the nest.

#### **COMMENT 4: Western Burrowing Owl**

**Issue:** The IS/MND notes that burrowing owl have potential to occur on-site or in the surrounding area but were not present in surveys conducted January 6 and November 30, 2019. According to CNDDDB, the Project site is within predicted burrowing owl habitat and burrowing owl have been documented approximately six miles from the Project site (CNDDDB Accessed May 2024). The Project site contains connected grassland with ruderal grasses considered suitable burrowing owl habitat. Please be advised that preconstruction/reconnaissance surveys alone are inadequate to determine impacts to western burrowing owl and their habitat. Burrowing owl may use unnatural features such as debris piles, culverts, and pipes for nesting, roosting or cover. Without additional burrowing owl habitat impact assessment and potentially incorporation of additional burrowing owl protective measures, the Project has the potential to result in injury or mortality to adult or juvenile owls, or cause nest abandonment. CDFW considers such impacts to western burrowing owl to be significant.

**Evidence the Impact Would be Significant:** Burrowing owl are a California SSC due to population decline and breeding range retraction. Recently, the California Fish and Game Commission has been petitioned to list populations of burrowing owl as endangered or threatened due to precipitous population declines and local extirpations of the species (Center for Biological Diversity et al. 2024). Burrows and burrow surrogates protect against predators and harsh weather conditions during the winter season.

**Recommendations:** The IS/MND should further evaluate whether the parcel contains suitable burrowing habitat for western burrowing owl. Prior to Project activities, a habitat assessment should be performed following Appendix C (Habitat Assessment and Reporting Details) of the CDFW Staff Report on Burrowing Owl Mitigation (2012 CDFW Staff Report), which is available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>. The habitat assessment should extend at least 150 meters (492 feet) from the Project site boundary and include burrows and burrow surrogates. If suitable burrowing owl habitat is determined to be present, CDFW recommends that surveys be conducted following the methodology described in Appendix D (Breeding and Non-breeding Season Surveys) of the 2012 CDFW Staff Report.

Burrowing owl surveys should be conducted by a qualified CDFW-approved biologist. In accordance with the Staff Report, a minimum of four survey visits should be conducted within 500 feet of the Project area during the owl breeding season which is typically between February 1 and August 31. A minimum of three survey visits, at least three weeks apart, should be conducted during the peak nesting period, which is between April 15 and July 15, with at least one visit after June 15. Pre-construction surveys should be conducted no-less-than 14 days prior to the start of construction activities with a final survey conducted within 24 hours prior to ground disturbance.

Please be advised that CDFW does not consider exclusion of burrowing owl or “passive relocation” as a “take” avoidance, minimization, or mitigation method, and considers exclusion as a significant impact. The long-term demographic consequences of exclusion techniques have not been thoroughly evaluated, and the survival rate of evicted or excluded owls is unknown. All possible avoidance and minimization measures should be considered before temporary or permanent exclusion and closure of burrows is implemented in order to avoid “take”.

The CEQA document for the Project should also include measures to avoid or minimize loss of burrowing owl foraging habitat, and mitigation for loss of habitat that cannot be fully avoided. The EACCS Mitigation Guidance (p. 3-66) for burrowing owl recommends mitigating the loss of habitat by protecting habitat in accordance with the mitigation guidelines outlined in Table 3-10 (BUOW-3) through acquiring parcels, through fee title purchase or conservation easement, where known nesting sites occur or where nesting sites have occurred in the previous three nesting seasons (BUOW-1 and BUOW-2). Additionally, the Project applicant could work with the Implementation Committee to fund the implementation of an annual monitoring program in coordination with local conservation groups on all burrowing owl nest colonies on protected lands using monitoring protocols established by the California Burrowing Owl Consortium (1997). The results of these surveys would be submitted to the CNDDDB and the Conservation Strategy database (BUOW-4 and BUOW-5). This would allow for informed avoidance of impacts in the future.

#### **COMMENT 5: Bats**

**Issue:** The IS/MND states that bats have the potential to roost in eucalyptus trees approximately 300 feet from the Project site. However, Mitigation Measure BIO-3 only recommends a bat roost assessment of trees and structures within 100 feet of the Project site. Project construction could result in disturbance of roosting bats. Project activities that may disturb the bats include noise associated with construction equipment and generators; lighting from nighttime activities; and impacts to foraging habitat. These activities have the potential to disturb bats as they roost in the barn or nearby trees, or when they forage, resulting in avoiding foraging or roosting sites, abandoning the roost

or young (which may lead to mortality), and other impacts such as reduction in reproductive success, risk of predation, and reduction of prey.

