HYDROLOGICAL STUDY

FOR

PARCELS: 015-380-05, 015-070-45, & 015-070-51

AT

31502 N. HIGHWAY 1
FORT BRAGG, CALIFORNIA

MENDOCINO COUNTY

Prepared for

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Project #270177

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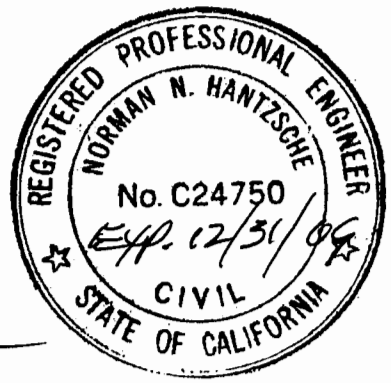

Norman N. Hantzsche, P.E.

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INTRODUCTION

This report presents the results of a well pumping test and hydrological study conducted for property located at 31502 North Highway 1, approximately four miles south of the town of Westport in Mendocino County. The well is proposed to serve as the source of domestic water supply for a 10-unit inn to be located at the site of the former Orca Inn (APN 015-380-05), a 34-acre parcel on the west side of Highway 1. The water well is located on APN 015-070-51, an approximately 148-acre parcel on the east side of the Highway 1. The pipeline from the well to the Inn location will run through an additional intervening 9.5-acre parcel (APN 015-070-45), located on the east side of Highway 1. All three properties are under common ownership.

The purpose of the pumping test and hydrological study, in accordance with requirements of the Mendocino Local Coastal Plan, is to demonstrate that an adequate supply of water exists for the proposed development (i.e., "Proof of Water") and also to determine whether or not the proposed withdrawal of groundwater will have a significant adverse effect on water supplies serving neighboring properties. A pumping test and hydrological study for the project was previously conducted by Clark Engineering & Hydrology in October 1994, with favorable findings. Due to the passage of time, the study presented herein was conducted to update and verify the results of the 1994 Clark study.

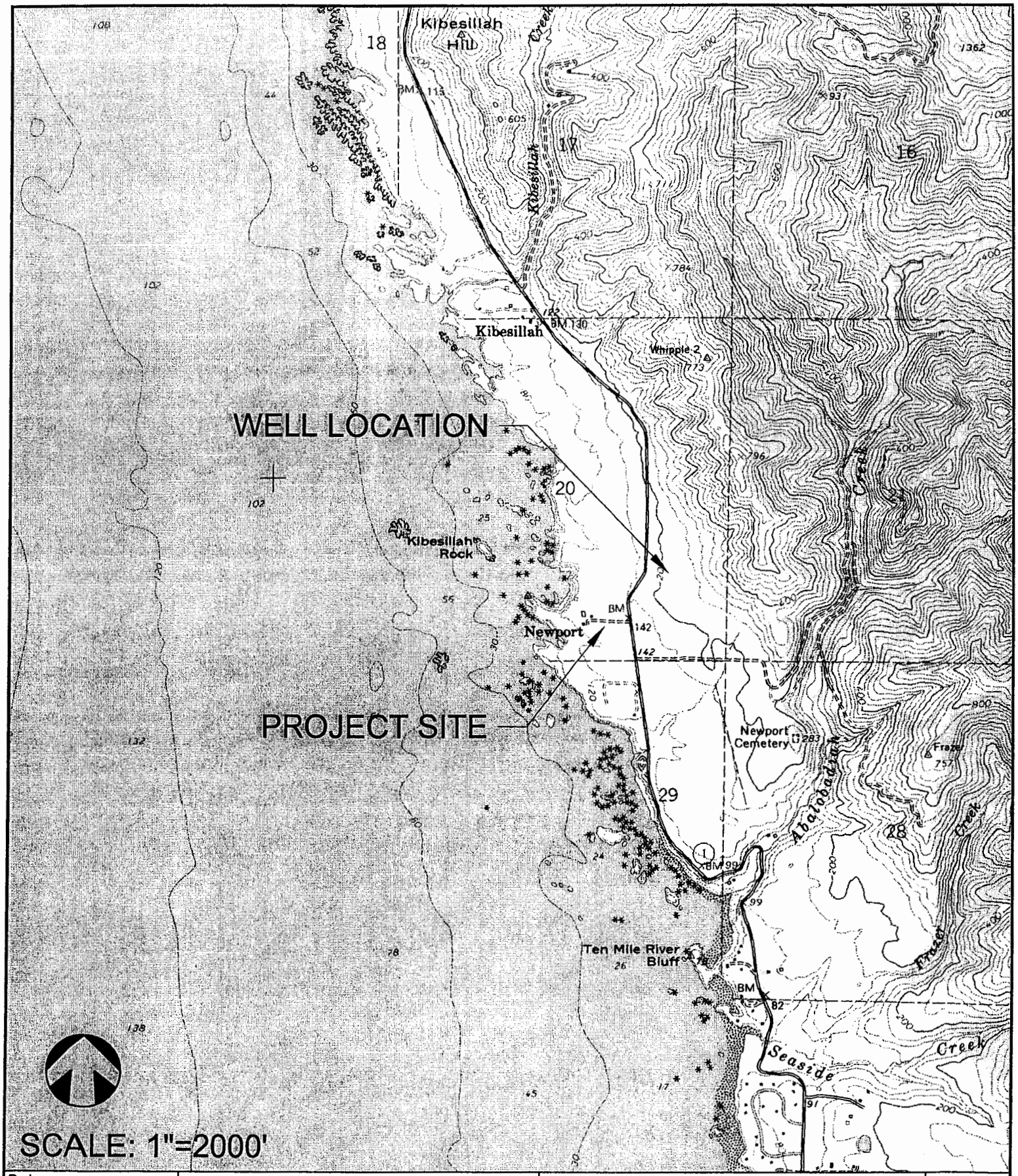
PROJECT SITE

The project site is located on a marine terrace, approximately four miles south of the town of Westport and 10 miles north of Fort Bragg city limits (**Figure 1**). The land slopes gently to the west with elevations of approximately 200 feet above mean sea level in the area of the supply well. The proposed supply well (called TW) and an observation well (called MW) were installed in 1994, at the time of the Clark study; the two wells are approximately 190 feet from apart. A map of the project site showing the location of the existing wells and their relationship to other neighboring properties is provided in **Figure 2.** Also shown in **Figure 2** is an existing developed spring, located approximately ¼ mile north of Well TW, which has served historically as the source of supply for the former Orca Inn complex. The vegetation at the site is largely grassland, used for grazing of cattle.

PROJECT WATER DEMAND

The proposed project consists of a 10-unit inn plus a caretaker unit on the site of the former Orca Inn. The lodging units will include from one to three bedrooms (16 total bedrooms), mostly ranging from about 500 to 1,000 square feet in size. There will be one larger main unit of approximately 3,000 square feet, with three-bedrooms, 3-baths, common reception and dining area. All but two of the lodging units will have kitchen facilities. The caretaker residence will be a 2-bedroom, 3-bath unit. The project will also contain a 778-square foot spa.

According to the wastewater system designer (Carl Rittiman and Associates) the estimated wastewater flow for the project, used for sizing the onsite sewage system, is estimated to be 3,425 gallons per day (gpd). This flow is derived from Mendocino County policies for water and wastewater flow estimation; it assumes full occupancy of the facilities and is understood to represent



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PROJECT LOCATION
31502 N. HIGHWAY #1
FORT BRAGG, CA
Jackson-Grube Family, Inc.

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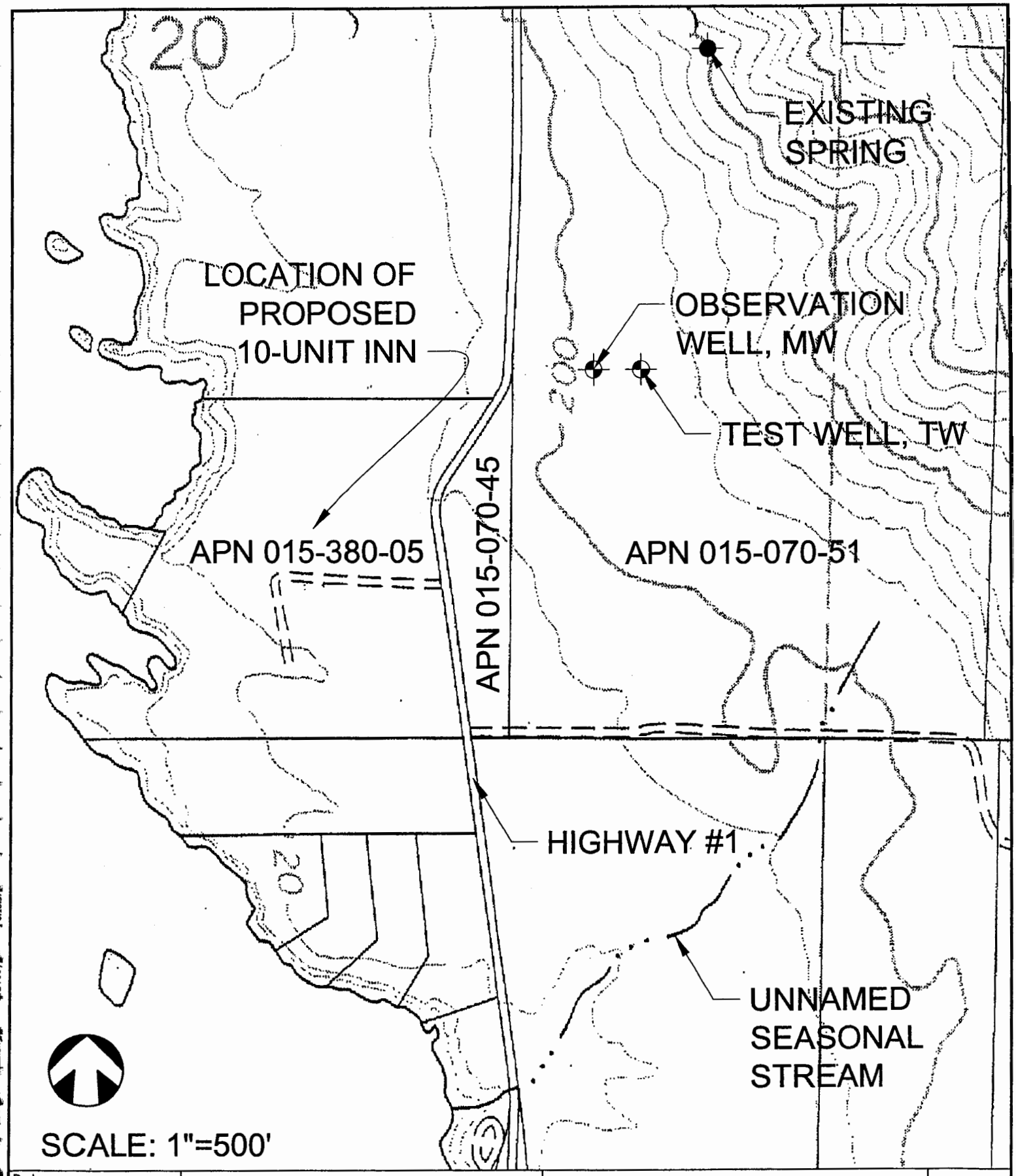
FIGURE 1



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SITE MAP
31502 N. HIGHWAY #1
FORT BRAGG, CA
Jackson-Grube Family, Inc.

FIGURE 2

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maximum daily flow conditions. For the 10 lodging units plus caretaker residence, the projected daily wastewater flow is roughly equivalent to a flow of about 300 gpd per unit, which is comparable to typical wastewater flows generated by a 2-bedroom house.

Maximum daily water demand is estimated to be very similar to the daily wastewater flow. However, to be conservative, additional water use allowance is typically included for window washing and other incidental water uses that do not result in contributions to sewage flow. A ten to 20 percent allowance for other unaccounted water use is common and reasonable. This would bring the estimated maximum daily water demand to approximately 3,800 gpd, which is equivalent to a continuous pumping rate of about 2.64 gallons per minute (gpm). On a long-term or annual basis the water demand would be less, due to fluctuations in occupancy. However, since peak occupancy on the Mendocino Coast typically coincides with the summer and early fall, when water source capacity declines, the prudent approach for a project such as this is to plan for peak usage requirements. On a year-round basis, an occupancy rate of 80 percent would be a safe assumption for water use projections. This would translate to an average daily water demand estimate of approximately 3,000 gpd (~2.0 gpm) for the project.

Exterior water use for landscape irrigation would be in addition to the above estimate for potable water demand. Irrigation water needs would be negligible in the winter and spring, but could be substantial in the summer and early fall, depending on the type and amount of landscaping, potentially on the order of about 500 to 1,000 gpd. Water supply for landscape irrigation is planned to be supplied from the existing spring (see **Figure 2**), the historical source of water for the former Orca Inn. According to the 1994 Clark study, the flow of the spring was measured at 1,300 gpd by David E. Paoli, P.E, in August 1992; this supply of water would be sufficient for landscape irrigation needs of the project.

HYDROGEOLOGIC SETTING

According to the DWR Mendocino County Coastal Groundwater Study (1982), the project site lies within the Westport Groundwater Subunit, between Abalobadiah Creek and Kibesillah Creek, in an area designated as having "Critical Water Resources (CWR)." Groundwater development in the area is largely from the marine terrace deposits, where wells are typically shallow in depth and have yields that vary from about 1.5 to 36 gpm. There is much less development of bedrock aquifer(s) in the area, where well yields vary widely and are found to be generally lower than for terrace deposit or "composite" wells (i.e., wells penetrating both terrace deposits and bedrock). The proposed supply well for the project is a composite well, drawing from the sandstone bedrock, as well as from the terrace deposits, which are generally composed of clays and gravels according to the drilling logs. The average specific yield of the terrace deposits in this sub-unit is estimated to be about 0.09 (DWR, 1982). The aquifer is generally unconfined and, therefore, its upper limit is defined by the water table, although hardpan and clay layers may cause local confinement. According to the DWR, the marine terrace has an average thickness of about 30 feet, and the change in the water table from spring to fall ranges from 8.0 to 15.5 feet below ground surface.

WELL DESCRIPTION

On October 24th and 25th, 1994, two test wells (TW and MW) were drilled by Kelly Pump and

Drilling, on the project site (APN 015-070-51); they are located as shown in **Figure 2**. The well construction details for each of the wells are summarized in **Table 1**. A copy of the Well Completion Report (i.e., Driller's Log) for each well is provided in **Appendix A**. As indicated, both wells have a 5-inch diameter casing and a 20-foot annular seal. The proposed supply well (TW) is 60-feet deep; and Well MW, the observation well, is 100-feet deep. The drilling logs indicate similar subsurface conditions at the two wells; the main difference is a greater thickness of terrace materials at Well TW (40 feet) as compared with Well MW (31 feet). Of particular note is the difference in the gray gravel layer, which is 18-feet thick (22 to 40 feet) at Well TW, and is only 5-feet thick (26 to 31 feet) at Well MW. This appears to be the primary water-bearing layer; and the difference in thickness likely explains the higher yield for TW. At the time of installation the well driller reported a yield of approximately 5 gpm at TW, and only 2 gpm at MW. In his 1994 study, Clark conducted a 72-hour pumping test of Well TW and documented a yield of better than 6 gpm. Well MW was used as an observation well during his test. For the present study, a repeat testing of Well TW was conducted to verify the current well yield, again using MW as an observation well.

Table 1. Onsite Well Construction Details

CHARACTERISTIC	WELL TW	WELL MW
Well Completion Report No.	419974	419973
Date Installed	10/26/2004	10/24/2004
Type of Well	Composite (Supply Well)	Composite (Monitoring Well)
Total Depth (ft)	60	99
Casing Diameter (in)	5	5
Annular Seal Depth (ft)	20	20
Screened Interval	20' to 60'	20' to 99'
Depth to Water at Time of Drilling (ft)	20	15
Depth to Bedrock (ft)	40	31
Saturated Thickness of Terrace Deposits (ft)*	20	16

* *At time of drilling*

PUMPING TEST PROCEDURES

Carl Rittiman and Associates conducted a 72-hour pumping test for Well TW during the period of October 9-12, 2007. During the pumping of Well TW, Well MW served as an observation well. The pumping test was conducted to determine the sustained yield and drawdown characteristics of Well TW and the local aquifer according to the following testing procedures.

- **Pumping Equipment.** A pump was installed in Well TW, approximately 8 feet from the bottom of the well. A valve was installed on the discharge line to adjust the flow rate from the

well. The flow from the well was discharged approximately 200 feet downslope of Well TW into a drainageway, outside the immediate well recharge area.

- **Flow Metering.** Flow metering was done manually at periodic intervals throughout the pumping test. A bucket and stop watch were used to determine the instantaneous flow rate. Typically, measurements were made every five minutes during the first 20 minutes of pumping, then every 10 minutes for about 80 minutes, then every 20 minutes for 80 minutes, then every 30 minutes for 180 minutes, then every 60 minutes for 8 hours, and then every 120 minutes for the duration of the 72 hours.

- **Drawdown Measurements.** Drawdown measurements were taken at both wells throughout the duration of the test at the same time intervals as the flow metering. While Well TW was being pumped, the water levels in Well MW were monitored. Measurements of the water levels were made with a water level probe, referenced to the wellhead.

- **Pumping Rate.** Well TW was tested at a constant pumping rate of approximately 6.3 gpm for the full duration of the 72-hour test.

- **Recovery.** At the conclusion of pumping, periodic readings of water level recovery in pumping Well TW were made for 28 hours, during which time Well TW recovered 96% of the entire drawdown depth experienced during pumping. Recovery was also monitored at Well MW for a 28-hour period following pumping, during which time it recovered 92% of the entire drawdown experience during pumping.

- **Monitoring of Neighboring Wells.** Notice of the pumping test was provided to neighboring property owners (see **Appendix A**). However, the nearest neighboring wells are more than ¼-mile south of Well TW, far beyond the expected zone of influence of the test well. Therefore, no neighboring wells were monitored during the pumping test. Also, no neighbors reported any apparent effects on their wells at the time of the pumping test.

PUMPING TEST ANALYSIS

Pumping Data

The data recorded from the pumping tests are provided in **Appendix B**. The pertinent data from the test are shown in **Table 2**.

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Table 2. Pumping Test Data

Test Data	Well TW	Well MW
Well Depth (feet)	60	99
Total Pumping Duration (minutes)	4,320	-
Total Volume Pumped (gallons)	27,041	-
Average Pumping Rate (gpm)	6.3	-
Initial Depth to Water (feet)	22.58	12.0
Water Level at End of Test (feet)	37.71	13.73
Maximum Drawdown Achieved (feet)	15.13	1.73
Total Saturated Thickness of Aquifer (feet)*	37.42	87.0

** At time of pumping test*

Well and Aquifer Characteristics

- **Drawdown and Recovery**. The time-drawdown and recovery plots for pumping Well TW are shown in **Figures 3** and **4**. The time-drawdown and recovery plots for observation Well MW are shown in **Figures 5** and **6**. A review of the time-drawdown data for the test wells follows.

  1. **Pumping Well TW.** Time-drawdown data for Well TW (**Figure 3**) reveal that at the beginning of the pump test, the pumping rate was approximately 6.63 gpm for the first 5 minutes, before it was adjusted to a little less than 6.3 gpm, which was maintained for the remainder of the test. The average pumping rate over the entire duration of the test was 6.26 gpm. At this pumping rate, the water level drawdown in the pumping well stabilized over the last 22 hours of the test at approximately 15 feet below the initial static level; the final drawdown measurement was 15.13 feet.

     Recovery of Well TW (plotted in **Figure 4**) was monitored immediately following the end of pumping. The well recovered 96 percent of the drawdown (15.13 feet) within 28 hours after pumping ended.

  2. **Monitoring Well MW.** The time-drawdown and recovery plots for observation Well MW are shown in **Figure 5** and **6**, respectively. Maximum drawdown achieved near the end of the test was measured to be 1.73 feet.

     Recovery of Well MW (plotted in **Figure 6**) was monitored immediately following the end of pumping. The well recovered 92 percent of the drawdown (1.73 feet) within 28 hours after pumping ended.

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Figure C1
Time Drawdown Plot
& Transmissivity Calculation
PUMPING WELL TW

