COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 22, 2015

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of Certification of an Initial Study and Mitigated Negative Declaration, Architectural Review Exemption, Coastal Development Permit, and Planned Agricultural Permit to drill a domestic water well to serve a future single-family dwelling. The vacant parcel is located west of Highway 1 (Cabrillo Highway State Scenic Corridor) approximately 0.5-mile north of Tunitas Creek Road in the unincorporated San Gregorio area of San Mateo County.

County File Number: PLN 2014-00421 (Wilkinson/Angwin)

PROPOSAL

The applicant proposes to drill a domestic water well to serve a future single-family dwelling (not currently proposed at this time). The proposed well location is approximately 150 feet from the front property line, 75 feet from the right side property line, and 450 feet from the coastal bluff. No grading and only minor vegetation removal will be necessary to access the proposed well site. The parcel is located within Cabrillo Highway State Scenic Corridor. The project is appealable to the California Coastal Commission.

RECOMMENDATION

That the Planning Commission certify the Initial Study and Mitigated Negative Declaration and approve the Architectural Review Exemption, Coastal Development Permit, and Planned Agricultural District Permit, County File PLN 2014-00421, by adopting the required findings and conditions of approval as listed in Attachment A.

SUMMARY

The subject parcel is accessed from and located on the west side of Highway 1 (Cabrillo Highway). The parcel is located less than 1-mile to the south of Martin's Beach and approximately 0.5-mile to the north of the intersection of Highway 1 and Tunitas Creek Road. The surrounding parcels are largely undeveloped. However, there are single-family residential development and farming activities present to the

north, south, and east of the parcel. The subject parcel is unimproved aside from an existing dirt access road and is covered in coastal scrub vegetation.

The proposed project was reviewed against the policies of the General Plan and has been found to be consistent with the applicable policies found in the Soil Resources, Visual Quality, Historical and Archaeological Resources, and Rural Land Use Chapters. The project was determined to be exempt from Architectural Review given the minor nature of the proposed project. The proposed project was also reviewed against the policies of the Local Coastal Program and has been found to be consistent with applicable policies found in the Locating and Planning New Development, Agriculture, Visual Resources, and Shoreline Access Components. The project was found to be consistent with the development standards and requirements of the Planned Agricultural District, specifically in regard to lands deemed suitable for agriculture. Further, the Initial Study and Mitigated Negative Declaration include a number of conditions to ensure that the project will not result in any significant impacts to the subject or surrounding parcels and that the project remains consistent with the discussed applicable policies and standards.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 22, 2015

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of Certification of an Initial Study and Mitigated Negative Declaration subject to the California Environmental Quality Act, Architectural Review Exemption pursuant to State of California Streets and Highways Code, Coastal Development Permit and Planned Agricultural Permit pursuant to Sections 6328.4 and 6353 of the County Zoning Regulations to drill a domestic water well to serve a future single-family dwelling. The vacant parcel is located west of Highway 1 (Cabrillo Highway State Scenic Corridor) approximately 0.5-mile north of Tunitas Creek Road in the unincorporated San Gregorio area of San Mateo County. The project is appealable to the California Coastal Commission.

County File Number: PLN 2014-00421 (Wilkinson/Angwin)

PROPOSAL

The applicant proposes to drill a domestic water well to serve a future single-family dwelling (not currently proposed at this time). The proposed well location is approximately 150 feet from the front property line (east) and 75 feet from the right side (north) property line. No grading and only minor vegetation removal will be necessary to access the proposed well site. The parcel is located within Cabrillo Highway State Scenic Corridor. The project is appealable to the California Coastal Commission.

RECOMMENDATION

That the Planning Commission certify the Initial Study and Mitigated Negative Declaration and approve the Architectural Review Exemption, Coastal Development Permit, and Planned Agricultural District Permit, County File PLN 2014-00421, by making the required findings and conditions of approval as listed in Attachment A.

BACKGROUND

Report Prepared By: Angela Chavez, Project Planner, Telephone 650/599-7217

Applicant: James Wilkinson

Owner: Raymond Angwin

Location: Cabrillo Highway, Unincorporated San Gregorio

APNS: 066-330-130 and 066-330-150 (One Legal Parcel)

Size: 26.79 acres (Combined)

Existing Zoning: PAD/CD (Planned Agricultural District/Coastal District)

General Plan Designation: Agriculture/Rural

Existing Land Use: Undeveloped

Water Supply: There is no domestic water service available in this area.

Sewage Disposal: There is no municipal sewer service available in this area. Any future development would require installation of an on-site septic system.

Sphere of Influence: None

Parcel Legality: The subject parcel was part of the 8,905 acre Rancho Canada de Verde y Arroyo de la Purisima property recorded in May and June 1860 (18 RSM-PG 17). The subject parcels were subsequently certified as one legal parcel via a Certificate of Compliance, Type A, on September 20, 1995 via Planning Case Number COC95-0006.

Flood Zone: Zone X (areas of minimal flooding), FEMA Panel No. 06081C-0368E, Effective Date: October 16, 2012

Setting: The subject parcel is accessed from and located on the west side of Highway 1 (Cabrillo Highway). The parcel is located less than 1-mile to the south of Martin's Beach and approximately 0.5-mile to the north of the intersection of Highway 1 and Tunitas Creek Road. The parcel to the north of the project site is undeveloped but is used for agricultural purposes. The parcel to the south is undeveloped and currently has no ongoing agricultural activities. The parcels located to the east of the project site, across Cabrillo Highway, are utilized for agricultural activities with single-family residential development supplementary to the agricultural uses. The subject parcel is unimproved aside from an existing dirt access road and is covered in coastal scrub vegetation.

Environmental Review: An Initial Study and Mitigated Negative Declaration was prepared and circulated, with review and comment period running from May 18, 2015 to June 8, 2015. As of the publication of this report, no comments have been received. The mitigation measures have been included as conditions of approval in Attachment A.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

Staff has reviewed the project for conformance with the General Plan and has determined that the project is in conformance with the relevant policies. Specifically, Soil Resources, Historical and Archaeological Resources, and Rural Land Use Policies, as discussed below.

Soil Resources

Policy 2.17 (*Regulate Development to Minimize Soil Erosion and Sedimentation*) regulates development to minimize soil erosion and sedimentation; including, but not limited to, minimizing removal of vegetative cover. The proposed project does not require significant vegetation removal as the project parcel has an existing driveway and the area in which the proposed well is to be located is relatively flat and easily accessible. However, standard domestic well installation involves drilling the ground which produces a byproduct soil core. Groundwater and turbid fluids can reach the surface as part of the drilling process and are expected to disperse and infiltrate the surrounding soil. Given this, a sediment and erosion control plan is recommended as a mitigation measure in the Initial Study/Mitigated Negative Declaration and has also been included as a condition of approval in Attachment A.

Policy 2.20 (*Regulate Location and Design of Development in Areas with Productive Soil Resources*) calls for the regulation of the location and design of development in a manner which is most protective of productive soil resources. The subject parcel does not contain prime soils but is mapped as having soils with agricultural capability (General Plan Productive Soils Resources Map) in the area that the well is proposed. There are no existing agricultural activities nor is there any existing non-agricultural development present on the site. This policy encourages measures such as clustering structures in order to protect productive soil resources. However, given the lack of development on the parcel, these locational criteria are not applicable at this time. The well location complies with the setbacks required by the zoning district and locational criteria defined by the Environmental Health Division. Further, given that the proposed well location is oriented more toward the right side of the property, and not within the center of the parcel, ensures that its location would not create constraints for future agricultural activities.

Policy 2.21 (*Protect Productive Soil Resources Against Soil Conversion*) calls for the regulation land uses of productive soil resources and

encourages appropriate management practices to protect against soil conversion. While the project will convert a small area of the parcel to accommodate the proposed well there is no expectation that the proposed well would result in damage to the capability of the surrounding soil. Further, given the small portion of agricultural lands proposed for conversion in comparison to the overall parcel size, the amount of conversion is considered insignificant. The majority of the parcel remains available for agricultural uses.

Visual Quality

Policy 4.15 (*Appearance of New Development*) encourages the regulation of development to promote and enhance good design, site relationships, and other aesthetic considerations. The project parcel slopes downward from Cabrillo Highway with the proposed development area occurring below the roadway elevation. The parcel is largely covered in coastal scrub and this will remain undisturbed aside from minor disturbance at the proposed well site. The finished well will not require the construction of any significant structure and will not degrade the existing visual quality or character of the site.

Policy 4.22 (*Scenic Corridors*) seeks to protect and enhance the visual quality of scenic corridors by managing the location and appearance of structural development. The project parcel lies entirely within the Cabrillo Highway State Scenic Corridor. The project parcel has access via an existing unpaved driveway directly off of Cabrillo Highway. Given the project scope, no improvements to the driveway are necessary or required in order to access the proposed well location which is located approximately 150 feet from the front property line and slopes downward from Cabrillo Highway. The completed well will be approximately 1-foot above the natural grade but will not be visible from public viewpoints due the topography of the site, existing vegetation, and its relatively small nature.

Historical and Archaeological Resources

Policy 5.20 and 5.21 (*Protection of Archaeological/Paleontological Resources: Site Survey and Site Treatment*) encourages that a determination be made on whether or not sites proposed for new development contain archaeological/paleontological resources, that sites containing such resources are protected and preserved, and that mitigation measures be incorporated into the project for handling resources in the event they are located. A project referral was sent to California Historical Resources Information System (CHRIS), a division of California State Parks, to solicit input as to whether or not an archaeological/paleontological study of the project parcel was warranted. A response from CHRIS determined that a study of archaeological, Native American, and built environment resources

was warranted. A study was conducted by Garcia and Associates (GANDA, 2015) and a report was submitted. The report states one historic era period resource was identified and recorded within the project area. While the proposed location of the well does not impact the resource, the archaeologist recommended an avoidance mitigation measure to ensure that there are no impacts to the resource during construction. While the report did not identify any prehistoric archaeological resources within the project area, the archaeologist also provided a mitigation measure to be implemented in the event prehistoric materials are located. The mitigation measures were included as part of the analysis in the Initial Study/Mitigated Negative Declaration and are also included as conditions of approval in Attachment A of this report.

Rural Land Use

Policy 9.30 (*Development Standards to Minimize Land Use Conflicts with Agriculture*) regulates development in order to minimize impacts of non-agricultural activities in areas with existing or potential agricultural lands and/or agricultural activities. The General Plan's "Productive Soils Resources Map" identifies a portion of the project parcel (Assessor's Parcel Number 066-330-150) as having soils with agricultural capability while the remaining portion of the parcel (Assessor's Parcel Number 066-330-130) is not identified as such. While this policy encourages that non-agricultural development be located in areas of the parcel that are not identified as having agricultural capability, this portion of the parcel was identified by the applicant's well drilling expert and evaluated by the hydrologist as having the greatest potential for locating water on the parcel. Given that there is no municipal water service available in the project location, individual water wells are the method in which water is provided to properties in this area whether for agricultural or domestic purposes. Because the proposed well will result in only a very minimal area of conversion, the majority of the parcel will remain undisturbed and available for agricultural activities should they be pursued in the future. The proposed domestic well location could also provide for clustering of future proposed development as it is off to the side of the parcel and within the vicinity of the existing driveway. However, as the project proposal does not include the consideration of a single-family residence at this time, any proposed future development would be required to demonstrate that it did not impair the agricultural viability or production of the parcel.

2. Conformance with Architectural Review Exemption

This project is found to be exempt from the Architectural Review requirement. A field inspection of this property determined that the proposed well will be minimal in size and located in an area that does not

result in the significant removal of vegetation and is not visible from Cabrillo Highway.

3. Conformance with the Local Coastal Program (LCP)

Staff has reviewed the project and found it to be in compliance with the policies of the Local Coastal Program. The applicable policies with specific discussion are detailed below:

Locating and Planning New Development

Policy 1.25 (*Protection of Archaeological/Paleontological Resources*) calls for protection of any archaeological resources on the development site from any proposed development. An archaeological reconnaissance was performed on the project site and no archaeological or paleontological resources were found. However, in the event resources are located during the well drilling activities, the archaeologist who performed the analysis provided mitigation measures that are included in the Initial Study/Mitigated Negative Declaration and as conditions of approval in Attachment A. In addition, the archaeologist did identify one historical resource on the project site and provided avoidance mitigation measures that are also included in the Initial Study/Mitigated Negative Declaration and as conditions of approval in Attachment A.

Agriculture

Policy 5.22 (*Protection of Agricultural Water Supplies*) requires that prior to approval of all non-agricultural uses, the demonstration of the availability of an adequate and potable well water source on the parcel to be developed be provided. Further, the policy requires that adequate and sufficient water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished. A review of the California Natural Diversity Database and the Local Coastal Program's Sensitive Habitat Maps determined that there is no mapped State or Federal protected species located within the project area. In addition, there are no riparian habitats or other sensitive natural communities located within the project area. In order to assess the proposed well's potential impacts, a hydrologic conditions report was required as part of the permit application. A report was completed and submitted by Mark Woyshner, M.Sc.Eng. of Balance Hydrologics, Inc. The submitted report addresses three critical areas: (1) the overall hydrologic setting which describes the existing conditions of the area; (2) the potential drawdown for the proposed well based on local aquifer information; and (3) the impact analysis to hydrology and water quality in the project area. The report finds that the proposed project poses no impact to these areas of consideration assuming the proposed well is to be utilized in association with a single-family residence.

Visual Resources Component

Policy 8.5 (*Location of Development*) requires that new development on a parcel: (1) is least visible from State and County Scenic Roads; (2) is least likely to significantly impact views from public viewpoints; and (3) is consistent with all other LCP requirements, best preserves the visual and open space qualities of the parcel. The proposed well will not be visible from Cabrillo Highway or any other public viewpoint. The proposed well is also compliant with the other requirements of the Local Coastal Program. Future development of the property will be subject to review, certification, and issuance of a separate environmental analysis, Coastal Development Permit, Architectural Review, and Planned Agricultural Development Permit.

Policy 8.22 (*Utilities in State Scenic Corridors*) requires that any new distribution lines to the project site be located underground to lessen the visual impacts of utility lines from public view points. No new utilities are proposed at this time and this project does not include the energizing of the well if water is found. If future development is proposed new distribution lines should be included as part of that project and evaluated for compliance with this policy.

Policy 8.33 (*Exemptions*) exempts from Architectural Review by the Planning Commission buildings and structures which would not be visible from the roadway due to localized terrain and vegetative cover. Given that the proposed well site is located below the roadway, that the existing vegetation provides visual screening, and that the well will be minor in size once completed, the well will not be seen from the roadway, and therefore exempt from Architectural Review. However, in accordance with the special regulations for the Skyline Boulevard and Cabrillo Highway State Scenic Corridors, two additional conditions of approval have been added which prohibit the removal of significant vegetation and require that a full Architectural Review be submitted after-the-fact, if after construction the structure is visible from the roadway.