**Evidence the impact would be significant:** Noise and night lighting can disrupt the circadian rhythms of many species. Many wildlife species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004).

**Recommendations to minimize significant impacts:** If ground-disturbing activities occur during the bat maternity season (April through July), a qualified bat biologist should assess all trees within 300 feet of the Project area to determine if they contain suitable bat roosting habitat (e.g., cavities, crevices, deep bark fissures). If any trees contain such habitat, bat presence shall be presumed. If the biologist determines there is potential for maternity roosting bats to be present within 300 feet of the Project site, nighttime emergence surveys shall be performed to determine if maternity roosting bats are present. If bat maternity roosts are present, the biologist shall establish an appropriate exclusion zone around the maternity roost. Once the biologist has determined that all young have become independent of the roost, construction may take place in the former exclusion zone.

#### **COMMENT 6: American Badger**

**Issue:** The IS/MND does not discuss the potential for encountering American badger on the Project site. However, this Project is within the range of the American badger and includes grassland habitat that may be suitable for American badger.

**Evidence of Significant Impacts:** Badgers range throughout most of California and can dig burrows in a single day; therefore, the species may occupy the Project site and adjacent habitat prior to Project construction (Brehme et al. 2015).

**Recommendations:** CDFW recommends the IS/MND further analyze the potential for American badger to occur on and adjacent to the Project site; and include mitigation measures to ensure impacts are reduced to less-than-significant. These measures may include a Qualified Biologist surveying for the species including adjacent habitat prior to construction, avoiding occupied burrows including a sufficient buffer approved by CDFW, and preparing and implementing a CDFW-approved relocation plan if badgers are found on or adjacent to the Project site.

#### **COMMENT 7: Fencing Hazards**

**Issue:** The Project may result in the use of open pipes used as fence posts, property line stakes, signs, etc. These structures mimic the natural cavities preferred by various

bird species and other wildlife for shelter, nesting, and roosting. Raptor's talons can become entrapped within the bolt holes of metal fence stakes resulting in mortality.

**Recommendations:** CDFW recommends that all hollow posts and pipes be capped to prevent wildlife entrapment and mortality. Metal fence stakes used on the Project site should be plugged with bolts or other plugging materials to avoid this hazard. Further information on this subject may be found at:

<https://ca.audubon.org/conservation/protect-birds-danger-open-pipes>.

### **COMMENT 8: Water Use and Cumulative Impacts**

**Issue:** CDFW commends the Project proponent for including a rainwater capture system to collect rainwater from Project building infrastructure. However, two existing domestic wells on-site may be used as “backup” for cannabis irrigation and it is unclear if diversion from those wells could cause or contribute to significant impacts to groundwater and impact biological resources that depend on groundwater availability. Increased water use may lower the groundwater table, which could eliminate flows or flow duration in streams, such as the close by Middle Americano Creek. Lowering of the water table may reduce water availability for fish and wildlife. It is also unclear how the Project well may interact with surface water resources.

**Evidence of Significant Impacts:** Cannabis cultivation is often associated with a significant water demand. Cannabis cultivation requires an average of one gallon of water per day per pound of cannabis produced or six gallons per plant per day (Bauer et al., 2015). Discussion of cumulative impacts is required by CEQA Guidelines section 15130, which also includes “past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency....” Increased water use may result in diminishing the biological diversity in watersheds. Increased water diversions and alterations to rivers’ hydrogeomorphology could affect the riparian corridor, and change sedimentation, nutrient loading, water quality, and water availability (Naiman et al. 1993, 2000). The Project could also substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Therefore, CDFW is concerned cumulative impacts from this and future projects in the County on biological resources similar to the proposed Project may be considerable, as defined in CEQA Guidelines section 15065(a)(3) and 15064(h)(1).

**Recommendations:** The IS/MND should provide additional information about Project use of the two “backup” existing cannabis irrigation wells including well diversion timing, frequency, rate, and volume. As part of the IS/MND, all Project wells should be evaluated

by a qualified professional such as a hydrologist to determine the relationship of surface water interaction and potential for subterranean stream diversion or streamflow depletion. Wells should be evaluated under the CEQA review process to determine their potential for stream water depletion that may adversely affect fish and aquatic life.

Additionally, the IS/MND should provide a robust analysis of cumulative impacts to water sources (i.e., local groundwater) based on this Project and other past, and future projects. Based on results of additional well diversion assessments to groundwater resources, the Project IS/MND should incorporate additional groundwater extraction/recharge measures. Measures should be sufficient to ensure that the Project's use of groundwater will not further result in subsidence of the groundwater table or impacts to surface water flow in Middle Americano Creek. For example, seasonally limiting use of the Project well and/or limiting the rates of water extraction may be necessary to avoid and/or minimize impacts to groundwater levels. To verify Project measures the County should require the Project to monitor and report water usage and water depths over time from all Project wells for the life of the Project. If diversion from the existing or new well could result in substantial diversion of streamflow, the diversion would be subject to Fish and Game Code section 1602 and should be included as part of a complete Project LSA notification.