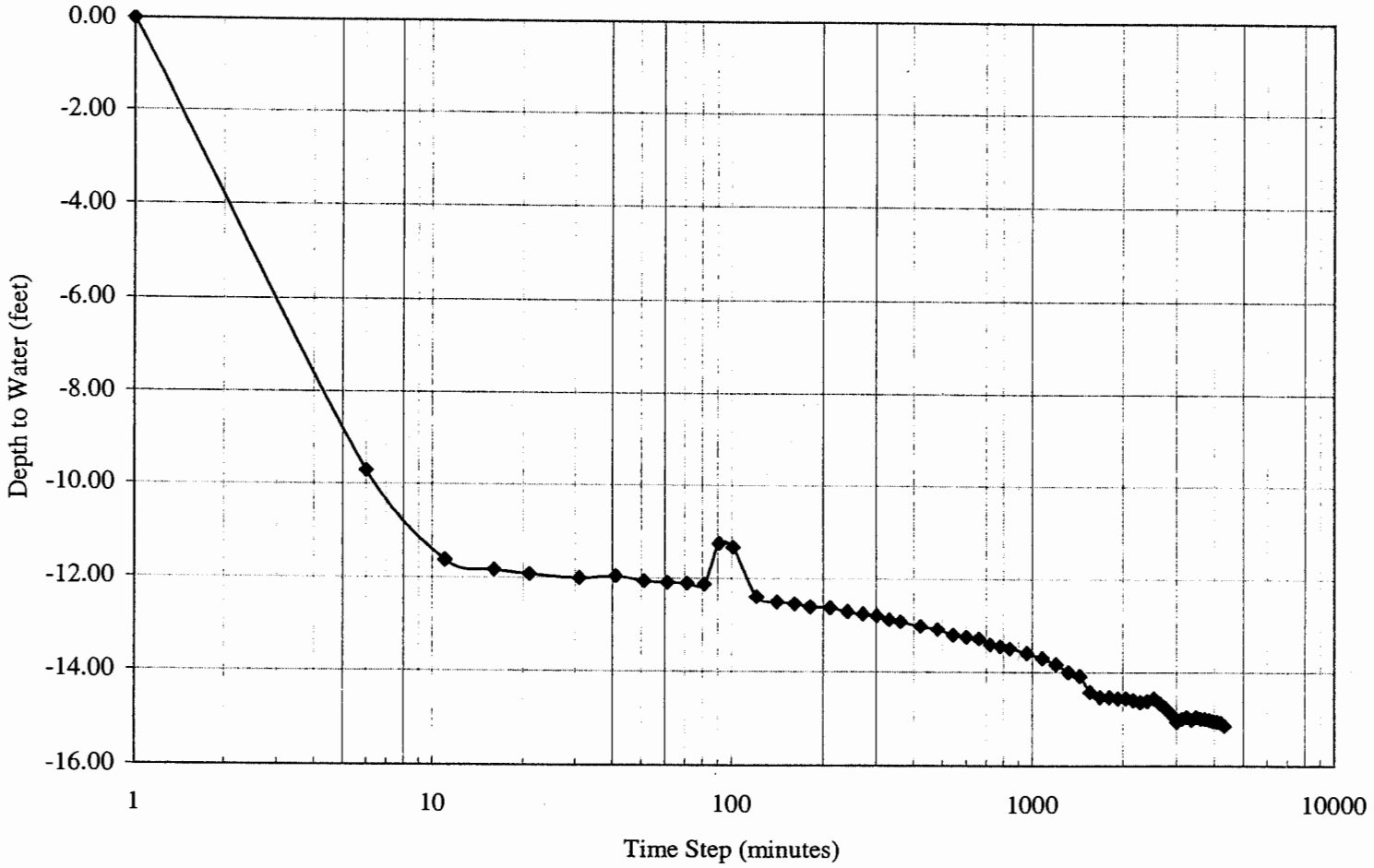


Figure 3
Time Drawdown Plot
PUMPING WELL TW

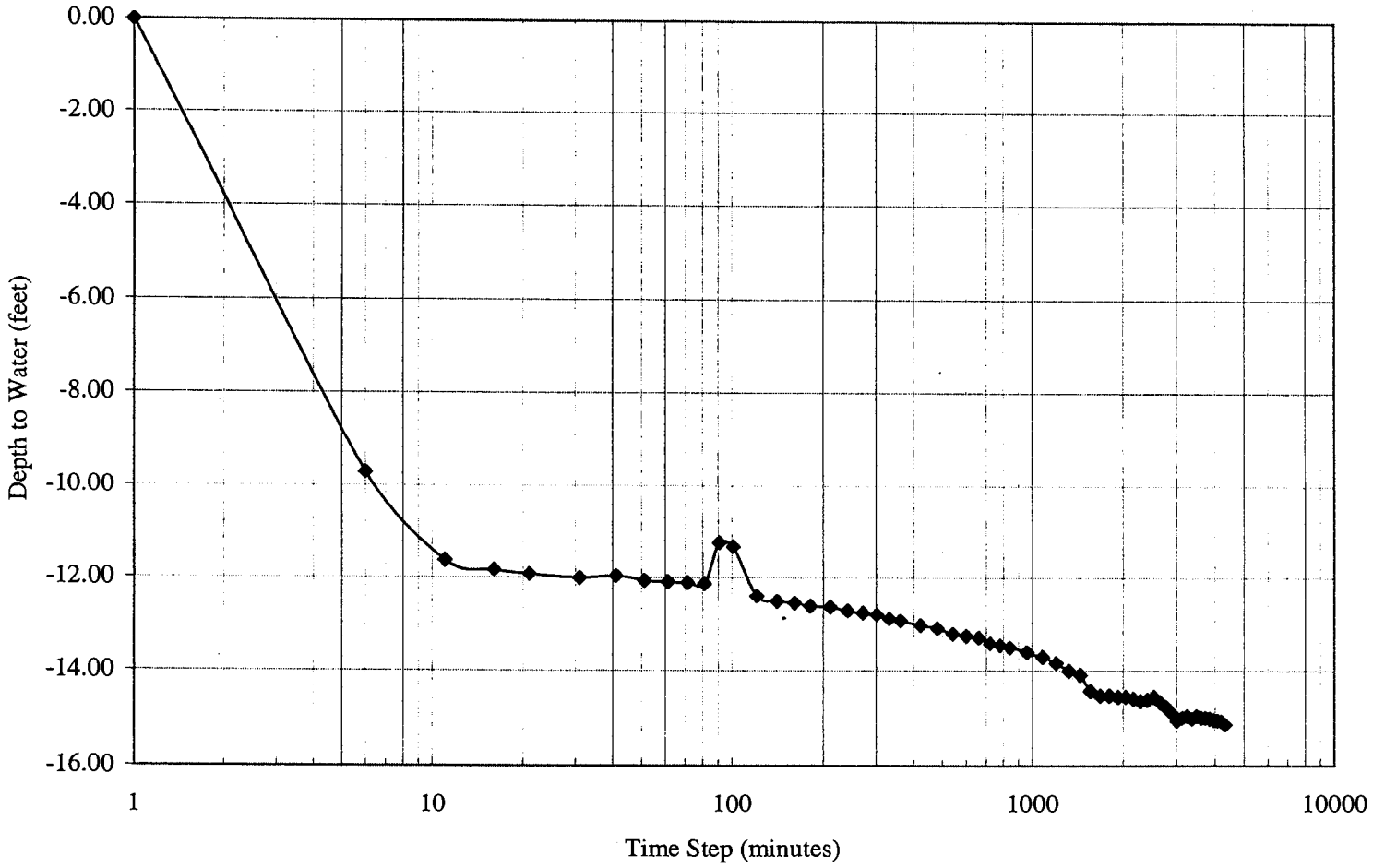


Figure 4
Recovery Plot
PUMPING WELL TW

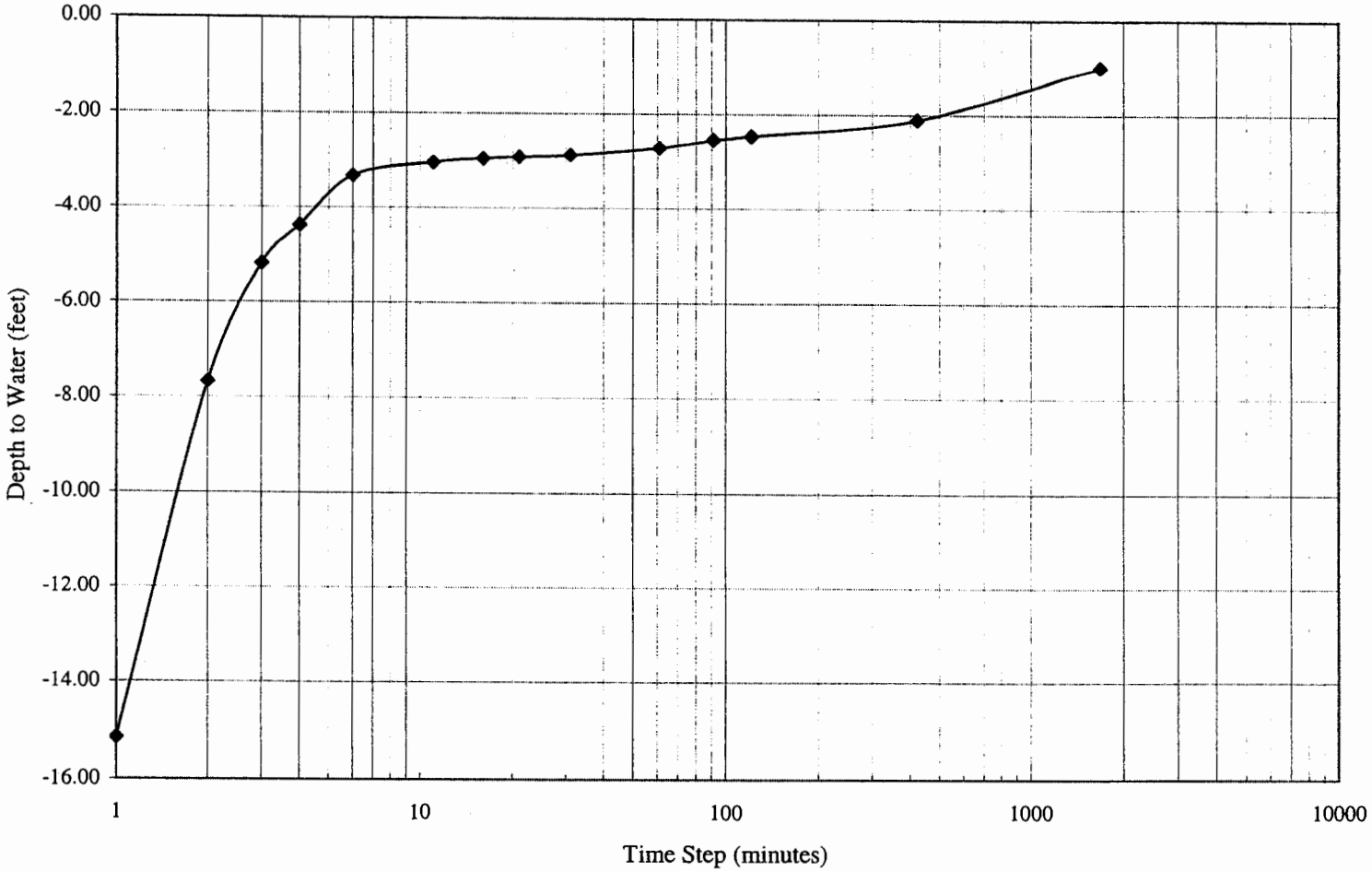


Figure 5
Time Drawdown Plot
MONITORING WELL MW

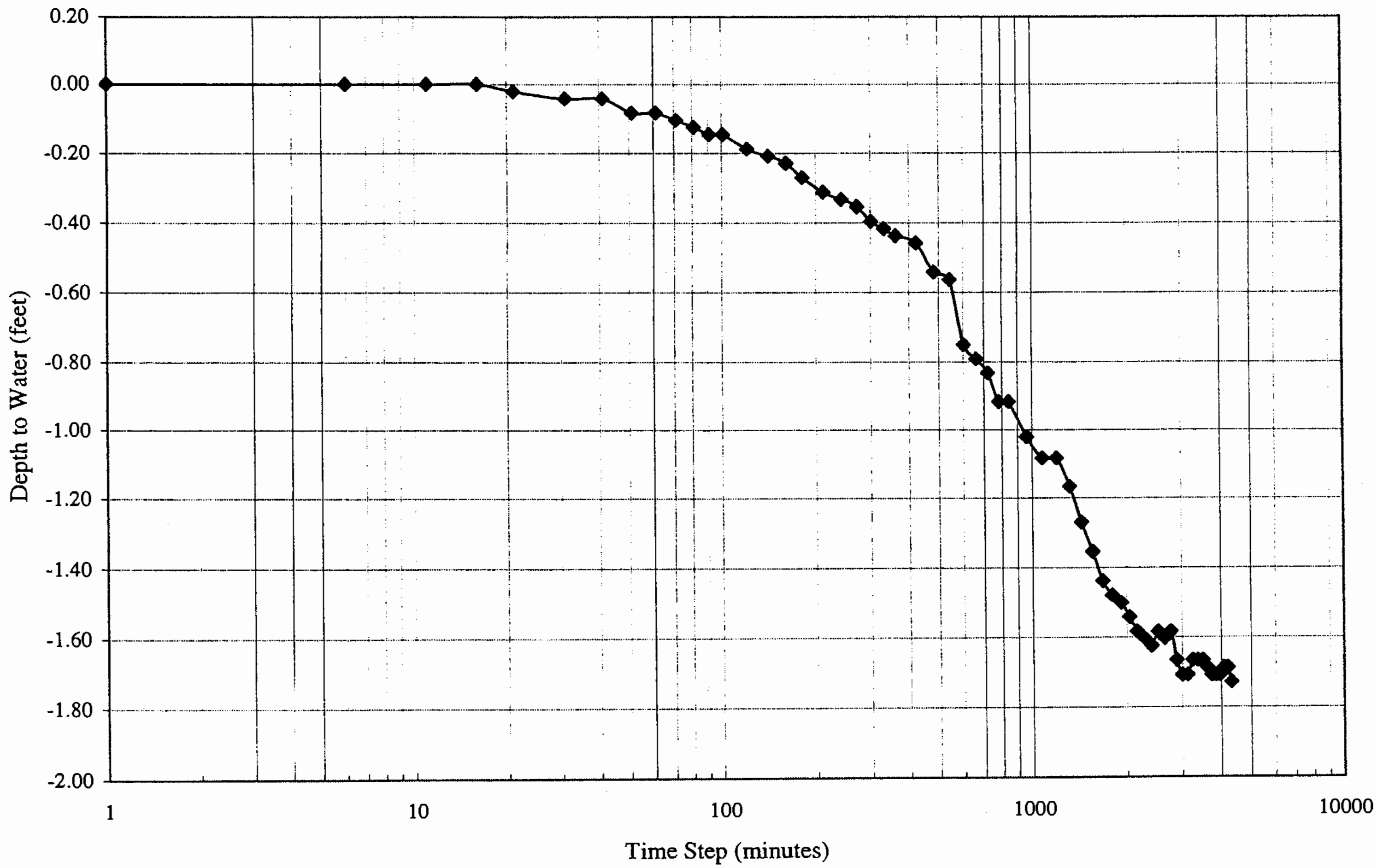
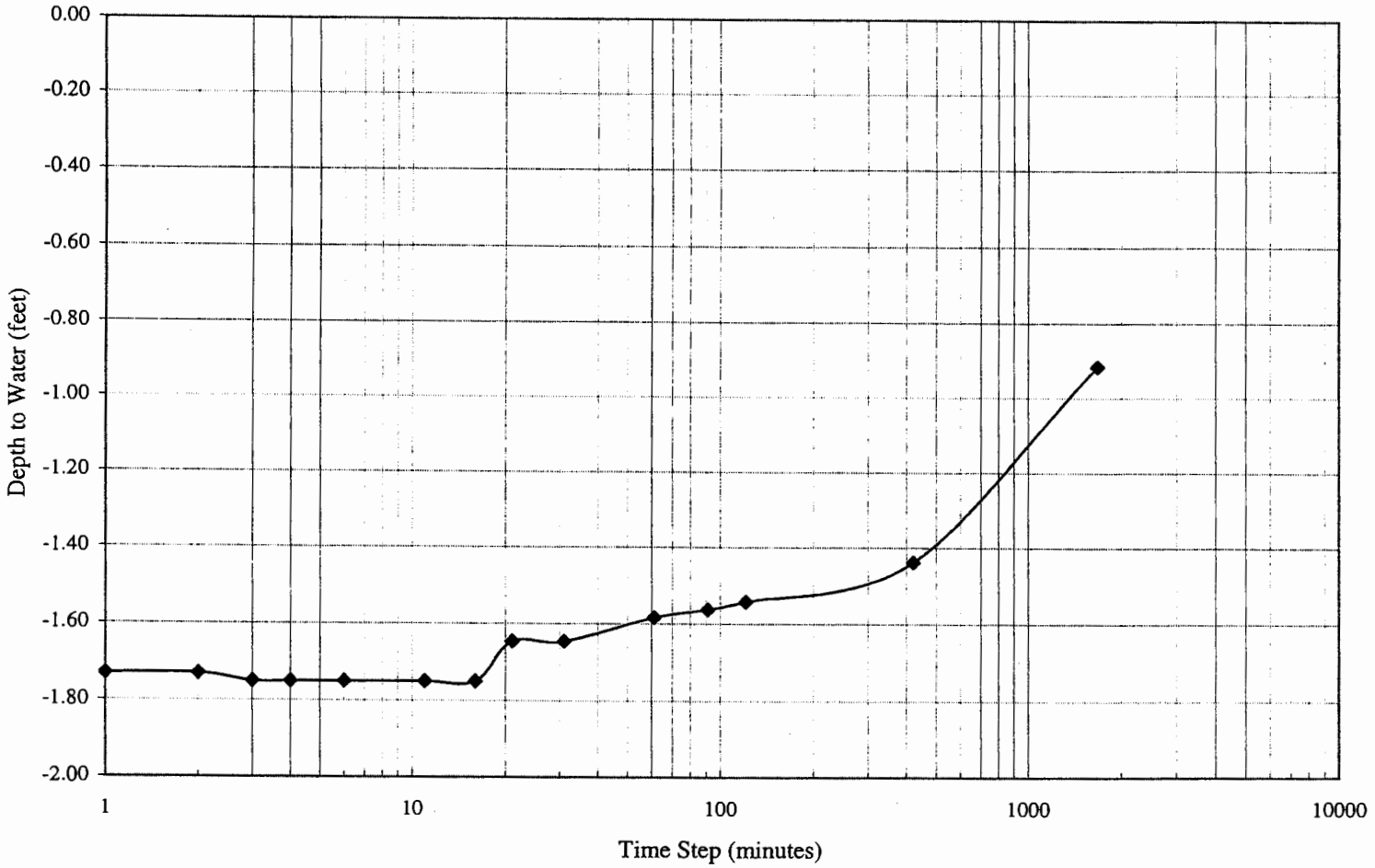


Figure 6
Recovery Plot
MONITORING WELL MW



- **Transmissivity**. Transmissivity of the aquifer, in the immediate area of the pumping well, can be calculated from the time-drawdown and recovery data according to the following formula:

$$T = \frac{264\ Q}{\Delta s}$$

Where:

T = Transmissivity (gpd/ft)
Q = Constant pumping rate (gpm)
Δs = Drawdown or recovery in the pumping well for one log cycle (feet)

Using the steepest slope of the drawdown curve over one log cycle, between 100 and 1,000 minutes, the value Δs was determined graphically to be 1.5 feet, and the transmissivity was calculated to be approximately 1,109 gpd/ft as follows (see **Appendix C**):

$$T = \frac{(264)(6.3\ gpm)}{1.5\ ft} = 1{,}109\ gpd/ft$$

In his 1994 study Clark reported a transmissivity value of 1,300 gpd/ft for Well TW, which compares closely to the current test results. Both results are indicative of permeable conditions and a productive aquifer at the location of Well TW.

- **Aquifer Storage**. The DWR Groundwater Study (1982) estimated the average specific yield of the terrace deposits in the Westport Subunit, to be approximately 9.0% (0.09), and substantially less in the Franciscan bedrock.

For site-specific validation, the Theis non-equilibrium equation was used to estimate the storativity from the observed drawdown of Well MW during the 72-hour pumping test of Well TW. By trial-and-error, we determined that a storativity of 0.2% (0.002) yields the best match between the predicted drawdown and observed drawdown at Well MW (1.73 ft.) during the 72 hours of pumping. Supporting calculations are provided in **Appendix C**. In his 1994 study, Clark determined a lower aquifer storativity of 0.00132. Both of these results for storativity are substantially lower than the average value (0.09) estimated by DWR for the terrace materials. The lower values reflect conditions influenced by bedrock geology and possible partial confinement of the aquifer.

The total volume (V) of water in aquifer storage within the limits of the property can be estimated using: (1) the storativity value of 0.2% determined above; (2) an estimated saturated aquifer thickness of 62 feet (based on the average between Well TW and MW); and (3) the 148-acre parcel size. The calculation is given below:

V = (148 acres)[(62 ft)(0.002)](325,851 gallons/acre-feet)
V = (18.35 acre-feet)(325,851 gallons/acre-feet)
V = 5,979,365 gallons

The above calculation gives only a very rough approximation of the amount of groundwater in storage on the property, since it is based solely on conditions found at the pumping and monitoring well location. Also, not all of this water is necessarily available for extraction from pumping Well TW, since the well cannot realistically draw water from the entire 148-acre parcel. By inspection of the topography we estimate groundwater occurring within about 25% of the property (approximately 37 acres) supplies water to the area of Well TW. Accordingly, the effective volume of groundwater in storage and available for extraction (at the end of the dry season) is on the order of about 1.5 million gallons (0.25 x 5.98 million gallons = 1.5 million gallons).

- **Sustained Yield**. Equilibrium conditions were achieved for Well TW during the 72-hour pumping test and, thus, the sustained long-term yield of the well is approximated by the final, stabilized pumping rate of 6.26 gpm. The stabilized pumping rate of 6.26 gpm equates to a daily yield of about 9,000 gpd, or roughly 2.4 times the projected maximum daily water use of 3,800 gpd for the project. In his 1994 study, Clark estimated the yield for Well TW to be about 6 gpm, which is consistent with the results of the current updated testing of the well.

- **Specific Capacity.** The specific capacity (Q/d), the discharge per unit of water table drawdown, is calculated from the stabilized pumping rate or discharge (Q) and the total drawdown (d) for the pumping well at the end of the test as follows:

  Q/d = 6.26 gpm/15.13 ft
  Q/d = 0.41 gpm/ft

  For the projected peak water demand of 2.64 gpm, the resulting drawdown in supply Well TW would be approximately 6.4 feet (2.64 gpm/0.41 gpm/ft = 6.4 ft).

DISCUSSION AND CONCLUSIONS

Well Yield

The pumping test demonstrated a stabilized yield of 6.26 gpm for Well TW over a sustained 72-hour pumping period at the end of a below average rainfall year. This pumping rate corresponds to a daily pumping volume of 9,014 gallons per day. The well is planned to supply a 10-unit inn and caretaker residence, which are expected to have maximum daily water supply needs of about 3,800 gpd. The long-term or average water demand would be less than this amount, due to fluctuations in occupancy. An annual average occupancy of 80 percent would translate to an average daily water demand of approximately 3,000 gpd. The pumping tests results are similar to those documented by Clark in 1994, showing that the proposed supply Well TW has more than ample capacity to meet the water demands for the project, considering both average and peak usage.

Water Table Drawdown Effects

Since there are no existing neighboring wells within about ½-mile of the proposed supply Well TW, no monitoring of water table drawdown at neighboring properties was conducted during the pumping test. Instead, water table drawdown was monitored at observation Well MW, located about 190 feet from the test well. The drawdown data from Well MW were then used to calculate the theoretical

drawdown effects for different (longer) pumping periods and for different rates of pumping. The calculations are provided in **Appendix D**. The following assumptions and approach were used in this analysis.

- **Pumping Rates and Duration.** Drawdown calculations were made assuming pumping of Well TW at various pumping rates of 2.0, 3.0 and 4.0 gpm, for a duration of 90 days and 180 days during the dry (fall) period. This provides projected drawdown impacts for a range of potential conditions pumping conditions.

- **Distances.** Calculations of drawdown effects were made for distances of 190 feet and 400 feet from Well TW to estimate the effects, respectively, at Well MW and at the westerly property line of parcel 015-070-51 (the well parcel).

- **Transmissivity.** The transmissivity value of 1,109 gpd/ft., as determined from the time-drawdown data for pumping Well TW was used for the calculations.

- **Storativity.** The storativity value of 0.002 determined (as previously described) from the pumping test observation well data was used in the calculations.

The calculated drawdown influences are summarized in **Table 3** for the different pumping scenarios. In the last column, the percent drawdown is shown, which indicates the relative amount as a function of the available saturated thickness of the aquifer. The saturated thickness

Table 3. Summary of Calculated Drawdown Effects From Pumping of Supply Well TW

Affected Location	Distance from Pumping Well TW (ft)	Pumping Rate (gpm)	Pumping Duration (days)	Calculated Drawdown (ft)	Percent Drawdown (%)*
MW	190	2.0	90	1.25	3.3
Property Line	400	2.0	90	0.94	2.5
MW	190	3.0	90	1.87	5.0
Property Line	400	3.0	90	1.41	3.8
MW	190	4.0	90	2.49	6.7
Property Line	400	4.0	90	1.88	5.0
MW	190	2.0	180	1.39	3.7
Property Line	400	2.0	180	1.08	2.9
MW	190	3.0	180	2.08	5.6
Property Line	400	3.0	180	1.62	4.3
MW	190	4.0	180	2.78	7.4
Property Line	400	4.0	180	2.16	5.8

** Based on available saturated thickness of 37.4 per hydrogeologic conditions at Well TW*

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of the aquifer at Well TW, determined at the time of pumping to be 37.4 feet, was used for all of the percentage drawdown calculations to be conservative (safe). The results show the drawdown effect to be in the range of 2.5 to 6.7 percent of the available drawdown across the range of pumping conditions considered in these calculations. This amount of projected drawdown impact falls within the 10-percent drawdown criterion contained in the Mendocino County Coastal Groundwater Development Guidelines. Since drawdown effects decrease exponentially at distance from the pumping well, the projected impacts on the water table at the nearest neighboring wells, more than ¼-mile from Well TW, would be negligible and much smaller than the results shown in **Table 3** for locations near the well.

Regional Aquifer Impact

The effects on the local groundwater aquifer due to the proposed addition are determined to be negligible. This is based on the following considerations.

- **Adequate Well Yield**. Based on the stabilized rate achieved during the pumping test, Well TW shows a sustained yield of 6.26 gpm, respectively. Since the projected peak water use is 3,800 gpd (2.64 gpm), there is a sufficient supply from the well to meet the needs of the project. Other supplemental sources will not be needed.

- **Percentage of Groundwater Replenishment**. The proposed supply well draws groundwater from both the deeper Franciscan formation and the shallow terrace deposits. The source of groundwater replenishment includes principally on-site percolation of rainwater, plus some amount of lateral groundwater inflow from the watershed area to the east. Based on an average year-round occupancy of 80 percent, the annual extraction of groundwater for the project is estimated to be as follows:

  (365 days)(3,000 gpd) = 1,095,000 gallons per year

  The annual replenishment of the aquifer solely from on-site percolation of rainfall over the approximately 37-acre groundwater recharge area for Well TW is estimated to be:

  (37 acres)(43,560 ft^2/acre)(1.0 ft/yr recharge)(7.48 gal/ft^3) = 12,055,665 gallons

  This calculation assumes an available recharge area of 37 acres (as previously discussed), and an annual onsite deep percolation (i.e, recharge) of 12 inches of rainfall, which is a reasonable assumption for the gently sloping terrain, permeable terrace deposits and rainfall conditions at the site. The Fort Bragg area has an average annual rainfall of about 40 inches.

  The average rate of groundwater extraction (1,095,000 gal/yr.) is, therefore, estimated to be about 9.1 percent of the annual replenishment of the aquifer from on-site rainfall percolation. This demonstrates that the extraction of groundwater for the proposed project is safely within the estimated average annual amount of on-site recharge to groundwater within the portion of the property tributary to the supply well.

- **Percentage of Groundwater in Storage**. The annual groundwater pumpage for the proposed 10-unit inn and caretaker residence (1,095,000 gal/yr.) is estimated to equal about 73 percent

of the minimum amount of water in aquifer storage (estimated to be about 1.5 million gallons) at the end of the dry season. This considers only the groundwater within the approximately 37-acre aquifer area surrounding the proposed supply well (TW); it does not include groundwater in storage throughout the remainder of the 148-acre parcel on which the well is located.

Water Quality

A water sample was obtained from the proposed supply Well TW on November 7, 2007 by Carl Rittiman and Associates. The water sample was tested for standard mineral analysis by Alpha Analytical Laboratories, Inc. The laboratory results are provided in **Appendix E**. The results for all constituents tested fall safely within the primary and secondary drinking water standards, except for iron, manganese and hardness, which were found at levels above the recommended consumer acceptance concentrations. The turbidity reading was also high; this was likely a result of the sampling process (bailer method). The water quality test results indicate the groundwater to be suitable for domestic uses and typical of conditions along the Mendocino Coast; however a treatment system for iron and manganese will likely be needed to reduce the staining effects normally caused by these constituents at concentrations above the consumer acceptance limits.

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ESHA DELINEATION AND IMPACT ASSESMENT SUBJECT TO THE COASTAL ACT AND THE MENDOCINO COUNTY LCP

APN 015-380-05, Mendocino County, California

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1.0 INTRODUCTION

In 1991 and 1992, Gordon McBride conducted botanical studies on APN 015-380-05 near Westport, Mendocino County, California. The studies included rare plant surveys. Redwood Coast Associates (RCA) conducted additional surveys of the Study Area during 2007 and 2008 in order to verify the locations of Environmentally Sensitive Habitat Areas (ESHAs) and perform a wetland delineation based on (California Coastal Act) CCA/(Local Coastal Program) LCP definitions. This report presents the updated ESHA delineation, an evaluation of potential impacts to ESHAs due to construction of the proposed project elements, mitigation measures, and an analysis of ESHA buffers as required by the CCA and LCP for the planned Inn at Newport Ranch, 31502 North Highway One, Westport, California.

2.0 STUDY AREA DESCRIPTION

The Study Area is geo-referenced to the Inglenook quadrangle (USGS 7.5 minute), and is located in the southern half of section(s) 17 &20, T20N, R17W (MDBM), four miles south of the town of Westport and 10 miles north of Fort Bragg, CA. The Study Area is approximately 18 acres and is located on Jackson-Grube APN 015-38-05, situated between Highway One and the Pacific Ocean (Figure 1). The land slopes gently to the west with an average elevation of approximately 175 feet above mean sea level. The vegetation is largely nonnative grassland terminating at the bluff edge. A drainage channel defines the southern extent of the Study Area. ESHA surveys were focused to the area within 100 feet of the proposed development footprint.

The Study Area has a long and varied land use history. During the 1870s a site near the bluff and the existing structures was used as a staging area to load cut timber onto waiting boats using a large chute to transport the wood down from the cliffs. The town of Newport once occupied a majority of the Study Area. The Jackson-Grube parcels and adjacent lands (including Study Area) supported a variety of agriculturally related uses including a pea farm, dairy, and sheep grazing. The land is currently used to graze cattle as it has been for the last several decades. As a result the majority of the native plant communities are substantially degraded, as the impacts from grazing create a landscape dominated by non-native and often invasive species, which are now prolific throughout the entire Study Area. Ruderal grasses and forbes comprise the majority of vegetation within the Study Area. An ephemeral stream channel and several degraded wetland areas also occur within the Study Area.

2.1 Vegetation

Four vegetation types were observed within the Study Area and include:

- California annual grassland (Sawyer Keeler-Wolf, 1995),
- introduced perennial grassland (Sawyer Keeler-Wolf, 1995),
- Northern coastal bluff scrub (Holland, 1986), and
- several mesic areas including an ephemeral stream channel and several freshwater marsh areas.