Shoreline Access

Policy 10.30 (*Requirement of Minimum Access as a Condition of Granting Development Permits*) requires the provision of shoreline access for any private or public development between the sea and nearest public road. In addition, the policy devises that the access requirements be based on: (1) the size and type of development, (2) the benefit to the developer, (3) the priority given to the type of development under the Coastal Act, and (4) the impact of the development, particularly the burden the proposed development would place on the public right of access to, and use of, the shoreline. The project parcel is located between the sea and the first public road and does not currently have dedicated public access. The proposed project is

considered a minor development project and is not an area included in the assessment of access trails and shoreline destinations in Table 10.1 of the Local Coastal Program. As the proposed project is entirely located on the subject parcel, it does not impact the public's ability to access and use the designated access points located in the vicinity of the project parcel (i.e., Tunitas Creek Beach to the south of the project site). However, given that the proposed project is minor in nature, it does not meet the threshold for small to medium projects (i.e., single-family residences, minor land divisions, barns over 5,000 sq. ft., etc.) which require the offering or granting of a vertical and/or lateral access. Given this, the requirement for dedicated public access will be addressed at the time that time that future development is proposed.

4. Conformance with the Planned Agricultural District (PAD) Regulations

a. Setbacks and Height Requirements

As shown in the table below, the proposed well location complies with Sections 6358 and 6359 of the San Mateo County Zoning Regulations, which regulate the height of structures and required setbacks.

	A	B
	PAD Development Standards	**Proposed**
Minimum Lot Size	N/A	26.79 acres
Minimum Front Setback	100 feet*	150 feet
Minimum Side Setback	20 feet	>20 feet (right) >20 feet (left)
Minimum Rear Setback	20 feet	>20 feet
Maximum Building Height	36 feet	n/a
* 100 feet is required due to the parcel's location within the Cabrillo Highway State Scenic Corridor.		

b. Planned Agricultural District Permit Requirements

The subject parcel does not contain prime soils but has been identified as having lands suitable for agriculture. The parcel is currently undeveloped aside from an access driveway and there are no agricultural related activities currently occurring on the site. Section 6535.b of the PAD regulations states that single-family residences are allowed on "lands suitable for agriculture and other lands" with the issuance of a PAD permit. While the proposed project

does not include construction of a single family residence at this time, the proposed domestic well is supplementary to residential development, and therefore a PAD permit is required. Section 6355 contains the substantive criteria for the issuance of a PAD permit. A project must be found to be in compliance with these criteria before a permit can be issued, as outlined below.

General Criteria

(1) *The encroachment of all development upon land which is suitable for agriculture shall be minimized.*

As discussed previously, the proposed well results in only minimal site disturbance and converts only a small portion of the 26.79 acre parcel. The large remaining portion of the parcel remains open to the possibility of future agricultural activities.

(2) *All development permitted on-site shall be clustered.*

The parcel is currently undeveloped and no other development is proposed at this time aside from the well. If the applicant chooses to pursue further development of the site, such developments shall be evaluated for conformance with the requirement to cluster development.

(3) *Every project shall conform to the Development Review Criteria contained in Chapter 20A.2 of the San Mateo County Ordinance Code.*

This project has been reviewed under and found to comply with the Development Review Criteria cited within Chapter 20A.2 of the County Zoning Regulations. Planning staff has completed a review of the project for compliance with these criteria. Specifically, the project complies with Section 6324.1 and Section 6324.4, which respectively address the potential for environmental impacts and water resources, as the project will not introduce noxious odors, chemical agents, or long-term noise. The project also complies with Sections 6324.2 and 6325.1, which address site design criteria and primary scenic resource areas, as the project is not located near any sensitive habitats, waterways, mature trees, or dominant vegetation. While the project site is located within the Cabrillo Highway State Scenic Corridor, as proposed, the well will not be visible given the topography, existing vegetation, and its small scale, which will help buffer visibility from the scenic corridor.

Water Supply Criteria

(1) *The existing availability of a potable and adequate on-site well water source for all non-agricultural uses is demonstrated.*

The project parcel currently has no on-site well water source for either agricultural or domestic purposes. The well is being proposed to determine if any on-site water exists on the parcel. Per the submitted hydrologist report, the proposed well is located 75 feet from the right side property line and approximately 2,200 feet from the nearest existing well. Given that the hydrologist's estimated area of influence and potential capture zone for the proposed well are at a lower elevation, and considering the distance to the next nearest well, there is no expectation that the proposed well will result in significant groundwater depletion or interfere with groundwater recharge.

Criteria for the Conversion of Lands Suitable for Agriculture and Other Lands

The project site is located on soils, which are designated as "Lands Suitable for Agriculture and Other Lands" by the Local Coastal Program. The criteria for conversion of these lands are as follows:

(1) *All agriculturally unsuitable lands on the parcel have been developed or determined to be undevelopable.*

The subject parcel has been identified as having both lands suitable for agriculture and other lands. While the soil is identified as lands suitable for agriculture, the applicant's well drilling expert has identified this area as the most likely location in which water might be available on the subject parcel. As stated previously, the proposed well has a minimal footprint and the overall area of disturbance is limited which allows the large remainder of the parcel available for the potential for future agricultural activities.

(2) *Continued or renewed agricultural use of the soils is not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.*

As discussed previously, the proposed well converts only a very small portion of the parcel, leaving the majority of the parcel available to agricultural uses.

(3) *Clearly defined buffer areas are developed between agricultural and non-agricultural activities.*

As described previously the project parcel is undeveloped and does not have any agricultural activities currently present on the site. Given the limited scope of the project there are no areas in which a clear buffer is required or could be established. Any future development would be subject to review under this section in order to ensure conversion of agricultural lands is minimized and that buffers are established.

(4) *The productivity of any adjacent agricultural lands is not diminished including the ability of the land to sustain dry farming or animal grazing.*

Given the proposed location of the well in relation to neighboring properties and limited scope of the project, there will be no impact on the productivity of adjacent agricultural lands.

(5) *Public service, facility expansions, and permitted uses do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.*

The proposed well does not require public service or facility expansions. The proposed well is completely located on the subject parcel and does not limit the agricultural viability of the parcel. A preliminary review by the County's Environmental Health Division found that the proposed plans are in compliance with current health standards, and thus pose no threat to water quality. The proposed project does not include aspects that would result in degraded air quality.

B. ENVIRONMENTAL REVIEW

An Initial Study was completed and a Mitigated Negative Declaration issued in conformance with the California Environmental Quality Act (see Attachment E). The public review period for this document began on May 18, 2015, and ended on June 8, 2015. As of the publication of this report, staff has received one comment on the proposed Mitigated Negative Declaration. The California Coastal Commission noted that while they had no opposition to the proposed project, it was advised that any "subsequent CDP or Planned Agricultural permit application for construction of a single-family residence on this parcel will need to be accompanied by an analysis of the amount of water that will be available from the proposed well. The analysis must demonstrate that the use of the proposed well will not impair surface stream flows, agricultural viability or production, or sensitive habitat areas in the project vicinity, nor impact wells on adjacent properties. Any

proposed development must comply with all other applicable San Mateo County Local Coastal Program policies."

C. REVIEW BY THE AGRICULTURAL ADVISORY COMMITTEE

The Agricultural Advisory Committee Reviewed this project at their April 13, 2015, public meeting. The Committee recommended approval of the proposed project.

ATTACHMENTS

A. Recommended Findings
B. Location Map
C. Site Plan
D. Initial Study and Negative Declaration
E. California Coastal Commission Comment Letter
F. Hydrologist Report

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00421 Hearing Date: July 22, 2015

Prepared By: Angela Chavez
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Mitigated Negative Declaration, Find:

1. That the Planning Commission does hereby find that this Mitigated Negative Declaration reflects the independent judgment of San Mateo County.

2. That the Mitigated Negative Declaration is complete, correct and adequate and prepared in accordance with the California Environmental Quality Act and applicable State and County Guidelines.

3. That, on the basis of the Initial Study, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project will have a significant effect on the environment.

4. That the mitigation measures in the Mitigated Negative Declaration and agreed to by the owner and placed as conditions on the project have been incorporated into the Mitigation Monitoring and Reporting Plan in conformance with the California Public Resources Code Section 21081.6.

Regarding the Coastal Development Permit, Find:

5. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements and standards of the San Mateo County Local Coastal Program as described in this staff report to the Planning Commission dated July 22, 2015.

6. That the project conforms to the findings required by policies of the San Mateo County Local Coastal Program. Specifically, in regard to the Agriculture and Visual Resources Components, that the domestic well is conditionally permitted with the issuance of a Planned Agricultural District permit, that the project has

been proposed to be located in an area that has been defined as “Lands Suitable” for agriculture, and that the proposed project converts only a very small portion of the parcel leaving the large majority available for agricultural uses. In addition, the project will not be visible from scenic roadways or corridors and does not result in a significant change to natural landforms.

Regarding the Planned Agricultural Permit, Find:

General Criteria

7. That the encroachment of all development upon land, which is suitable for agricultural use, is minimized. The proposed well results in only minimal site disturbance and converts only a small portion of the parcel. The large remaining portion of the parcel remains open to the possibility of future agricultural activities.

8. That the project conforms to the Development Review Criteria contained in Chapter 20A.2 of the San Mateo County Ordinance Code. The project complies with Section 6324.1 and Section 6324.4, which respectively address the potential for environmental impacts and water resources, as the project will not introduce noxious odors, chemical agents, or long-term noise. The project also complies with Sections 6324.2 and 6325.1, which address site design criteria and primary scenic resources areas, as the project is not located near any sensitive habitats, waterways, mature trees, or dominant vegetation. While the project is located within the scenic corridor, the impact to scenic public views is minimal as the project is minor in nature, and the existing topography and vegetation shield it from public viewpoints.

Water Supply Criteria

9. That the existing availability of potable and adequate on-site well water source for all non-agricultural uses is demonstrated. The project parcel currently does not have an on-site well water source for either agricultural or domestic purposes. The well is being proposed to determine if any on-site domestic water source exists on the parcel.

10. That adequate and sufficient water supplies needed for agricultural production and sensitive habitat protection in the watershed are not diminished. Per the submitted hydrologist report, the proposed well is located an adequate distance from the nearest existing well as to not impact its production. Further, given that the hydrologist’s estimated area of influence and potential capture zone for the proposed well are significantly lower in elevation, and is of significant distance from the next nearest well, there is no expectation that the proposed well will result in significant groundwater depletion or interfere with groundwater recharge.

Criteria for the Conversion of Lands Suitable for Agriculture and Other Lands

11. That all agriculturally unsuitable lands on the parcel have been developed or determined to be undeveloped. The well drilling expert has identified the proposed well location as the most likely area to find water on the parcel. The proposed well has a minimal footprint and the overall area of disturbance is limited which allows the large remainder of the parcel to remain available for future agricultural activities.

12. That the continued or renewed agricultural use of the soils is not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors. The proposed well converts only a very small portion of the parcel leaving the majority of the parcel available to agricultural uses.

13. That clearly defined buffer areas are developed between agricultural and non-agricultural uses. The project parcel is undeveloped and does not have any agricultural activities currently present on the site. Given the limited scope of the project, there are no areas in which a clear buffer is required or could be established. Any future development would be subject to review under this section in order to ensure conversion of agricultural lands is minimized and that buffers are established.

14. That the productivity of any adjacent agricultural lands is not diminished, including the ability of the land to sustain dry farming or animal grazing. Given the proposed location of the well in relation to neighboring properties and limited scope of the project, there will be no impact on the productivity of adjacent agricultural lands.

15. That the public service, facility expansions, and permitted uses do not impair agricultural viability, either through increased assessment costs or degraded air and water quality. The proposed well does not require public service or facility expansions. The proposed well is completely located on the subject parcel and does not limit the agricultural viability of the parcel, considering the small portion of the parcel to be converted.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on July 22, 2015. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of and in substantial conformance with this approval.

2. This permit shall be valid for one (1) year from the date of approval in which time a well permit shall be issued. Any extension of this permit shall require submittal of an application for permit extension and payment of applicable extension fees sixty (60) days prior to the expiration date.

3. The Department of Fish and Game has determined that this project is not exempt from Department of Fish and Game California Environmental Quality Act filing fees per Fish and Game Section 711.4. The applicant shall pay to the San Mateo County Recorder's Office an amount of $2,260.00 plus the applicable recording fee at the time of filing of the Notice of Determination by the County Planning and Building Department staff within ten (10) business days of the approval.

4. Mitigation Measure 1: The applicant shall implement the following dust control measures during grading and construction activities:

    a. Water all active construction and grading areas at least twice daily.

    b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

    c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the project site.

    d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets/roads.

    e. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

5. Mitigation Measure 2: Construction crews accessing the site shall utilize an entrance delineated by the archaeologist and install the described protection measures for the duration of the project activities.

6. Mitigation Measure 3: In the event that prehistoric materials such as flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tolls; culturally darkened soil (e.g., midden soil often contains heat affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones) are encountered, all excavations should be halted immediately, the San Mateo County Planning Department must be notified, and an archaeologist retained to examine the finds and assess the potential significance.

7. Mitigation Measure 4: Prior to commencement of the project, the applicant shall submit to the Planning Department for review and approval an erosion and drainage control plan that shows how the transport and discharge of soil and pollutants from and within the project site shall be minimized. The plan shall be

designed to minimize potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. No construction activities shall begin until after all proposed measures are in place.

b. Minimize the area of bare soil exposed at one time (phased grading).

c. Clear only areas essential for project activities.

d. Within five days of clearing or inactivity, stabilize bare soils through either non-vegetative Best Management Practices (BMPs), such as mulching, or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within 2 weeks of seeding/planting.

e. Project site entrances shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

f. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

g. Soil and/or other construction-related material stockpiled on-site shall be placed a minimum of 200 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

h. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

i. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

j. Install storm drain inlet protection that traps sediment before it enters any adjacent storm sewer systems. This barrier shall consist of filter fabric, straw bales, gravel, or sand bags.

k. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/ basins shall be cleaned out when 50% full (by volume).

l. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5-acre or less per 100 feet of fence. Silt fences shall be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion resistant species.

m. Utilize coir fabric/netting on sloped graded areas to provide a reduction in water velocity, erosive areas, habitat protection, and topsoil stabilization.

n. Throughout the construction period, the applicant shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan.

8. Mitigation Measure 5: The applicant shall implement the following basic construction measures at all times:

a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

c. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person, or his/her designee, shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

9. Mitigation Measure 6: All grading and construction activities associated with the proposed project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed the 80-dBA level at any one moment.

10. There shall be no removal of any significant vegetation that screens the view of the structure from Cabrillo Highway. Removal of any such vegetation shall be

permitted only by the Planning Commission as part of an application for Architectural Review.

11. If any portion of a new structure is visible from Cabrillo Highway after substantiation by the applicant that it will not be visible, the applicant shall be required to submit an application for Architectural Review for the review and approval by the Planning Commission.