## **REGULATORY REQUIREMENTS**

### **Lake and Streambed Alteration Agreement**

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et seq., for Project activities affecting river, lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, drainage ditches, washes, watercourses with a subsurface flow, and floodplains is generally subject to notification requirements. In addition, infrastructure installed beneath such aquatic features, such as through hydraulic directional drilling, is also generally subject to notification requirements. Therefore, any impact to the mainstems, tributaries, or floodplains or associated riparian habitat caused by the proposed Project will likely require an LSA Notification. CDFW may not execute a final LSA Agreement until it has considered the IS/MND and complied with its responsibilities as a responsible agency under CEQA.

### **California Endangered Species Act**

A CESA Incidental Take Permit (ITP) must be obtained from CDFW if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Under CESA, "take" means "hunt, pursue,

catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” (Fish & G. Code, § 86). CDFW’s issuance of an ITP is subject to CEQA and to facilitate permit issuance, any project modifications and mitigation measures must be incorporated into the CEQA document analysis, discussion, and mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

CEQA requires a mandatory finding of significance if a project is likely to substantially impact threatened or endangered species. Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064 & 15065). In addition, pursuant to CEQA, the Lead Agency cannot approve a project unless all impacts to the environment are avoided or mitigated to less-than-significant levels, or the Lead Agency makes and supports Findings of Overriding Consideration (FOC) for impacts that remain significant despite the implementation of all feasible mitigation. FOC under CEQA, however, do not eliminate the Project proponent’s obligation to comply with the Fish and Game Code.

### **Migratory Birds and Raptors**

CDFW has authority over actions that may result in the disturbance or destruction of active bird nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include section 3503 (regarding unlawful take, possession, or needless destruction of the nests or eggs of any bird), section 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and section 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

### **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data#44524420-pdf-field-survey-form>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

### **FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination

Ms. Haleigh Frye  
Sonoma County Permit Sonoma  
May 20, 2024  
Page 11

by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (See: Cal. Code Regs., tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

## CONCLUSION

CDFW appreciates the opportunity to comment on the IS/MND to assist the County in identifying and mitigating Project impacts on biological resources.

Questions and coordination pertaining to this letter should be directed to Emily Galli, Environmental Scientist, at (707) 210-4531 or [Emily.Galli@wildlife.ca.gov](mailto:Emily.Galli@wildlife.ca.gov); or Wes Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or [Wesley.Stokes@wildlife.ca.gov](mailto:Wesley.Stokes@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
*Erin Chappell*  
B77E9A6211EF486...  
Erin Chappell  
Regional Manager  
Bay Delta Region

ec: Office of Planning and Research, State Clearinghouse (SCH No. 2024040916)

### California Department of Fish and Wildlife

Craig Weightman; Bay Delta Region - [Craig.Weightman@wildlife.ca.gov](mailto:Craig.Weightman@wildlife.ca.gov)  
Wes Stokes, Bay Delta Region - [Wesley.Stokes@wildlife.ca.gov](mailto:Wesley.Stokes@wildlife.ca.gov)

### North Coast Regional Water Quality Control Board

David Kuszmar - [David.Kuszmar@waterboards.ca.gov](mailto:David.Kuszmar@waterboards.ca.gov)

### Sonoma County

McCall Miller - [Mccall.Miller@sonoma-county.org](mailto:Mccall.Miller@sonoma-county.org)

### Department of Cannabis Control

John Andersen - [John.Andersen@cannabis.ca.gov](mailto:John.Andersen@cannabis.ca.gov)

## REFERENCES

Bauer S, Olson J, Cockrill A, van Hattem M, Miller L, et al. (2015). Impacts of Surface

Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds. PLOS ONE 10(9): e0137935.  
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## Haleigh Frye

---

**From:** Ayris Hatton <ayrishatton@gmail.com>  
**Sent:** Tuesday, May 21, 2024 4:01 PM  
**To:** Planner  
**Cc:** Allan Kipperman  
**Subject:** Formal Objection

### EXTERNAL

We are writing this to formally object to and request a public hearing for Permit Sonoma File No. UPC19-0012.