The majority of the Study Area is comprised of **California annual grassland** with restricted elements of **introduced perennial grassland** vegetation interspersed. Characteristic species include: sweet vernal grass (*Anthoxanthum odoratum*), common velvet grass (*Holcus lanatus*), wild oat and common oat (*Avena barbata, A. fatua*), wild radish (*Raphanus sativus*), Italian and perennial ryegrass (*Lolium multiflorum, L perenne*), bent grass (*Agrostis pallens*), soft chess (*Bromus hordeaceus*), English daisy (*Bellis perennis*), English plantain (*Plantago lanceolata*), dove foot geranium (*Geranium molle*), fescue (*Vulpia bromoides, V myuros*), Bermuda grass (*Cynodan dactylon*), hairy cat's-ear and

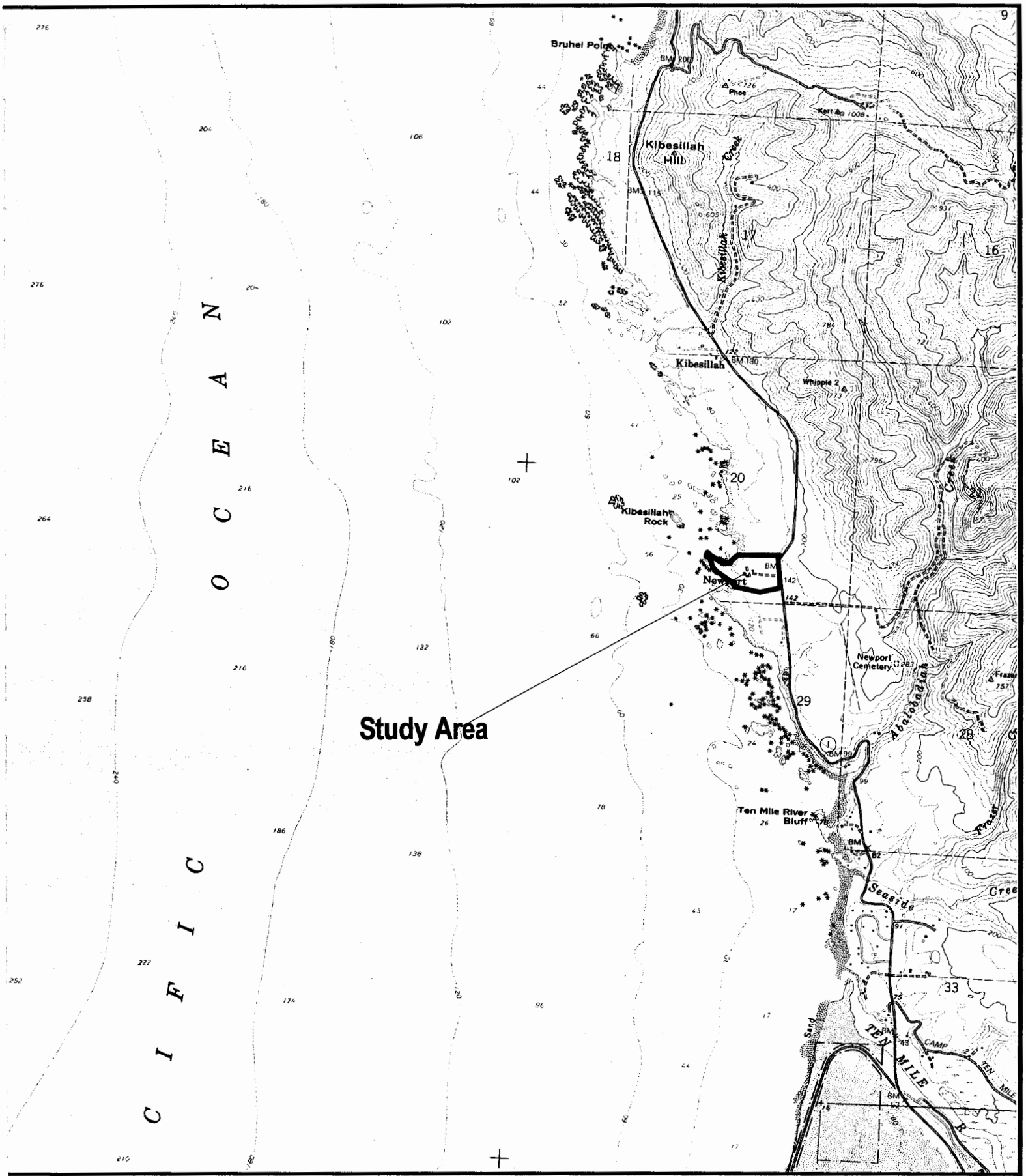

Figure 1. Study Area Location.

N
W E
S

REDWOOD COAST ASSOCIATES

Project: Inn at Newport Ranch
APN: 015-380-05
Date: 15 August 2008

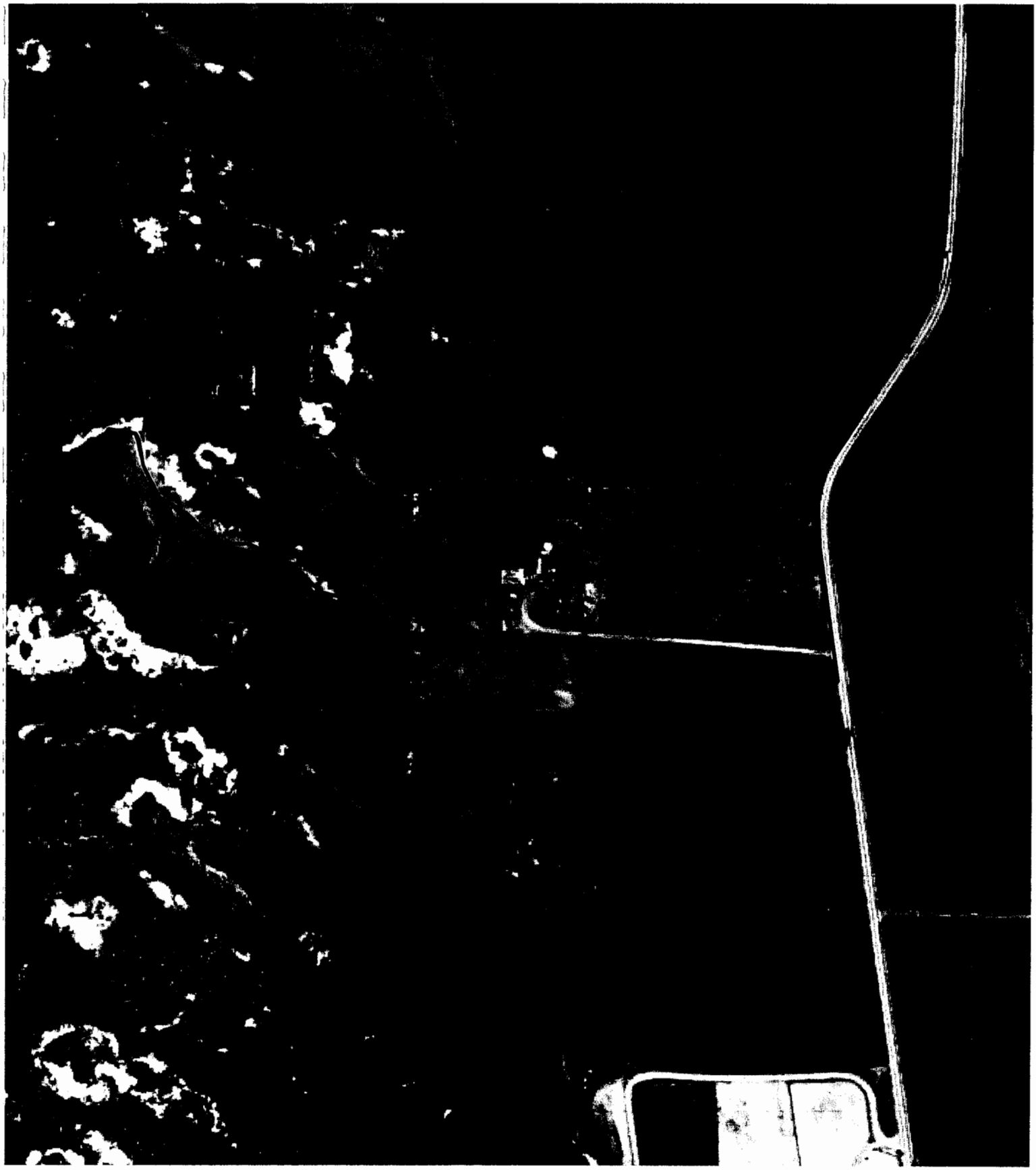

Figure 2. Study Area Boundary.

N
W E
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300 0 300 600 Feet

REDWOOD COAST ASSOCIATES

Project: Inn at Newport Ranch
APN: 015-380-05
Date: 15 August 2008

smooth cat's-ear (*Hypochaeris radicata, H. glabra*), Western blue flax (*Linum bienne*), and common sow thistle (*Sonchus oleraceus*). A faint distinction in species composition is evident within the ungrazed (fenced) portion around the existing structures. This area is mowed several times a year and supports a greater percentage of wild radish and invasive grasses, such as Italian rye grass and soft chess. Numerous ornamental species were noted surrounding the existing structures including calla lily, hydrangea, narcissis, periwinkle and brambles.

Degraded wetland and riparian vegetation persist in the mesic areas, which include a stream channel, created by an ephemeral stream, and three freshwater marsh areas. These features are substantially degraded as the impacts from grazing pressures are to the point that most of the native vegetation has been displaced by weedy species. Native wetland and riparian vegetation, typically associated with coastal wetland and stream habitats, is intermittent and often heavily impacted from grazing. However, sections of the stream channel do support a moderate amount of native diversity, relative to the wetland areas, which tend to be dominated by nonnative grasses and forbes.

Stream channel vegetation is somewhat similar throughout its length, (Figure 5) with the exception of the western third where the channel widens and deepens near the bluff edge. No riparian vegetation was observed in the channel. Himalayan blackberry and a variety of ornamental rose occur as a dense thicket in a small section of the channel. Other wise, characteristic herbaceous species include: Pacific silverweed (*Potentilla anserina* ssp. *pacifica*), hedge nettle (*Stachys ajugoides* var. *rigida*), tall mannagrass (*Glyceria elata*), California blackberry (*Rubus urcinus*), sword fern (*Polystichum munitum*), common rush (*Juncus effusus*), creeping spike-rush (*Eleocharis macrostachya*), common velvet grass, sweet vernal grass, and northern willow herb (*Epilobium ciliatum*).

Characteristic species occurring in the **freshwater marsh** areas consist of: Mexican rush (*Juncus mexicanus*), common velvet grass, Italian rye grass, hairy cats ear, English plantain, coyote thistle (*Eryngium armatum*), white clover (*Trifolium repens*), spreading rush (*Juncus patens*), birdfoot trefoil (*Lotus corniculatus*), and creeping buttercup (*Ranunculus repens*). Species composition is relatively similar in the wetland areas.

The **Northern coastal bluff scrub** habitat is generally restricted to the bluff face but extends up and onto the bluff top sporadically. Characteristic species include: seaside woolly sunflower (*Eriophyllum staechadifolium*), dudleya (*Dudleya farinosa*), Henderson's angelica (*Angelica hendersonii*), California polypody (*Polypodium californicum*), seaside daisy (*Erigeron glaucus*), coast buckwheat (*Eriogonum latifolium*), plantain (*Plantago maritima*), gum plant (*Grindelia stricta*), Douglas iris (*Iris douglasiana*), sea-pink (*America maritima* ssp. *californica*), soft chess, Italian rye grass, California brome (*Bromus carinatus*), lupine (*Lupinus littoralis*), common yarrow (*Achillea millefolium*), beach strawberry (*Fragaria chiloensis*), and western bracken fern (*Pteridium aquilinum* var. *pubescens*). Patches of California hair-grass (*Deschampsia caespitosa* ssp. *holciformis*) occur along sections of the bluff, which have partially slumped away from the cliff restricting the cattle.

2.2 Soils

The Study Area is located on the first marine terrace that is comprised of sedimentary rocks of the Franciscan Complex. The Soil Survey of Mendocino County, Western Part (USDA, 1988) indicates that the Study Area is underlain primarily by one soil mapping unit, the Windyhollow loam, but inclusions of another unit, the Flumeville clay loam, are mapped within the Study Area.

225 Windyhollow loam

This very deep, somewhat poorly drained soil is on marine terraces. It formed in alluvium derived from mixed rock sources. The vegetation is mainly perennial grasses and forbes. Elevation ranges from 80 to 900 feet. The average annual precipitation is 35 to 45 inches, the average annual air temperature is about 53 degrees F, and the average frost-free period is 250 to 330 days.

Typically, the surface layer is brown loam about 16 inches thick. The upper part of the subsoil is light yellowish brown clay loam about 8 inches thick. The next 19 inches is very pale brown gravelly clay loam that has brownish yellow mottles. The lower 18 inches of the subsoil is white clay loam that has brownish yellow mottles.

Included with this soil in mapping are small areas of Flumeville, Mallopass, and Biaggi soils. Also included are small areas that have slopes of more than 5 percent. Included areas make up about 15 percent of the total acreage of the unit. The percentage varies from one area to another.

Permeability is moderately slow in the Windyhollow soil. Available water capacity is high. The soil is saturated with water for brief or long periods following episodes of heavy rain from December through April. The saturated zone starts between the depths of 30 and 48 inches and extends to a depth of more than 60 inches. The saturated soil conditions limit the rooting depth of many plant species.

144 Flumeville clay loam

This very deep, poorly drained soil is on marine terraces. It formed in alluvium derived from mixed rock sources. The vegetation is mainly perennial grasses and forbes. Elevation ranges from 10 to 1,200 feet. The average annual precipitation is 35 to 45 inches, the average annual air temperature is about 53 degrees F, and the average frost-free period is 250 to 330 days.

Typically, the surface layer is dark gray clay loam about 11 inches thick. The upper 15 inches of the subsoil is grayish brown clay loam and clay that have reddish brown and strong brown mottles. The lower 36 inches is light gray and white clay that has strong brown mottles. In some areas the surface layer is loam.

Included with this soil in mapping are small areas of Windyhollow and Cabrillo soils and Tropaquepts. Also included are small areas that have slopes of 5 to 9 percent. Included areas make up about 15 percent of the total acreage of the unit. The percentage varies from one area to another.

Permeability is very slow in the Flumeville soil. Available water capacity is high. The effective rooting depth is limited by saturation for long periods following episodes of heavy rain from December through April. The saturated zone starts between the depths of 12 and 30 inches and extends to a depth of more than 60 inches. Surface runoff is very slow or slow, and the hazard of water erosion is slight if the surface is left bare.

3.0 ESHA DEFINITIONS

The CCA and Mendocino County LCP define an ESHA as follows:

"Environmentally sensitive habitat area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

The LCP and California Coastal Commission (CCC) Guidelines contain definitions for specific types of ESHAs, including: wetlands, estuaries, streams and rivers, lakes, open coastal waters and coastal waters, riparian habitats, other resource areas, and special status species and their habitats. For the purposes of this report, RCA has taken into consideration any areas that may meet the definition of any ESHA defined by the CCA, CCC guidelines, or the LCP.

3.1 Wetlands

"Wetland means land within the coastal zone which may be covered periodically or permanently with shallow water and includes saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens".

3.2 Estuaries

"An estuary is a coastal water body usually semi-enclosed by land, but which has open, partially obstructed, or intermittent exchange with the ocean and in which ocean water is at least occasionally diluted by fresh water runoff from the land. The salinity may be periodically increased above the open ocean by evaporation. In general, the boundary between wetland and estuary is the line of extreme low water."

3.3 Streams and Rivers

"A stream or a river is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris."

3.4 Open Coastal Waters and Coastal Waters

"The terms open coastal waters or coastal waters refer to the open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries."

3.5 Riparian Habitats

"A riparian habitat is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of freshwater."

3.6 Sand Dunes

"Sand Dunes means naturally occurring accumulations of sand in ridges or mounds on the beach as well as landward of the beach."

3.7 Pygmy Forests

"Pygmy Forests means a stunted forest, with mature vegetation the majority of which is approximately two (2) to twelve (12) feet in height occurring on soils with conditions which severely limit the growth of vegetation such as Blacklock soils and characterized by Mendocino cypresses, Fort Bragg Manzanitia, Bolander pines, and pygmy Mendocino bishop pines."

3.8 Other Resource Areas

"Other designated resource areas include: State parks and reserves, underwater parks and reserves, areas of special biological significance, natural areas, special treatment areas, fishing access points, areas of special biological importance, significant California ecosystems, and coastal marine ecosystems."

4.0 CCA/LCP WETLANDS REGULATORY BACKGROUND

The LCP and CCA Guidelines contain definitions for specific types of "environmentally sensitive habitat areas" (ESHAs), including: wetlands, estuaries, streams and rivers, lakes, open coastal waters, riparian habitats, other resource areas, and special status species habitats. Only regulatory definitions for wetland ESHA's are discussed below, as no other aquatic resources that would fall under Corps or CCA/LCP jurisdiction were identified within the Study Area.

The CCA (Public Resources Code Section 30121) and LCP define wetlands as:

"Wetland means lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."

CCC Administrative Regulations (Section 13577 (b)) provide a more explicit definition:

"Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats."

The CCC considers this definition as requiring the observation of one diagnostic feature of a wetland such as wetland hydrology, dominance by wetland vegetation (hydrophytes), or presence of hydric soils as a basis for asserting jurisdiction under the CCA.

In addition to the above definition, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* (CCC 1981) provide technical criteria for use in identifying and delineating wetlands and other ESHA's within the Coastal Zone. The technical criteria presented in the guidelines are based on the CCA definition and indicate that wetland hydrology is the most important parameter for determining a wetland, recognizing that:

". . . the single feature that most wetlands share is soil or substrata that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria."

The Technical Criteria requires that saturation of soil in a wetland must be at or near the surface continuously for a period of time. The meaning of "at or near the surface" generally is considered to be approximately one-foot from the surface or less (the root zone), and the saturation must be continuously present for a period of time (generally more than two weeks) in order to create the

necessary soil reduction (anaerobic) processes that create wetland conditions. For example, water from rain during a storm that causes saturation near the surface but then evaporates or infiltrates to 18 inches or deeper below the surface shortly after the storm does not meet the generally accepted criteria for wetland hydrology.

The presence of wetland classified plants or the presence of hydric soils (generally referred to as the "one parameter approach") can be used to identify an area as being a wetland in the Coastal Zone. There is correlation between the presence of wetland plants, wetland hydrology, and/or hydric soils occurring together, especially in natural undisturbed areas, and in many cases where one of these parameters is found (e.g., wetland plants) the other parameters will also occur. But there are situations which can result in the presence of wetland classified plants without there being wetland conditions, and these areas are not wetlands. Where these situations occur, the delineation study must carefully scrutinize whether the wetland classified plants that are present are growing there as hydrophytes in reducing (anaerobic) conditions caused by the presence of wetland hydrology or are there for some other (non-wetland) reason. Examples may include wetland-classified plants which are also salt-tolerant (e.g., alkali heath [*Frankenia salina*]) and may be responding to either wetland conditions or saline soil conditions, but not necessarily both, and deep-rooted trees (e.g., willows) which are able to tap into deep groundwater sources and can grow in dry surface soils, but are also found in wetland conditions where surface water is present.

Hydric soils can also occur in upland areas especially in areas where historic disturbances may have exposed substratum or in densely vegetated grasslands (Mollisols). Similarly, the delineation must determine if the hydric soil indicators are a result of frequent anaerobic conditions or a result of non-wetland conditions.

5.0 SCOPING

5.1 Special Status Plants

The California Department of Fish & Games (DFG) *California Natural Diversity Database's Rare Find 3* and the California Native Plant Society's (CNPS) *Electronic Inventory of Rare and Endangered Plants of California* (CNDDB; CNPS 2008) were queried to determine all special status plant species[2] known from coastal Mendocino County. In addition, the U.S. Fish and Wildlife Service (USFWS) Arcata Field Office website was queried for sensitive plant species in Mendocino County. The target taxa scoping list (Appendix A, Table 1) was generated by cross-referencing the vegetation series (Sawyer and Keeler-Wolf 1995 & Holland 1986) observed within the study area and the correlating CNPS and/or Holland (CNPS 2008, Holland 1986) habitat type and include: Costal Prairie, Coastal Scrub, Coastal Bluff Scrub, Marshes and swamps, and Riparian scrub.

5.2 Special Status Plant Communities

Sensitive plant communities are communities that are especially diverse, regionally uncommon, or of special concern to local, state, and federal agencies. The California Department of Fish & Games *California Natural Diversity Database's Rare Find 3* (CNDDB 2008) was queried to determine which special status plant communities have the potential to occur in the project area (Appendix A, Table 2).

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[2] Those species, which in most cases meet listing eligibility criteria set forth in the California Endangered Species Act and which, must be fully considered when preparing environmental documents relating to the California Environmental Quality Act (CEQA). Species not recorded for a given area may nonetheless be present, especially where favorable conditions occur (CNPS 2008).

5.3 Special Status Wildlife

Database searches for known occurrences of special status species included a 2008 California Natural Diversity Database (CNDDB) search of the Inglenook, Westport, Hales Grove, Fort Bragg, Mendocino and Albion 7.5 minute USGS quadrangles and the USFWS Species List for Mendocino County. Special status animal species with documented occurrences in the vicinity of the Study Area are listed in Appendix A, Table 3.

6.0 METHODS

6.1 Special Status Plants and Plant Communities

The botanical survey was conducted according to the *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities* (Department of Fish and Game 2000). Redwood Coast Associates biologists conducted field surveys on September 1 2007, February 26, April 3, May 6, June 2, and July 10 2008. Surveys were floristic, seasonally-appropriate, and intuitively controlled. Searches were staged and timed to take place when target taxa were evident and identifiable, particularly during periods of active blooming (CNPS 2008). Local reference populations were used in conjunction with blooming windows presented in the CNPS's Electronic Inventory to confirm the seasonal appropriateness of surveys.

High-intensity (90-100% coverage) surveys were conducted in areas likely to be impacted by proposed developments. All vascular plants encountered in the field were identified to the taxonomic level necessary to determine sensitivity status. A list of all plants encountered during the surveys is provided in Appendix A. Botanical nomenclature follows the *Jepson Manual/Higher Plants of California* (Hickman 1993). Vegetation types were classified to the series level according to *A Manual of California Vegetation* (Sawyer & Keeler-Wolfe 1995) by considering the dominant species in each strata (tree, shrub and herb layers). A general description of the Study Area, including land use and plant communities, was generated during these and several additional site visits for the wildlife assessment.

6.2 Wetlands

A delineation of CCA/LCP potential jurisdictional wetlands in the Study Area was performed on April 3, 24, May 6, and July 10, 2008 by Matt Richmond, Kyle Wear, and Tim Degraff (PWS) utilizing the methodology described below.

The CCC uses a broad wetland definition in which the presence of any one of the wetland parameters may indicate presence of a wetland. The CCC presumes that the area is a wetland if one of the wetland criteria is met. However, there may be exceptions to this presumption if there is strong positive evidence of upland conditions, as opposed to negative evidence of wetland conditions. Positive evidence of upland hydrology might be the observation that a given area saturates only ephemerally following significant rainfall, that the soil is very permeable with no confining layer, or that the land is steep and drains rapidly. Positive evidence of upland conditions should be obtained during the wet season. Based on these facts, this delineation study identified areas within the Study Area that had wetland plants, hydric soils, or wetland hydrology indicators. Areas that contained at least one of the wetland parameters but contained positive evidence of upland conditions were not identified as wetlands.

The methodology for identifying wetland indicators followed that described in the Draft Interim Western Mountains, Valleys, and Coast Regional Supplement (Corps 2007). This document uses

several new wetland hydrology indicators not specified in the 1987 Corps Manual. Any new hydrology indicators utilized during the wetland delineation were noted on data sheets (Appendix C), although they were not deemed to alter the results of the delineation due to the CCA requirement that a wetland meet only one of the three wetland criteria.

Sample points were examined along transects perpendicular to the boundaries of previously mapped wetlands, to identify the boundary of CCA/LCP wetlands meeting one or more wetland criteria. Additional sample points were examined throughout the Study Area to confirm upland conditions, particularly where hydrophytic species were dominant. Sample points and potential jurisdictional wetland boundaries were recorded using submeter-accuracy GPS equipment. Potential jurisdictional wetland acreage was measured digitally using ArcGIS software. The methodology for evaluating each of the four wetlands criteria is described below.

Vegetation

Plant species within potential wetlands were assigned a wetland status according to the USFWS list of plant species that occur in wetlands (USFWS 1996). This wetland plant classification system is based on the expected frequency of occurrence of each species in wetlands. The classification system has the following categories which determine the frequency with which plants occur in wetlands:

OBL	Obligate, almost always found in wetlands	> 99% frequency
FACW	Facultative wetland, usually found in wetlands	67-99%
FAC	Facultative, equal in wetland or non-wetlands	34-66%
FACU	Facultative upland, usually found in non-wetlands	1-33%
UPL/NL	Not found in local wetlands	<1%
NI	Wetland preference unknown	

Species with OBL, FACW, and FAC classifications are considered hydrophytic vegetation. If more than 50 percent of the dominant plant species are hydrophytic, the area meets the wetland vegetation criterion and is presumed to be a jurisdictional wetland under the CCA.

Hydrology

The Study Area was surveyed for indicators of wetland hydrology. Positive indicators of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, oxidized root channels, and drift lines, or indirect indicators (secondary indicators) such as algal mats, shallow restrictive layers in the soil, or vegetation meeting the FAC-neutral test. Depressions, seeps, and topographic low areas were examined for these hydrological indicators.

Soils

Soils in the Study Area were examined for hydric soil indicators according to Natural Resources Conservation Service guidelines (USDA 2006). Soils formed under wetland (anaerobic) conditions generally have a low chroma matrix color, designated 0, 1, or 2, and contain mottles or other redoximorphic features. Soil profiles were characterized by horizon depths, color, redoximorphic features, and texture. Soil color and chroma was determined using a Munsell soil color chart (GretagMacbeth 2000) to determine if the soils in a particular area could be considered hydric

6.3 Riparian Habitats

The Statewide Interpretive Guidelines (CCC 1981) state:

> *"For the purpose of interpreting Coastal Act policies, another important distinction is between "wetland" and "riparian habitat." While the Service's classification system includes riparian areas as a kind of wetland, the intent of the Coastal Act was to distinguish these two areas. "Riparian habitat" in the Coastal Act refers to riparian vegetation and the animal species that require or utilize these plants. The geographic extent of a riparian habitat would be the extent of the riparian vegetation.*
>
> *. . . Unfortunately, a complete and universally acceptable definition of riparian vegetation has not yet been developed, so determining the geographic extent of such vegetation is rather difficult. The special case of determining consistent boundaries of riparian vegetation along watercourses throughout California is particularly difficult. In Southern California these boundaries are usually obvious; the riparian vegetation grows immediately adjacent to watercourses and only extends a short distance away from the watercourse. . .*
>
> *. . . For the purposes of this guideline, riparian vegetation is defined as that association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other freshwater bodies. Riparian plant species and wetland plant species either require or tolerate a higher level of soil moisture than dryer upland vegetation, and are therefore generally considered hydrophytic. However, riparian vegetation may be distinguished from wetland vegetation by the different kinds of plant species. . ."*

The guidelines include a list of representative riparian plants which are meant to help distinguish wetland areas from riparian areas. The list includes many common riparian trees and shrubs such as willows, cottonwood, alders, and sycamores. Therefore, under the Coastal Act, riparian areas do not have to be wetlands, and are determined based primarily on vegetation and that vegetation's ability to provide habitat to animal species.

6.4 Streams and Rivers

The CCC define a stream as:

> *"A stream or a river is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris."*

Soils, hydrology, and vegetation were examined on April 3, 24, May 6, and July 10, 2008 at locations within the Study Area that had the potential to meet the Coastal Act's wetland definition. Sample points were taken along transects perpendicular to the aquatic habitat within the Study Area. Once an area was determined to be a potential jurisdictional wetland, riparian habitat or stream, its boundaries were delineated using GPS equipment and overlain on a topo map.

7.0 FINDINGS

The Study Area contains four types of potential ESHAs: two special status plant species, one special status plant community, four wetlands, and one ephemeral stream (Figure5). No other ESHAs were determined to be present within the Study Area. Photographs representative of the Study Area are included in Appendix C. The following sections contain a description of ESHAs documented within the Study Area.

7.1 Special Status Plants

7.1.1 Mendocino coast Indian paintbrush

Mendocino coast Indian paintbrush (*Castilleja mendocinensis*) **(CAME)** was observed in the coastal bluff scrub along the western and northern portion of the prominent northwest-facing peninsula. On May 6 and June 2, 2008 approximately 160 individual plants were detected growing across a significant portion of the peninsula bluff face and the terminal edge of the terrace (Figure 5).

Mendocino coast Indian paintbrush is a hemiparasitic perennial herb that is associated with the coastline between Mendocino county and Oregon. This taxon is known from 45 occurrences (CNDDB, 2008). The Mendocino coast Indian paintbrush is a list 1B species, but has no federal or state listing status. Coastal development, recreation, non-native plants, and habitat fragmentation threaten Mendocino coast Indian paintbrush.