12. The approval of this project does not include the energization of the well. No extension of electric service is allowed as part of this permit.

Environmental Health Division

13. Prior to the planning final, the applicant shall obtain a well permit from the Environmental Health Division for the construction of the well. The subject well shall be tested to meet quantity and quality health standards.

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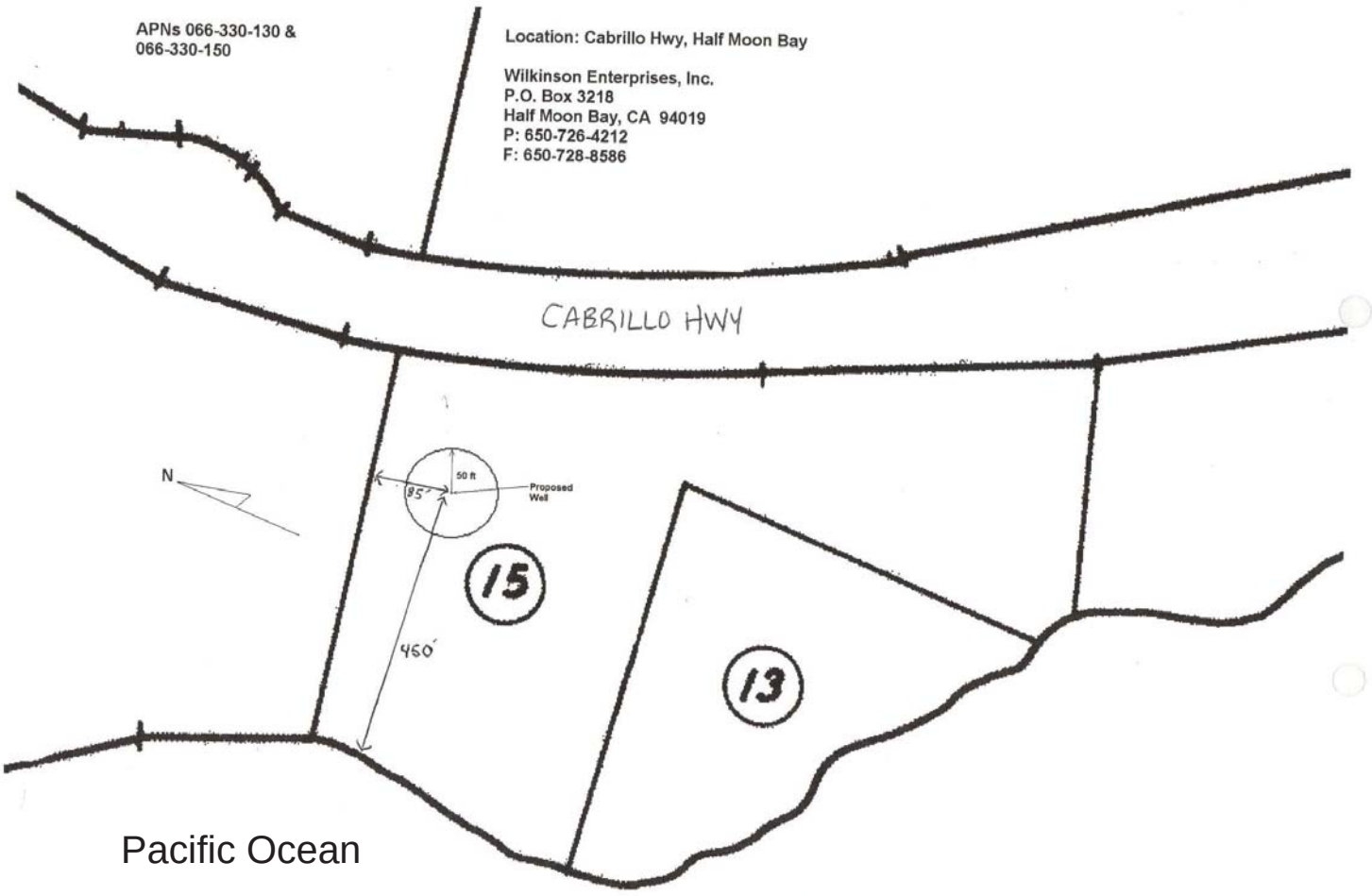
VICINITY MAP

San Mateo County Planning Commission Meeting

Owner/Applicant: Angwin/ Wilkinson

Attachment: B

File Numbers: PLN2014-00421



San Mateo County Planning Commission Meeting

Owner/Applicant: Angwin/ Wilkinson Attachment: C

File Numbers: PLN2014-00421

ANSHU NAND MAY 18 2015

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

POSTING ONLY

NOTICE OF INTENT TO ADOPT
NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *Domestic Well*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN 2014-00421

OWNER: Raymond Angwin

APPLICANT: James Wilkinson

ASSESSOR'S PARCEL NOS.: 066-330-130 and 066-330-150

LOCATION: Cabrillo Highway, Unincorporated San Gregorio

PROJECT DESCRIPTION: Planned Agricultural Development Permit and Coastal Development Permit to drill a domestic water well to serve a future single-family dwelling. The proposed well location is approximately 150 feet from the front property line and 75 feet from the right side property line. No grading and only minor vegetation removal will be necessary to access the proposed well site. The parcel is located within Cabrillo Highway State Scenic Corridor.

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project, as proposed, will not adversely affect water or air quality or increase noise levels substantially.

2. The project, as proposed, will not have adverse impacts on the flora or fauna of the area.

3. The project, as proposed, will not degrade the aesthetic quality of the area.

4. The project, as proposed, will not have adverse impacts on traffic or land use.

5. In addition, the project, as proposed, will not:

    a. Create impacts which have the potential to degrade the quality of the environment.

    b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

    c. Create impacts for a project which are individually limited, but cumulatively considerable.

ATTACHMENT C

d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is less than significant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: The applicant shall implement the following dust control measures during grading and construction activities:

a. Water all active construction and grading areas at least twice daily.

b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the project site.

d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets/roads.

e. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

Mitigation Measure 2: Construction crews accessing the site shall utilize an entrance delineated by the archaeologist and install the described protection measures for the duration of the project activities.

Mitigation Measure 3: In the event that prehistoric materials such as flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tolls; culturally darkened soil (e.g., midden soil often contains heat affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones) are encountered, all excavations should be halted immediately, the San Mateo County Planning Department must be notified, and an archaeologist retained to examine the finds and assess the potential significance.

Mitigation Measure 4: Prior to commencement of the project, the applicant shall submit to the Planning Department for review and approval an erosion and drainage control plan that shows how the transport and discharge of soil and pollutants from and within the project site shall be minimized. The plan shall be designed to minimize potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. No construction activities shall begin until after all proposed measures are in place.

b. Minimize the area of bare soil exposed at one time (phased grading).

c. Clear only areas essential for project activities.

d. Within five days of clearing or inactivity, stabilize bare soils through either non-vegetative Best Management Practices (BMPs), such as mulching, or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within 2 weeks of seeding/planting.

e. Project site entrances shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

f. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

g. Soil and/or other construction-related material stockpiled on-site shall be placed a minimum of 200 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

h. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

i. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

j. Install storm drain inlet protection that traps sediment before it enters any adjacent storm sewer systems. This barrier shall consist of filter fabric, straw bales, gravel, or sand bags.

k. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/ basins shall be cleaned out when 50% full (by volume).

l. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5-acre or less per 100 feet of fence. Silt fences shall be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion resistant species.

m. Utilize coir fabric/netting on sloped graded areas to provide a reduction in water velocity, erosive areas, habitat protection, and topsoil stabilization.

n. Throughout the construction period, the applicant shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan.

Mitigation Measure 5: The applicant shall implement the following basic construction measures at all times:

a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure Title13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

c. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person, or his/her designee, shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 6: All grading and construction activities associated with the proposed project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed the 80-dBA level at any one moment.

RESPONSIBLE AGENCY CONSULTATION: None.

INITIAL STUDY: The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are less than significant. A copy of the initial study is attached.

REVIEW PERIOD: May 18, 2015 to June 8, 2015

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., June 8, 2015.**

CONTACT PERSON

Angela Chavez
Project Planner, 650/599-7217
achavez@smcgov.org

Angela Chavez, Project Planner

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County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** Domestic Well

2. **County File Number:** PLN 2014-00421

3. **Lead Agency Name and Address:** County of San Mateo Planning and Building Department
455 County Center, 2nd Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Angela Chavez 650/599-7217

5. **Project Location:** Cabrillo Highway, Unincorporated San Gregorio

6. **Assessor's Parcel Number(s) and Size of Parcel:** 066-330-130 and 066-330-150, 26.79 acres

7. **Project Sponsor's Name and Address:** James Wilkinson, P.O. Box 3218, Half Moon Bay, CA 94019

8. **General Plan Designation:** Agriculture/Rural

9. **Zoning:** Planned Agricultural District/Coastal District (PAD/CD)

10. **Description of the Project:** Planned Agricultural Development Permit and Coastal Development Permit to drill a domestic water well to serve a future single-family dwelling. The proposed well location is approximately 150 feet from the front property line and 75 feet from the right side property line. No grading and only minor vegetation removal will be necessary to access the proposed well site. The parcel is located within Cabrillo Highway State Scenic Corridor.

11. **Surrounding Land Uses and Setting:** The subject parcel is accessed from and located on the west side of Highway 1 (Cabrillo Highway). The parcel is located less than 1-mile to the south of Martin's Beach and approximately one-half of a mile to the north of the intersection of Highway 1 and Tunitas Creek Road. The surrounding parcels are largely undeveloped. However, there is single-family residential development and farming activities present sporadically to the north, south, and east of the parcel. The subject parcel is unimproved aside from an existing dirt access road and is covered in coastal scrub vegetation.

12. **Other Public Agencies Whose Approval is Required:** None.

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 "Significant Unless Mitigated" as indicated by the checklist on the following pages.

	Aesthetics	X	Climate Change		Population/Housing
	Agricultural and Forest Resources		Hazards and Hazardous Materials		Public Services
X	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources		Land Use/Planning		Transportation/Traffic
X	Cultural Resources		Mineral Resources		Utilities/Service Systems
X	Geology/Soils	X	Noise		Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. AESTHETICS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a. Have a significant adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?				X
Discussion: The project parcel lies entirely within the Cabrillo Highway State Scenic Corridor. The project parcel has access via an existing unpaved driveway directly off of Cabrillo Highway. Given the project scope no improvements to the driveway are necessary or required in order to access the proposed well location. The proposed well location is located approximately 150 feet from the front property line which slopes downward from Cabrillo Highway. The completed well will be approximately 1-foot above the natural grade but will not be visible from public viewpoints due the topography of the site, existing vegetation, and its relatively small nature. **Source:** Project Plans, Project Location.				
1.b. Significantly damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
Discussion: There is no grading beyond the drilling of the well itself as there is an existing driveway and the area in which the well is proposed is relatively flat. There are no rock outcroppings to be disturbed nor are there any trees proposed for removal. There are no historic buildings located on the property. **Source:** Project Plans, Project Location.				
1.c. Significantly degrade the existing visual character or quality of the site and its surroundings, including significant change in topography or ground surface relief features, and/or development on a ridgeline?				X

Discussion: As discussed previously, the parcel slopes downward from the Cabrillo Highway with the proposed development occurring below the roadway. The parcel is largely covered in coastal scrub and this will remain undisturbed aside from minor disturbance at the proposed well site. The finished well will not result in any significant structure and will not degrade the existing visual quality or character of the site. **Source:** Project Plans, Project Location.					
1.d.	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?				X
Discussion: There are no proposed illuminated or reflective materials proposed in association with the project. Approximately 12 inches of the well that will reach above natural grade will not be finished in reflective materials or colors and are largely shielded from view due to the topography of the site and existing vegetation. **Source:** Project Plans.					
1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?			X	
Discussion: The parcel is located within the Cabrillo Highway State Scenic Corridor. However, as described previously the proposed well will result in only minor disturbance of the parcel and will not be visible from the roadway given the topography, location below the roadway, and existing vegetation. **Source:** Project Plans, Project Location.					
1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X
Discussion: Project site is not located within a Design Review District. **Source:** San Mateo County Zoning Regulations, San Mateo County General Plan.					
1.g.	Visually intrude into an area having natural scenic qualities?				X
Discussion: Please refer to the discussion under Section 1.a., 1.b. and 1.c., above. **Source:** Project Plans, Project Location.					

2. AGRICULTURAL 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 forestland, 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:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
2.a.	For lands outside the Coastal Zone, 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?				X

Discussion: The subject parcel is within the Coastal Zone.

Source: United States Department of Agriculture Natural Resources Conservation Service, California Department of Conservation, San Mateo County Local Coastal Program.

2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X

Discussion: The project parcel is located within the Planned Agriculture District (PAD) Zoning District. Given that there is no municipal water service available in the project location individual water wells are the method in which water is provided to properties. Domestic wells are an allowed use in the PAD Zoning District with the issuance of a PAD permit. The parcel is not encumbered by an Open Space Easement or Williamson Act contract.

Source: San Mateo County Zoning Regulations, San Mateo County General Plan, San Mateo County Williamson Act Contracts.

2.c.	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 forestland to non-forest use?			X	

Discussion: The subject parcel is not located in an area identified as forestland. The subject parcel has been identified as farmland. If water is found on the site and a well is established it could lead to future development of the parcel. However, any future development would be subject to the issuance of separate PAD and Coastal Development Permits. This additional review would consider any future project's impacts to agriculture. Further, while the project applicant has proposed to install a domestic well, if water is found there is no requirement that the water be utilized only for domestic purposes. Should residential development not be pursued on the property, any water found could also be utilized for agricultural uses.

Source: U.S. Department of Agriculture Forest Service Forest Inventory Analysis 2005, Project Plans.

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?			X	
Discussion: The area in which the proposed well is to be located is identified as having two soil types. Tierra sandy loam and Watsonville sandy loam, both of which have a Class II rating. The proposed project does not propose a land division but will convert a small area of the parcel in order to accommodate the well. However, the remainder of the 26.79 acre parcel will remain available for agriculture. **Source:** Project Location, Natural Resources Conservation Service Web Soil Survey.					
2.e.	Result in damage to soil capability or loss of agricultural land?			X	
Discussion: While the project will convert a small area of the parcel to accommodate the proposed well, there is no expectation that the well would result in damage to the capability of the soil. As discussed previously, a small portion of agricultural lands will be converted but given the overall parcel size the amount of conversion is insignificant. The majority of the parcel remains available for agricultural uses. **Source:** Project Plans, United States Department of Agriculture Natural Resources Conservation Service.					
2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (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))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X
Discussion: The proposed parcel has not been identified as forestland or timberland. Further, the project does not conflict with the zoning or require rezoning the parcel as part of this project. **Source:** Project Plans, San Mateo County Zoning Regulations.					