We have several concerns about the proposed commercial cannabis factory at Bloomfield Flowers (Farms), 4707 Bloomfield Road, Petaluma. We live directly across the street at 4760 Bloomfield Road. We look down on their old quarry and initially had to put up with their event-planning business which included traffic, noise, and crowds. Most of the events took place on the hill above the quarry. They then developed a horse boarding operation which included the construction of barn and riding facilities directly across from us. Thus, we were subjected to the noise of the visual impact of this extensive construction.

Now they propose a large factory to grow and process cannabis which seems to have reached its peak as far as a viable business in California.

Our concerns are:

1. Water impact
2. Air pollution
3. Noise pollution
4. Road impact
5. Visual impact

We elaborate on our concerns as follows:

1. The primary source of our water comes from a spring directly across from their property. We have recently encountered serious water issues. Yager Pump and Well has confirmed that our spring has slowed considerably. The Yagers are available if you need them to confirm our situation. Either way, we are quite concerned this project could negatively impact our water supply and its quality or at least bring the water

2. We do not want to smell cannabis being processed. This proposed operation is significant. It seems impossible they can contain the smell and because we live uphill it's likely to head our way. We often smell cow manure from ranchers much further away.

3. The size of the buildings, the number of employees, the likely number of trucks, and traffic will no doubt create noise. We moved here for peace and quiet.

4. Bloomfield Road is currently full of potholes that are constantly being filled. Frankly, the road needs to be re-paved since during the winter, a long stretch of it is almost undrivable and can be dangerous. The traffic from their operation will only make a bad situation worse.

5. We realize, there are few if any laws that protect views, but given how much we have been impacted by the projects Bloomfield Farms has attempted over the years, we appeal to you. We are concerned this is just another ill-fated effort to make money. If they fail, we will be left looking down on a factory instead of the rural beauty we used to enjoy.

Feel free to contact us for more information about our concerns.

Allan Kipperman, MD (415-860-4857)

Ayris Hatton (415-279-7096)

*Ayris Hatton*

[www.ayrishatton.com](http://www.ayrishatton.com)

*Art in the Barn*

<https://www.instagram.com/ayrishatton/>

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June 1, 2024

To:

Permit Sonoma  
2550 Ventura Ave  
Santa Rosa. CA 95403

ATTN:

PLANNER: Haleigh Frye. OWNER: Michael Agins

From:

Dougan Dairy:

Nancy Friedman, Rick Whiting, Brian Friedman, Emily Friedman,  
Vince Ferrari, Cormac Ferrari  
Rachael, Andrew, Cora, Gia, Campanella  
Albert Dougan

5116, 4889, 5124 Bloomfield Rd  
Petaluma, CA 94952

RE:

Project Applicant, Bloomfield Flowers LLC., Michael Agins  
Permit Sonoma file Number:  
UCP19-0012  
APN 027-050-022

SUBJECT:

Formal Objection and Request for Public Hearing

**We are the most negatively affected by this proposal. The proposed facility is located less than 100ft. from our picture window, living room and master bedroom. The driveway from our home is directly aligned with the proposed entry.**

This 2.5 acre parcel with 4 bedroom family home will be severely impacted


- Loss of property asset value/ resale value
- We LIVE here. Mr. Agins does not, and will not suffer the impacts daily.
- Visual impact: Scenic corridor; 3 huge silver water tanks on ridge line.

- Road impact: Trucks using our aligned driveways as a turn-around. Increased traffic on narrow Bloomfield road. Project should require dedicated bike path on frontage as ours did.
- Noise pollution: Huge exhaust fans that can be heard from our home, decreasing our quality of life.
- Water impact. During drought years, our 3 wells suffered lowering of the water table that has not recovered. Our source of income is raising dairy cows. The property has been in agriculture since the Spanish Land grants. We are protected by the Right To Farm Act. The dairy is protected by the Sonoma County Agricultural and Open Space District regulations and the AG General Plan, It doesn't make sense that contiguous parcels allow such differing land use policies. It is not good planning.
- History: The previous owner had a polluting pig farm, a commercial quarry, and a motorcycle tract.
- Criminal Activity. Pot farms attract it.

Our property consists of 5 parcels over 350 acres. This is a legacy property. We have been in Agriculture for over a 100 years. Our families have saved the land for our community. I was involved in the AG initiative that created the tax to help protect viable agricultural farmlands. I do not object to legal pot cultivation in our area. But it must be required that it NOT affect the existing AG operations or disturb the quality of life of the neighbors.

I would be willing to speak with the applicants to determine if there is a way to mitigate the impact of this proposal. We have spoken in the past and I thought the proposal had been withdrawn. I held no objections to the previous uses.

I request a copy of the project materials. Please contact me as required. Thank you for including my concerns.