7.1.2 Short-leaved evax

Short-leaved evax (*Hesperevax sparsiflora var. brevifolia*) **(HESPBR)** was discovered in the coastal bluff scrub near the western end of the peninsula. On February 26, 2008 approximately 250 individual plants were observed in two separate locations (Figure 5) at the western end of the peninsula. Short-leaved evax is an annual herb associated with Coastal bluff scrub and Coastal dune habitats. Short-leaved evax is a list 1B species, but has no federal or state listing status. This taxon is known from 30 occurrences (CNDDB, 2008). Logging, development, competition with non-native plants, foot traffic, and recreational activities threaten short leaved evax. Potential threats include trail construction as well.

7.2 Special Status Plant Communities

7.2.1 Northern Coastal Bluff Scrub (NCBS)

NCBS was observed growing along portions of the bluff face and is restricted to within 10 feet of the bluff edge (Figure 5). NCBS is a CDFG G2, S2.2 listed plant community. The G2, S2.2 ranking means that this plant community type is "at high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors (CNDDB 2008). There are no reported occurrences in the CNDDB for NCBS. The ocean bluffs within the Study Area are approximately 80-120 feet high and form a prominent northwest-facing peninsula. The majority of the bluffs are shear to the ocean with no beach or terrestrial vegetation present. Along sections of the bluff face within the upper 10-25 feet, where the bluff edge restricts the cattle, patches of woody and herbaceous vegetation persist in the form of relatively intact **Northern coastal bluff scrub** (Holland 1986) habitat. This plant community was determined to be a potential ESHA.

7.3 CCC/LCP Jurisdiction Wetlands

One CCC/LCP Stream and four areas meeting the CCC/LCP wetland definition were delineated within the Study Area (Figure 4). Two of the four wetland delineations (southwest and southeast wetlands) are associated with the CCC/LCP stream that defines the southern extent of the Study Area. A third wetland area (northwest wetland) is located near the existing development. The fourth wetland (northeast wetland) defines the northern edge of the Study Area and is associated with a drainage channel to the north.

7.3.1 Potential CCC Wetlands

Sample points scattered throughout the grassy portions of the Study Area indicate that most of these areas are uplands, lacking wetland hydrology, dominant hydrophytic vegetation, or hydric soils (Figure 4). Four CCA wetlands were mapped by RCA, two at the south end (southwest and southeast) of the Study Area and two near the north end (northwest and northeast). The two southern wetlands were associated with an un-named CCA/LCP ephemeral stream. The northwest wetland is located near the existing structures. The northeast wetland is located near the new proposed driveway. Additional details on the wetland features observed are provided in the CCA Wetland Data Sheets (Appendix C), and are summarized below.

The northwest wetland, measuring 0.67 acres, is located in the general area of the existing structures. This wetland was primarily defined by a shallow basin and hydric soils. This wetland exhibited hydric soils with a low chroma and five percent or greater prominent mottling. This area also exhibited a primary wetland hydrology indicator. The boundary was placed at the transition from hydric soils, wetland hydrology and dominant facultative vegetation to a location in a slightly higher topographic position with upland soils and dominant facultative upland vegetation. (Data Points 11, 24, and 25).

The two southern wetlands (southeast and southwest) in the Study Area (Figure 4) are adjacent to and associated with the CCC/LCP stream. Both of these wetlands are located in slightly lower topographic position than the surrounding landscape and appear to be partially formed by the presence of an what appears to be an old road, which show compacted soil conditions. Data points (21, 26, 27, 29 and 31) gathered at these sites exhibited no hydric soil or wetland hydrology indicators. Therefore, these two wetlands were delineated with the boundary placed at the transition from hydric soils, wetland hydrology and hydrophytic vegetation to upland soils and facultative upland vegetation.

The northeast wetland was partially delineated in order to ensure that the upland edge of the wetland was identified relative to the proposed driveway entrance. This wetland exhibited hydric soils with a low chroma and five percent or greater prominent mottling. The boundary was placed at the transition from hydric soils, wetland hydrology and dominant facultative vegetation to a location upslope near the base of a small knoll with a higher topographic position, upland soils and dominant facultative upland vegetation. Data Points 40, 42, and 44 exhibited no hydric soil or wetland hydrology indicators and were dominated by facultative upland species.

7.4 CCC/LCP Jurisdiction Stream

One CCC/LCP Stream was delineated within the Study Area and is also shown in Figure 4.

Topographically this feature has a defined bed and bank and a distinguishable channel, which gains in width and depth as the topography transitions from a slight to moderate slope as it continues west.

The drainage channel has hydrologic connectivity to a broader drainage, which extends east and upslope outside of the Study Area. A culvert under Highway One connects the drainage feature and is the primary source of hydrology. Secondary sources of hydrology are also expected from surface runoff and groundwater contributions. The start of the channel within the Study Area is just inside the existing fence line near the culvert outlet. At this point, a cattle trail has severely eroded a small section of the channel bank. Downstream or west of the cattle crossing, the channel ranges in width from 3-20 (bank to bank) feet wide and in depth from 2-10 feet deep from bottom of channel to the top of bank (TOB). The stream was classified as ephemeral due to the observed lack of flow during the summers of 2007 and 2008.

Hydrophytic vegetation occupies the bottom of the channel where impacts from cattle are minimal. This feature meets the CCC/LCP stream definition criteria. Only the north side of the channel was delineated. The CCC/LCP stream boundary is defined by the top of the channel bank. The stream does not presently support native riparian vegetation. Wetland vegetation associated with the stream is restricted to the channel with the exception of the two southern associated wetland lobes.

8.0 PROJECT DESCRIPTION

The applicant proposes to build a 10 unit and in two phases. Phase I is to consist of the demolition and reconstruction of the former Orca Inn into a main unit of 2,961 ft.^{2}. The north end of the structure would include an upstairs unit of 1,089 ft.^{2} and a downstairs unit of 833 ft.^{2}. In addition, a 1,276 ft.^{2} two floored managers unit; 1269 ft.^{2} equipment barn; 648 square-foot maintenance shop; and a 240 ft.^{2} generator/pump shed are proposed as part of the first phase. Phase II will consist of seven units with three added to the main building in two storied units of 954 ft.^{2}; 951 ft.^{2}; and 820 ft.^{2}; two units with the detached bunkhouse of 531 ft.^{2} and 757 ft.^{2}; and two separate cottages of 835 ft.^{2} and 915 ft.^{2}, respectively. A 778 square-foot foot spa, well, septic system, roads, and underground utilities are also proposed within the approximate 3.7 acre area of development.

9.0 DISSCUSSION AND RECOMMENDATIONS

The proposed development and all associated structures and construction impacts will be located a minimum of 50 feet from the nearest ESHAs, namely the north wetland and the southeast wetland (Figure 4). A minimum 100-foot buffer from new development and associated construction impacts will protect all other streams, wetlands, and special status plant/community ESHAs.

Construction of the project will necessitate temporary impacts outside of the planned development footprint and is proposed to include the demolition of three existing structures with in the 100 foot buffer. Best management practices will ensure that potential impacts to existing grades and to ESHAs are minimized. At a minimum, construction and silt fencing will be installed along the ESHA buffer boundaries. Permanent fencing or living fence will help to protect the northwest wetland from post construction activities that may be associated with the regular functions of the inn.

9.1 Special Status Plants and Plant/Natural Communities

Special status plant species and plant/natural communities are restricted to the ocean bluff in areas greater than 250 feet from the proposed project. No potential impacts to special status plants and plant/natural communities exist.

9.2 Special Status Wildlife Species

9.2.1 Birds

Breeding bird surveys should be conducted in order to determine the presence or absence of special or non-special status breeding birds on the site. The Study Area provides suitable nesting habitat for some common bird species in the adjacent grasslands, tree and unoccupied buildings. The Migratory Bird Treaty Act prohibits the destruction or disturbance of the nest of any songbird, raptor, or other migratory species. Impacts to these nests are also considered significant under the California Environmental Quality Act (CEQA).

It is recommended that all construction take place outside of the breeding season (September-January), or that pre-construction nest surveys be conducted in order to avoid potentially significant impacts to special and non-special status breeding birds. Surveys for active nests should be completed within 14 days prior to the onset of any construction activities, building removal or vegetation removal, if these activities are to occur from February through August. If nests are found, a buffer should be established in consultation with CDFG. The width of the buffer depends on the sensitivity of the species in question. Most common passerine birds are afforded a 50-100 foot buffer while more sensitive species, if observed during the pre-construction survey, may require up to 500 feet. The bluff face in the Project Area may provide suitable breeding habitat for common species, such as Pelagic Cormorant (*Phalacrocorax pelagicus*). This bluff face, however, provides a natural acoustic and visual buffer from potential activities in the Project Area. No impacts are expected to occur if construction activities remain within the proposed project footprint and during nonbreeding season.

9.2.2 Bats

Disturbance of buildings in the Project Area may impact bat roosts. As with birds, bat roost sites can change from year to year, so pre-construction surveys are usually necessary to determine the presence or absence of bat roost sites in a given area. Pre-construction bat surveys do not need to be performed if work is conducted between September 1 and October 31, after young have matured and prior to the bat hibernation period. However, if it is necessary to disturb potential bat roost sites between November 1 and August 31, pre-construction surveys should be conducted. Pre-construction bat surveys involve surveying trees, rock outcrops, and buildings subject to removal or demolition for evidence of bat use (guano accumulation, or acoustic or visual detections). If bats roosts are detected, a 50-foot buffer exclusion zone should be established around each occupied roost site until the maternity or hibernating roosting period has ended.

9.2.3 Herpetofauna

Though no sensitive herpetofauna are expected to occur in the Study Area, the stream in the southern portion of the property may provide suitable habitat for common reptiles and amphibians. The proposed ESHA buffers of 50 and 100 feet would be sufficient to protect herpetofauna potentially inhabiting this feature.

9.3 Stream and Wetland Resources

The stream will be protected by a minimum 100 foot buffer from all development. No impacts are expected.

The northwest and southeast wetlands will be protected by a minimum 50-foot buffer. A 50 foot buffer and mitigation measures as set forth and further described in Section 11 are expected to be sufficient to protect the wetlands from significant impacts related to development.

10.0 ESHA IMPACT ANALYSIS

Projects that propose construction with a buffer of less than 100 feet from an ESHA must provide information that indicates a lesser buffer distance will not have a significant adverse impact on the habitat. Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. The buffer zone analysis utilizing Mendocino LCP Zoning Code, Section 20.496.020 (A) [(1) through (4)(G)] is described below.
An analysis of the proposed project utilizing the Mendocino County LCP ordinance section 20.496.020 (a) through (g).

Development Criteria	Analysis of Proposed Project
(1) Width. The width of the buffer area shall be a minimum of one hundred (100) feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred (100) feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer area shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas and shall not be less than fifty (50) feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent Environmentally Sensitive Habitat Area. Standards for determining the appropriate width of the buffer area are as follows:	All ESHAs in and near the Project Area will be protected by a 100-foot buffer, with the exception of two wetland areas, the northwest and southeast wetlands. A minimum 50-foot buffer will be maintained around these habitats, and only a portion of the 100-foot buffer area will be impacted, leaving intact most of the adjacent upland habitat surrounding the wetlands. A subdivision of the parcel is not proposed. An area with existing development, relatively flat topography and weedy vegetation, as well as a long land use history, will be utilized for the Project Area. A 50 foot buffer and the mitigation measures described in Section 11.0 are sufficient to protect the two areas with a reduced buffer. The southeast wetland buffer will benefit by the location of the existing fence and will maintain a minimum 70 foot buffer.
(a) Biological Significance of Adjacent Lands. Lands adjacent to a wetland, stream, or riparian habitat area vary in the degree to which they are functionally related to these habitat areas. Functional relationships may exist if species associated with such areas spend a significant portion of their life cycle on adjacent lands. The degree of significance depends upon the habitat requirements of the species in the habitat area (e.g., nesting, feeding, breeding, or resting). Where a significant functional relationship exists, the land supporting this relationship shall also be considered to be part of the ESHA, and the buffer zone shall be measured from the edge of these lands and be sufficiently wide to protect these functional relationships. Where no significant functional relationships exist, the buffer shall be measured from the edge of the wetland, stream, or riparian habitat that is adjacent to the proposed development.	The lands adjacent to the wetlands with a reduced buffer do not appear to be functionally related. The upland lands within the buffer are heavily impacted by cattle and past land use activities.

(b) Sensitivity of Species to Disturbance. The width of the buffer zone shall be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination shall be based on the following after consultation with the Department of Fish and Game or others with similar expertise:	See below.
(i) Nesting, feeding, breeding, resting, or other habitat requirements of both resident and migratory fish and wildlife species;	It is expected that common species of avian wildlife, other small mammals, will frequently utilize the site. Special status wildlife species would be most likely to occur in the stream habitat. No tree removal is proposed. Mitigation measures include pre-construction and pre demolition surveys and avoidance measures for breeding birds, and erosion control measures to prevent sediment transport into the wetlands and to protect water quality both onsite and downstream.
(ii) An assessment of the short-term and long-term adaptability of various species to human disturbance;	The use of the Project Area for a relatively small inn is consistent with surrounding parcels. The project is not expected to create a significant new disturbance to wetlands, if the pre-construction surveys and protective buffers recommended and mitigation measures are implemented.
(iii) An assessment of the impact and activity levels of the proposed development on the resource.	The proposed development will cause minimal indirect impacts to the existing conditions of the wetlands if the mitigation measures within this report are followed. The proposed development utilizes an area with existing structures. No direct impacts to ESHAs will occur, and mitigation measures within this report are designed to prevent disturbance by foot or vehicle traffic.
c) Susceptibility of Parcel to Erosion. The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.	The proposed construction impact area is relatively flat, in an area with existing development, and covers only a small portion of the landscape surrounding the proposed 10 unit inn. The increase in impervious surfaces will be minimal, provided the continued use of pervious material for the road and driveway and parking area. Construction best management practices will also be implemented as described in Section 11.0 to reduce potential impacts to ESHAs. This includes the installation of temporary silt fencing and construction fencing surrounding disturbed areas to protect the ESHAs from eroded sediments or contaminants.
(d) Use of Natural Topographic Features to	Development is proposed on a relatively flat area

Locate Development. Hills and bluffs adjacent to ESHA's shall be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from ESHA's. Similarly, bluff faces should not be developed, but shall be included in the buffer zone.	where existing structures occur.
(e) Use of Existing Cultural Features to Locate Buffer Zones. Cultural features (e.g., roads and dikes) shall be used, where feasible, to buffer habitat areas. Where feasible, development shall be located on the side of roads, dikes, irrigation canals, flood control channels, etc., away from the ESHA.	Development is proposed only on existing disturbed areas, with access by an existing road. No other relevant cultural features are present on the site.
f) Lot Configuration and Location of Existing Development. Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance shall be required as a buffer zone for any new development permitted. However, if that distance is less than one hundred (100) feet, additional mitigation measures (e.g., planting of native vegetation) shall be provided to ensure additional protection. Where development is proposed in an area that is largely undeveloped, the widest and most protective buffer zone feasible shall be required.	Existing development and the existing road onsite are located within 100 feet of ESHAs, including two wetlands. The proposed project will not directly impact any ESHAs and will utilize only existing disturbed areas with a 50-foot ESHA buffer (with additional mitigation measures). Additional protection is provided to areas within 100 feet of ESHAs by the mitigation measures outlined in Section 11.0.
(g) Type and Scale of Development Proposed. The type and scale of the proposed development will, to a large degree, determine the size of the buffer zone necessary to protect the ESHA. Such evaluations shall be made on a case-by-case basis depending upon the resources involved, the degree to which adjacent lands are already developed, and the type of development already existing in the area.	The proposed development a relatively low-density project similar to the type and scale of surrounding development. The development will impact only a small portion of the 100-foot buffers surrounding the nearest wetland habitats. The remaining buffer is adequate to protect the wetlands.
(2) Configuration. The buffer area shall be measured from the nearest outside edge of the ESHA (e.g., for a wetland from the landward edge of the wetland; for a stream from the landward edge of riparian vegetation or the top of the bluff).	The proposed buffer areas are measured from the delineated outermost extent of the stream and the outside edges of wetlands and special status species locations. The delineation was conducted following definitions and methodology contained in the Coastal Act and the Mendocino County LCP.
(3) Land Division. New subdivisions or boundary line adjustments shall not be allowed which will create or provide for new parcels entirely within a buffer area.	No subdivision or boundary line adjustment is proposed.

11.0 MITIGATION MEASURES

The Study Area contains an ephemeral stream, wetlands, and special status plant and plant community ESHAs. All but two ESHAs will have a minimum 100-foot buffer area, and the remaining ESHAs generally have additional buffer beyond the 100-foot buffer area. An existing disturbed area with existing structures is proposed to be developed in two phases with a 10 unit inn.

One of the proposed structures (main unit) is partially located within 100 feet of the northwest wetland ESHA. In addition, the demolition of four existing structures, three of which are currently within the 100 foot buffer is planned during Phase I.

The proposed driveway location, where it connects with the existing driveway, encroaches on the 100 foot buffer of the southeast wetland. An existing fence provides a physical barrier to the wetland at approximately 80 feet.

Therefore, these wetland habitats are proposed to have a minimum reduced buffer of 50 feet with some additional buffer protection beyond 50 feet. Mitigation measures are required to ensure compensation for the reduced buffer size and to prevent impacts to all ESHAs in the vicinity. The current value of the buffer area to be impacted (between 50 and 100 feet from the wetland edges) is minimal due to the current state of the ESHAs and the surrounding landscape which has been subject to a land use history which is long and varied and has resulted in disturbed upland soils, weedy vegetation and soil erosion impacts fromdecades of grazing. Nevertheless, an increase in activity, soil disturbance and erosion, and landscape maintenance changes could have indirect impacts on nearby ESHAs. Potential indirect impacts to ESHAs in the Study Area and mitigation measures recommended to reduce these impacts to a less than significant level are discussed below.

11.1 Potential Impact 1

The proposed development and planned demolitions with less than 100-foot buffers near the northwest wetland may adversely affect the ESHA through construction and demolition impacts. Potential construction and demolition impacts include release of sediment, debris, or other harmful materials, accidental placement of fill or grading of the drainage and surrounding topography, and trampling and compaction due to construction crews or equipment.

11.1.1 Mitigation Measure 1a: WORK WINDOWS.

All activities that require substantial ground disturbance shall take place during the summer months (generally April 15 through October 31) to minimize potential erosion and sedimentation. Activities that do not require construction vehicles to access the site or ground disturbance other than planting can take place outside of this window assuming implementation of all other relevant mitigation measures.

11.1.2 Mitigation Measure 1b: LIMITS OF CONSTRUCTION IMPACTS.

Preceding construction, combination silt fence and construction fence shall be installed around the designated construction impact areas, as well as along the road wherever it crosses ESHA buffers. The installation of flagging or construction fence should also be inspected by a qualified biologist around all 100-foot ESHAs, wherever construction activities or materials storage will occur. The locations of flagging and construction fencing shall be determined by a qualified biologist. No grading, placement of fill material, or other ground or vegetation disturbance may occur beyond the construction fence, or within ESHAs or their designated buffer areas. The fencing may only be removed once all construction activities are completed.

11.1.3 Mitigation Measure 1c: MATERIALS STORAGE.

Solid materials, including wood, masonry/rock, glass, paper, or other materials may not be stored within the ESHAs or buffer areas either during or following construction. Solid waste materials should be properly disposed of offsite. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during or following construction should not be disposed of onsite and should be stored or confined as necessary to prevent spillage into natural habitats including the onsite

ESHAs. If a spill of such materials occurs, the area should be cleaned immediately and contaminated materials disposed of properly. The affected area should be restored to its natural condition.

11.1.4 Mitigation Measure 1d: STAFF EDUCATION.
Prior to construction, the project contractors shall be informed of the sensitive resources within the Project Area. ESHAs near all construction activities or roads will be flagged or fenced by a qualified biologist. The significance of the limits of construction impacts, fencing, and flagging shall be clearly explained to all parties working within the Study Area both during and following construction.

11.2 Potential Impact 2

Demolition of the four existing structures with in the 100-foot buffer area has the potential to impact breeding birds during the nesting season as well as special status bats. Impacts to breeding birds are prohibited by the Migratory Bird Treaty Act. No tree removal is proposed, but demolition of existing structures are proposed as well as grading. Demolition and vegetation disturbance associated with grading is normally recommended outside of the breeding bird season in order to avoid impacts to nesting birds that may inhabit the existing structures or nesting in grasslands. The recommended demolition and vegetation removal work window is approximately from September through January and is dependent on the bird species and habitat type.

11.2.1 Mitigation Measure 2: PRE-CONSTRUCTION SURVEYS
If vegetation removal or construction/demolition activities will occur between February and August, pre-construction breeding bird surveys shall be conducted by a qualified biologist a maximum of two weeks prior to construction. If a nest is detected, a temporary buffer from construction activities of at least 100 feet would be recommended around the nest; the exact buffer size recommended is dependent on the species and vegetation present in the buffer. This buffer would be in place until all young have fledged, or left the nest. A biologist should monitor the nest site weekly during the breeding season to ensure the buffer is sufficient to protect the nest site from potential disturbances. Breeding bird surveys usually expire after thirty days, at which point an area may need to be re-surveyed.

Work done in or near potential bat roost habitat (existing structures), including proposed demolition, should be done in September and October, when bats are neither hibernating nor in a maternity roost. If disturbance to potential roost sites outside of this work window is necessary, a pre-construction bat survey may be required to detect evidence of bat use (guano accumulation, acoustic or visual detections). If evidence is found, a buffer may be necessary in order to avoid potential impacts (usually 50 feet) or demolition postponed until all young have left the roost. No surveys would be necessary if removal of or work near potential bat roost habitat is done in September and October.

11.3 Potential Impact 3

The presence of broader site development within the 100-foot ESHA buffer may adversely affect the northwest wetland through human intrusion and adjacent activities. Also, increased use of the property by residents and guests may adversely impact this wetland. Potential impacts following construction include direct or indirect impacts from landscaping and landscape maintenance, regular foot traffic or vehicle parking in sensitive areas, impacts to hydrology and water quality due to runoff from impervious surfaces, and small scale disturbance of vegetation or placement of fill in ESHAs.

11.3.1 Mitigation Measure 3a: PERMANENT FENCING

Permanent exclusionary fencing shall be installed along the upland edge of the 50-foot wetland buffer area and the construction impact area, to prevent disturbance of the ESHAs following construction. Post and cable or other similar fencing should be of a type adequate to prevent activities such as regular foot traffic or mowing. Native shrubs may be planted at approximately eight-foot spacing along this buffer boundary instead of fencing if an adequate natural barrier can be created within approximately five years.

11.3.2 Mitigation Measure 3b: VEGETATION REMOVAL

Damage or removal of vegetation shall not be allowed in ESHAs or established buffer areas with the exception of invasive species removal for native plant restoration.

11.3.3 Mitigation Measure 3c: LANDSCAPING

Areas of disturbed soil shall be mulched, seeded, or planted and covered with vegetation as soon as possible. Both during and following development of the site, no exotic plants shall be planted in the ESHAs or buffer areas. Plant species listed as invasive (High, Moderate, or Limited) on the California Invasive Plant Inventory (Cal-IPC 2006) shall not be installed anywhere in the Project Area as they would pose a risk to the rare plant communities. The use of locally-native plants is also encouraged for landscaping outside of the ESHAs and buffer areas. All reasonable efforts should be made to control and remove existing or newly established populations of exotic species that may threaten onsite ESHAs. Some examples of invasive plants likely to be found that should be monitored and controlled are English ivy (*Hedera helix*), Himalayan blackberry (*Rubus discolor*), French broom (*Genista monspessulana*), pampas grass (*Cortaderia* spp.), and forget-me-not (*Myosotis latifolia*).

11.3.4 Mitigation Measure 3d: REVEGETATION.

All disturbed ground remaining after installation of the septic tanks and leachfields, and any other construction within 100 feet of ESHAs, shall be replanted with locally native species appropriate to native coastal grasslands (see Appendix A for a list of plants present in the Study Area). The septic fields shall be planted with native perennial grasses and herbaceous species. Planting should occur in the winter months to reduce the need for irrigation, and irrigation near ESHA buffers should not be continued once the native species are established (typically after 1 to 2 years).

11.4 Potential Impact 4

Indirect impacts to water quality from increased sediment loads may occur to southeast wetland due to grading during construction of proposed driveway

11.4.1 Mitigation Measure 4b: MINIMIZATION OF GRADING.

The natural topography within the construction impact area shall be left intact as much as is feasible, so that runoff to the surrounding landscape is not altered significantly. A grading permit and the incorporation of construction best management practices will also be required from the County if more than two cubic yards of earth are moved, or if construction includes two feet or more of cut or one foot or more of fill.

11.4.2 Mitigation Measure 4c: PERMEABLE PAVING.

The proposed driveway will be constructed with only permeable materials.

11.4.3 Mitigation Measure 4d: ULTILIZATION OF EXISTING ROAD AND FENCE
The existing driveway and associated fence, which is currently within the 100-foot buffer of the southeast wetland, shall remain intact. No heavy equipment or vehicles shall be allowed to utilize the buffer area on the south side of the existing fence.

12.0 CONCLUSION

The 18 acre Study Area supports four types of ESHAs, including an ephemeral stream, four wetlands, two species of special status plants and a special status plant community. Non- ESHA portions of the Study Area are generally grassy and impacted from cattle grazing and previous land uses.

The property owner proposes to utilize a majority of the existing development footprint to construct a 10-unit inn and associated structures, which include a ranch managers unit, an equipment barn, maintenance shop, generator/pump shed, as well as a spa and several cottages. Additionally the applicant has relocated several buildings (spa and cottages) and the septic system from the previous site plan to preserve the applicable setback from all on site ESHAs.

The proposed project would maintain a 100-foot buffer around all ESHA's except for two wetland habitats, the northwestern and southeastern wetlands, which would have a minimum 50-foot buffer over a portion of their reach. Potential impacts of the proposed project include construction impacts, addition of impervious surfaces, and low-level long-term disturbance due to planned operations at the 10-unit inn and associated structures.

However, these impacts will occur only on a small portion of the Study Area, and activities are proposed primarily in an area where existing structures are located. The proposed development area between 50 and 100 feet from the ESHA boundary is significantly impacted by exotic species and disturbed soils as the pressures from past land use activities and decades of grazing are evident throughout. Therefore, a 50-foot buffer, in these locations, would allow for utilization of the disturbed area and is expected to be adequate to prevent significant impacts to the ESHA if the recommended mitigation measures are implemented.

No direct impacts to ESHAs are proposed, and construction and permanent exclusionary fencing will limit intrusion and impacts to sensitive habitats near the proposed development. The mitigation measures included in Section 11.0 were developed based upon review of the proposed project, and should minimize impacts both during and following construction.