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:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
Discussion: A temporary increase in the number of vehicles and dust is expected during the well drilling activities. However, construction vehicles are required to meet California Air Resources Board regulations to reduce air pollution (e.g., limits on idling). Operational emissions, which are those emissions occurring after construction and for the life of the development, are not expected in association with this project. **Source:** Bay Area Air Quality Management District.					
3.b.	Violate any air quality standard or contribute significantly to an existing or projected air quality violation?				X
Discussion: There are no known air quality violations in this area. Given that the proposed project only seeks to test for a well, install a well if water is discovered, and does not include any other development at this time there is no expected new contribution to air quality. **Source:** Project Plans, Bay Area Air Quality Management District					
3.c.	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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
Discussion: As of December 2012, San Mateo County is a non-attainment area for PM-2.5. A temporary increase in the project area is anticipated during construction since these PM-2.5 particles are a typical vehicle emission. The temporary nature of the proposed construction and California Air Resources Board vehicle regulations reduce the potential effects to a less than significant impact. **Source:** Bay Area Air Quality Management District.					
3.d.	Expose sensitive receptors to significant pollutant concentrations, as defined by BAAQMD?				X
Discussion: Construction necessary to excavate for the proposed well is temporary in nature and completely located on the subject property. There are no identified sensitive receptors within 1,000 feet of the project area (e.g. schools, day care centers, nursing homes, etc.). There is no mapped State or Federal protected species located within the project area. **Source:** Project Plans, Google Maps, California Natural Diversity Database.					
3.e.	Create objectionable odors affecting a significant number of people?				X

Discussion: There are no aspects included as part of the project that are expected to emit odors.

Source: Project Plans.

3.f.	Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?		X		

Discussion: Construction of the well is expected to generate a temporary increase in dust, motor vehicle and diesel particulate matter in the area. This temporary increase is not expected to violate existing standards of on-site air quality given required vehicle emission standards required by the State of California for vehicle operations. To mitigate for the temporary increase in dust, Mitigation Measure 1, below, is recommended. Mitigation Measure 2, under Section 7.a., below, is further recommended to minimize particulate matter and greenhouse gasses.

Source: Project Plans, Bay Area Air Quality Management, California Environmental Protection Agency Air Resources Board.

Mitigation Measure 1: The applicant shall implement the following dust control measures during grading and construction activities:

a. Water all active construction and grading areas at least twice daily.

b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.

c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the project site.

d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets/roads.

e. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

4. BIOLOGICAL RESOURCES. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
4.a.	Have a significant 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?				X

Discussion: There are no State or Federal mapped protected species located within the project area.

Source: Project Plans, California Natural Diversity Database.

4.b.	Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
Discussion: There are no riparian habitats or other sensitive natural communities located within the project area. **Source:** Project Plans, San Mateo County General Plan.					
4.c.	Have a significant adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
Discussion: There are no wetlands located within the project area. **Source:** Project Plans, Project Location.					
4.d.	Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
Discussion: There are no known migratory wildlife corridors or nursery sites in the project area. The project does not involve the removal of any trees, construction is temporary in nature, and allows the majority of the parcel to remain undisturbed. Therefore, there is no expectation that the project as proposed poses any significant threat to native or migratory wildlife species. **Source:** Project Plans, Project Location.					
4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X
Discussion: The project does not involve the removal of any trees. **Source:** Project Plans, Zoning Regulations, County Ordinance Code Sections 11,000 and 12,000.					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?				X
Discussion: There are no Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plans that cover the project parcel. **Source:** San Mateo County General Plan.					

4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X

Discussion: The project parcel is not located inside or within 200 feet of a marine or wildlife reserve. The area proposed for development is not located in an area mapped for sensitive habitats or as areas known to possess a protected species of plant or animal.

Source: Project Location, California Natural Diversity Database.

4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X

Discussion: The project parcel is not located in an area defined as such. Further, the proposed project does not involve the removal of any trees.

Source: Project Plans, Project Location.

5. CULTURAL RESOURCES. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
5.a.	Cause a significant adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?		X		

Discussion: A cultural resources study was conducted by Garcia and Associates (GANDA, 2015) and a report was submitted as part of the project application. The report states one historic era period resource was identified and recorded within the project area. While the proposed location of the well does not impact the resource, the avoidance mitigation measure is provided by the archaeologist to ensure that there are no impacts to the resource during construction. The mitigation measure is provided below:

Mitigation Measure 2: Construction crews accessing the site shall utilize an entrance delineated by the archaeologist and install the described protection measures for the duration of the project activities.

Source: Project Location, San Mateo County General Plan, California State Parks Office of Historic Preservation, Garcia and Associates, Archaeological Study (Dated: February 20, 2015).

5.b.	Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?		X		

Discussion: While the report did not identify any prehistoric archaeological resources within the project area the archaeologist did provide mitigation measures to be implemented in the event prehistoric materials are located.

Mitigation Measure 3: In the event that prehistoric materials such as flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tolls; culturally darkened soil (e.g., midden soil often contains heat affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones) are encountered, all excavations should be halted immediately, the San Mateo County Planning Department must be notified, and an archaeologist retained to examine the finds and assess the potential significance.

Source: Project Location, San Mateo County General Plan, California State Parks Office of Historic Preservation.

5.c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
Discussion: There are no mapped unique paleontological resources or geological features in this area. The project location consists of Qt (marine terrace deposits) which is commonly found within the coastal area of the County. **Source:** U.S. Geological Survey Geologic Map of the San Francisco Bay Region, 2006.					
5.d.	Disturb any human remains, including those interred outside of formal cemeteries?				X
Discussion: There are no known human remains in the developed/disturbed area. **Source:** Project Location.					

6.	**GEOLOGY AND SOILS.** Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
6.a.	Expose people or structures to potential significant adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
	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 significant evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*				X
Discussion: The project area is not located within a Seismic Hazard Act zone. Therefore, the site does not require the investigation mandated by the act. **Source:** State of California Department of Conservation.					
	ii. Strong seismic ground shaking?			X	
Discussion: The project parcel is located within an area designated as susceptible to very strong earthquake shaking. At this time no habitable structures are proposed for the project site and therefore the project poses little risk to health and safety. Any future development of structures will be subject to submittal and review of a soils report and geotechnical investigation. **Source:** San Mateo County Earthquake Shaking Fault Maps (San Andreas Fault, Hayward Fault).					
	iii. Seismic-related ground failure, including liquefaction and differential settling?				X

Discussion: The project parcel is located in an area identified as having low probability for earthquake liquefaction. Further, as stated previously the project does not involve the construction of habitable structures there is no perceived impact at this time.

Source: U.S. Geological Survey Susceptibility Map of the San Francisco Bay Area (Map compiled from Knudsen and others, 2000, and Witter and others, 2005).

iv. Landslides?			X	

Discussion: The project area consists of areas of Flatlands and areas of Few Landslides. Further, as stated previously the project does not involve the construction of habitable structures there is no perceived impact at this time.

Source: U.S. Geological Survey Summary Distribution of Slides and Earth Flows in San Mateo County, California, 1997.

v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*			X	

Discussion: The project parcel's western parcel boundary consists entirely of coastal bluff. Currently, the project site is undeveloped except for a dirt access road. While the proposed project does not include any habitable structures the proposed well would constitute infrastructure. The well is located approximately 450 linear feet from the bluff and is not expected to be impacted by bluff erosion due to the distance.

Source: Project Location.

6.b.	Result in significant soil erosion or the loss of topsoil?		X		

Discussion: The area in which the well is proposed is relatively flat and the project itself requires only minor surface disturbance. However, the minor grading necessary to excavate for the well does have the potential to result in temporary erosion impacts. Therefore, staff has included the following mitigation measure;

Source: Project Plans.

Mitigation Measure 4: Prior to commencement of the project, the applicant shall submit to the Planning Department for review and approval an erosion and drainage control plan that shows how the transport and discharge of soil and pollutants from and within the project site shall be minimized. The plan shall be designed to minimize potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. No construction activities shall begin until after all proposed measures are in place.

b. Minimize the area of bare soil exposed at one time (phased grading).

c. Clear only areas essential for project activities.

d. Within five days of clearing or inactivity, stabilize bare soils through either non-vegetative Best Management Practices (BMPs), such as mulching, or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within 2 weeks of seeding/planting.

e. Project site entrances shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

f. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

g. Soil and/or other construction-related material stockpiled on-site shall be placed a minimum of 200 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

h. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

i. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

j. Install storm drain inlet protection that traps sediment before it enters any adjacent storm sewer systems. This barrier shall consist of filter fabric, straw bales, gravel, or sand bags.

k. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/ basins shall be cleaned out when 50% full (by volume).

l. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5-acre or less per 100 feet of fence. Silt fences shall be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

m. Utilize coir fabric/netting on sloped graded areas to provide a reduction in water velocity, erosive areas, habitat protection, and topsoil stabilization.

n. Throughout the construction period, the applicant shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan.

6.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, severe erosion, liquefaction or collapse?				X

Discussion: The project site is not identified as containing a geological unit or soil that is presently unstable. However, compliance with Mitigation Measure 4 will ensure that the proposed site disturbance does not result in soil instability.

Source: Project Plans

6.d.	Be located on expansive soil, as noted in the 2010 California Building Code, creating significant risks to life or property?				X

Discussion: There are no known expansive soils. The site is currently developed and given a lack of previous failures, there is no expectation of encountering expansive soils which could result in a risk to life and/or property.

Source: Project Plans.

6.e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Discussion: The proposed project does not include development which requires the installation of a septic system or other alternative wastewater disposal system. However, there is no indication that the property would not be able to support these types of systems.

Source: Project Plans.

7. **CLIMATE CHANGE.** Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a. Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?		X		

Discussion: A minor temporary increase in greenhouse gasses during the construction phase may occur. Vehicles are subject to California Air Resources Board emission standards. Although the project scope is not likely to significantly generate greenhouse gases, the following mitigation measure is recommended.

Source: California Air Resources Board, San Mateo County Energy Efficiency Climate Action Plan.

Mitigation Measure 5: The applicant shall implement the following basic construction measures at all times:

a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure Title13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

c. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person, or his/her designee, shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

7.b. Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: The project does not conflict with the San Mateo County Energy Efficiency Climate Action Plan provided that the mitigation measure outlined in Section 7.a., above is implemented.

Source: San Mateo County Energy Efficiency Climate Action Plan.

7.c. Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?			X	

Discussion: See discussion under Section 2.c. above.

Source: Project Location.

7.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?			X	
Discussion: The project parcel's western parcel boundary consists entirely of coastal bluff. Currently, the project site is undeveloped except for a dirt access road. While the proposed project does not include any habitable structures the proposed well would constitute infrastructure. The well is located approximately 450 linear feet from the bluff and is not expected to be impacted by bluff erosion due to the distance. The bluff itself is of sufficient height in this location to accommodate the projected 1.4 meter sea level rise. While sea rise modeling does show that the parcel is subject to further erosion, the proposed well is located outside of this area. **Source:** Project Location, California Flood Risk: Sea Level Rise San Gregorio Quadrangle Map, Pacific Institute, 2009.					
7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: See discussion under Section 7.d. above. **Source:** Project Location.					
7.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project is not located in such an area. The project site is located within a Flood Zone X (Areas with minimal risk outside the 1-percent and .2-percent-annual-chance floodplains. No base flood elevations or base flood depths are shown within these zones.); Community Panel No. 06081C0360E, effective October 16, 2012. **Source:** Federal Emergency Management Agency.					
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: The project is not located in such an area. **Source:** Federal Emergency Management Agency.					

8.	**HAZARDS AND HAZARDOUS MATERIALS**. Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
8.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?				X
Discussion: No transport of hazardous materials is associated with this project. **Source:** Project Plans.					
8.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?				X
Discussion: The use of hazardous materials is not proposed as part of the project. **Source:** Project Plans.					
8.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
Discussion: The emissions of hazardous materials, substances, or waste are not proposed as part of the project. **Source:** Project Plans.					
8.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?				X
Discussion: The project site is not located in an area identified as a hazardous materials site. **Source:** California Department of Toxic Substances Control.					
8.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project is not located in such an area. **Source:** Project Location.					

8.f.	For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project is not located in such an area. **Source:** Project Location.					
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
Discussion: No. The proposed project is located completely on a privately owned parcel. All improvements are located within the parcel boundaries and there is no expected impact to any such emergency response or evacuation plan. **Source:** San Mateo County Office of Emergency Services.					
8.h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
Discussion: The project is not located within a fire hazard severity zone. Given that the parcel is not identified as being a high risk location, and that project does not involve the construction of any habitable structures, there is no expected impact. **Source:** Cal-Fire Fire Hazard Severity Zones Maps.					
8.i.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project parcel is not located in such an area. **Source:** Federal Emergency Management Agency Flood Insurance Rate Map 06081C0360E, Effective October 16, 2012.					
8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: The project parcel is not located in such an area. **Source:** Federal Emergency Management Agency Flood Insurance Rate Map 06081C0360E, Effective October 16, 2012.					
8.k.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X

Discussion: The project parcel is not located in a dam failure area. **Source:** San Mateo County General Plan Hazards Map.					
8.l.	Inundation by seiche, tsunami, or mudflow?				X
Discussion: The project parcel is not located in such an area. **Source:** San Mateo County General Plan Hazards Map.					

9.	**HYDROLOGY AND WATER QUALITY**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
9.a.	Violate any water quality standards or waste discharge requirements (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?				X
Discussion: A hydrologic conditions report completed by Mark Woyshner, M.Sc.Eng. of Balance Hydrologics, Inc. was submitted as part of the permit application. The submitted report addresses three critical areas: (1) the hydrologic setting which describes the existing conditions; (2) potential drawdown for the proposed well based on local aquifer information; and (3) the impact analysis to hydrology and water quality in the project area. The report finds that the proposed project poses no impacts to these areas of consideration. Standard domestic well installation involves drilling the ground resulting in a soil core. Groundwater and turbid fluids can reach the surface and are expected to disperse and infiltrate the surrounding soil. Given the existing site conditions, the limited nature of the project scope, and the required installation of sediment and erosion control measures (Mitigation Measure 4), there are no expected significant impacts. **Source:** Project Plans; Existing hydrologic conditions report for well permit application PLN 2014-00421 for APNs 066-330-130 and 066-330-150, Mark Woyshner, M.Sc. Eng., Balance Hydrologics, Inc., February 11, 2015.				
9.b.	Significantly deplete groundwater supplies or interfere significantly 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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X

Discussion: Per the submitted hydrologist report the proposed well is located 75 feet from the right side property line and approximately 2,200 feet from the nearest existing well. Given that the hydrologist's estimated area of influence and potential capture zone for the proposed well significantly lower than the distance to the next nearest well there is no expectation that the proposed well will result in significant groundwater depletion or interfere with groundwater recharge.