Nancy A. Friedman   
5116 Bloomfield Rd.  
Petaluma, CA 94952

707 795-8830  
707 479-5234  
coolnaf@aol.com

M. Friedman  
5114 Bloomfield Rd.,  
Petaluma, CA 94952

SAN FRANCISCO CA 940

3 JUN 2024 PM 5 L



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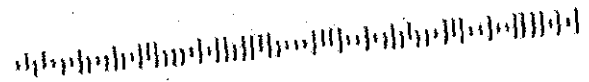
JUN 05 REC'D

PERMIT AND RESOURCE  
MANAGEMENT DEPARTMENT  
COUNTY OF SONOMA

Permit Sonoma  
2550 Ventura Ave.  
Santa Rosa, CA 95403

Attn: H. Frye

95403-282999



**From:** [coolnaf@aol.com](mailto:coolnaf@aol.com)  
**To:** [Haleigh Frye](#)  
**Subject:** Re: UPC19-0012 (4707 Bloomfield Rd) Public Comment - Nancy A. Friedman  
**Date:** Thursday, June 27, 2024 3:40:30 PM

---

## **EXTERNAL**

Thank you Haleigh,

My two main concerns are the aligned driveways and the constant noise from the exhaust fans...this is directly across from our home. We have been here for over 45 years. It will make our home not livable and decrease property value greatly.

The restrictions placed on our property by preserving it in Sonoma County Open Space are much greater than those that have chosen to “develop” theirs. It seems like an incompatible use. It also punishes those of us who were one of the very first to advocate for preserving viable farmlands forever at great financial loss. So people that choose commercial use over open space are being rewarded and the legacy farmers are penalized.

I was involved in the drafting of the original initiative and am aware of the intent of the Agricultural Plan and Open Space Plan. I was appointed and served on the commission for both.

I would like to request a site visit to our home. It seems the property is large enough to be able to allow a solution.

Thank you  
Nancy Friedman

Cc: Sonoma County Board of Supervisors

[Sent from the all new AOL app for iOS](#)

On Thursday, June 27, 2024, 1:42 PM, Haleigh Frye <[Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org)> wrote:

Hi Nancy,

I just wanted to follow up and confirm that you received the below communication regarding the concerns noted in your letter and verify if your concerns have been addressed and if there is anything that needs to be clarified.

The applicant is also in receipt of your letter indicating a request that they reach out to you separately.

Best,

Haleigh Frye, Planner II  
Planning Division | Project Review

[www.PermitSonoma.org](http://www.PermitSonoma.org)

County of Sonoma  
2550 Ventura Avenue, Santa Rosa, CA 95403

Direct: 707-565-2477  
Office: 707-565-1900 | Fax: 707-565-1103

-----Original Message-----

From: Haleigh Frye  
Sent: Wednesday, June 19, 2024 5:35 PM  
To: NANCY FRIEDMAN <coolnaf@aol.com>  
Subject: RE: UPC19-0012 (4707 Bloomfield Rd) Public Comment - Nancy A. Friedman

Hi Nancy,

Thank you for reaching out and letting me know. Please use the below link to access documents referenced, if it does not appear as a clickable link you should be able to copy and paste it into a browser to access materials.

<https://share.sonoma-county.org/link/LLM3fNyHMTw/>

I have included my response as a pdf which includes the clickable links in case none of those displayed in my email to you. Let me know if you have any questions.

Best,

Haleigh Frye, Planner II  
Planning Division | Project Review

[www.PermitsSonoma.org](http://www.PermitsSonoma.org)  
County of Sonoma  
2550 Ventura Avenue, Santa Rosa, CA 95403  
Direct: 707-565-2477  
Office: 707-565-1900 | Fax: 707-565-1103

-----Original Message-----

From: NANCY FRIEDMAN <[coolnaf@aol.com](mailto:coolnaf@aol.com)>  
Sent: Wednesday, June 19, 2024 3:57 PM  
To: Haleigh Frye <[Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org)>  
Subject: Re: UPC19-0012 (4707 Bloomfield Rd) Public Comment - Nancy A. Friedman

EXTERNAL

Haleigh,  
The attached document has vanished. Please resend.

Thank you. Nancy Friedman

> On Jun 18, 2024, at 4:14 PM, Haleigh Frye <[Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org)>  
wrote:

>

> <image001.jpg>

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**From:** [Ayris Hatton](#)  
**To:** [Haleigh Frye](#)  
**Subject:** Re: Formal Objection  
**Date:** Tuesday, July 23, 2024 2:18:38 PM

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## EXTERNAL

Hello,

Yes, we received the email below.