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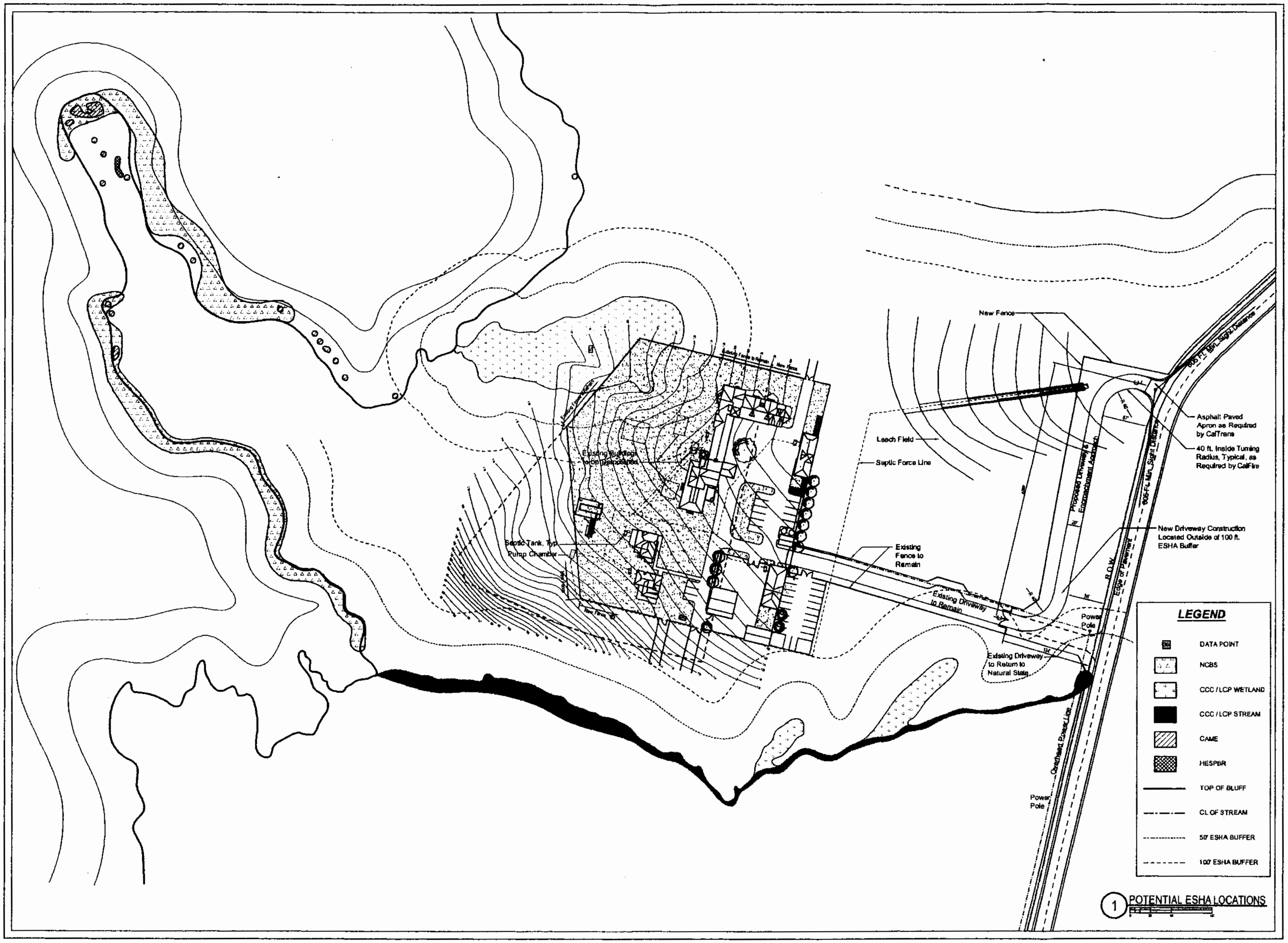
INN AT NEWPORT RANCH
Fort Bragg, California

SELLERS & COMPANY ARCHITECTS
SANFORDY STRAUSS ARCHITECTS

DATE 08.20.08
REVISIONS

TITLE WETLANDS DELINEATION MAP

SHEET NO. Fig.-4



INN AT NEWPORT RANCH
Fort Bragg, California

SELLERS & COMPANY ARCHITECTS

SANFORD/ STRAUSS ARCHITECTS

DATE
08.20.08

REVISIONS

TITLE
LOCATION OF POTENTIAL ESHAs

SHEET NO.
Fig.-5

ESHA Assessment for a Public Access Offer to Dedicate

APN 015-380-02
MENDOCINO COUNTY, CALIFORNIA

Prepared For:

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1.0 INTRODUCTION

On May 31, 2010, WRA performed a biological assessment for a proposed public access easement in parcel 015-380-02 between Newport and Kibesillah in Mendocino County, California (Figure 1). The easement would extend approximately 450 feet from a five-car parking area along Highway One and then turn west for 1200 feet to a viewing area near the coastal bluffs. The purpose of the assessment was to identify and map areas within 100 feet of the proposed easement that are potential environmentally sensitive habitat areas (ESHAs) as defined by the California Coastal Commission (CCC) and Mendocino County Local Coastal Program (LCP). The CCC requested this assessment and report in support of the proposed easement, which will be dedicated as a condition of Coastal Development Use Permit (CDU) #6-2006 for development of an inn.

This report describes results from mapping of ESHAs in the Study Area, recommendations for additional surveys, and potential impacts to ESHAs or their buffers. No direct impacts to currently identified ESHAs or their 50-foot buffer are proposed. Trail construction and fencing are proposed for areas located a minimum of 50 feet from all ESHAs identified. Therefore, this report also includes recommended measures to minimize and mitigate for potential impacts as required by the CCC and LCP.

2.0 REGULATORY BACKGROUND AND ESHA DEFINITIONS

The CCA and Mendocino County LCP define an ESHA as follows:

> *"Environmentally sensitive habitat area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. "*

The Mendocino County LCP and California Coastal Commission (CCC) Guidelines contain definitions for specific types of ESHAs, including: wetlands, estuaries, streams and rivers, lakes, open coastal waters and coastal waters, riparian habitats, other resource areas, and special status species and their habitats. For the purposes of this report, WRA has taken into consideration any areas that may meet the definition of any ESHA defined by the CCA, CCC guidelines, or the Mendocino County LCP. The following definitions guided the assessment of potential ESHAs in the Study Area.

2.1 Wetlands

The California Coastal Act and Mendocino County LCP define wetlands as:

> *"Wetland means lands within the Coastal Zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."*
>
> Public Resources Code Section 30121

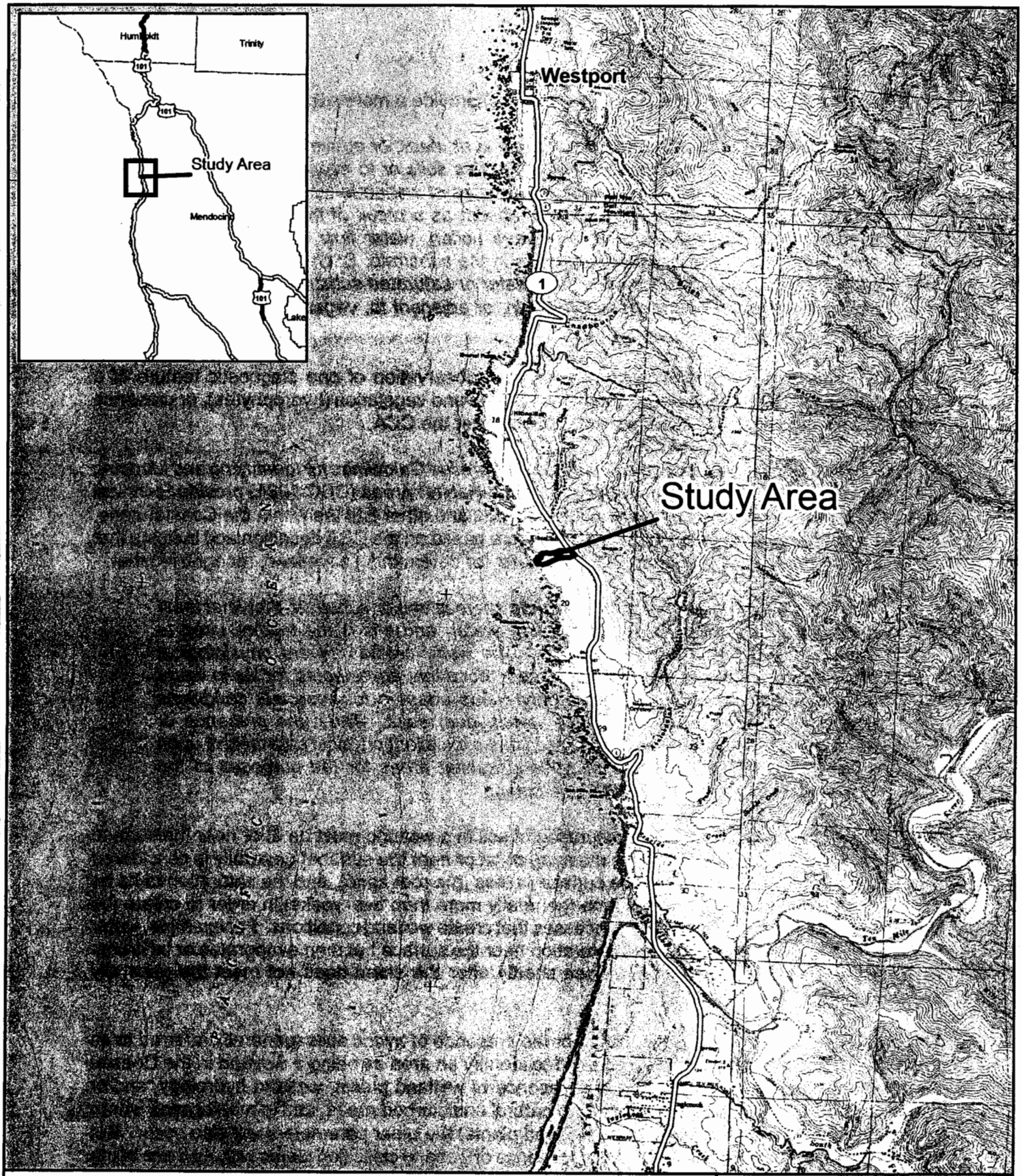

Figure 1. Location Map

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Mendocino County, CA

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Date: June 2010
Map By: Sundaran Gillespie
Filepath:I:\Acad2000\18000\18178\gis\Arcmap\June 2010\Location Map.mxd

CCC Administrative Regulations (Section 13577 (b)) provide a more explicit definition:

> *"Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats."*

The CCC considers this definition as requiring the observation of one diagnostic feature of a wetland such as wetland hydrology, dominance by wetland vegetation (hydrophytes), or presence of hydric soils as a basis for asserting jurisdiction under the CCA.

In addition to the above definition, the *Statewide Interpretive Guidelines for Identifying and Mapping Wetlands and Other Wet Environmentally Sensitive Habitat Areas* (CCC 1981) provide technical criteria for use in identifying and delineating wetlands and other ESHAs within the Coastal Zone. The technical criteria presented in the guidelines are based on the CCA definition and indicate that wetland hydrology is the most important parameter for determining a wetland, recognizing that:

> *". . . the single feature that most wetlands share is soil or substrata that is at least periodically saturated with or covered by water, and this is the feature used to describe wetlands in the Coastal Act. The water creates severe physiological problems for all plants and animals except those that are adapted for life in water or in saturated soil, and therefore only plants adapted to these wet conditions (hydrophytes) could thrive in these wet (hydric) soils. Thus, the presence or absence of hydrophytes and hydric soils make excellent physical parameters upon which to judge the existence of wetland habitat areas for the purposes of the Coastal Act, but they are not the sole criteria."*

The Technical Criteria requires that saturation of soil in a wetland must be at or near the surface continuously for a period of time. The meaning of "at or near the surface" generally is considered to be approximately one-foot from the surface or less (the root zone), and the saturation must be continuously present for a period of time (generally more than two weeks) in order to create the necessary soil reduction (anaerobic) processes that create wetland conditions. For example, water from rain during a storm that causes saturation near the surface but then evaporates or infiltrates to 18 inches or deeper below the surface shortly after the storm does not meet the generally accepted criteria for wetland hydrology.

The presence of wetland classified plants or the presence of hydric soils (generally referred to as the "one parameter approach") can be used to identify an area as being a wetland in the Coastal Zone. There is correlation between the presence of wetland plants, wetland hydrology, and/or hydric soils occurring together, especially in natural undisturbed areas, and in many cases where one of these parameters is found (e.g., wetland plants) the other parameters will also occur. But there are situations which can result in the presence of wetland classified plants without there being wetland conditions, and these areas are not wetlands. Where these situations occur, the delineation study must carefully scrutinize whether the wetland classified plants that are present are growing there as hydrophytes in reducing (anaerobic) conditions caused by the presence of wetland hydrology or are there for some other (non-wetland) reason. Examples may include

wetland-classified plants which are also salt-tolerant (e.g., alkali heath) and may be responding to either wetland conditions or saline soil conditions, but not necessarily both, and deep-rooted trees (e.g., willows) which are able to tap into deep groundwater sources and can grow in dry surface soils, but are also found in wetland conditions where surface water is present.

Hydric soils can also occur in upland areas especially in areas where historic disturbances may have exposed substratum or in densely vegetated grasslands (Mollisols). Similarly, the delineation must determine if the hydric soil indicators are a result of frequent anaerobic conditions or a result of non-wetland conditions.

2.2 Open Coastal Waters and Coastal Waters

The CCA and Mendocino County LCP define coastal waters as follows:

> *"The terms open coastal waters or coastal waters refer to the open ocean overlying the continental shelf and its associated coastline. Salinities exceed 30 parts per thousand with little or no dilution except opposite mouths of estuaries."*

2.3 Streams and Rivers

The CCA and Mendocino County LCP define streams and rivers as follows:

> *"A stream or a river is a natural watercourse as designated by a solid line or dash and three dots symbol shown on the United States Geological Survey map most recently published, or any well-defined channel with distinguishable bed and bank that shows evidence of having contained flowing water as indicated by scour or deposit of rock, sand, gravel, soil, or debris."*

2.4 Riparian Habitats

The CCA and Mendocino County LCP define riparian habitats as follows:

> *"A riparian habitat is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of freshwater."*

2.5 Special Status Species

Special status species and their habitats are defined as ESHAs by the CCA and Mendocino County LCP. Special status species include those species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG). In addition, CDFG Species of Special Concern are given special consideration under the California Environmental Quality Act (CEQA). However, these Species of Special Concern may only be protected as ESHAs if they are ranked by CDFG as imperiled globally or in California (G2S2 or rarer). Plant species on California Native Plant Society (CNPS) Lists 1 or 2 are also considered special status species and are protected as ESHAs.

2.6 Other Resource Areas

The CCA and Mendocino County LCP define other resource areas as follows:

> *"Other designated resource areas include: State parks and reserves, underwater parks and reserves, areas of special biological significance, natural areas, special treatment areas, fishing access points, areas of special biological importance, significant California ecosystems, and coastal marine ecosystems."*

Other resources considered ESHAs include CDFG rare natural communities ranked as imperiled globally or in California (G2S2 or rarer), as noted in the California Natural Diversity Database (CNDDB). These communities have been classified and described by various references, including the *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003), Holland (1986) and Sawyer and Keeler-Wolf (1995).

3.0 METHODS

Prior to conducting the field assessment, available reference materials were reviewed, including the Soil Survey of Mendocino County, Western Part (USDA 2005), the Inglenook 7.5' quadrangle topographic map (USGS 1988), and available aerial photographs. A field survey was conducted on May 31, 2010 by WRA to identify any rare plants and delineate natural communities within the Study Area. The methodology of these surveys is described below. ESHA boundaries were mapped using a Global Positioning System (GPS), combined with hand drawing on aerial photographs where bluff habitats were not safely accessible.

3.1 Wetlands

The CCC uses a broad wetland definition in which the presence of any one of the wetland parameters may indicate presence of a wetland. The CCC presumes that the area is a wetland if one of the wetland criteria is met. However, there may be exceptions to this presumption if there is strong positive evidence of upland conditions, as opposed to negative evidence of wetland conditions. Positive evidence of upland hydrology might be the observation that a given area saturates only ephemerally following significant rainfall, that the soil is very permeable with no confining layer, or that the land is steep and drains rapidly. Positive evidence of upland conditions should be obtained during the wet season. Based on these facts, this delineation study identified areas within the Study Area that had wetland plants, hydric soils, or wetland hydrology indicators. Areas that contained at least one of the wetland parameters but contained positive evidence of upland conditions were not identified as wetlands.

The methodology for identifying wetland indicators followed that described in the Interim Western Mountains, Valleys, and Coast Regional Supplement (Corps 2008).

To identify the boundary of CCC/LCP wetlands meeting one or more wetland criteria, the outer edge of the riparian canopy was recorded using GPS equipment. Potential jurisdictional wetland acreage was measured digitally using ArcGIS software. The methodology for evaluating each of the three wetland criteria is described below.

Vegetation

Plant species within potential wetlands were assigned a wetland status according to the USFWS list of plant species that occur in wetlands (USFWS 1996). This wetland plant classification system is based on the expected frequency of occurrence of each species in wetlands. The classification system has the following categories which determine the frequency with which plants occur in wetlands:

OBL	Obligate, almost always found in wetlands	> 99% frequency
FACW	Facultative wetland, usually found in wetlands	67-99%
FAC	Facultative, equal in wetland or non-wetlands	34-66%
FACU	Facultative upland, usually found in non-wetlands	1-33%
UPL/NL	Not found in local wetlands	<1%
NI	Wetland preference unknown	

Species with OBL, FACW, and FAC classifications are considered hydrophytic vegetation. If more than 50 percent of the dominant plant species are hydrophytic, the area meets the wetland vegetation criterion and is presumed to be a jurisdictional wetland under the CCA.

Hydrology

The Study Area was surveyed for indicators of wetland hydrology. Positive indicators of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, surface sediment deposits, oxidized root channels, and drift lines, or indirect indicators (secondary indicators) such as algal mats, shallow restrictive layers in the soil, or vegetation meeting the FAC-neutral test. Depressions, seeps, and topographic low areas were examined for these hydrological indicators.

Soils

Soils in the Study Area were examined for hydric soil indicators according to Natural Resources Conservation Service guidelines (USDA 2006). Soils formed under wetland (anaerobic) conditions generally have a low chroma matrix color, designated 0, 1, or 2, and contain mottles or other redoximorphic features. Soil profiles were characterized by horizon depths, color, redoximorphic features, and texture. Soil color and chroma was determined using a Munsell soil color chart (GretagMacbeth 2000) to determine if the soils in a particular area could be considered hydric.

3.2 Special Status Species

Potential occurrence of special status wildlife or plants in the Study Area was evaluated by WRA by determining which special status species occur in the vicinity of the Study Area or in similar biological communities through a literature and database search. Records from the California Natural Diversity Database (CNDDB) (CDFG 2010), USFWS Species list for Mendocino County (USFWS 2010), and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2010) were reviewed to determine which special status species have been documented in the vicinity of the Study Area (Appendix B). In addition to plant species qualifying as ESHAs (as described in Section 2.5 above), CNPS List 3 plants were included in the database search. These species have little or no protection under the California Environmental Quality Act (CEQA) and are not considered ESHAs, but are included in an effort to help clarify the status of these plants.

A protocol-level botanical survey was not conducted, but any identified or potential special status plants or suitable habitats observed during the May site assessment were mapped and are described in Section 5.0.

3.3 Other ESHAs

The Study Area was evaluated for the presence of other ESHAs defined in the CCA and the Mendocino County LCP, as well as natural communities designated in the CNDDB as G2S2 or rarer (CDFG 2008). The presence of rare natural communities was determined by WRA based on vegetation community classifications given in the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), the *Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995), the 2nd edition of the *Manual of California Vegetation* (Sawyer et al. 2009), and the *List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003).

4.0 STUDY AREA DESCRIPTION

The Study Area includes a 9.56 acre portion of APN 015-380-02 located along Highway One in the coastal zone of Mendocino County, California. The Study Area extends from Highway One to the Pacific Ocean, in undeveloped ranchland between the small historic towns of Newport and Kibesillah. The Study Area includes the proposed 15-foot wide trail easement, parking area, viewing area, and all areas located on the subject parcel within 100 feet of these proposed features (Figure 2). The Study Area is dominated by exotic grassland, with a small stream support riparian vegetation forming the northern boundary of the parcel. Study Area extends to the bluff face where Northen Coastal bluff scrub and coastal terrace prairie vegetation persists.

Parcels in the vicinity support undeveloped ranchland and scattered residences or abandoned buildings. Undeveloped areas on adjacent properties contain grasslands, coastal bluffs, wetland drainages, and willow-dominated riparian corridors.

4.1 Vegetation

All plants observed during WRA's site assessment are listed in Appendix B. The following is a description of natural communities observed and mapped by WRA, and the ESHA status of these communities is discussed in Section 5.0. An aerial photograph and map showing locations of any natural community ESHAs in the Study Area is provided as Figure 2.

Non-Native Perennial Grassland

The Study Area is predominantly vegetated with non-native perennial grasslands, dominated by sweet vernal grass (*Anthoxanthum odoratum*), velvet grass (*Holcus lanatus*), and bracken fern (*Pteridium aquilinum*). Other species found throughout this grassland include the exotic perennial hairy oatgrass (*Danthonia pilosa*), California blackberry (*Rubus ursinus*), and English plantain (*Plantago lanceolata*).

Coastal Terrace Prairie (CTP) and Northern Coastal Bluff Scrub (NCBS)

Native-dominated habitats are found along the coastal bluff slopes and terrace closest to the bluff edge. These areas include a mix of typical Coastal Terrace Prairie (CTP) and Northern Coastal Bluff Scrub (NCBS) habitats, although in general the prairie species are only found on the flat bluff tops.

NCBS is dominated by a variety of herbaceous perennials and low-growing shrubs strongly influenced by wind and salt spray. Areas mapped as this community were generally dominated by seaside daisy (*Erigeron glaucus*), coast buckwheat (*Eriogonum latifolium*), coast angelica (*Angelica hendersonii*), bluff lettuce (*Dudleya farinosa*), wooly sunflower (*Eriophyllum lanatum* var. *arachnoideum*), seashore lupine (*Lupinus littoralis*), and Carmel ceanothus. Dense patches of salal (*Gaultheria shallon*) mixed with poison oak (*Toxicodendron diversilobum*), Pacific reedgrass (*Calamagrostis nutkaensis*), and several common ferns dominate portions of the slope, alternating with lower growing stands of herbaceous species and smaller shrubs.

A small section of Coastal Terrace Prairie vegetation was mapped (Figure 2.) and is dominated by two native perennial bunch grass species including tufted hair grass (*Deschampcia cespitosa* ssp. *holciformis*) and California oat grass (*Danthonia californica*).

Riparian habitat

Riparian habitat dominated by coastal willow (*Salix hookeriana*) is found along a small stream draining from east of Highway One to the Pacific Ocean. The riparian habitat is patchy and willows appear to be regularly damaged or eaten by cows.

4.2 Hydrology and Topography

Elevations in the Study Area range from sea level to approximately 150 feet. The proposed easement is located on the relatively flat first coastal terrace, with steep coastal bluffs to the west. No blue-line streams are present within the Study Area (USGS 1988), although the northern boundary of the parcel is formed by a small 3-5-foot-wide stream. Several other streams and seasonal wetland drainages are located on the subject parcel and adjacent parcels to the south of the Study Area.

4.3 Soils

The Soil Survey of Mendocino County, Western Part (USDA 2005), shows one soil map unit, Mallopass loam, 0 to 5 percent slopes, within the Study Area.

Mallopass loam, 0 to 5 percent slopes – This map unit typically supports perennial grasses and forbs on marine terraces and is formed in alluvium from mixed rock sources. Mallopass loams are very deep and moderately well drained. A typical profile consists of 14 inches of very dark grayish brown loam underlain by a 20-inch subsoil layer of very dark gray and very dark grayish brown clay loam. Below is a 17-inch layer of light brownish gray gravelly sandy clay loamand white clay and 11 inches of light brownish gray gravelly sandy clay loam with strong brown mottles. Approximately 15 percent of areas included in the map unit consist of Biaggi, Crispin, Flumeville, and Windyhollow soils and Tropaquepts, as well as areas of 5 to 9 percent slopes.

5.0 RESULTS

Several types of potential ESHAs were identified and mapped within the Study Area, including coastal waters, stream and riparian habitat, rare plant species and two natural rare communities along with and potential suitable habitat for additional special status species. Photographs representative of the Study Area are included in Appendix C. The following sections contain a description of ESHAs documented during WRA's assessment.

5.1 Wetlands and Aquatic Habitats

The tidal shoreline, consisting of a beach and rocky intertidal habitat at the base of the bluffs, is protected as a coastal waters ESHA.

A 3-5-foot wide stream along the northern boundary of the parcel and Study Area is an ESHA. This stream supports patchy willow riparian habitat, which is also an ESHA. In areas lacking willows, the stream supports only a narrow 15-foot wide band of wetland vegetation, which was included as the riparian ESHA in mapping.

5.2 Special Status Species

Approximately 20 individuals of Mendocino coast Indian paintbrush (*Castilleja mendocinensis*) individuals were observed in two separate locations (Figure 2.)

Due to disturbance from grazing, it is relatively unlikely that additional special status plants will be observed in the Study Area. However, several special status species have some potential to occur near the bluffs and wetter habitats near the stream. Therefore, a protocol-level survey for special status plants and wildlife species is recommended prior to final site planning.

5.3 Rare Natural Communities

In additional to riparian habitat, two natural community identified in the Study Area is rare and considered ESHAs by the CCC and LCP. Northern Coastal Bluff Scrub (G2S2) and Coastal Terrace Prairie(G2S2) are located along the bluff edge (Figure 2). Non-native perennial grassland (G4S4) dominates the Study Area and is not considered an ESHA.

6.0 PROJECT DESCRIPTION

The proposed project is a 15-foot easement containing an approximately 3-foot wide unpaved trail, extending from Highway One to near the bluffs. A five-car gravel base parking area would be located along the highway, and a the trail would end at a small viewing area near the bluffs, as shown in Figure 2. A fence would be placed along the northern and southern boundaries of the easement, which would prevent both humans and cattle from accessing the riparian and stream ESHAs. No other structures are proposed, with the possible exception of signage describing public access and restrictions in the parking area and along the Highway. Construction, fence installation, and vegetation clearing will be located such that it avoids all impacts to ESHAs and their 50-foot buffers. All work will occur in non-native perennial grassland habitats. Since the property owners propose work between 50 and 100 feet from ESHAs, an impact analysis is included as Section 7.0.