Source: Project Plans; Existing hydrologic conditions report for well permit application PLN 2014-00421 for APNs 066-330-130 and 066-330-150, Mark Woyshner, M.Sc. Eng., Balance Hydrologics, Inc., February 11, 2015.

9.c.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in significant erosion or siltation on- or off-site?				X

Discussion: The project does not involve grading or site improvements that would alter the existing drainage pattern of the site. The standard area for a finished well is normally less than 10 sq. ft. in area so there is no expectation that the well would result in any changes to the drainage pattern of the site or result in erosion on or offsite. There is a natural drainage that occurs on the south eastern portion of the parcel which is not proposed for alteration and not within the vicinity of the proposed well site.

Source: Project Plans.

9.d.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X

Discussion: See Section 9.c. above.

Source: Project Plans.

9.e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?				X

Discussion: See discussion under Section 9.c. above.

Source: Project Plans.

9.f.	Significantly degrade surface or groundwater water quality?				

Discussion: No degradation of surface or groundwater water quality is expected in association with the proposed project. As discussed previously the area of influence and potential capture zone estimates for the proposed well indicate a minimal capture area associated with the daily demand for single-family residences. Given the proposed well's location in relation to nearby wells, distance from the coast, and the groundwater flow from an up gradient location, there is no expected impact to groundwater from salt water intrusion.

Source: Project Plans; Existing hydrologic conditions report for well permit application PLN 2014-00421 for APNs 066-330-130 and 066-330-150, Mark Woyshner, M.Sc. Eng., Balance Hydrologics, Inc., February 11, 2015.

9.g.	Result in increased impervious surfaces and associated increased runoff?				X
Discussion: See discussion under Section 9.c. above. **Source:** Project Plans.					

10.	**LAND USE AND PLANNING.** Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
10.a.	Physically divide an established community?				X
Discussion: There is no land division or development that would result in the division of an established community. **Source:** Project Plans.					
10.b.	Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
Discussion: As mitigated and conditioned, the project is compliant with applicable land use regulations. **Source:** Project Plans, San Mateo County General Plan, and Zoning Regulations.					
10.c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
Discussion: There is no conservation plan that covers the project parcel. **Source:** San Mateo County General Plan.					
10.d.	Result in the congregating of more than 50 people on a regular basis?				X
Discussion: The proposed project does not propose a use that would result in the congregation of more than 50 people on a regular basis. **Source:** Project Plans.					
10.e.	Result in the introduction of activities not currently found within the community?				X
Discussion: The proposed project does not introduce a use which is not currently present in the community. **Source:** Project Plans.					

10.f.	Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?				X
Discussion: The project proposes improvements to serve only the subject property. These improvements are completely within the parcel boundaries of the subject property and do not serve to encourage off-site development of undeveloped areas or increase the development intensity of surrounding developed areas. **Source:** Project Plans.					
10.g.	Create a significant new demand for housing?				X
Discussion: None proposed. **Source:** Project Plans.					

11.	**MINERAL RESOURCES.** Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
11.a.	Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: None proposed. **Source:** Project Plans.					
11.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?				X
Discussion: None proposed. **Source:** Project Plans, Project Location.					

12.	**NOISE.** Would the project result in:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
12.a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise		X		

	ordinance, or applicable standards of other agencies?				
Discussion: During project construction, excessive noise could be generated. Mitigation Measure 6 as described below is proposed to reduce the construction noise impact to a less than significant level. Once construction is complete, the project is not expected to generate significant amounts of noise. **Source:** Project Plans, San Mateo County Noise Ordinance. **Mitigation Measure 6:** All grading and construction activities associated with the proposed project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed the 80-dBA level at any one moment.				
12.b.	Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?				X
Discussion: None proposed. **Source:** Project Plans, Project Location.					
12.c.	A significant permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
Discussion: None proposed. **Source:** Project Plans.					
12.d.	A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: A temporary increase in ambient noise levels during the construction phase of the project is expected. However, due to the project scope, this is exposure is minimal. Post construction, the site should not result in any additional ambient noise. **Source:** Project Plans, San Mateo County Noise Ordinance.					
12.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located in such an area. **Source:** Project Plans, Project Location.					
12.f.	For a project within the vicinity of a private airstrip, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located within the vicinity of a private airstrip. **Source:** Project Location.					

13.	**POPULATION AND HOUSING**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.a.	Induce significant 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)?				X
Discussion: All of the proposed improvements are completely within the subject parcel's boundaries and are sufficient only to serve it. **Source:** Project Plans.					
13.b.	Displace existing housing **(including low- or moderate-income housing)**, in an area that is substantially deficient in housing, necessitating the construction of replacement housing elsewhere?				X
Discussion: None proposed or expected. **Source:** Project Plans.					

14.	**PUBLIC SERVICES**. Would the project result in significant adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
14.a.	Fire protection?				X
14.b.	Police protection?				X
14.c.	Schools?				X
14.d.	Parks?				X
14.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X
Discussion: No impact to public services as the proposed project only involves the drilling of a domestic well. **Source:** Project Plans.					

15.	**RECREATION.** Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
15.a.	Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?				X
Discussion: The proposed well will be entirely located on the subject privately owned parcel. Given the limited scope of the proposed project, there is no expected increase in the use of existing neighborhood or regional parks or other recreational facilities that would result in physical deterioration of any such facility as a result of completion of the project. **Source:** Project Plans.					
15.b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
Discussion: No recreational facilities are proposed as part of this project. **Source:** Project Plans.					

16.	**TRANSPORTATION/TRAFFIC.** Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
16.a.	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
Discussion: As discussed previously, the proposed project is to occur completely on the subject privately owned parcel. The project does not involve a level of development that would adversely impact any plan, ordinance or policy which establishes measures of effectiveness for the performance of the circulation system. **Source:** Project Location.					
16.b.	Conflict with an applicable congestion management program, including, but not limited to, level of service standards and				X

	travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?				
Discussion: No. See discussion under Section 16.a. above. **Source:** Project Location.					
16.c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in significant safety risks?				X
Discussion: None proposed. **Source:** Project Plans, Project Location.					
16.d.	Significantly increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
Discussion: None proposed. **Source:** Project Plans.					
16.e.	Result in inadequate emergency access?				X
Discussion: The proposed project does not include improvements to the existing driveway. The project site can be accessed without alterations to the existing conditions and the resulting project does not result in habitable structures which would require emergency access. **Source:** Project Plans.					
16.f.	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
Discussion: No impacts. See discussion under Section 16.a. above. **Source:** Project Location.					
16.g.	Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?				X
Discussion: No. The proposed project does not result in changes outside of the parcel boundaries. There is no expectation of an increase to or change in the pedestrian patterns in the area. **Source:** Project Plans.					
16.h.	Result in inadequate parking capacity?				X
Discussion: No impact. The proposed project does not trigger a need for parking. However, the 26.79 acre parcel can adequately accommodate the temporary parking for vehicles associated with the well drilling. **Source:** Project Plans, San Mateo County Zoning Regulations.					

17.	UTILITIES AND SERVICE SYSTEMS. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
17.a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
Discussion: The proposed project does not require wastewater treatment measures to be installed as part of the project. **Source:** Project Plans, Project Location, San Francisco Bay Regional Water Quality Control Board.					
17.b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: The proposed project seeks to install a new domestic well water source as municipal water service is not available in the project area. The County's Environmental Health Division has preliminarily reviewed the project and provided conditional approval for the project. Further, as discussed in Section 9, above, an existing hydrologic conditions report was submitted for the project area and determined that the proposed well poses no risk to the existing water sources. Therefore, there is no expectation that this work will result in any significant environmental effects. **Source:** Project Plans.					
17.c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: The proposed project does not require the installation of stormwater drainage facilities given the project scope. **Source:** Project Plans.					
17.d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
Discussion: In order to determine the level of development the parcel may or may not support the confirmation of water is necessary. The proposed project does not include any additional development at this time. Any future development will be evaluated to ensure that there are sufficient water supplies to serve it. **Source:** Project Plans.					

17.e.	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?				X
Discussion: No impact. The project site is not served by a municipal wastewater treatment provider. **Source:** Project Plans, Project Location.					
17.f.	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
Discussion: The proposed project will not result in development which requires municipal trash pick-up service. However, there is no indication at this time that the landfill utilized for this area has insufficient capacity to serve it. **Source:** Project Plans.					
17.g.	Comply with Federal, State, and local statutes and regulations related to solid waste?				X
Discussion: The proposed project does not result in the creation of solid waste. While municipal solid waste service exists in the area there is no expectation that the proposed well would result in waste production that would trigger compliance with Federal, State, and/or local statutes and regulations. **Source:** Project Plans.					
17.h.	Be sited, oriented, and/or designed to minimize energy consumption, including transportation energy; incorporate water conservation and solid waste reduction measures; and incorporate solar or other alternative energy sources?				X
Discussion: The proposed well will not require electricity at this time. If water is found the well will be capped until development entitlements are secured. **Source:** Project Plans, California Building Code.					
17.i.	Generate any demands that will cause a public facility or utility to reach or exceed its capacity?				X
Discussion: No. See discussion of utility usage in Section 17.a.-h. above. **Source:** Project Plans.					

18. MANDATORY FINDINGS OF SIGNIFICANCE.				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
18.a. Does the project have the potential to degrade the quality of the environment, significantly 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, 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?				X
Discussion: No sensitive habitats are mapped in the project area. Minimal site disturbance is proposed which ensures that the areas to be disturbed are limited and maintains the majority of the parcel in its natural state. **Source:** Project Plans.				
18.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.)			X	
Discussion: The property is currently unimproved aside from the unpaved access road. The proposed project involves only the drilling of a domestic water well. Future development could have the potential to result in cumulative impacts depending on the type and scope of the project. However, future development of the parcel would be subject to a separate environmental analysis and issuance of separate Planning and Building Department permits at which time cumulative impacts would be evaluated. However, with the assumption that future development would consist of a single-family residence (given the domestic well application) this type of development is present within the vicinity of the project parcel and is a use consistent with the County Zoning Regulations (with issuance of a permit) there is no indication that if planned appropriately the resulting project would result in cumulative impacts. **Source:** Project Plans.				
18.c. Does the project have environmental effects which will cause significant adverse effects on human beings, either directly or indirectly?				X
Discussion: See discussion above. **Source:** Project Plans.				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
State Water Resources Control Board		X	
Regional Water Quality Control Board		X	
State Department of Public Health		X	
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service		X	
Coastal Commission	X		
City		X	
Sewer/Water District:		X	
Other: San Mateo County Division of Environmental Health	X		

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.		X
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: The applicant shall implement the following dust control measures during grading and construction activities:

a. Water all active construction and grading areas at least twice daily.

b. Cover all truck hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

c. Apply water two times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at the project site.

d. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets/roads.

e. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).

Mitigation Measure 2: Construction crews accessing the site shall utilize an entrance delineated by the archaeologist and install the described protection measures for the duration of the project activities.

Mitigation Measure 3: In the event that prehistoric materials such as flaked-stone tools (e.g., projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tolls; culturally darkened soil (e.g., midden soil often contains heat affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones) are encountered, all excavations should be halted immediately, the San Mateo County Planning Department must be notified, and an archaeologist retained to examine the finds and assess the potential significance.

Mitigation Measure 4: Prior to commencement of the project, the applicant shall submit to the Planning Department for review and approval an erosion and drainage control plan that shows how the transport and discharge of soil and pollutants from and within the project site shall be minimized. The plan shall be designed to minimize potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, and apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. Said plan shall adhere to the San Mateo County Wide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. No construction activities shall begin until after all proposed measures are in place.

b. Minimize the area of bare soil exposed at one time (phased grading).

c. Clear only areas essential for project activities.

d. Within five days of clearing or inactivity, stabilize bare soils through either non-vegetative Best Management Practices (BMPs), such as mulching, or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within 2 weeks of seeding/planting.

e. Project site entrances shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

f. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

g. Soil and/or other construction-related material stockpiled on-site shall be placed a minimum of 200 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

h. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

i. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

j. Install storm drain inlet protection that traps sediment before it enters any adjacent storm sewer systems. This barrier shall consist of filter fabric, straw bales, gravel, or sand bags.

k. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/ basins shall be cleaned out when 50% full (by volume).

l. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5-acre or less per 100 feet of fence. Silt fences shall be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

m. Utilize coir fabric/netting on sloped graded areas to provide a reduction in water velocity, erosive areas, habitat protection, and topsoil stabilization.

n. Throughout the construction period, the applicant shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan.

Mitigation Measure 5: The applicant shall implement the following basic construction measures at all times:

a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure Title13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

c. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person, or his/her designee, shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 6: All grading and construction activities associated with the proposed project shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday. Construction activities will be prohibited on Sunday and any nationally observed holiday. Noise levels produced by construction activities shall not exceed the 80-dBA level at any one moment.

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.