It is quite long and condensed so it took a while to review.

We were also quite busy moving everything from our prior home in Marin County to our residence on Bloomfield.

We still have concerns:

~ The development does not seem consistent with the rural/residential zoning.

It is a large commercial enterprise and there is no real proposed buffer.

~ The fans will likely generate noise despite being partially indoors.

They have to vent to the outside and we are concerned they might operate around the clock.

Other noise still concerns us despite the number of vehicles given Bloomfield traffic.

This operation is directly across the road from us, and trucks will likely be coming and going in a concentrated area.

~ We will still look directly down on this operation.

It is not likely the proposed plants and trees will screen the very large factory buildings given our view from above.

They planted shrubs and small trees around their horse facility and it has taken a considerable amount of time for the plantings to grow and they still do not screen it.

So, we are still asking for a public hearing.

Finally, we are concerned this project is a tax shelter rather than a viable enterprise given the currently flooded market for cannabis.

The owners can contact us if they please. The best contact is Allan Kipperman, MD at 415-860-4857.

Ayris Hatton & Allan Kipperman, MD  
4760 Bloomfield Rd.  
Petaluma, CA 94960

On Jun 26, 2024, at 1:49 PM, Haleigh Frye <Haleigh.Frye@sonoma-county.org> wrote:

Good Afternoon Ayris and Allan,

I just wanted to follow up and verify if your concerns have been addressed and confirm that you received the below communications.

Best,

<image001.jpg>

Planning Questions? Check out our FAQ Page!

<https://permitsonoma.org/divisions/planning/planningandzoningfaqs>

---

**From:** Haleigh Frye

**Sent:** Tuesday, May 28, 2024 5:13 PM

**To:** Ayris Hatton <[art@ayrishatton.com](mailto:art@ayrishatton.com)>

**Cc:** Allan Kipperman <[alkippmd@gmail.com](mailto:alkippmd@gmail.com)>

**Subject:** RE: Formal Objection

Good Afternoon Ayris and Allan,

Thank you for your comments, these have been saved to the file. Currently no other objections have been received to date.

I appreciate Ayris taking the time to speak with me via phone prior to submitting comments. It was helpful to discuss some of your preliminary concerns and the planning process in general. As noted during our call, below are some additional resources that further detail the project review process, as well as relevant code sections related to cannabis applications that you may find helpful. I am also happy to answer any additional questions you may have about these processes and this project

- The subject parcels as well as those within the immediate vicinity of the project parcel (approximately 0.5 mile radius from the project parcel boundary) are zoned [Land Extensive Agriculture \(LEA\)](#). Allowed land uses and development standards related to the base zoning district, LEA, can be found at that link. Various uses are allowed including commercial and noncommercial uses primarily related agriculture such as crop production and cultivation (indoor and outdoor), agricultural processing and support services, tasting rooms etc. Some of these uses require use permits while some do not and are allowed by right. Cannabis cultivation is allowed within this zoning district with a Conditional Use Permit, the current cannabis ordinance is linked [here](#).
- A [Conditional Use Permit](#) is an approval that allows a specific use of land on a parcel, generally subject to specific conditions and/or limitations. A Use Permit is a discretionary approval, meaning that the County decision makers will exercise judgment in determining whether a specific proposal conforms with the codes

and policies adopted by the County. The County has prepared PJR-010 Use Permit Application requirements which is helpful in explaining the use permit processing procedure in general.

Below are responses to each of your concerns, each of these items are addressed in the Mitigated Negative Declaration (MND) which can be accessed [here](#). I have also indicated the section and page number of the analysis can be found on within the MND.

**1. Water Impact:**

See Section 10 Hydrology and Water Quality beginning on page 50 of the MND.

The site is located within a Class 2 - Major natural recharge groundwater availability area, and within a very low priority groundwater basin, as designated by the Sustainable Groundwater Management Act. A Hydrogeologic Report was prepared to address potential groundwater impacts under CEQA and peer reviewed by Permit Sonoma's staff geologist. The hydrogeologic report identified the cumulative amount of development and uses allowed in the area and assessed the impact of the proposed project's groundwater use on overdraft conditions, land subsidence, surface water resources, and neighboring wells. The Cumulative Impact Area assessed is a 925-acre polygon which encompassed 37 separate parcels.

The project proposes to use a combination of groundwater (sourced from onsite wells) and rainwater capture. The estimated annual water demand for the cannabis project is 1.66 acre-feet (including employees), however almost two-thirds (1.05 acre-feet/year) of the annual cannabis irrigation water demand will come from the applicants proposed onsite rainwater capture and recycled water systems (captured from onsite uses), leaving the total groundwater demand at 0.61 acre feet per year. Typical water demand for a rural single family home is approximately 0.6 acre feet per year.