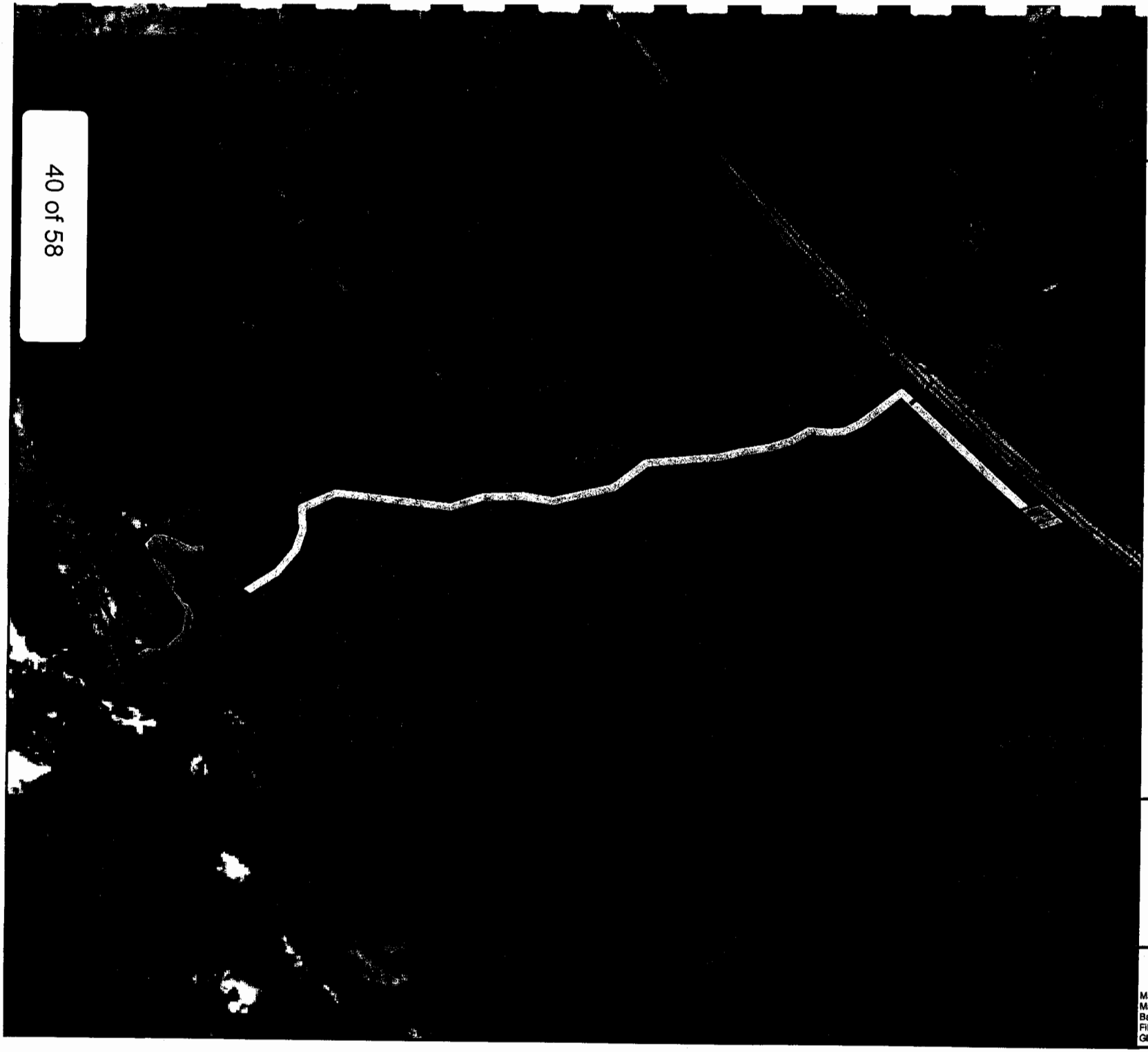

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Figure 2.
Potential ESHAs for the Jackson-Grube OTD

Legend

- Study Area
- Castilleja mendocinensis
- ESHA 50ft Buffer
- ESHA 100ft Buffer
- Riparian
- Northern Coastal Bluff Scrub
- Coastal Terrace Prairie
- Proposed Viewing Platform
- Proposed Trail
- Proposed Parking Lot

N
W E
S

0 50 100 200
Feet

Map Date: June 2010
Map By: Sundaran Gillespie
Base Source: NAIP 2005
Filepath: L:\ACAD2000\18000\18179\GIS\ArcMap\June 2010\Jackson ESHA.mxd

7.0 ESHA IMPACT ANALYSIS

Projects that propose construction with a buffer of less than 100 feet from an ESHA must provide information that indicates a lesser buffer distance will not have a significant adverse impact on the habitat. Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. The buffer zone analysis utilizing Mendocino LCP Zoning Code, Section 20.496.020] is provided in Table 1.

The following analysis assumes that the only ESHAs present in the Study Area are the stream and riparian habitat shown in Figure 2, along with potential habitats for special status wildlife noted in Appendix B. If any additional special status plant species are identified during future protocol-level surveys, additional mitigation measures, buffer analyses, or project redesign may be required to comply with the CCA and LCP.

Table 1. ESHA Development Criteria Analysis
Mendocino County Coastal Zoning Code Section 20.496.020

(A) Buffer Areas. A buffer area shall be established adjacent to all environmentally sensitive habitat areas. The purpose of this buffer area shall be to provide for a sufficient area to protect the environmentally sensitive habitat from degradation resulting from future developments and shall be compatible with the continuance of such areas.	
Sections 1 - 3: Development between 50 and 100 feet from ESHAs	
1. Width. The width of the buffer area shall be a minimum of one hundred feet, unless an applicant can demonstrate, after consultation and agreement with the California Department of Fish and Game, and County Planning staff, that one hundred feet is not necessary to protect the resources of that particular habitat area from possible significant disruption caused by the proposed development. The buffer areas shall be measured from the outside edge of the Environmentally Sensitive Habitat Areas (ESHAs) and shall not be less than fifty feet in width. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent ESHA.	The proposed project footprint will be located at least 50 feet from all ESHAs identified in the Study Area, including riparian habitat, streams, rare plants, Northern Coastal Bluff Scrub, and Coastal Terrace Prairie. The project will include fencing at or outside of the boundary of the 50-foot buffer. This fencing will protect the ESHAs from foot traffic and also allow for recuperation of damaged riparian and stream habitat currently impacted by cattle. It is not expected that a footpath and fencing between 50 and 100 feet of the ESHAs will have a significant negative impact. Instead, as a result of the project's proposed fencing, the ESHA habitats will improve in quality due to protection from cattle damage. No land division is proposed for this parcel.

1 (a). Biological Significance of Adjacent Lands. The degree of significance depends upon the habitat requirements of the species in the habitat area. Where a significant functional relationship exists, the land adjacent to a wetland, stream, or riparian habitat area shall also be considered to be part of the ESHA, and the buffer zone shall be measured from the edge of these lands and be sufficiently wide to protect these functional relationships.	The stream present in the Study Area is small, and topography throughout the Study Area is relatively flat. Currently the grasslands adjacent to the stream and riparian habitat do not provide more than the typical buffer functions as they are heavily grazed. Therefore the adjacent lands are considered non-ESHA and a recommended to be considered part of the buffer area.
1 (b). Sensitivity of Species to Disturbance. The width of the buffer zone shall be based, in part, on the distance necessary to ensure that the most sensitive species of plants and animals will not be disturbed significantly by the permitted development. Such a determination shall be based on the following: (i) Nesting, feeding, breeding, resting, or other habitat requirements of both resident and migratory fish and wildlife species; (ii) An assessment of the short-term and long-term adaptability of various species to human disturbance; (iii) An assessment of the impact and activity levels of the proposed development on the resource.	The riparian habitat, stream, rare plants, Northern Coastal Bluff Scrub, and Coastal Terrace Prairie would not be significantly disturbed by impacts to vegetation greater than 50 feet from these ESHAs. The 50-foot buffer areas are already degraded by grazing and non-native species, and a fenced public access easement will not cause disturbance within the 50-foot-buffer. Initial construction and the introduction of more foot traffic increases the chance of invasion by non-native species. However, traffic is expected to be low and the Study Area is already dominated by non-native species. Mitigation measures are recommended to prevent introduction of weeds during construction, and to monitor and control any highly invasive species such as Scotch broom that may invade areas following cessation of grazing.
1 (c). Susceptibility of Parcel to Erosion. The width of the buffer zone shall be based, in part, on an assessment of the slope, soils, impervious surface coverage, runoff characteristics, and vegetative cover of the parcel and to what degree the development will change the potential for erosion. A sufficient buffer to allow for the interception of any additional material eroded as a result of the proposed development should be provided.	The proposed easement and surrounding grasslands are relatively flat, so impacts to the stream from erosion are not expected from work conducted between 50-100 feet from ESHAs. Significant long term impacts to adjacent ESHAs from regular use of a trail on flat ground are not expected. Fencing will prevent access to the more erodible steep bluff areas.
1 (d). Use of Natural Topographic Features to Locate Development. Hills and bluffs adjacent to ESHAs shall be used, where feasible, to buffer habitat areas. Where otherwise permitted, development should be located on the sides of hills away from ESHAs. Similarly, bluff faces should not be developed, but shall be included in the buffer zone.	No topographic features are available to serve as a buffer on this flat coastal terrace. A minimum 50-foot buffer from the bluffs and Northern Coastal Bluff Scrub habitat will be protected from any project activities.

1 (e). Use of Existing Cultural Features to Locate Buffer Zones. Cultural features (e.g. roads and dikes) shall be used, where feasible, to buffer habitat areas. Where feasible, development shall be located on the side of roads, dikes, irrigation canals, flood control channels, etc. away from the ESHA.	No cultural features are present within the parcel. and the project's purpose of public access to the bluff views necessitates locating the project west of the highway and nearer to bluff ESHAs.
1 (f). Lot Configuration and Location of Existing Development. Where an existing subdivision or other development is largely built-out and the buildings are a uniform distance from a habitat area, at least that same distance shall be required as a buffer zone for any new development permitted. However, if that distance is less than one hundred feet, additional mitigation measures (e.g. planting of native vegetation) shall be provided to ensure additional protection. Where development is proposed in an area that is largely undeveloped, the widest and most protective buffer zone feasible shall be required.	Development is very sparse in the vicinity of the Study Area, and no public access to the bluffs is currently available. Cattle grazing is currently occurring up to and within the ESHAs, causing significant damage. Therefore the proposed project will afford more protection to the ESHAs than is currently provided, and will allow for natural recovery of riparian habitat.
1 (g). Type and Scale of Development Proposed. The type and scale of the proposed development will, to a large degree, determine the size of the buffer zone necessary to protect the ESHA. Such evaluations will be made on a case-by-case basis depending upon the resources involved, the degree to which adjacent lands have been developed, and the type of development in the area.	The type and scale of the proposed project suggests that minimal impacts will occur to grazed grassland vegetation within the easement. No negative impacts to existing vegetation would be expected outside of the easement, in any of the 50-foot buffer areas.
2. Configuration. The buffer area shall be measured from the nearest outside edge of the ESHA (e.g. for a wetland from the landward edge of the wetland; for a stream from the landward edge of the riparian vegetation or the top of bank.	Sections 3.0 and 5.0 describes the delineation methodology for riparian areas and other ESHAs. ESHA boundaries are designated in Figure 2 as the outer edges of all identified riparian habitat, rare plants, and areas dominated by Northern Coastal Bluff Scrub and Coastal Terrace Prairie species.
3. Land Division. New subdivisions or boundary line adjustments shall not be allowed which will create or provide for new parcels entirely within a buffer area.	Subdivisions and boundary line adjustments are not known to be proposed for the subject parcel.
Section 4(a-k): Development within 50 feet of ESHAs *No development is proposed within 50 feet of ESHAs.*	

8.0 MITIGATION MEASURES

The Study Area supports riparian habitat, a stream, a rare natural community, and coastal waters. There is also potential to support special status plant and wildlife species. This Biological Report of Compliance assesses the potential impacts on ESHAs from a 15-foot wide trail easement that will contain an unpaved trail, along with a viewing area near the bluffs and a 5-car parking area long Highway One. The parking area would be located more than 100 feet from all identified ESHAs, but the easement and viewing area would be located between 50 and 100 feet from riparian habitat, a stream, and Northern Coastal Bluff Scrub. No development, vegetation clearing, or other disturbance is proposed within 50 feet of any ESHAs. Therefore the following mitigation measures are recommended to prevent and minimize potential impacts to the ESHAs and a reduced 50-foot buffer.

Potential Impact 1: Protocol-level botanical surveys have not been conducted in the Study Area. Therefore, the project has the potential to impact several special status plants as discussed in Appendix B.

> **Mitigation Measure 1:** Protocol-level botanical surveys should be conducted in the Study Area, with a minimum of three visits, one in late March or early April, one in May, and one in July. If any special status plants are observed within 100 feet of the proposed project, the easement alignment should be redesigned to avoid the 100-foot-buffers or further mitigation and consultation with the County and CDFG may be required.

Potential Impact 2: A reduced 50-foot buffer could adversely affect the riparian, stream, and natural community ESHAs through vegetation removal and initial construction impacts. The project includes fencing which would prevent human intrusion into these habitat areas. Potential construction impacts include release of sediment, debris, or other harmful materials, accidental placement of fill or grading of the surrounding topography, and trampling and compaction due to construction equipment.

> **Mitigation Measure 2a: RESTRICTED ACTIVITIES IN ESHAs.** No activities should be allowed that would disturb vegetation, topography, or hydrology in the ESHAs or 50-foot buffers both during and following construction. Some examples of these activities are vehicle parking or storage of other heavy materials, regular foot traffic, and clearing of vegetation. However, certain vegetation removal activities may be permitted, including native plant restoration activities and pruning or removal of hazardous or diseased trees or thinning of trees if deemed beneficial to the ESHA by a certified arborist or qualified biologist.
>
> Solid materials, including wood, masonry/rock, glass, paper, or other materials should not be stored within 100 feet of the ESHAs. Solid waste materials should be properly disposed of offsite. Fluid materials, including concrete, wash water, fuels, lubricants, or other fluid materials used during construction should not be disposed of onsite and should be stored or confined as necessary to prevent spillage into natural habitats including the onsite ESHAs. If a spill of such materials occurs, the area should be cleaned immediately and contaminated materials disposed of properly. The affected area should be restored to its natural condition.

Mitigation Measure 2b: WORK WINDOWS. All activities that require substantial ground disturbance should take place only during the summer months (generally April 15 through October 31) to minimize potential erosion and sedimentation.

Mitigation Measure 2c: LIMIT OF IMPACTS. Prior to any vegetation clearing or ground disturbance, the boundary of the 50-foot ESHA buffer should be flagged by a qualified biologist. No vegetation clearing, grading, placement of fill material, or other ground disturbance should occur beyond the flagged boundary. All fencing and other work may only occur outside of the flagged buffer areas. The flagging and permanent fence should be placed more 100 feet from ESHAs wherever feasible, and should be placed to minimize construction impacts to native plants. The flagging should only be removed once all construction activities are completed or the permanent fencing is installed.

Potential Impact 3: Vegetation clearing within 100 feet of ESHAs has the potential to introduce propagules of non-native and invasive species into the ESHAs. Seeds and plant parts may be present on construction equipment, mowers, hand tools, or other equipment used for clearing the trail or installing project features. While no landscaping is known to be planned for the project, there is potential for future planting efforts intended to enhance the public access area to include invasive species. In addition, invasive species have the potential to invade the ESHAs or 50-foot buffer once grazing ceases and vehicle and foot traffic increase in the vicinity. Of greatest concern for this area is Italian thistle (*Carduus pychnocephalus*) and Himalayan blackberry (*Rubus ursinus*), which would be likely to impact the grasslands and riparian habitat, respectively.

Mitigation Measure 3a: MINIMIZE THE SPREAD OF INVASIVE SPECIES. All construction vehicles undercarriage and tires (tracks) shall be cleaned via pressure washing to remove any dirt or debris which may harbor invasive or non-native species prior to driving on the site. This shall occur each time a vehicle leaves the site and returns, but only if the vehicle is used at a different job site. If the vehicle is not used at a different job site then the need for cleaning is not necessary. All vegetation-clearing equipment and hand tools should also be cleaned of seeds and dirt prior to use in the Study Area.

Mitigation Measure 3b: LANDSCAPING RESTRICTIONS. No landscaping or irrigation may be installed within the ESHAs or 50-foot buffers, unless related to native habitat restoration activities. No non-native plants should be planted within 100 feet of the ESHAs, and it is recommended that locally native plants be used in any landscaping outside of these buffers as well. When possible, planting should be of local stock to preserve local genetic diversity. The local CNPS chapter, a qualified biologist, or a landscaper with knowledge of native plant communities should be consulted to identify appropriate species for planting.

If any landscaping is to be installed, plant species listed as invasive ("High", "Moderate", *and* "Limited" impacts) on the California Invasive Plant Council's California Invasive Plant Inventory (Cal-IPC 2006) shall not be installed anywhere in the Study Area as it would pose a risk to onsite ESHAs and buffers. Any new or existing occurrences of invasive species that threaten the preservation of the native plant communities in the mitigation area (generally those species listed as "High" or "Moderate") should be a target for removal in perpetuity, when feasible.

9.0 CONCLUSION

The mitigation measures described above were developed based upon potential impacts of a trail easement, viewpoint, and small parking area, with all impacts limited to the footprint designated in Figure 2. Implementation of the recommended mitigation measures will help to minimize both temporary and long-term impacts on ESHAs and should serve as guide for future studies.

In addition, WRA recommends that the bluff portion of the trail and associated fence and signage maintain a 100 foot buffer from the westward edge of the riparian and Northern Coastal Bluff scrub habitats as these ESHAs are more sensitive to disturbance, given the fragility of the bluff face.

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Appendix A

Potential for Special Status Plant Species to Occur in the Study Area

PLANT NAME (*SCIENTIFIC* & COMMON)	CNPS LIST	FED	STATE	CNDDB ELEMENT RANK		HABITATS/NATURAL COMMUNITIES	BLOOMS	HABITAT PRESENT WITHIN STUDY AREA?
				G RANK	S RANK			
Agrostis blasdalei Blasdale's bent grass	1B.2	-	-	G2	S2.2	Coastal bluff scrub (CBScr)|Coastal dunes (CoDns)|Coastal prairie (CoPrr)	May-July	Marginal
Blennosperma nanum var. *robustum* Point Reyes blennosperma	1B.2	-	CR	G4T1	S1.2	Coastal prairie (CoPrr)|Coastal scrub (CoScr)	Feb-Apr	Marginal
Calamagrostis bolanderi Bolander's reed grass	4.2	-	-	G3	S3.2	Bogs & fens (BgFns)/Broadleaf upland forests (BUFrs)/Closed cone coniferous forest (CCFrs)/Coastal scrub (CoScr)/Meadows & seeps (Medws)|/Marshes & Swamps (MshSw) (freshwater)/North Coast coniferous forests (NCFrs) (mesic)	May-Aug	Marginal
Calamagrostis crassiglumis Thurber's reed grass	2.1	-	-	G3Q	S1.2	Coastal scrub (CoScr) / mesic|Marshes and swamps (MshSw) / freshwater	May-Jul	Marginal
Calystegia purpurata ssp. *saxicola* Coastal bluff morning glory	1B.2	-	-	G4T2	S2.2	Coastal dunes (CoDns)|Coastal scrub (CoScr)|North Coast coniferous forest (NCFrs)	May-Sep	Yes
Campanula californica swamp harebell	1B.2	-	-	G3	S3.2	Bogs and fens (BgFns)|Closed-cone coniferous forest (CCFrs)|Coastal prairie (CoPrr)|Meadows and seeps (Medws)|Marshes and swamps (MshSw) (freshwater)|North Coast coniferous forest (NCFrs) / mesic	June-Oct	Marginal
Carex californica California sedge	2.3	-	-	G5	S2?	Bogs and fens (BgFns)|Closed-cone coniferous forest (CCFrs)|Coastal prairie (CoPrr)|Meadows and seeps (Medws)|Marshes and swamps (MshSw) (margins)	May-Aug	No
Carex lenticularis var. *limnophia* Lakeshore sedge	2.2	-	-	G5T5	S1S2.2	Bogs and fens (BgFns)|Marshes and swamps (MshSw)|North Coast coniferous forest (NCFrs)/shores, beaches; often gravelly	Jun-Aug	Marginal
Carex lyngbyei Lyngbe's sedge	2.2	-	-	G5	S2.2	Marshes and swamps (MshSw) (brackish or freshwater)	May-Aug	No
Carex saliniformis deceiving sedge	1B.2	-	-	G2	S2.2	Coastal prairie (CoPrr)|Coastal scrub (CoScr)|Meadows and seeps (Medws)|Marshes and swamps (MshSw) (coastal salt) / mesic	Jun	Yes
Carex viridula var. *viridula* green sedge	2.3	-	-	G5T5	S1.3	Bogs and fens (BgFns))|Marshes and swamps (MshSw) (freshwater)|North Coast coniferous forest (NCFrs) / mesic	June-Sept	No
Castilleja mendocinensis Mendocino coast Indian paintbrush	1B.2	-	-	G2	S2.2	Coastal bluff scrub (CBScr)|Closed-cone coniferous forest (CCFrs)|Coastal dunes (CoDns)|Coastal prairie (CoPrr)|Coastal scrub (CoScr)	Apr-Aug	Present
Castilleja affinis ssp. *litoralis* Oregon coast Indian paintbrush	2.2	-	-	G4G5T4	S2.2	Coastal bluff scrub (CBScr)|Coastal dunes (CoDns)|Coastal scrub (CoScr) / sandy	Jun	Yes
Ceanothus gloriosus var. *gloriosus* Point Reyes ceanothus	4.3	-	-	G3G4T3	S3.3	Coastal bluff scrub (CBScr)/Closed cone coniferous forest (CCFrs)/Coastal dunes (CoDns)/Coastal scrub (CoScr)/sandy	Mar-May	Yes
Coptis laciniata Oregon goldthread	2.2	-	-	G4G5	S3.2	Meadows and seeps (Medws)|North Coast coniferous forest (NCFrs)streambanks/mesic	Mar-Apr	No

PLANT NAME (*SCIENTIFIC* & COMMON)	CNPS LIST	FED	STATE	CNDDB ELEMENT RANK		HABITATS/NATURAL COMMUNITIES	BLOOMS	HABITAT PRESENT WITHIN STUDY AREA?
				G RANK	S RANK			
Chorizanthe howellii Howell's spineflower	1B.2	FE	CT	G1	S1.2	(CCFrs)|Coastal dunes (CoDns)|Coastal prairie (CoPrr)|Coastal scrub (CoScr) / sandy	May-July	Marginal
Clarkia amoena ssp. *whitneyi* Whitney's farewell-to-spring	1B.1	-	-	G5T2	S2.1	Coastal bluff scrub (CBScr)|Coastal scrub (CoScr)	June-Aug	Marginal
Fritillaria roderickii Roderick's fritillaria	1B.1	-	CE	G1Q	S1.1	Coastal bluff scrub (CBScr)|Coastal prairie (CoPrr)|Valley and foothill grassland(VFGras)	May-May	Marginal
Gilia capitata ssp. *pacifica* Pacific gilia	1B.2	-	-	G5T3T4	S2.2?	Coastal bluff scrub (CBScr)|Chaparral (Chprl) (openings)|Coastal prairie (CoPrr)|Valley and foothill grassland (VFGrs)	May-Aug	Marginal
Glyceria grandis American mana grass	2.3	-	-	G5	S1.3?	Bogs and fens (BgFns)/Meadows and seeps (Medws)/Marshes and swamps (MshSw)(streambanks and lake margins)	Jun-Aug	Marginal
Hemizonia congesta ssp. *leucocephala* Hayfield tarplant	3	-	-	G5T2T3	S2S3	Coastal scrub (CoScr)|Valley and foothill grassland (VFGrs)	Apr-Oct	Marginal
Horkelia marinensis Point Reyes horkelia	1B.2	-	-	G2	S2.2	Coastal dunes (CoDns)|Coastal prairie (CoPrr)|Coastal scrub (CoScr) / sandy	May-Sept	Marginal
Juncus supiniformis hair-leaved rush	2.2	-	-	G5	S2.2?	Bogs and fens (BgFns)|Marshes and swamps (MshSw) (freshwater) / near coast	Apr-May (June)	Marginal
Lasthenia californica ssp. *bakeri* Baker's goldfields	1B.2	-	-	G3TH	SH	Closed-cone coniferous forest (CCFrs) (openings)|Coastal scrub (CoScr)| Meadows and seeps (Medws)| Marshes and swamps (MshSw)	Apr-Oct	Marginal
Lasthenia californica ssp. *macrantha* perennial goldfields	1B.2	-	-	G3T2	S2.2	Coastal bluff scrub (CBScr)|Coastal dunes (CoDns)|Coastal scrub (CoScr)	Jan-Nov	Marginal
Lilium maritimum coast lily	1B.1	-	-	G2	S2.1	Broadleafed upland forest (BUFrs)|Closed-cone coniferous forest (CCFrs)|Coastal prairie (CoPrr)|Coastal scrub (CoScr)|Marshes and swamps (MshSw) (freshwater)|North Coast coniferous forest (NCFrs)	May-Aug	No
Lotus formosissimus Coastal lotus	4.2	-	-	G4	S3.2	Broadleafed upland forest (BUFrs)|Coastal bluff scrub (CBScr)|Closed-cone coniferous forest (CCFrs)|Cismontane woodland (CmWld)|Coastal prairie (CoPrr)|Coastal scrub (CoScr)|Meadows and seeps (Medws)|Marshes and swamps (MshSw)|North Coast coniferous forest (NCFrs)|Valley and foothill grassland (VFGrs)/wetlands, roadsides	Mar-Jul	Yes
Microseris paludosa Microseris	1B.2	-	-	G2	S2.2	Closed-cone coniferous forest (CCFrs)|Cismontane woodland (CmWld)|Coastal scrub (CoScr)|Valley and foothill grassland (VFGrs)	Apr-Jun(Jul)	No
Mitella caulescense Leafy-stemmed miterwort	4.2	-	-	G5	S4.2	Broadleafed upland forest (BUFrs)|Lower montane coniferous forest (LCFrs)|Meadows and seeps (Medws)|North Coast coniferous forest (NCFrs)/mesic, sometimes roadsides	Apr-Oct	No
Packera bolanderi var. *bolanderi* seacoast ragwort	2.2	-	-	G4T4	S1.2	Coastal scrub (CoScr)|North Coast coniferous forest (NCFrs)/sometimes roadsides	(Apr)May-Jul	Marginal