__X__ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

(Signature)

May 18, 2015 — Date

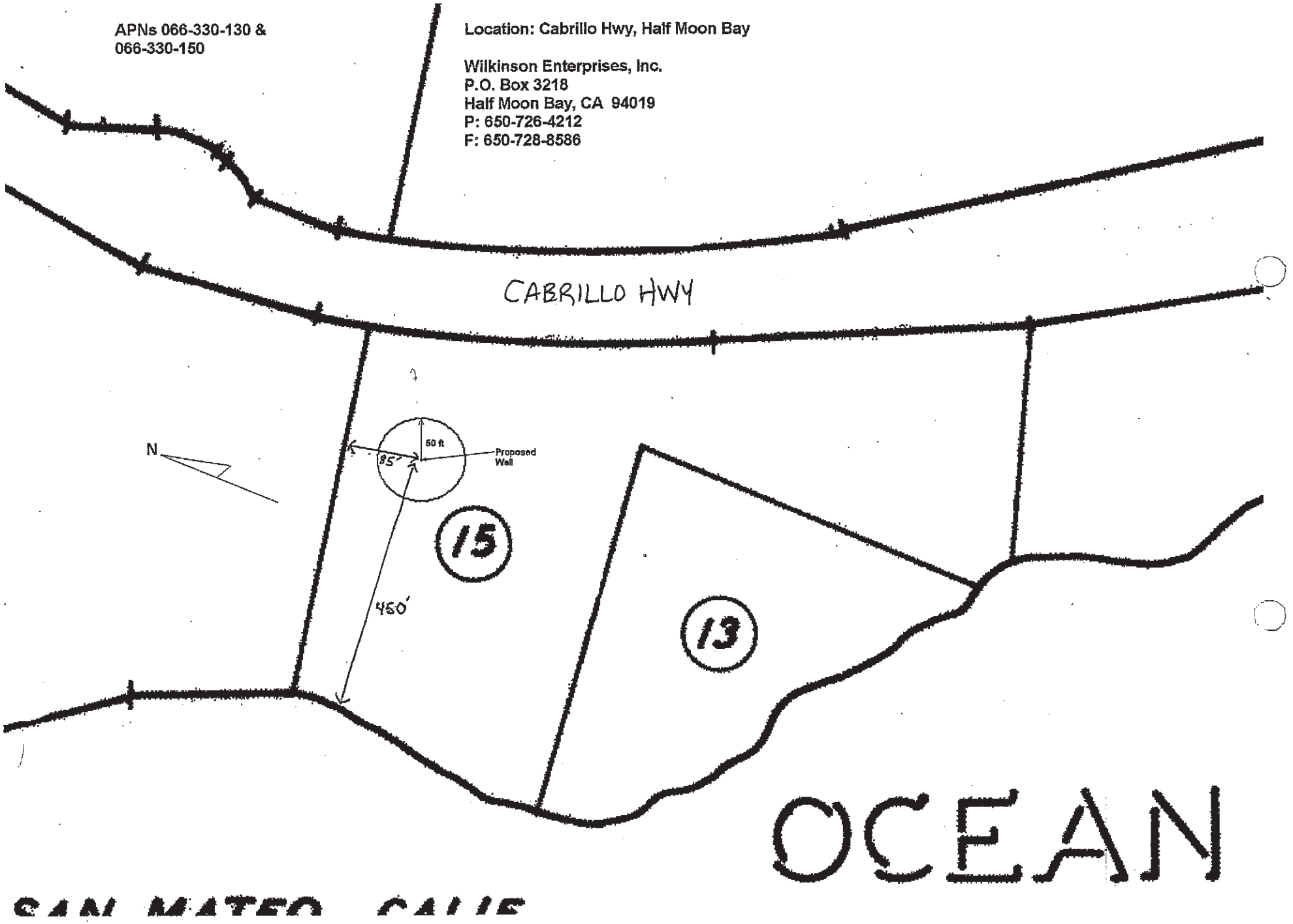
Planner III — (Title)

AC:pac - ACCZ0352_WPH.DOCX
Initial Study Checklist 10.17.2013.docx

APNs 066-330-130 &
066-330-150

Location: Cabrillo Hwy, Half Moon Bay

Wilkinson Enterprises, Inc.
P.O. Box 3218
Half Moon Bay, CA 94019
P: 650-726-4212
F: 650-728-8586



SAN MATEO CALIF

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105
PHONE: (415) 904-5260
FAX: (415) 904-5400
WEB: WWW.COASTAL.CA.GOV

December 17, 2014

Angela Chavez, Project Planner
455 County Center, 2nd Floor
Redwood City, CA 94063

RE: Coastal Development Permit (CDP) & Planned Agricultural Development (PAD) permit for domestic well (PLN2014-00421)

Dear Ms. Chavez:

Thank you for your recent submittal regarding the Planning Permit Application Referral for a CDP and PAD permit for a domestic well on an undeveloped, PAD-zoned parcel (APN: 066-330-130) located adjacent to Cabrillo Highway in unincorporated San Mateo County. While the Commission does not have comments regarding the construction of the well, we remind the County and the Applicant that any subsequent CDP applications for construction on this parcel will need to be accompanied by an analysis of the amount of water that will be available from the proposed well. The analysis must demonstrate that the use of the proposed well will not impair surface stream flows, agricultural viability or production, or sensitive habitat areas in the project vicinity, nor impact wells on adjacent properties. Any proposed development must comply with all other applicable San Mateo County Local Coastal Program policies.

Thank you for the opportunity to comment on the application. Please feel free to contact me at (415) 904-5266 or by email at shannon.fiala@coastal.ca.gov if you wish to discuss these matters further. We look forward to reviewing any subsequent permit applications and will provide additional comments at that time.

Sincerely,

Shannon Fiala
Coastal Program Analyst

Attachment E

Balance Hydrologics, Inc.®

800 Bancroft Way • Suite 101 • Berkeley, CA 94710-2227 • (510) 704-1000
www.balancehydro.com • email: office@balancehydro.com
Berkeley • Auburn • Santa Cruz • San Rafael • Truckee

February 11, 2015

Mr. James Wilkinson
Wilkinson Well and Pump
890 Sonora Avenue,
Half Moon Bay, CA 94019

RE: Existing hydrologic conditions report for well permit application PLN2014-00421 for APN 066-330-130 and 066-330-150

Dear Jim:

The San Mateo County Planning and Building Department (County) is preparing a CEQA Initial Study in response to a water-well drilling permit (Case No. PLN2014-00421) for an undeveloped parcel requiring a coastal development permit (CDP) and a planned agriculture development (PAD).[1] In a letter dated December 18, 2014, the County requested that the applicant submit a hydrologic existing conditions report to assist County staff with the completion of the initial study. The project description (Project) is as follows in the County letter:

> ***"CDP & PAD permit for domestic well on undeveloped, PAD-zoned parcel (no other development proposed at this time). COC95-0006 (comprised of 066-330-130 & -150 as 1 legal parcel) & Lot Merger approved & recorded, confirming parcel legality."***

Upon our request, Ms. Angela Chavez, the County Project Planner assigned to the project, provided a list of nine hydrology and water-quality impact-analysis questions required for the initial study. To comply with the County's request, we have structured this report in the following sections: (1) the hydrologic setting which describes the existing conditions; (2) potential drawdown for the proposed well based on local aquifer information; (3) the impact analysis which answers the nine initial study questions; and (4) conclusions.

Hydrologic Setting

The project site is located in the Mediterranean climate zone typical of central coastal California, characterized by dry, mild summers and moist, cool, almost frostless winters. Mean annual rainfall is 26.68 inches at the long-term weather station at Half Moon Bay airport, located 11.5 miles north of the site (**Table 1**). Influenced by marine air, onshore wind, and frequent summer fog or overcast conditions, the region is generally protected from hot inland weather. Due to its close proximity to the ocean, humidity is rather high and evaporation is low. The site is located in California Irrigation Management Information System (CIMIS) Reference Evapotranspiration (ETo) Zone 1: Coastal Plains Heavy Fog Belt (Snider, 1999). With an estimated mean annual ETo of 33 inches[2], this zone has the lowest annual evapotranspiration in California. It is well suited for growing brussels sprouts, artichokes, and flowers. During the mid-20th century, flax and peas were grown widely in this part of the county.

[1] Review of the County Environmental Health files for APN 066-330-130, -150 showed an approved CDP (95-0008) and a domestic well permit (W-171-95) issued October 19, 1995, which was later canceled on May 15, 1996.
[2] Considering its location at the coastal bluff, ETo at the project parcel is likely lower than that reported for Zone 1.

The 24-acre project parcel is located approximately 4,000 feet south from the Lobitos Creek and 2,000 feet north from Tunitas Creek on a gently-sloping marine terrace extending west from Cabrillo Highway to a steep coastal bluff (**Figure 1**). The site is predominantly covered with grass, forbs, and occasional juncus patches and blackberry thickets. Ground elevation is highest at 215 feet above sea level (asl) near the entrance of the property at Cabrillo Highway and slopes approximately 16 percent across the east portion of the property to a north-south trending 150-foot contour (**Figure 2**). This contour defines a break in the slope where the ground surface is generally level across the west portion of the property.[3] Topography across the west portion of the property is accentuated by a broad hollow in the marine terrace that drains to a centrally located draw in the coastal bluff. Though no discrete stream channel is present within the hollow, there is a short gully at the top of the draw. Surface water from most of the property drains to this hollow and draw, as well as drainage from a portion of the adjoining parcel to the north (APN 066-330-240). The project parcel is outside of the 0.2 percent annual chance 100-year flood area, as identified on the Flood Insurance Rate Map for the area (FEMA, 2012).

The 140-foot contour traces inside the margin of the hollow and extends to the precipice of the bluff, while near the mouth of the draw the bluff elevation is about 130 feet asl. The bluff is remarkably steep, dropping nearly vertical to a tidally inundated, wave-beaten, rocky coast featuring bedrock stumps close to shore. A small portion of marine terrace between the hollow and the bluff at the northwest portion of the property is reasonably preserved at the 150-foot contour, matching this elevation contour east of the hollow, where the slope steepens eastward. This slope continues uphill onto the adjoining parcel east of Cabrillo Highway (APN 066-330-160), up to a marine terrace higher in elevation, found above about 370 feet asl.

A notable hydrologic feature on the property is a well-defined narrow, linear drainage channel (gully) extending along the south property line to the coastal bluff, which primarily drains off-site hillside areas east of Cabrillo Highway and south of the property, as well as the southeast corner of the property. It is the largest drainage channel on the property. There is a small, shallow 'cattle pond' on the property near the upper portion of this gully with a retaining berm at 192 feet asl (**Figure 3**). This pond is apparently dredged to bedrock, which outcrops along the north portion of the pond, just below the paved road at the entrance of the property from Cabrillo Highway.[4] The pond contained the only surface water present on the property during our site reconnaissance on January 27, 2015. The specific conductance[5] of the water was 345 micromhos/cm at 13.5 degrees Celsius (451 umhos/cm at 25 ^{o}C), which was not an unexpected value for springs, seeps and ponds in the region; specific conductance values of between 350 and 550 micromhos/cm were reported in a comprehensive sampling of all seeps and spring on Gordon Ridge, about 1 to 1.5 miles to the southeast (Hecht and others, 2004) . Given no rain had fallen since a slight amount rain through late December following the large storm on December 11th, drainage to bedrock from the pond is likely low.

[3] An abandoned railroad track is called out in the 1961 soil survey sheet number 17, crossing the property approximately along the 150-foot contour.

[4] The paved access road to the property which arcs northward from an elevation of 210 feet asl and parallels Cabrillo Highway a short distance is said to be old Highway 1.

[5] Specific conductance (SC) was measured with a YSI field meter, which measures the ability of the water to conduct electricity and is a widely used index for salinity or total dissolved solids (TDS). The basic unit is "mho/cm", otherwise known as 1 Siemen (1 S). Rainwater has very low specific conductance (nearly zero), and as water passes over and through the ground, salts are dissolved, thereby increasing the specific conductance. The SC of the ocean is around 53,000 micromhos/cm. Higher specific conductance indicates transmittal through salt-bearing geologic formations or longer residence times in the ground. SC is temperature dependent and is normalized to 25 degrees Celsius.

Geology of the region is described in the U.S. Geological Survey open file report 98-137 by Brabb and others (1998). Pliocene and upper Miocene marine sedimentary rock, the Purisima Formation is present throughout the region south Montara Mountain, and locally divided into five members: Tunitas Sandstone Member (Tptu), Lobitos Mudstone Member (Tpl), San Gregorio Sandstone Member (Tpsg), Pomponio Mudstone Member (Tpp), and Tahana Member (Tpt). Tunitas Sandstone, the youngest member, is mapped across site and adjoining parcels (**Figure 4**). It dips 7 degrees at the coastal bluff towards a northwest-southeast striking syncline mapped just off shore. Lobitos Mudstone underlies Tunitas Sandstone and outcrops east of the property beyond the adjoining parcels, at Tunitas Creek and in the Martins Beach area. Likewise, San Gregorio Sandstone underlies Lobitos Mudstone and outcrops further to the northeast.

The Tunitas Sandstone is described as greenish−gray to light−gray, pale−orange, or greenish−brown, very fine− to medium−grained sandstone with clay matrix. Concretions generally less than 30 cm across are present locally, which appear as muddy nodules on site. Tunitas Sandstone is reported to range in thickness from 250 to 400 feet. Tunitas Sandstone type material extended to 170 feet below ground surface on one well log from the uphill parcels to the east; other logs noted it to at least 200 feet in thickness (the depth of the well) (**Table 2**). At the bluff on site, it appears to at least extend about 100 feet to the ocean (**Figure 5**). On lithologic logs of wells east of the project site, Tunitas Sandstone type material was described as firm grey sandstone, and underlying Lobitos Mudstone member as firm grey shale. The 100-foot vertical cliff face for the bluff depicts the firmness of the sandstone. Bedrock fracturing of the Tunitas Sandstone member exposure at the bluff appeared quite light and not noted in the well logs reviewed.

Water quality in the vicinity of the project parcel generally has elevated dissolved solids (**Figure 6**). Iron and manganese can also be elevated. Salinity can be an issue in all three members of the Purisima Formation. A few miles to the southeast, specific conductance values of about 2,600 to 3,500 micromos/cm at 25C were reported in 9 seeps and springs emanating from the San Gregorio Member on Gordon Ridge about 1.5 miles to the southeast; such values are about double the allowable salt concentrations in public water supplies, and would call for treatment prior to use.[6] Wells a mile or two further south in the Old Stage Road area have water with high salinities. The most recent regional assessment (Zatkin and Hecht, 2009) notes that potable groundwater should not be taken for granted in this immediate area:

> *"Groundwater in the [San Gregorio Creek watershed] tends to have higher salinities than is typical of the Santa Cruz Mountains streams. Pockets of groundwater naturally too salty for agricultural and most habitat uses are distributed throughout the watershed,* ***most noticeably beneath the northern ridges in the western part of the watershed****."* *(emphasis added)*

Pleistocene marine terrace deposits unconformably overlay Tunitas Sandstone on the project parcel and are continuous with the adjoining parcel to the north. These deposits are a southern-most fragment of the larger Half Moon Bay Terrace groundwater basin (No. 2-22), as classified by California Department of Water Resources in Bulletin 118 (2003 update). The poorly consolidated and poorly indurated well− to poorly−sorted sand and gravel deposits appear to be 30 to 40 feet thick across the west portion of the property, and thin southeastward to outcrops of Tunitas Sandstone member near Cabrillo Highway (**Figure 5**). The terrace deposits also appear coarser at depth, at its contact with Tunitas Sandstone.

[6] San Mateo County will permit a well meeting its requirements for yield and required setbacks, recognizing that well water quality is usually amenable to treatment.

Soils across most of the project parcel are classified as Watsonville sandy loan, gently-sloping to sloping eroded[7], which formed on the marine terrace, while soils on the eastern-most, steeper portion of the property are hillside soils, classified as Tierra sandy loam, moderately steep, eroded[8] (NRCS, 1961). Both soil types are reported to have a hydrologic group rating "D", with a very slow infiltration potential and a very high runoff potential. Reported surface soil permeability is rapid to moderately rapid, but subsurface permeability is very slow. The Watsonville sandy loam soils are classified with a slight to moderate erosion hazard, while the Terra sandy loam, a high erosion hazard. The recharge and water-holding properties of the surficial soils found on site are summarized in **Table 3**. Soils at the bluff are classified as terrace escarpments.