The peer reviewed study concluded that groundwater demand for the site is not significant with respect to the potential future conditions in the CIA, therefore pumping and groundwater extraction from the Site for the proposed cannabis project is not likely to create an overdraft condition at this time and would be sustainable for the foreseeable future. The study determined that pumping and groundwater extraction at the proposed Project Irrigation Well will not significantly impact neighboring wells or stream flow conditions in nearby creeks.

Additionally conditions of approval for the project would require well monitoring and limit and limit groundwater use in accordance with the proposal to employ rainwater capture and water reuse

**2. Air pollution:**

See Section 3 Air Quality beginning on page 21 of the MND.

The zoning code ([Sec. 26-88-254 \(g\)\(2\)](#)) requires that all structures containing cannabis be equipped with an odor control and ventilation system. All buildings used for project operation would be equipped with a self-contained, closed-loop climate control and air filtration system. All cultivation rooms would contain carbon filters and multiple fans to diminish cannabis odor. Carbon filters pull odor out of the air and neutralize odors that pass through the room. Additionally, carbon filters can filter out mold and mildew spores.

The nearest structure that would contain cannabis at the project site would be the indoor cultivation structure which is at least 1,100-feet from 4760 Bloomfield Rd (APN 027-050-044). The current cannabis ordinance requires that indoor cultivation and processing structures comply with the setbacks established by the zoning district (LEA zoning in this case) and does not require a minimum setback from offsite residences since odors are to be contained within these structures. Outdoor and mixed light cultivation must be setback a minimum of 300-feet from offsite residences. All structures proposed for this project are at least 300-feet from offsite residences, even those that are not required to meet that setback.

### **3. Noise pollution:**

See Section 13 Noise beginning on page 59 of the MND.

County Code Section 26-88-254(g)(6) includes the following standard pertaining to cannabis: "Cultivation operations shall not exceed the General Plan Noise Standards table NE-2, measured in accordance with the Sonoma County Noise Guidelines". The three primary noise sources related to the project would stem from traffic (e.g., employees, deliveries), short term construction noise, and long term operational noise.

Bloomfield Road, a Minor Collector Road with an average daily traffic volume of 547 vehicles, serves the area, which consists mainly of large agricultural parcels. Given the low number of vehicle trips associated with the project and the project's location, transportation noise is not expected to significantly impact the existing ambient traffic noise level.

Construction noise would be temporary and short-term, ending upon project completion, and would occur within the allowable hours of 8:00 am to 5:00 pm. Extreme noise-generating methods, such as impact pile driving, are not proposed. With the nearest residence 330 feet away and others approximately 1,200 feet away, no significant impacts are anticipated due to the temporary and short-term nature of the noise and the distance to nearby residences.

Project operations would not involve heavy equipment or machinery, and a generator would only be used during power outages. The primary noise source

would be ventilation fans, with all HVAC equipment which is primarily internal to proposed structures, and the emergency generator located at the rear of structures within acoustic enclosures.

#### **4. Road impact:**

See Section 17 Traffic beginning on Page 64 of the MND.

The County does not have the authority to require the applicant repave or improve public roads maintained by the County (Sonoma Public Infrastructure). Bloomfield Road is considered a Minor Collector road as mentioned above, the function of collector roads is to gather traffic from Local Roads and funnel them to the Arterial Network. Generally, Minor Collector routes are shorter in length, have higher connecting driveway densities, have lower speed limits, are spaced at lower intervals, have lower annual average traffic volumes, and may have fewer travel lanes than their Major Collector counterparts, you can review more information related to [functional road classifications here](#). Vehicles typically used for transport of cannabis products include Sprinter Vans (or similarly sized vans or vehicles), and small box trucks. Given the minimal number of average daily trips that would be generated by the project and the existing volumes of vehicles on local roadways, the project would have a less than significant impact on the traffic circulation system.

Sonoma Public Infrastructure (formerly known as Sonoma Public Works) and Sonoma County Fire Preventions have also conditioned the project to construct each project driveway entrance such that it conforms to Board of Forestry Fire Safety Regulations §1270 et seq. and County standards to allow for concurrent emergency ingress and egress as well as the smooth and safe movement of passenger vehicles entering and exiting the public road (Bloomfield Road) that provides access to the property.

#### **5. Visual impact:**

See Section 1 Aesthetics beginning on Page 16 of the MND.