PLANT NAME (*SCIENTIFIC* & COMMON)	CNPS LIST	FED	STATE	CNDDB ELEMENT RANK		HABITATS/NATURAL COMMUNITIES	BLOOMS	HABITAT PRESENT WITHIN STUDY AREA?
				G RANK	S RANK			
Pleuropogon hooverianus North Coast semaphore grass	1B.1	-	CT	G1	S1.1	Broadleafed upland forest (BUFrs)|Meadows and seeps (Medws)|North Coast coniferous forest (NCFrs) / open areas, mesic	Apr-Jun	Marginal
Potentilla hickmanii Hickman's cinquefoil	1B.1	FE	CE	G1	S1.1	Coastal bluff scrub (CBScr)|Closed cone coniferous forest (CCFrs)|Meadows and seeps (Medws) (vernally mesic)|Marshes and swamps (MshSw)(freshwater)	Apr-Aug	Marginal
Rhynchospora alba white beaked-rush	2.2	-	-	G5	S3.2	Bogs and fens (BgFns)|Meadows and seeps (Medws)|Marshes and swamps (MshSw) / freshwater	July-Aug	Marginal
Sanguisorba officinalis great burnet	2.2	-	-	G5?	S2.2	Bogs and fens (BgFns)|Broadleafed upland forest (BUFrs)|Meadows and seeps (Medws)|Marshes and swamps (MshSw)|North Coast coniferous forest (NCFrs)|Riparian forest (RpFrs) / often serpentinite	July-Oct	Marginal
Senecio bolanderi var. *bolanderi* seacoast ragwort	2.2	-	-	G4T4	S1.2	Coastal scrub (CoScr)|North Coast coniferous forest (NCFrs)	Jun-July	No
Sidalcea calycosa ssp. *rhizomata* Point Reyes checkerbloom	1B.2	-	-	G5T2	S2.2	Marshes and swamps (MshSw) (freshwater, near coast)	Apr-Sep	Marginal
Sidalcea malachroides Maple-leaved checkerbloom	4.2	-	-	G3	S3.2	Broadleaf upland forest (BUFrs)/Coastal prairie (CoPrr)/Coastal Scrub (CoScr)/North Coast coniferous forest (NCFrs)(often disturbed areas)	Apr-Aug	Marginal
Sidalcea malviflora ssp. *patula* Siskiyou checkerbloom	1B.2	-	-	G5T1	S1.1	Coastal bluff scrub (CBScr)/Coastal prairie (CoPrr)/North Coast coniferous forest (NCFrs) (often roadcuts)/One collection 2 miles south of Albion in roadside ditch	May-Aug	Marginal
Sialcea malviflora ssp. *purpurea*	1B.1	-	-	G5T2	S2.2	Broadleafed upland forest (BUFrs)|Coastal prairie (CoPrr)	May-Jun	Marginal
Viola adunca Dog violet	-	-	-	-	-	Coastal prairie (CoPrr)		Marginal
Veratrum fimbriatum Fringed false-hellebore	4.3	-	-	G3	S3.3	Bogs and fens (BgFns)/Coastal scrub (CoScr)/Meadows and seeps (Medws)/North Coast coniferous forests (NCFrs)	Jul-Sep	Marginal

Appendix B

Plants Observed in the Study Area

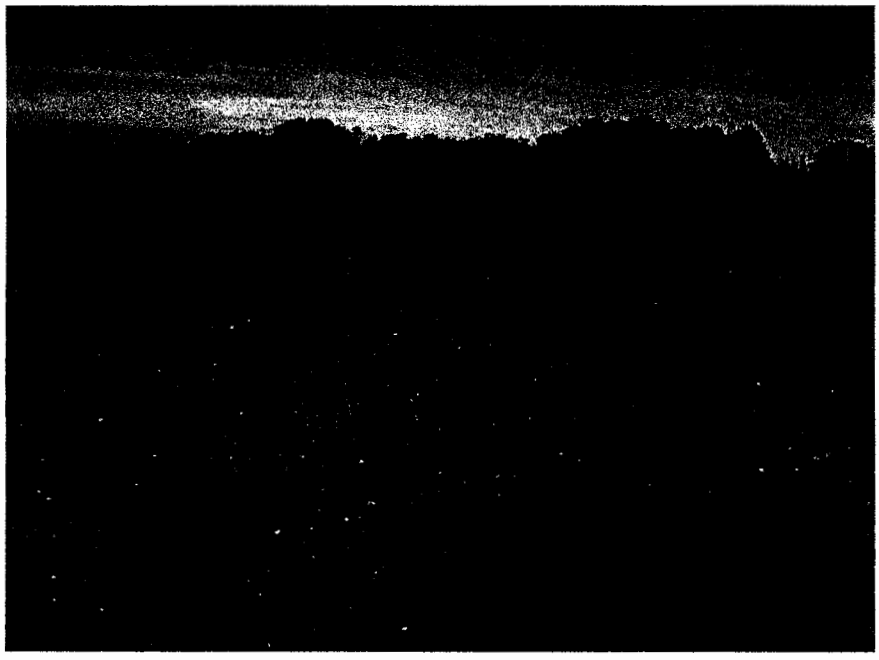
Scientific Name	Common Name
Trees	
Alnus rubra	red alder
Cupressus macrocarpa	Monterey cypress
Pseudotsuga menziesii	Douglas-fir
Salix hookeriana	Hooker's willow
Salix sitchensis	Sitka willow
Shrubs	
Baccharis pilularis	coyote brush
Ceanothus gloriosus var. *exaltatus*	Point Reyes ceanothus
Ceanothus thyrsiflorus	blue blossom
Cotoneaster pannosa	cotoneaster
Mimulus aurantiacus	orange bush monkey-flower
Myrica californica	wax myrtle
Rhamnus californica	California coffeeberry
Rubus discolor	Himalayan blackberry
Toxicodendron diversilobum	poison-oak
Vaccinium ovatum	evergreen huckleberry
Herbs	
Achillea millefolium	common yarrow
Agrostis stolonifera	creeping bent-grass
Aira caryophyllea	silver European hairgrass
Anagallis arvensis	scarlet pimpernel
Anaphalis margaritacea	pearly everlasting
Angelica hendersonii	Henderson's angelica
Anthoxanthum odoratum	sweet vernal grass
Aquilegia formosa	crimson columbine
Armeria maritima	sea-pink
Athyrium filix-femina	lady fern
Avena barbata	slender wild oat
Bellis perennis	English daisy
Blechnum spicant	deer fern
Brassica rapa	field mustard
Briza maxima	rattlesnake grass
Briza minor	rattlesnake grass
Bromus carinatus	California brome
Bromus diandrus	ripgut grass
Bromus hordeaceus	soft chess
Bromus madritensis	foxtail chess
Calamagrostis nutkaensis	Pacific reed grass
Cardamine oligosperma	western bittercress
Carduus pycnocephalus	Italian thistle
Carex gynodynama	Olney's hairy sedge
Carex tumulicola	foothill sedge
Castilleja affinis ssp. *affinis*	paintbrush
Castilleja mendocinensis	Mendocino Coast Indian Paintbrush
Cerastium arvense	field chickweed
Cirsium vulgare	bull thistle

Claytonia perfoliata	miner's lettuce
Conium maculatum	poison hemlock
Danthonia californica	California oatgrass
Danthonia pilosa	hairy oatgrass
Deschampsia caespitosa ssp. *holciformis*	California hair-grass
Dipsacus fullonum	wild teasel
Dudleya farinosa	dudlea
Elymus glaucus ssp. glaucus	blue wildrye
Epilobium angustifolium var. *circumvagum*	red fireweed
Epilobium ciliatum	northern willow herb
Equisetum telmateia ssp. *braunii*	giant horsetail
Erechtites minima	toothed coast fireweed
Erigeron supplex	supple daisy
Eriogonum latifolium	coast buckwheat
Erodium botrys	long-beaked storksbill
Eschscholzia californica	California poppy
Festuca arundinacea	tall fescue
Festuca rubra	red fescue
Foeniculum vulgare	fennel
Fragaria chiloensis	beach strawberry
Galium aparine	goose grass
Gastridium ventricosum	nit grass
Geranium dissectum	cut-leaved geranium
Geranium molle	dovefoot geranium
Gnaphalium luteo-album	weedy cudweed
Gnaphalium purpureum	purple cudweed
Gnaphalium stramineum	cudweed
Grindelia stricta	gumplant
Hedera helix	English ivy
Holcus lanatus	common velvet grass
Hordeum jubatum	foxtail barley
Hydrophyllum tenuipes	Pacific waterleaf
Hypochaeris glabra	smooth cat's-ear
Hypochaeris radicata	hairy cat's-ear
Iris douglasiana	Douglas iris
Juncus effusus	common rush
Juncus patens	spreading rush
Leontodon taraxacoides	hawkbit
Leucanthemum vulgare	ox-eye daisy
Linum bienne	western blue flax
Lolum multiflorum	Italian ryegrass
Lonicera hispidula var. *vacillans*	hairy honeysuckle
Lotus corniculatus	birdfoot trefoil
Lotus micranthus	rose-flowered lotus
Lupinus littoralis	lupine
Lupinus rivularis	riverbank lupine
Madia sativa	coast tarweed
Marah oreganus	coast man-root
Mentha pulegium	pennyroyal
Nassella lepida	foothill needlegrass

Oenanthe sarmentosa	Pacific water-parsley
Osmorhiza chilensis	mountain sweet-cicely
Pentagramma triangularis ssp. *triangularis*	goldback fern
Plantago lanceolata	English plantain
Plantago maritima	plantain
Poa annua	annual bluegrass
Poa pratensis	Kentucky bluegrass
Polystichum munitum	sword fern
Prunella vulgaris	self-heal
Pteridium aquilinum var. *pubescens*	western bracken fern
Ranunculus californicus	California buttercup
Ranunculus muricatus	prickly-fruit buttercup
Ranunculus repens	creeping buttercup
Raphanus sativus	wild radish
Rorippa nasturtium-aquaticum	water cress
Rubus ursinus	California blackberry
Rumex acetosella	sheep sorrel
Rumex crispus	curly dock
Sanicula crassicaulis	Pacific snakeroot
Satureja douglasii	yerba buena
Scrophularia californica	coast figwort
Senecio jacobaea	tansy ragwort
Silybum marianum	milk thistle
Sisyrinchium bellum	blue-eyed-grass
Sonchus asper ssp. *asper*	prickly sow thistle
Sonchus oleraceus	common sow thistle
Spergularia rubra	purple sand spurry
Stachys ajugoides var. *rigida*	hedge nettle
Stachys chamissonis	Chamisso's hedge nettle
Stellaria crispa	crisp chickweed
Stellaria media	common chickweed
Taraxacum officinale	dandelion
Torilis arvensis	field hedge-parsley
Trifolium bifidum	notch-leaved clover
Trifolium campestre	hop clover
Trifolium dubium	little hop clover
Trifolium hirtum	rosy clover
Trifolium repens	white clover
Trifolium subterraneum	subterranean clover
Trifolium variegatum	white-tipped clover
Urtica dioica ssp. *holosericea*	stinging nettle
Vicia sativa ssp. *sativa*	common vetch or spring vetch
Vulpia bromoides	six week fescue
Vulpia myorus	Rat's Tail Fescue
Watsonia bulbillifera	Watsonia
Woodwardia fimbriata	giant chain fern

Appendix C

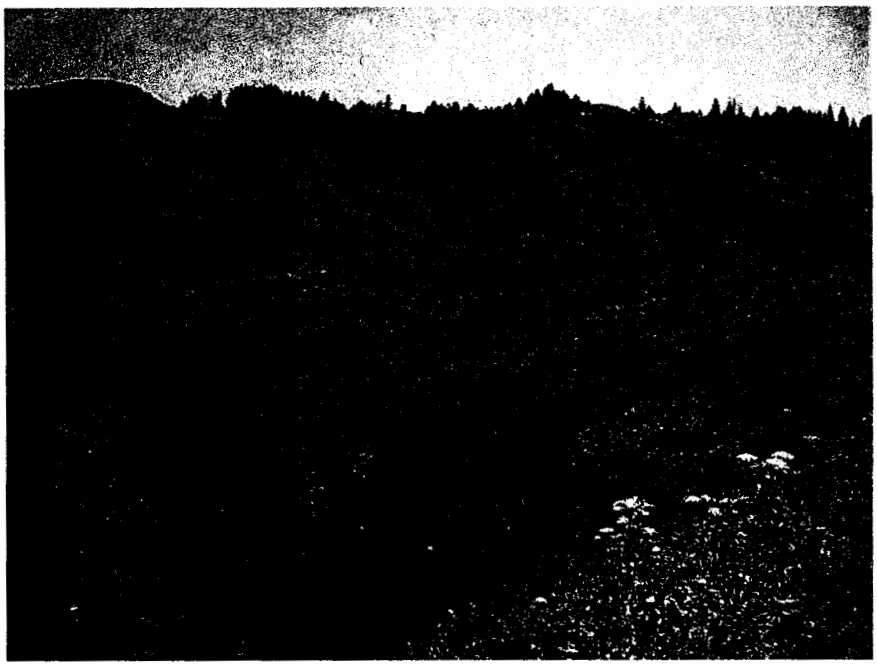
Representative Photographs

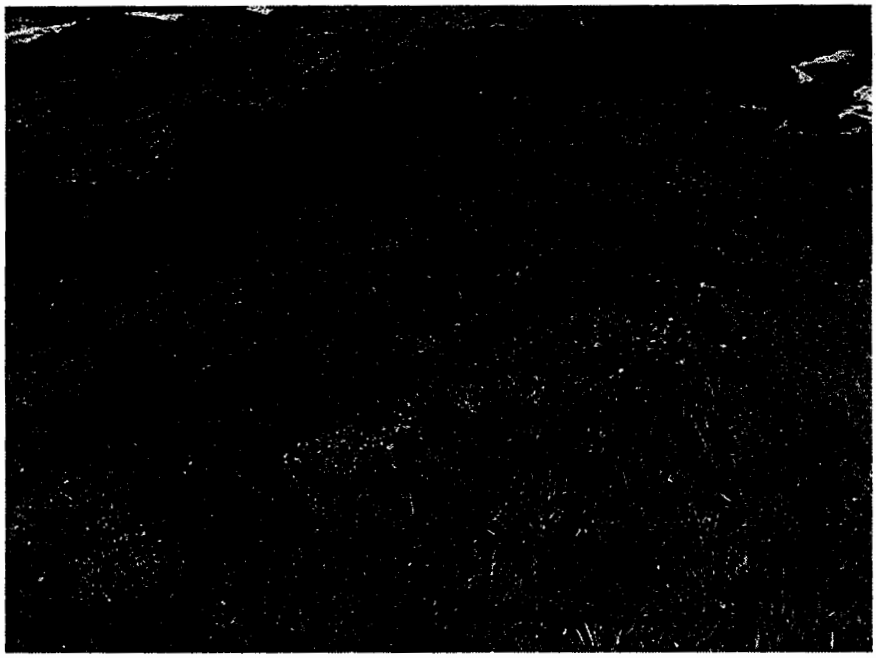


Top: View of the proposed parking area near Highway One and the willow canopy in the background.

Bottom: Additional view of the willow canopy associated with the small stream.

wra
ENVIRONMENTAL CONSULTANTS





Top: View of the Northern Coastal Bluff Scrub and willow canopy on the bluff.

Bottom: View of the Coastal Terrace Prairie vegetation on the bluff.

wra
ENVIRONMENTAL CONSULTANTS

w-trans

Whitlock & Weinberger
Transportation, Inc.

490 Mendocino Avenue
Suite 201
Santa Rosa, CA 95401

voice 707.542.9500
fax 707.542.9590
web www.w-trans.com

January 14, 2008

Mr. Bud Kamb
P.O. Box 323
Little River, CA 95456-0323

Traffic Study for the Jackson-Grube Family Inn in the County of Mendocino

Dear Mr. Kamb;

As requested, Whitlock & Weinberger Transportation, Inc. (W-Trans) has completed a traffic analysis for the proposed inn at 31502 North Highway One in the County of Mendocino. The focus of this traffic analysis was on the potential impacts of the project on State Route 1 on motorists as well as bicyclists.

Project Description

The project site is located on the west side of State Route (SR) 1 approximately four miles south of Westport. There are currently several residential buildings and related out buildings on the 400+ acre site.

The proposed project consists of a 10-unit inn to be built in phases. Phase I consists of demolition and reconstruction of the former Orca Inn into a main unit with two guest units and a manager's unit, an equipment barn, a maintenance shop, and a generator/pump shed. Phase II consists of seven guest units, including three in the main building, two with a detached bunkhouse and two separate cottages. A small spa building is also proposed within the approximate 3.7-acre area of development.

Existing Traffic Conditions

SR 1 in this rural area is a 2-lane undivided highway, with two 10-foot travel lanes and a gently rolling topography, including occasional vertical and horizontal curves. It has a posted speed limit of 55 mph. There are very few street intersections, no street lighting, and no pedestrian or bicycle facilities.

The existing project access is on the west side of SR 1 and is currently gated approximately 40 feet west of the edge of pavement with a split rail fence installed within the driveway approach areas. The approach is more than 40 feet wide at the edge of pavement which provides ample width for 2-way traffic into and out of the site. The main entry drive leads to a parking area.

Existing traffic volumes on SR1 are published by Caltrans. Based upon available information it is estimated that in the area near the project site (Post Mile 72.32) SR 1 carries approximately 2,360 vehicles per day, including 420 trips in the weekday p.m. peak hour. Methodologies for analyzing roadway capacity are contained in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This reference

manual notes that the ideal capacity of a two-lane highway is 3,200 passenger cars per hour (pc/h), and 1,700 pc/h for each direction. SR 1 in this area is not estimated to be carrying this volume of traffic in a *day*, and therefore it is reasonably assumed that the existing highway facilities adequately accommodate existing traffic volumes.

Collision History

The collision history for the area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records for 2002 through 2004 obtained from the California Highway Patrol and published in their SWITRS reports. There were three reported collisions during this time period along SR 1 within one-half mile in either direction of the project site, translating to a calculated collision rate for this segment of 0.80 collisions per million vehicle miles driven (c/mvm). The average collision rate for similar facilities statewide, as indicated in *2002 Accident Data on California State Highways*, California Department of Transportation, is 0.80 c/mvm. The collision rate is identical to the average rate for similar types of roadway segments. This indicates that the roadway is experiencing collisions at a rate that is consistent with similar facilities, and coupled with the low number of collisions, it can be concluded that there are no identifiable safety issues on this road segment.

Project Traffic Conditions

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation*, 7th Edition. The trip generation potential of the project as planned was developed using the published standard rates for Resort Hotel (Land Use #330) as the description most closely matches the currently proposed project. The Resort Hotel land use is described by ITE as:

> *...similar to hotels in that they provide sleeping accommodations, restaurants, cocktail lounges, retail shops and guest services. The primary difference is that resort hotels cater to the tourist and vacation industry, often providing a wide variety of recreational facilities/programs (golf courses, tennis courts, beach access, or other amenities) rather than convention and meeting business. Resort hotels are normally located in suburban or outlying locations on larger sites than conventional hotels.*

It should be noted that another closely matching description for this project is the ITE Land Use #311, All Suites Hotel. The description for this land use by ITE notes:

> *All suites hotels are places of lodging that provide sleeping accommodations, a small restaurant and lounge and a small amount of meeting space. Each suite includes a sitting room and separate bedroom; often, limited kitchen facilities are provided within the suite. These hotels are located primarily in suburban areas.*

While this also closely aligns with the project description, though the project is not located in a suburban area, the trip generation rate is slightly lower for the "All Suites Hotel" land use than for a Resort Hotel. To be conservative, the higher rate trip generation category, Resort Hotel, was used.

The ITE rates for Resort Hotels are based on a variety of parameters, including the total number of rooms. Based on the application of this variable, the proposed project is expected to generate an average of 70 daily trips, including four trip ends during the a.m. peak hour and four trip ends during the p.m. peak hour. These results are summarized in Table 1.

Table 1
Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Resort Hotel	10 rooms	7.0	70	0.41	4	3	1	0.42	4	2	2

Trip Distribution

The pattern used to distribute new project trips to the street network was determined by reviewing existing traffic volumes on SR 1 near the site's existing entrance based as published by Caltrans. Based on current volume patterns it was assumed that 75 percent of the project trips would approach to/from the south (toward Fort Bragg) and 25 percent to/from the north (toward Westport). Specifically, in the a.m. peak hour, of the four project trips generated, two trips would be expected to arrive from the south and one from the north, and one trip would be expected to depart the site heading south on Route 1. Similarly, in the p.m. peak hour, the two inbound trips and the two outbound trips would be expected to arrive and depart from/to the south.

Future Traffic Conditions

The future traffic volumes for this study were developed based on the Caltrans District 1 growth factors for State Highways in the district. Caltrans District 1 has developed growth factors for all of the State Highways in the District based on population projections. The last update was in May 2002. For Highway 1, Caltrans has determined that traffic volumes would be expected to increase by a factor of 1.10 over the next 20-year period, or one-half percent annually. This factor was therefore applied to the existing traffic volumes in order to obtain projected future.

Using this approach, it is estimated that the daily volume on site SR near the project site is expected to increase to approximately 2,600 daily trips and 470 weekday p.m. peak hour trips by 2027. As note above, the ideal capacity of a two-lane highway is noted in the HCM as 3,200 passenger cars per hour (pc/h), and 1,700 pc/h for each direction. Highway One in this area is not estimated to be carrying this volume of traffic in a *day*. It can reasonably be assumed, therefore, that Highway 1 will continue to operate acceptably within the existing highway lane configuration under these future traffic volumes, with no widening or additional capacity needed.

Sight Distance

Sight distance is the continuous length of highway visible to the driver. Minimum corner sight distance criteria are contained in the Caltrans *Highway Design Manual*. Corner sight distance for private road

intersections should equal the stopping sight distance, which is the criterion applied, and is described as follows:

> *The minimum stopping sight distance is the distance required by the driver of a vehicle, traveling at a given speed, to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eyes, which are assumed to be 3½ feet above the pavement surface, to an object ½-foot high on the road.*

The minimum corner sight distance needed for a road with a design speed of 55 mph is 500 feet. Using the original site plan, sight distance was measured at the existing driveway. Sight distance from the existing driveway to the south was measured at more than 1,100 feet. At the driveway looking north, drivers have approximately 450 feet sight distance, which is less than the minimum suggested. In order to gain adequate minimum sight distance, the project driveway would have to be relocated farther south.

Under the current plan, the project access driveway is proposed to be located approximately 100 feet south of the existing driveway, per a site plan entitled *Encroachment Approach (Concept Sketch) for Inn at Newport Ranch* and dated January 10, 2008. A line of sight from the proposed location to the north is noted on the plans as "+/- 530 feet sight distance." This is consistent with field measurements completed as part of this study, and would exceed the minimum sight distance requirements. Additionally, given the excellent sight distance to the south, such a driveway approach relocation will not affect the adequacy of sight distance in that direction.

The proposed driveway concept also includes eliminating the existing driveway access, with configuration of the new driveway shown in a curvilinear nature in order to tie into the existing driveway location approximately 100 feet from the roadway (west). This design would ensure eliminating any possible use of the sight-restricted access location.

Need for Left-Turn Lane or Right-Turn Lane

The need for left-turn or right-turn channelization on SR 1 at the project driveway was evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as a more recent update of the left-turn channelization methodology developed by the Washington State Department of Transportation. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes in order to determine the need for a turn pocket based on safety issues. Based on our research and discussions with Caltrans staff, this methodology is consistent with the "Guidelines for Reconstruction of Intersections," August 1985, which is referenced in Section 405.2, Left-turn Channelization, of the Caltrans *Highway Design Manual.*

Using the future peak hour traffic volumes noted above together with anticipated traffic associated with the project of two left-turning trips inbound at the project driveway during the evening peak period, a northbound left-turn pocket on SR 1 is not warranted. To be conservative, the two inbound trips were also assumed to be arriving from the north, so turning right into the site. Based on the analysis performed, a southbound right-turn pocket is also not warranted. Since neither the left-turn or right-turn pockets is

warranted, installation is not recommended. Copies of the worksheets used for these left-turn lane and right-turn lane warrant analyses are enclosed for reference.

Bicycle Facilities

Bike facilities, if installed, should occur within the context of a larger project to provide connectivity to other bicycle or pedestrian facilities. However, no such facilities are recommended for installation as part of this project, as providing such facilities along this project highway frontage at this time would serve no helpful purpose. If the right-of-way width is currently insufficient to accommodate future widening for bike facilities, adequate width should be dedicated.

Conclusions and Recommendations

- The segment of SR 1 near the project site currently carries approximately 2,360 vehicle trips per day, and is operating acceptably based on a review of both volumes and the collision history.

- The proposed project is expected to generate an average of four new trips during the a.m. and p.m. peak hours on weekdays.

- Adequate corner sight distance is available from both the existing and proposed project access points *to the south.* While sight distance is inadequate for traffic approaching *from the north* at the existing driveway, the proposed relocated access will increase the sight distance to 530 feet. The proposed location would exceed the minimum sight distance requirements for both approaches for the 55 mph speed of traffic on SR 1, providing a safer access than currently exists.

- The existing driveway should be removed at the time the proposed driveway is constructed, to prevent continued use.

- Based on the estimated volume of northbound left-turning vehicles during the p.m. peak hour a left-turn pocket is not warranted on SR 1 at the project driveway; one is therefore not recommended. Likewise, a right-turn lane is neither warranted nor recommended.

- Bicycle facilities are not present on SR 1 at this time, and should be installed as part of a larger project that would provide continuous facilities along the highway. Adequate right-of-way should be dedicated by the project, if appropriate.

We hope this information adequately addresses the project's potential impacts. Please call me if you have any questions regarding this analysis.

Sincerely,

Mary Jo Yung, P.E., PTOE
Associate

MJY/mjy/MEX067.L1.wpd

Enclosures: Left-Turn Lane and Right-Turn Lane Warrants

LEFT TURN LANE
WARRANT ANALYSIS

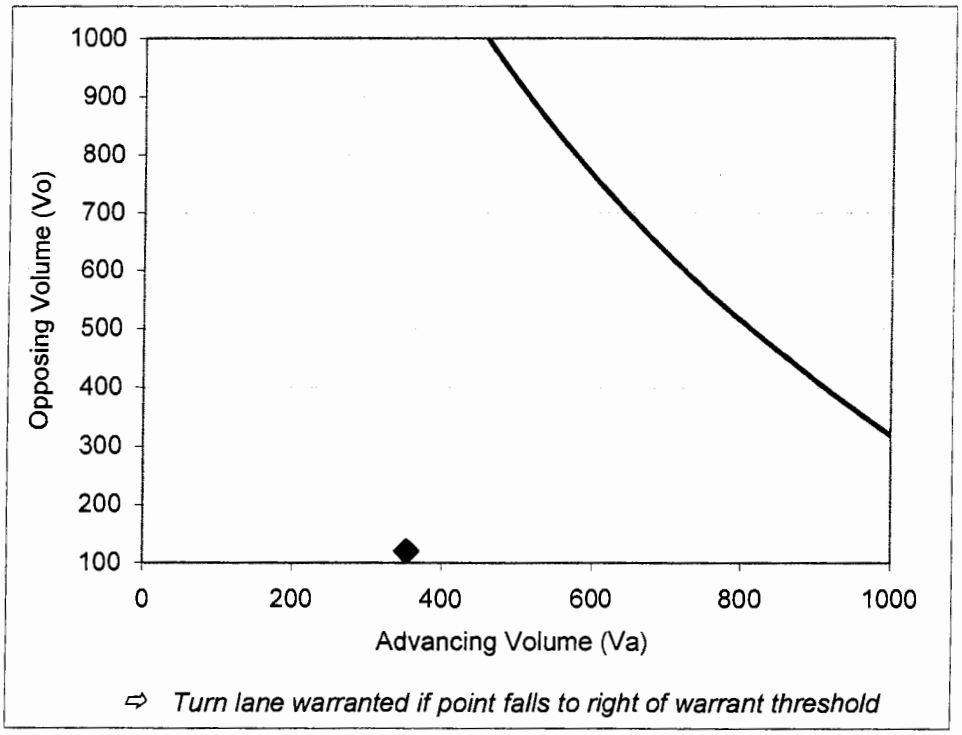
Study Intersection N. Highway One/Driveway at 31502

Study Scenario Future + Project (weekday p.m. peak)

INPUT			
Advancing Volume	Va	354	
Opposing Volume	Vo	120	
Left Turn Volume	Vl	2	
Speed	SP	55	MPH
Two-Lane Undivided Highway			

Percentage Left Turns	%lt	0.6	%
Advancing Volume Threshold	AV	1258	

If AV<Va then warrant is met



Warrant Threshold for 0.6% left turns and speed of 55

◆ Study Intersection

Left Turn Lane Warranted	**NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997. The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

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RIGHT TURN LANE WARRANT ANALYSIS

Study Intersection	**Main Street**	**N. Highway One**
	Side Street	**Driveway at 31502**
Study Scenario	**Scenario**	**Fut.+ Proj.(wkdy pm peak)**

INPUT		
Advancing Volume	Va	120
Right Turn Volume	V_{RT}	2
Speed	SP	55 MPH
Two-Lane Undivided Highway		

RIGHT TURN LANE WARRANTS

1. Check for right turn volume criteria — NOT WARRANTED
   Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane
   Advancing Volume Threshold AV -
   If AV<Va then warrant is met -

Right Turn Lane Warranted	**NO**

RIGHT TURN TAPER WARRANTS
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria — NOT WARRANTED
   Less than 20 vehicles

2. Check advance volume threshold criteria for taper
   Advancing Volume Threshold AV = -
   If AV>Va then warrant is met -

Right Turn Taper Warranted	**NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997. The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.