Aquifer parameters and drawdown analysis

Transmissivity (T) is a common aquifer coefficient that characterizes how easily water moves through the aquifer (a measure of permeability), and can be used to quantify groundwater flow, drawdown, and zone of influence and capture of a well. Transmissivity can be initially estimated with a relationship to Specific Capacity (Cs)[9] then commonly refined with dynamic data from a 'pump test' or aquifer test. Specific capacity (Cs) is well function describing the quantity of water that a well can produce per unit drawdown of water level in the well. It is the pumping rate divided by the water level drawdown in the well, in gallons per minute per foot drawdown. To estimate Cs and T of the bedrock in the vicinity the project parcel, we acquired well completion reports from the California Department of Water Resources (**Figure 5**), on which drillers air-lift tests and pumping tests are recorded, and we also acquired pump-test reports from County Environmental Health files. Results of the canvas are summarized in **Table 2** and grouped for wells completed in the Tunitas Sandstone, and well completed in Lobitos Mudstone. Hydraulic conductivity (K) for the formation can be estimated by dividing T by the aquifer thickness (b), which is the well depth minus the depth to static water level. Based hydraulic conductivity, the Tunitas Sandstone is roughly four times more permeable than the Lobitos Mudstone; sample variability, though, is similar.

When a well is pumped it introduces a stress to the aquifer and lowers hydraulic pressures and water levels in the vicinity of the well. With continued pumping, this effect propagates outward from the well, which can be conceptually represented as a "cone of depression" or "area of influence". The area of influence of a pumped well can be roughly estimated using the Cooper-Jacob (1946) distance-drawdown equation, which is an approximation of the Theis (1935) analytical model. Based on the estimates of aquifer transmissivity from **Table 2** and using a nominal storage coefficient for a shallow fractured bedrock aquifer, we estimated the radius of influence for the proposed well for two cases (**Table 4**):

- Case 1, a maximum daily demand of 6.75 gallons per minute (gpm) sustained for 24 hours. This is the average yield of wells completed in Tunitas Sandstone from **Table 2**; and,

- Case 2, an average dry-season demand for a single-family dwelling of 0.75 acre-feet from April through September (or 0.46 gpm of continuous pumping), based on Monterey Peninsula Water

[7] http://casoilresource.lawr.ucdavis.edu/soil_web/ssurgo.php?action=explain_component&mukey=456551&cokey=11146646
[8] http://casoilresource.lawr.ucdavis.edu/soil_web/ssurgo.php?action=explain_component&mukey=456523&cokey=11146536
[9] To estimate aquifer transmissivity (T) with Cs see Appendix 16.D of Driscoll (1983) or p. 128 of DWR Bulletin No. 118-2 (June 1974).

Management District procedures for preparation of well source and pumping impact assessments.[10]

For a horizontal surface, the estimated radius of influence for the maximum daily demand is about 60 feet, while for the dry-season demand, it is about 500 feet. A 1-foot drawdown effect from dry-season pumping is estimated at about 75 feet from the well. The proposed project well site is currently staked 75 feet from the north property line at latitude N 37° 21' 55.0" and longitude W 122° 24' 20.1", and elevation 145 feet asl (**Figures 2 and 7**).[11] The closest well to the proposed project well is about 2,200 feet uphill to the east (**Figure 5**), 4.4 times further than the estimated extent any influence by dry-season pumping, and 29 times the estimated 1-foot drawdown effect.[12]

Under conditions of a groundwater gradient, such as in mountainous areas as seen at the site, the capture zone of the well is skewed upgradient. As a guideline for groundwater management, the theoretical capture area can be estimated with uniform flow equations, adapted from Todd (1980) (**Table 5**). For the maximum daily demand, the estimated capture area is 61 feet downgradient and 96 feet perpendicular to the proposed well. For the dry-season demand, downgradient and perpendicular capture area is much less, suggesting that the primary source of groundwater to the well for seasonal pumping is from the upgradient (eastward) direction.

Analysis of potential hydrologic and water-quality impacts

The following nine CEQA Initial Study questions were sent to us from Ms. Angela Chavez, the County Project Planner assigned to the project.

9.a. *Would the Project violate any water quality standards or waste discharge requirements (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?*

No impact. The installation and yield testing of a domestic well can include the use of drilling mud or foam, and bringing groundwater to the ground surface. Potentially turbid fluids are typically contained in a pit within the immediate vicinity of the borehole and/or allowed to spread onsite to infiltrate into the soil, assisted by the installation of straw waddle and /or silt fence. The proposed well is located on a gently sloping marine terrace, over 600 feet from a drainage draw at the coastal bluff. The marine terrace is densely covered with grasses and reported to have rapid surface permeability, though subsoil permeability is very slow. Expected yield from the well could be as high as 6 or 7 gpm. Groundwater pumped to the ground surface would likely not flow at this pumping rate to the draw at the coastal bluff after a period of pumping typical for yield testing the well, but perhaps at most trickle down the rock face of the bluff to the wave-beaten rocky coast without erosion and increasing turbidity.

[10] For most parcels in the unincorporated areas of the MPWMD, the District will accept up to 0.5 acre-feet per year (AFY) as the estimated annual demand for a typical single-family dwelling with standard outdoor landscaping. We applied a 'safety factor' of 3 to account for large residences on large parcels with extensive landscaping, gardening, or non-standard uses.
[11] Datum WGS84
[12] In practice, area-of-influence calculations are generally applied for guidance in groundwater management with the caveat of having quantitatively low resolution as a predictive tool, particularly in fractured-bedrock aquifers. The resolution to a unit of 1-foot would seem reasonable for the conditions at the site.

9.b. *Would the Project significantly deplete groundwater supplies or interfere significantly 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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

No impact. County set-back regulations for a new domestic well is 50 feet from the property line and 50 feet from an existing well. The location of the proposed project well is 75 feet from the property line and 2,200 feet from the nearest existing well. In addition, the estimated area of influence and potential capture zone for the proposed well is significantly less than the distance to the nearest well.

9.c. *Would the Project significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in significant erosion or siltation on- or off-site?*

No impact. See 9.a.

9.d. *Would the Project significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?*

No impact. See 9.a.

9.e. *Would the Project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?*

No impact. There is no existing or planned stormwater drainage systems (see 9.a.)

9.f. *Would the Project significantly degrade surface or ground-water water quality?*

No impact. The proposed project well is located 500 feet from the coast at an elevation of 145 feet above sea level. Wells in the vicinity are 150 to 300 feet deep (a depth also proposed for the project well) with maximum yields as high as 6 to 7 gpm. Area-of-influence and potential capture-zone estimates for the proposed well suggests a limited local capture area for a maximum daily demand and for potential seasonal pumping rates, with the primary source of groundwater flow to the well from the regional upgradient (east) direction. Very few wells are in the vicinity, all over 2,000 feet from the proposed project well. Under these conditions, groundwater quality would not degrade from sea-water intrusion.

Groundwater in the region can naturally have elevated dissolved solids, including iron and manganese. Assuming the water quality of groundwater pumped from the proposed project well is suitable for domestic purposes, then its use would generally not lead to significantly saltier water percolating to shallow groundwater from the septic system. Widespread irrigation of groundwater with elevated dissolved solids may lead to salt accumulations in the soil.

Surface-water quality would also not degrade (see 9.a).

9.g. *Would the Project result in increased impervious surfaces and associated increased runoff?*

No impact. The Project does not increase the area impervious surface.

17.b. *Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No impact. Not applicable. Public water and sewer service is not available at the project parcel and the Project does not propose new connections.

17.d. *Would the Project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

No impact. Not applicable. The Project is to develop a local groundwater source for domestic needs on an undeveloped parcel; no other development proposed at this time.

Conclusions

Existing conditions at the project site support the proposed project to install a water well for domestic use, assuming standard 'best management practices' to control drilling fluids are applied. We analyzed potential impacts for pumping the well at a rate typical for a single-family dwelling in unincorporated rural coastal areas of central California and found no significant impacts. A reasonable practical analog to this use of the proposed project well would be the success of pumping other domestic well in the vicinity located west of Cabrillo Highway. We found no record of water-quality or well-yield failure in the County Environment Health records for the well in the Martins Beach area.

Closure

As with all subsurface analyses, we note that the values presented are estimates, based on conditions actually encountered in boreholes or wells. It should be recognized that interpretation and evaluation of subsurface conditions is a difficult and inexact art. Balance Hydrologics has drawn on conventional published data sources for this evaluation, and has not independently verified mapping or findings by agencies and other established sources. This report was prepared for the client's exclusive use on this particular project and in general accordance with the accepted standard of practice existing in Northern California at the time the investigation was performed. No other warranties, expressed or implied, are made.

If there are any follow-up questions regarding the above assessment or if there is a need to conduct more detailed analyses please give a call.

Sincerely,

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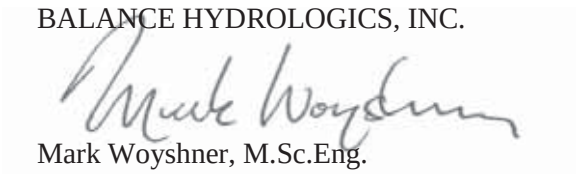

Mark Woyshner, M.Sc.Eng.
Senior Consultant and Director

Reviewed by Barry Hecht, CHg
Enclosures: 5 tables and 7 figures

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Table 1. Mean monthly rainfall and evapotranspiration
APN 066-330-130, -150, San Mateo County, California

Month	Rainfall [1] (inches)	Reference Evapotranspiration [2] (inches)
October	1.59	2.48
November	3.08	1.20
December	4.66	0.62
January	5.36	0.93
February	4.53	1.40
March	3.81	2.48
April	1.89	3.30
May	0.77	4.03
June	0.28	4.50
July	0.12	4.65
August	0.21	4.03
September	0.38	3.30
Annual	26.68	32.92

Notes:

1. NOAA NCDC Station 43714 at Half Moon Bay, CA, 1948 - 2010.

2. CIMIS reference evapotranspiration ETo Zone 1 (Snider, 1999), variability between stations is as high as 0.02 inches per day.

Table 3. Recharge and water-holding properties of surficial soils, APN 066-330-130, -150, San Mateo County, California

Map Symbol	Soil Series[1]	Parent Material	Taxonomy (order, subgroup, family)	Hydrologic Soil Group	Erosion Hazard	Depth Zone (inches)	USCS[2]	Attenberg Limits Liquid	Attenberg Limits Plastic	Permeability (inches/hour)	Available Water Capacity[3] Per Inch (in./in. of soil)	Available Water Capacity[3] Profile (total, in)	Remarks
WsB2, WsC2	Watsonville sandy loam, gently sloping, eroded	Marine terrace deposits	Mollisols	D (very slow infiltration, very high runoff potential)	Slight to moderate	0 to 9	CL	29	7	0.4			Found across most of the project parcel.
			Xeric Argialbolls			12 to 21	CH	58	34	0.004			
			Fine, montmorillonitic, thermic			54 to 64	CL	34	16	0.1	*Total*	*6.0*	
TmD2	Tierra sandy loam, moderately steep, eroded	Tunitas Sandstone Member of the Purisma Fm.	Alfisols	D (very slow infiltration, very high runoff potential)	High	7 to 13	CL	27	8	0.5			Found on the eastern-most, steeper portion of the property.
			Mollic Palexeralfs			30 to 41	CH	53	36	0.005			
			Fine, montmorillonitic, thermic			50 to 60	CL	38	22	0.1	*Total*	*6.75*	

Notes

1) Information taken from the USDA soil survey for the area (1969). This soil survey generally does not distinguish areas smaller than about 20 to 40 acres.

2) USCS = Unified Soils Classification System, commonly used in geotechnical or soil-foundation investigations, and in routine engineering geologic logging.

3) Available Water Capacity = Held water available for use by most plants, usually defined as the difference between the amount of soil water at field capacity (one day of drainage after a rain or recharge event) and the amount at the wilting point.

Table 4. Potential radius of influence for the proposed well on APN 066-330-130, -150 San Mateo County, California.

Case A. Maximum daily demand

Given:	Transmissivity, T	252	gpd/ft	average of wells completed in Tptu (Table 1)
	Storativity, S	0.02	fractured bedrock norm	
	Pumping rate, Q	6.75	gpm	average of wells completed in Tptu (Table 1)
	Pumping duration, t	1.0	days	24 hours

Find: drawdown, s(r,t):

Distance from well			Drawdown	
r (ft)	u=(1.87*r^2*S)/(T*t)	W(u)	s max (ft)	= (264*Q/T) * W(u)
0.21	6.4E-06	4.94	34.9	radius of well casing
5	3.7E-03	2.18	15.4	
10	1.5E-02	1.58	11.2	
30	1.3E-01	0.62	4.4	
60	5.3E-01	0.02	0.1	
75	8.3E-01	-0.17	0.0	
150	3.3E+00	-0.77	0.0	
500	3.7E+01	-1.82	0.0	ocean
1,000	1.5E+02	-2.42	0.0	
2,200	7.2E+02	-3.11	0.0	nearest well

Case B. Average dry-season demand

Given:	Transmissivity, T	252	gpd/ft	average of wells completed in Tptu (Table 1)
	Storativity, S	0.02	fractured bedrock norm	
	Pumping rate, Q	0.46	gpm	0.75 acre-feet (April - Sept)
	Pumping duration, t	184	days	May through October

Find: drawdown, s(r,t):

Distance from well			Drawdown	
r (ft)	u=(1.87*r^2*S)/(T*t)	W(u)	s max (ft)	= (264*Q/T) * W(u)
0.21	3.5E-08	7.20	3.5	radius of well casing
5	2.0E-05	4.44	2.2	
10	8.1E-05	3.84	1.9	
30	7.3E-04	2.89	1.4	
60	2.9E-03	2.29	1.1	
75	4.5E-03	2.09	1.0	
150	1.8E-02	1.49	0.7	
500	2.0E-01	0.44	0.2	ocean
1000	8.1E-01	-0.16	0.0	
2200	3.9E+00	-0.84	0.0	nearest well

Method:

Theoretical drawdown was calculated using Cooper and Jacob modified nonequilibrium Theis equation (Driscoll, F.G., 1986, Groundwater and Wells, 2nd Ed., p. 219).

The modified nonequilibrium equation is valid for values of u less than about 0.05, otherwise values are approximate.

Theis' nonequilibrium equation is based on the following assumptions:

a) The water-bearing formation is uniform in character and the hydraulic conductivity is the same in all directions.
b) The formation is uniform in thickness and infinite in areal extent.
c) The formation receives no recharge from any source.
d) The pumped well penetrates, and receives water from, the full thickness of the water-bearing formation.
e) The water removed from storage is discharged instantaneously when the head is lowered.
f) The pumping well is 100 percent efficient.
g) All water removed from the well comes from aquifer storage.
f) Laminar flow exists throughout the well and aquifer.
i) The water table or potentiometric surface has no slope.

Notes:

1. The modified nonequilibrium equation is valid for values of u less than about 0.05, otherwise values are approximate.
2. Transmissivity (T) estimated from specific capacity (see Table 1).