The proposed project site is located on the site of a former rock quarry that was graveled and graded in 2019 to manage stormwater. The project parcel is not located within a designated scenic resource area (Community Separator, Scenic Corridor, Scenic Landscape Unit). Landscaping is proposed in along the fence line of the parcel in front of proposed project structures and would consist of drought-tolerant, fire-resistant, trees and shrubs which would substantially soften the visual appearance. The greenhouse would be setback between the two indoor structures, which will screen most of the greenhouse. Design review of all commercial structures, including fencing, and landscaping will be required as a standard use permit condition of approval to ensure the approved fencing and landscaping is compatible with County requirements and with the surrounding area.

While the project requires a use permit and is subject to environmental review and design review due to the fact that structures are associated with a cannabis cultivation and processing operation, structures like greenhouses or agricultural barns typically associated with agricultural operations do not require such scrutiny and are permitted ministerially or may meet [certain exemptions](#). Section 7-7 of the Sonoma County Code provides building permit exemption provisions for “. . . buildings designed and constructed for use in housing farm machinery, animals, supplies or products that are harvested from or utilized on a parcel of land”.

As part of the County’s review process for compliance we must make findings that a particular project is consistent with the General Plan Land Use Element. For the three agricultural zones (LIA, LEA, and DA) this includes compliance with Policy AR-4a, which states the following:

***Policy AR-4a:*** *The primary use of any parcel within the three agricultural land use categories shall be agricultural production and related processing, support services, and visitor serving uses. Residential uses in these areas shall recognize that the primary use of the land may create traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals.\**

The parcel maintains a horse training facility, an organic vegetable farming operation, bee keeping, and sheep grazing, which will continue on the project parcel. A condition of approval will require that onsite agricultural uses (or other comparable agricultural use) be continued as long as the permit is active.

After reviewing this information please confirm if you would like to maintain or rescind your request for a public hearing and/or if you have any additional questions. The applicant has also indicated that they are happy to follow up with you as well if you would like to speak with them directly and or receive a tour of the proposed project site.

Thank you,

<image001.jpg>

Planning Questions? Check out our FAQ Page!

<https://permitsonoma.org/divisions/planning/planningandzoningfaqs>

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**From:** Ayris Hatton <[art@ayrishatton.com](mailto:art@ayrishatton.com)>

**Sent:** Tuesday, May 21, 2024 3:59 PM

**To:** Haleigh Frye <[Haleigh.Frye@sonoma-county.org](mailto:Haleigh.Frye@sonoma-county.org)>

**Cc:** Allan Kipperman <[alkippmd@gmail.com](mailto:alkippmd@gmail.com)>

**Subject:** Formal Objection

## EXTERNAL

We are writing this to formally object to and request a public hearing for Permit Sonoma File No. UPC19-0012.

We have several concerns about the proposed commercial cannabis factory at Bloomfield Flowers (Farms), 4707 Bloomfield Road, Petaluma. We live directly across the street at 4760 Bloomfield Road. We look down on their old quarry and initially had to put up with their event-planning business which included traffic, noise, and crowds. Most of the events took place on the hill above the quarry. They then developed a horse boarding operation which included the construction of barn and riding facilities directly across from us. Thus, we were subjected to the noise of the visual impact of this extensive construction.

Now they propose a large factory to grow and process cannabis which seems to have reached its peak as far as a viable business in California.

Our concerns are:

1. Water impact
2. Air pollution
3. Noise pollution
4. Road impact
5. Visual impact

We elaborate on our concerns as follows:

1. The primary source of our water comes from a spring directly across from their property. We have recently encountered serious water issues. Yager Pump and Well has confirmed that our spring has slowed considerably. The Yagers are available if you need them to confirm our situation. Either way, we are quite concerned this project could negatively impact our water supply and its quality or at least bring the water

2. We do not want to smell cannabis being processed. This proposed operation is significant. It seems impossible they can contain the smell and because we live uphill it's likely to head our way. We

often smell cow manure from ranchers much further away.

3. The size of the buildings, the number of employees, the likely number of trucks, and traffic will no doubt create noise. We moved here for peace and quiet.

4. Bloomfield Road is currently full of potholes that are constantly being filled. Frankly, the road needs to be re-paved since during the winter, a long stretch of it is almost undrivable and can be dangerous. The traffic from their operation will only make a bad situation worse.

5. We realize, there are few if any laws that protect views, but given how much we have been impacted by the projects Bloomfield Farms has attempted over the years, we appeal to you. We are concerned this is just another ill-fated effort to make money. If they fail, we will be left looking down on a factory instead of the rural beauty we used to enjoy.

Feel free to contact us for more information about our concerns.

Allan Kipperman, MD (415-860-4857)

Ayris Hatton (415-279-7096)

*Ayris Hatton*

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