Table 5. Potential dimensions of groundwater capture from the proposed well at APN 066-330-130, -150 including influences by regional groundwater flow gradient, San Mateo County, California

Case A. Maximum daily demand		
Well and aquifer specifications:		
Pumping rate, Q	9720	gpd (average well yield from Table 1)
Aquifer transmissivity, T	252	gpd/ft (average of wells completed in Tptu from Table 1)
Regional ground-water gradient, i	0.1	ground between proposed well and nearest well
Calculate capture zone dimensions:		
Stagnation point downgradient distance, $x_o = Q/(2\pi Ti)$	61	feet
Width at well perpendicular to regional ground-water flow, $w_o = Q/(2Ti)$	193	feet
Upgradient width perpendicular to regional ground-water flow, $w = Q/(Ti)$	386	feet
Case B. Average dry-season demand		
Well and aquifer specifications:		
Pumping rate, Q	669	gpd (dry-season daily average from Table 2)
Aquifer transmissivity, T	252	gpd/ft (average of wells completed in Tptu from Table 1)
Regional ground-water gradient, i	0.1	ground between proposed well and nearest well
Calculate capture zone dimensions:		
Stagnation point downgradient distance, $x_o = Q/(2\pi Ti)$	4	feet
Width at well perpendicular to regional ground-water flow, $w_o = Q/(2Ti)$	13	feet
Upgradient width perpendicular to regional ground-water flow, $w = Q/(Ti)$	27	feet

Notes:

1. Uniform flow equations for determining area of contribution to a pumping well adapted from Todd (1980).

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Figure 1. Location of proposed project and adjacent parcels, San Mateo County, California

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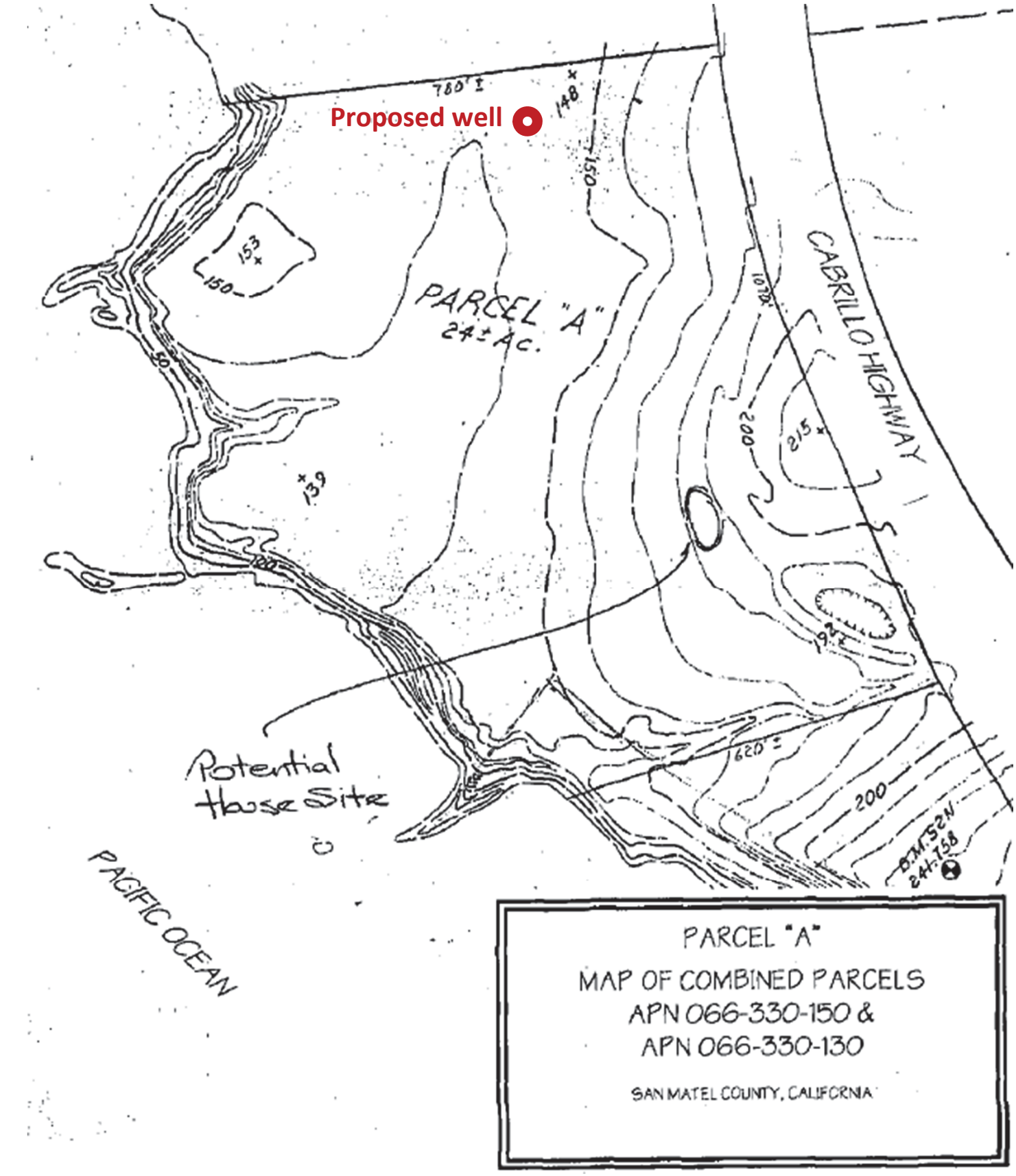

Figure 2. Site topography, APN 066-330-130, -150, San Mateo County, California. Map source: 1995 well drilling permit application filed at San Mateo County Environmental Health. Potential house site indicated on map may not be current.

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View to the southwest.

View to the south.

Figure 3. Small 'cattle pond' at APN 066-330-130/150, San Mateo County, California. Pond located at the southeast corner of the property with a retaining berm at 192 feet above sea level. The pond drains to the channel along the south property line.

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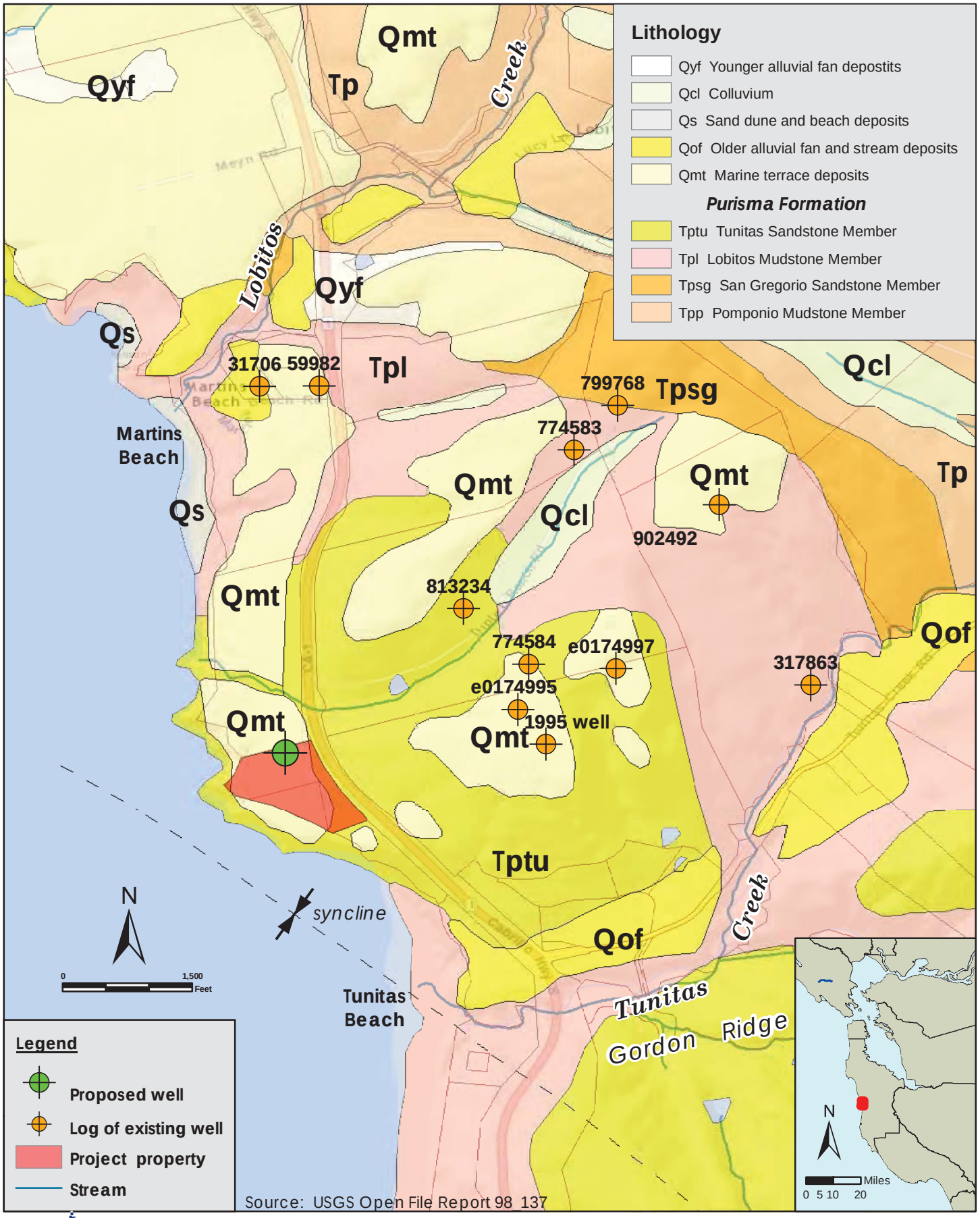

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Figure 5. Geology and existing wells in the vicinity of APN 066-330-130, -150, San Mateo County, California

Tunitas Sandstone (Tptu) and overlying marine terrace deposits (Qmt) at the ocean on the west portion of the property. The Tunitas Sansstone appeared hard, poorly fractured, and peppered with mudstone concretion nodules. Groundwater seeps were not observed. The marine terrace is about 30 feet thick here.

Tunitas Sandstone (Tptu) outcropping at the southwest portion of the property near the pond not far from the entrance of the property from Cabrillo Highway. The rock was soft and easily impacted with a the pick end of a hammer.

Figure 5. Bedrock exposures at APN 066-330-130/150, San Mateo County, California. Tunitas Sandstone Member of the Purisima Formation (Tptu) is greenish−gray to light−gray, pale−orange, or greenish−brown, very fine− to medium−grained sandstone with clay matrix. Concretions generally less than 30 cm across are present locally (Brabb and others, 1998).

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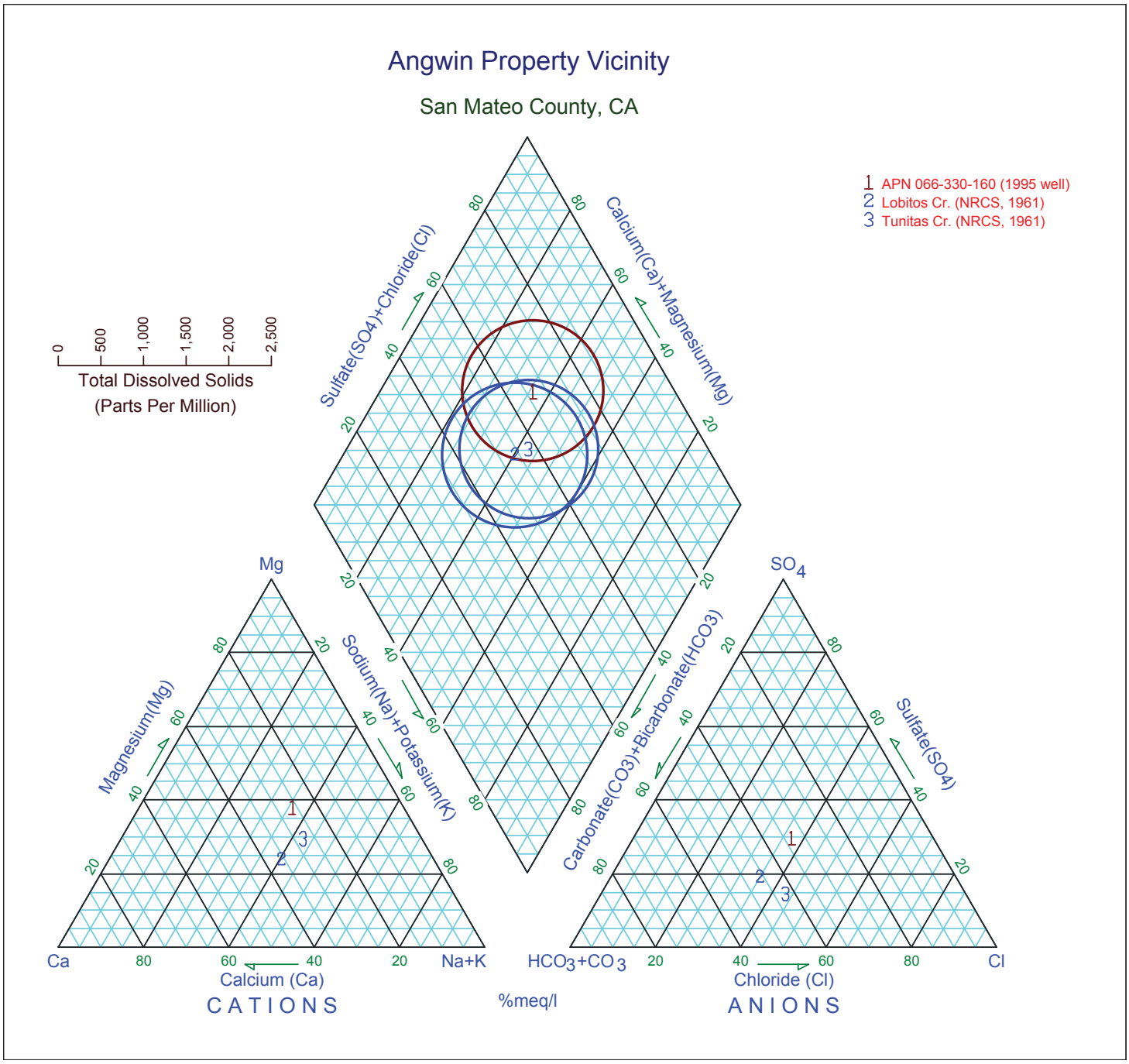

This diagram shows cations in the ternary graph on the left and anions on the right graph. The diamond graph in the center illustrates both cations and anions. Hardness dominated water plots to the left and top of the diamond graph, soft monovalent-salt dominated water to the right, and soft alkaline water towards the bottom. The radius of circle around the plotted points represents the concentration of dissolved solids, calibrated to the scale shown.

Figure 6. Piper diagram illustrating ionic signatures of water samples collected in the vicinity of APN 066-330-130/150.
Data source: San Mateo County Environmental Health and Table 14 of the soils survey (NRCS, 1961).

View to the northeast.

View to the northwest.

Figure 7. Proposed well location at APN 066-330-130/150, San Mateo County, California. The potential well site is located 75 feet south from the fence along the north portion of the property at latitude N 37° 21' 55.0" and longitude W 122° 24' 20.1", elevation 145 feet, datum WGS84.

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