12276

RECORDING REQUESTED BY

AND WHEN RECORDED MAIL TO

NAME John L. Adams, Attorney
ADDRESS McCutchen, Doyle, Brown & Enersen
CITY & STATE 1855 Olympic Blvd. 3rd Fl. P.O. Box V Walnut Creek, Ca.94596-1270

Title Order No. _____ Escrow No. 104096

$20.00 PAID
PCO FILED
Exempt

RECORDED AT REQUEST OF
WESTERN TITLE INSURANCE COMPANY
BOOK 1571 PAGE 487
JUL 29 2 42 PM '86
OFFICIAL RECORDS
MENDOCINO COUNTY, CALIF
MARSHA A. YOUNG
RECORDER
11.00
4P

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MAIL TAX STATEMENTS TO

NAME SAME AS ABOVE
ADDRESS
CITY & STATE

Documentary transfer tax $ 1,247.50
☐ Computed on full value of property conveyed, or
☒ Computed on full value less liens and encumbrances remaining thereon at time of sale.
Diana H. Adams
Signature of declarant or agent determining tax — Firm name
WESTERN TITLE INSURANCE COMPANY

Individual Grant Deed

WESTERN TITLE FORM NO. 104

FOR VALUE RECEIVED, JAMES J. LINDSEY and JOSEPHINE ANN LINDSEY, husband and wife

GRANT to JACKSON-GRUBE FAMILY, INC., a California corporation

all that real property situate in the unincorporated area

County of Mendocino, State of California, described as follows:

FORLEGAL DESCRIPTION, REFER TO EXHIBIT "A" ATTACHED AND MADE A PART HEREOF

Dated July 24, 1986

James J. Lindsey

Josephine Ann Lindsey

STATE OF CALIFORNIA
County of ORANGE } ss.

On JULY 25, 1986, before me, MICHAEL MILCHIKER, a Notary Public, in and for said State, personally appeared JAMES J. LINDSEY & JOSEPHINE ANN LINDSEY proved to me on the basis of satisfactory evidence to be the person s whose name s ARE subscribed to the within instrument, and acknowledged to me that ± he/she/they executed the same.

Notary Public

FOR NOTARY SEAL OR STAMP

OFFICIAL SEAL
MICHAEL MILCHIKER
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
My comm. expires MAR 18, 1988

MAIL TAX STATEMENTS AS DIRECTED ABOVE

EXHIBIT NO. 19
APPEAL NO.
A-1-MEN-07-028
JACKSON-GRUBE FAMILY, INC
PROPERTY DEED (1 of 4)

EXHIBIT "A"

That certain real property situated in the County of Mendocino State of California, and being a portion of Sections 20, 21 28 and 29, Township 20 North, Range 17 West, Mount Diablo Meridian, more particularly described as follows:

The bearings used in this description are in terms of the California State Grid, Zone 2.

PARCEL 1

BEGINNING at a point on the section line common to the above mentioned Sections 21 and 28 that bears South 87°08'11" East, 3871.12 feet from the Section corner common to the above mentioned Sections 20, 21 and 29 and said point of beginning can be further described as being the Southeast corner of the West one-half of the Southeast one-quarter of said Section 21; thence from said point of beginning and along the exterior boundary lines of the parcel of land to be described as follows:

North 01°30'56" East along the Easterly line of said legal subdivision, 2722.96 feet to the Northeast corner thereof; thence continuing North 01°30'56" East along the Easterly line of the West one-half of the Northeast one-quarter of said Section 21, a distance of 1357.10 feet thence leaving said legal subdivision line, North 88°53'09" West (Deed of record = West), 5401.75 feet to a fence corner on the Easterly side line of State Highway No. 1; thence North 60°24'58" West, 81.17 feet to a point in the Westerly side line of said highway described as the point of beginning in that certain deed to James J. Lindsey et al recorded June 4, 1980 in Book 1261 of Official Records, Page 168, Mendocino County Records; thence leaving said highway side line South 47°17'00" West, 108.24 feet (Record = South 46°10' West, 1.64 chains); thence North 43°08'00" West, 110.22 feet (Record = North 44°15' West, 1.67 chains) to the center of a small creek or waterway; thence along the center line of said creek following its meanders, as follows:
North 47°53'26" West, 36.84 feet; thence
South 74°25'54" West, 107.97 feet; thence
South 57°11'15" West, 158.38 feet; thence
North 75°03'01" West, 63.96 feet; thence
North 62°07'03" West, 94.87 feet; thence
North 75°06'04" West, 121.31 feet; thence
South 74°01'07" West, 56.83 feet; thence
North 82°35'18" West, 176.08 feet; thence
South 80°26'14" West, 132.25 feet; thence
South 72°10'53" West, 99.40 feet; thence
South 79°48'26" West, 199.69 feet; thence
South 65°58'44" West, 210.45 feet; thence
South 59°14'20" West, 131.29 feet; thence
South 40°00'00" West, 100 feet more or less to the Mean High Tide Line of the Pacific Ocean; thence leaving the center line of said creek and along said Mean High Tide Line in a general Southerly direction to a point that bears West, 80 feet, more or less from a one inch diameter rebar survey monument tagged "LS 3184" as said monument is shown and delineated upon that certain Record of Survey map filed December 5, 1967 in Map Case 2, Drawer 10, Page 22, Mendocino County Records; thence leaving said Mean High Tide Line, East 80 feet, more or less to said rebar monument; thence

BOOK 1571 PAGE 488

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continuing East, 453.30 feet to a one inch diameter survey monument tagged "LS 3104" as shown upon said map; thence continuing East, 673.91 feet to a one inch diameter survey monument tagged "LS 3184" in the Westerly side line of the aforementioned State Highway No. 1 as shown upon said map; thence leaving the Westerly side line of said highway and continuing East, 40.30 feet to a point in the Easterly side line of said highway; thence along the Easterly side line of said highway as follows:
South 07°02'00" East, 650.14 feet; thence
South 06°36'40" East, 279.90 feet; thence
North 83°12'40" East, 35.00 feet; thence
South 06°47'12" East, 667.34 feet; thence
South 17°12'44" East, 29.42 feet to point "A", hereinafter referred to; thence leaving said highway side line,
South 87°57'30" East, 671.12 feet; thence
North 04°19'00" West, 60.37 feet; thence
South 87°48'50" East and running parallel with the East-West one-quarter section line of Section 28, a distance of 4314.40 feet to a point in the Easterly line of the West one-half of the Northeast one-quarter of said Section 28 that bears
North 01°08'14" East, 769.16 feet from the Southeast corner of said legal subdivision; thence
North 01°08'14" East along said legal subdivision line, 1822.77 feet to the point of beginning.

PARCEL 2

COMMENCING at the hereinabove mentioned point "A", said point being in the Easterly side line of State Highway No. 1; thence
North 87°57'30" West, 35.05 feet; thence
South 07°02'00" East, 43.47 feet; thence West, 149.00 feet to a point in the Westerly side line of said highway and being the TRUE POINT OF BEGINNING of this description; thence from said true point of beginning and along the exterior boundary lines of the parcel of land to be described as follows:

Along the Westerly side line of said highway as follows:
South 11°20'30" East, 98.41 feet; thence
South 28°56'30" East, 172.14 feet; thence
South 10°43'30" East, 349.96 feet; thence
South 28°43'30" East, 89.86 feet to a point on the East-West one-quarter section line of Section 29, that bears
North 87°57'30" West, 1018.20 feet from the one-quarter section corner common to Sections 28 and 29 as said corner is shown and delineated upon the herinabove mentioned Record of Survey map filed in Map Case 2, Drawer 10, Page 22, Mendocino County Reocrds; thence leaving said highway side line and running
North 87°57'30" West along said one-quarter section line, 110 feet, more or less, to the Mean High Tide Line of the Pacific Ocean; thence leaving said legal subdivision line and running in a general Northerly direction along said Mean High Tide Line, to a point that bears West from the true point of beginning; thence leaving said Mean High Tide Line and running East, 81 feet, more or less to the true point of beginning.

15-330-05

A.P.#'s 015-070-45, 015-070-47, 015-070-49, 015-070-50, 015-070-51, 015-070-52, 015-130-41, 015-330-05, 015-330-13, 015-330-15, 015-330-19, 015-330-20, 015-380-03, 015-380-04, 015-380-05

SAVING AND EXCEPTING from the above described PARCELS, 1 & 2, the following:

1st: STARTING from the meander post on the ocean bluff on section line between Sections 20 and 29, Township 20 North, Range 17 West, Mount Diablo Meridian; thence North 46° West 147 feet; thence North 84° East 247 feet; thence North 20° East 218 feet; thence North 61° West, 240 feet, to the Point of Beginning; thence North 58° West 181 feet; thence South 83° West 161 feet; thence North 45° West 100 feet; thence North 21° West 96 feet; thence North 57° 30' West 210 feet; thence North 3° West 50 feet; thence South 72° East 612 feet; thence North 19° East 270 feet; thence South 45° East 60 feet; thence South 44° West 58 feet; thence South 48° 30' East 248 feet; thence South 48°30' West 103 feet; thence South 40° West 207 feet to the point of beginning, and being known as the Newport Chute property.

15-380-04

2nd: A strip of land 40 feet in uniform width now being the location of State Highway No. 1 (a portion of which being conveyed to the County of Mendocino on September 6, 1919 in a deed recorded in Book 156 of Deeds, Page 173, Mendocino County Records), the center line of said 40 foot wide strip being described as follows: Beginning at a point that bears East, 20.15 feet from the Northeast corner of that certain parcel of land shown as 15 acres on the hereinabove described Record of Survey Map filed in Map Case 2, Drawer 10, Page 22, Mendocino County Records; thence along the center line of said highway as follows:

North 06°59'48" West, 1200.30 feet; thence along a tangent curve to the right, having a radius of 270.00 feet, through a central angle of 41°00'03", for an arc length of 193.21 feet; thence North 34°00'14" East, 298.98 feet; thence along a tangent curve to the left, having a radius of 450.00 feet, through a central angle of 31°44'25", for an arc length of 249.29 feet; thence North 02°15'49" East, 902.41 feet; thence along a tangent curve to the left, having a radius of 9000.00 feet, through a central angle of 02°58'45", for an arc length of 467.98 feet; thence North 00°42'56" West, 543.26 feet; thence along a tangent curve to theleft, having a radius of 500.00 feet, through a central angle of 32°57'14", for an arc length of 287.58 feet; thence North 33°40'10" West, 294.41 feet to the terminous of this highway strip of land, that bears South 68°24'58" East, 32.55 feet from the point hereinabove described as being called the point of beginning of that certain deed to James J. Lindsey et al recorded in Book 1261 of Official Records, Page 168, Mendocino County Records.

WHEN RECORDED, PLEASE MAIL
COPY TO: MENDOCINO COUNTY
PLANNING & BUILDING SERVICES
DEPARTMENT

WHEN RECORDED, PLEASE MAIL
THIS INSTRUMENT TO:

JACKSON GRUBE FAMILY, INC.

3300 SOUTH OCEAN BLVD

PALM BEACH FL 33482

c/c

CONFORMED COPY (1)
Copy of Document Recorded
on 04/05/1995 as 00004721
in Book 2244 Page 287
Mendocino County Recorder

EXHIBIT NO. 20
APPEAL NO.
A-1-MEN-07-028
JACKSON-GRUBE FAMILY, INC.
CERTIFICATE OF COMPLIANCE
(1 of 6)

CERTIFICATE OF COMPLIANCE
(66499.35(a) OF THE GOVERNMENT CODE)

Notice is hereby given that the County of Mendocino has reviewed the status surrounding the creation of the land parcel presently owned by:

JACKSON-GRUBE FAMILY, INC.

AS DESCRIBED IN Book 1571, Page 487 of the official records of said County and hereby declares this 31st day of March 1995, pursuant to Section 66499.35(a) of the Government Code of the State of California, that said parcel has not been created in violation of State law or County Ordinance.

CC App. # 39-90
SV #
MS #
A/P #15-070-45, 15-070-49X, 15-070-51X, 15-330-05, 15-330-13, 15-330-26, 15-070-47X, 15-070-52X, 15-330-19X, 15-380-03, 15-380-04, 15-380-05. As one legal parcel as described in attached Exhibit "A." See also Exhibit "B" attached.

RAYMOND HALL
Planning & Building Services Department
Mendocino County

By _____
Frank Lynch, Supervising Planner

NOTE: A CERTIFICATE OF COMPLIANCE DOES NOT GUARANTEE THE ISSUANCE OF SUBSEQUENT BUILDING PERMITS NOR DOES IT MAKE ANY REFERENCE AS TO THE LEGALITY OF THE USE OR STRUCTURE ON THE PARCEL. THE REQUIREMENTS OF THE (1) PUBLIC HEALTH DEPARTMENT, (2) BUILDING INSPECTION DEPARTMENT, AND (3) COUNTY ZONING REGULATIONS MUST BE COMPLIED WITH PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS.

STATE OF CALIFORNIA
County of Mendocino

On the 4th day of April, 1995, before me, the undersigned, a Notary Public in and for said State, personally appeared Frank Lynch, Supervising Planner of the Planning and Building Services Department, County of Mendocino, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Ella Castiaux

OFFICIAL SEAL - 1005233
ELLA CASTIAUX
NOTARY PUBLIC - CALIFORNIA
COUNTY OF MENDOCINO
My Comm. Exp. Oct. 3, 1997

Exhibit "A"

All that real property situated in Mendocino County, State of California, more particularly described as follows:

The bearings used in this description are in terms of the California State Grid, Zone 2.

Commencing at the corner to Sections 20, 21, 28 and 29, T20N R17W, M.D.M. as shown on a map filed in Map Case 2, Drawer 44, Page 85, Mendocino County Records; thence South 87°08'11" East, 1,290.37 feet to the southeast corner of the Southwest Quarter of the Southwest Quarter Section 21, being the POINT OF BEGINNING of this description; thence Northerly along the east line of the said Southwest Quarter 1,355 feet, more or less, to the northeast corner thereof; thence Westerly along the north line of the said Southwest Quarter 1,293 feet, more or less, to the northwest corner thereof; thence North 01°19'23" East 2,669.9 feet, more or less, to the north line of the parcel of land shown on the above mentioned map; thence North 88°53'09" West, along the said north line 1,523.5 feet, more or less, to a fence corner on the Easterly side line of State Highway No. 1; thence North 68°24'58" West, 81.17 feet to a point in the Westerly side line of said highway described as the point of beginning in that certain deed to James J. Lindsey et al recorded June 4, 1980 in Book 1261 of Official Records, Page 168, Mendocino County Records; thence leaving said hiughway side line South 47°17'00" West, 108.24 feet; thence North 43°08'00" West, 110.22 feet to the center of a small creek or waterway; thence along the center line of said creek following its meanders, as follows: South 47°53'26" West(record North 47°53'26" West), 36.84 feet; thence South 74°25'54" West, 107.97 feet; thence South 57°11'15" West, 158.38 feet; thence North 75°03'01" West, 63.96 feet; thence North 62°07'03" West, 94.87 feet; thence North 75°06'04" West, 121.31 feet; thence South 74°01'07" West, 56.83 feet; thence North 82°35'18"West, 176.08 feet; thence South 80°26'14" West, 132.25 feet; thence South 72°10'53" West, 99.40 feet; thence South 79°48'26" West, 199.69 feet; thence South 65°58'44" West, 210.45 feet; thence South 59°14'20" West, 131.29 feet; thence South 40°00'00" West, 100 feet, more or less, to the Mean High Tide Line of the Pacific Ocean; thence leaving the said center line of the said creek and along the said Mean High Tide Line in a general Southerly direction to a point that bears West, 80 feet, more or less, from a one inch diameter rebar survey monument tagged "LS 3184" as said monument is shown and delineated upon the above mentioned survey map; thence leaving the said Mean High Tide Line, East, 80 feet, more or less, to the said rebar monument; thence continuing East, 453.30 feet to a one inch diameter survey monument tagged "LS 3184" as shown on the said map; thence continuing East, 673.91 feet, to a one inch diameter survey monument tagged "LS 3184" in the Westerly side line of the aforementioned State Highway 1 as shown upon the said map; thence leaving the Westerly side line of the said highway and continuing East, 40.30 feet to a point

in the Easterly side line of said highway; thence along the Easterly side line of the said highway as follows: South 07°02'00" East, 650.14 feet; thence South 06°36'40" East, 279.90 feet; thence North 83°12'48" East, 35.00 feet; thence South 06°47'12" East, 667.34 feet; thence South 17°12'44" East, 29.42 feet; thence leaving the said highway side line South 87°57'30" East, 671.12 feet; thence North 04°19'00" West, 60.37 feet; thence South 87°48'50" East and running parallel with the East-West ¼ section line of Section 28, a distance of 1,290 feet, more or less, to a point in the east line of the West Half of the Northwest Quarter of Section 28; thence Northerly along the said east line 1,823 feet, more or less, to the Point Of Beginning.

Together with the following described parcel of land:

Commencing at Point "A" as described in the deed from James J. Lindsey et ux to Jackson-Grube Family, Inc. as recorded in Book 1571, Official Records,Page 487, Mendocino County Records; thence North 87°57'30" West, 35.05 feet; thence South 07°02'00" East, 43.47 feet; thence West, 149.00 feet to a point in the Westerly side line of State Highway No. 1 and being the POINT OF BEGINNING of this description; thence along the said Westerly side line of said Highway as follows: South 11°20'30" East, 98.41 feet; thence South 28°56'30" East, 172.14 feet; thence South 10°43'30" East, 349.96 feet; thence South 28°43' 30" East, 89.86 feet to a point on the East-West ¼ section line of Section 29, that bears North 87°57'30" West, 1,018.28 feet from the ¼ section corner common to Sections 28 and 29, as said corner is shown on a map filed in Map Case 2, Drawer 10, Page 22, Mendocino County Records; thence leaving the said Highway side line and running North 87°57'30" West along the said ¼ section line, 110 feet, more or less, to the Mean High Tide Line of the Pacific Ocean; thence leaving the said legal subdivision line and running in a general Northerly direction along the said Mean High Tide Line, to a point that bears West from the point of beginnig; thence leaving the said Mean High Tide Line and running East, 81 feet, more or less, to the Point Of Beginning.

SAVING AND EXCEPTING FROM THE ABOVE PARCELS OF LAND, THE FOLLOWING:

1st: STARTING from the meander post on the ocean bluff on section line between Sections 20 and 29, Township 20 North, Range 17 West, Mount Diablo Meridian; thence North 46° West 147 feet; thence North 84° East 247 feet; thence North 20° East 218 feet; thence North 61° West, 240 feet, to the Point of Beginning; thence North 58° West 181 feet; thence South 83° West 161 feet; thence North 45° West 100 feet; thence North 21° West 96 feet; thence North 57° 30' West 210 feet; thence North 3° West 50 feet; thence South 72° East 612 feet; thence North 19° East 270 feet; thence South 45° East 60 feet; thence South 44° West 58 feet; thence South 48° 30' East 248 feet; thence South 48°30' West 103 feet; thence South 40° West 207 feet to the point of beginning, and being known as the Newport Chute property.

2nd: A strip of land 40 feet in uniform width now being the location of State Highway No. 1 (a portion of which being conveyed to the County of Mendocino on September 6, 1919 in a deed recorded in Book 156 of Deeds, Page 173, Mendocino County Records), the center line of said 40 foot wide strip being described as follows: Beginning at a point that bears East, 20.15 feet from the Northeast corner of that certain parcel of land shown as 15 acres on the hereinabove described Record of Survey Map filed in Map Case 2, Drawer 10, Page 22, Mendocino County Records; thence along the center line of said highway as follows:

North 06°59'48" West, 1200.30 feet; thence along a tangent curve to the right, having a radius of 270.00 feet, through a central angle of 41°00'03", for an arc length of 193.21 feet; thence North 34°00'14" East, 298.98 feet; thence along a tangent curve to the left, having a radius of 450.00 feet, through a central angle of 31°44'25", for an arc length of 249.29 feet; thence North 02°15'49" East, 902.41 feet; thence along a tangent curve to the left, having a radius of 9000.00 feet, through a central angle of 02°58'45", for an arc length of 467.98 feet; thence North 00°42'56" West, 543.26 feet; thence along a tangent curve to theleft, having a radius of 500.00 feet, through a central angle of 32°57'14", for an arc length of 287.58 feet; thence North 33°40'10" West, 294.41 feet to the terminous of this highway strip of land, that bears South 68°24'58" East, 32.55 feet from the point hereinabove described as being called the point of beginning of that certain deed to James J. Lindsey et al recorded in Book 1261 of Official Records, Page 168, Mendocino County Records.

APN 15-07-45, a portion of 15-07-49 and 51, 15-33-05, 13, 26, a portion of 15-07-47 and 52, and a portion of 15-33-19.
15-380-03,4,5

This real property description has been prepared by me in conformance with the Professional Land Surveyors' Act.

Joseph J. Scherf

12-9-94
Date

Joseph J. Scherf
My License Expires 6-30-96

LICENSED LAND SURVEYOR
JOSEPH J. SCHERF
No. 3089
STATE OF CALIFORNIA

596

EXHIBIT "B"

In reference to Certificate of Compliance #CC

I HEREBY WAIVE MY RIGHT TO NOTICE OF MERGER HEARING and any provisions of Mendocino County Code Section 17-108 and Article 1.5 of Chapter 3 of Division 2 of the Government Code (Subdivision Map Act).

Signed: Jackson-Brube Family, Inc
Willard T. Jackson, Pres.

PROPERTY OWNER/AGENT

3/8/95

DATE

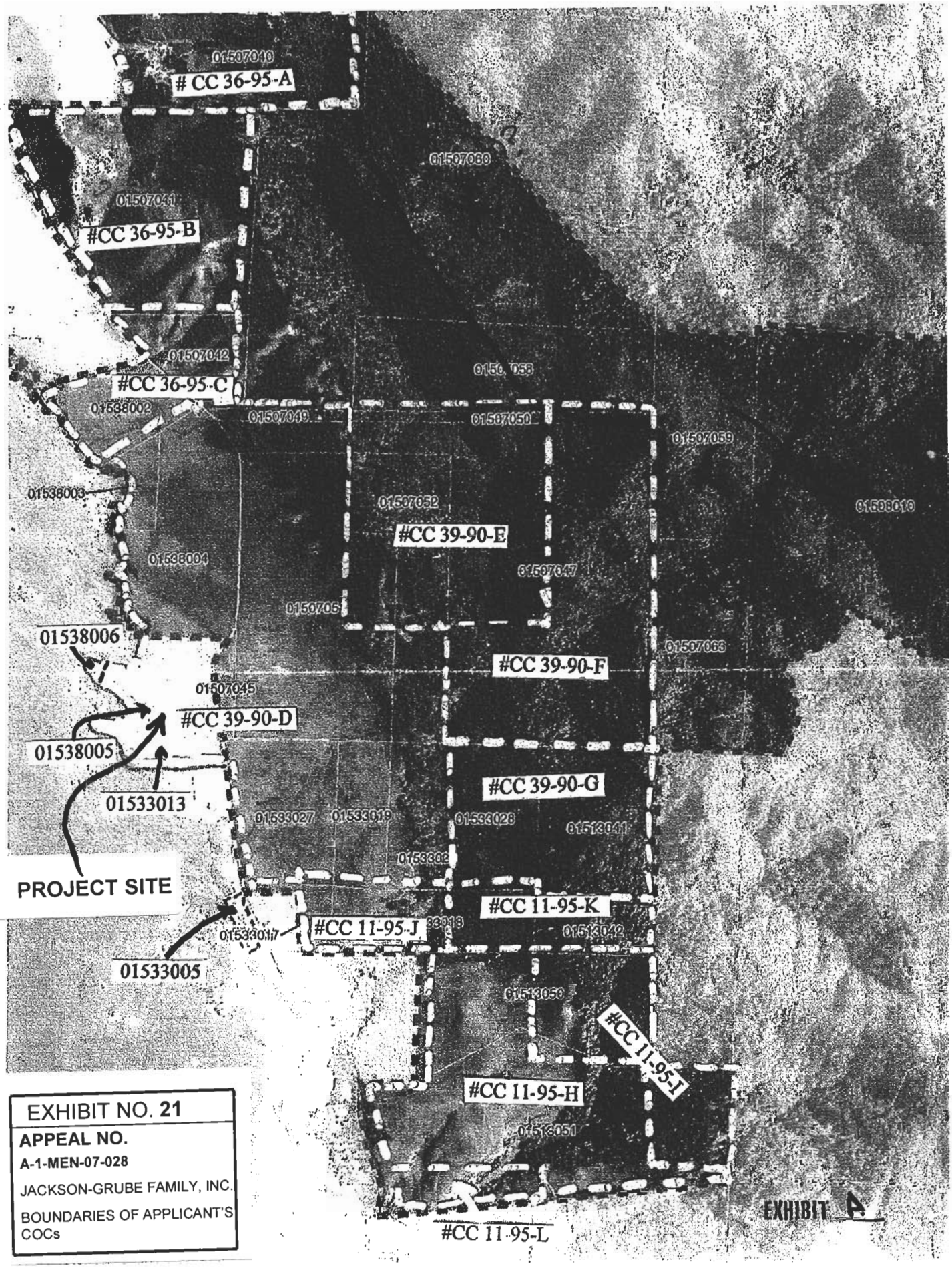


EXHIBIT NO. 21

APPEAL NO.

A-1-MEN-07-028

JACKSON-GRUBE FAMILY, INC.

BOUNDARIES OF APPLICANT'S COCs

EXHIBIT A

Visual Impact Study

Sellers & Company Architects

April 2, 2010

EXHIBIT NO. **22**

APPEAL NO.

A-1-MEN-07-028

JACKSON-GRUBE FAMILY, INC.

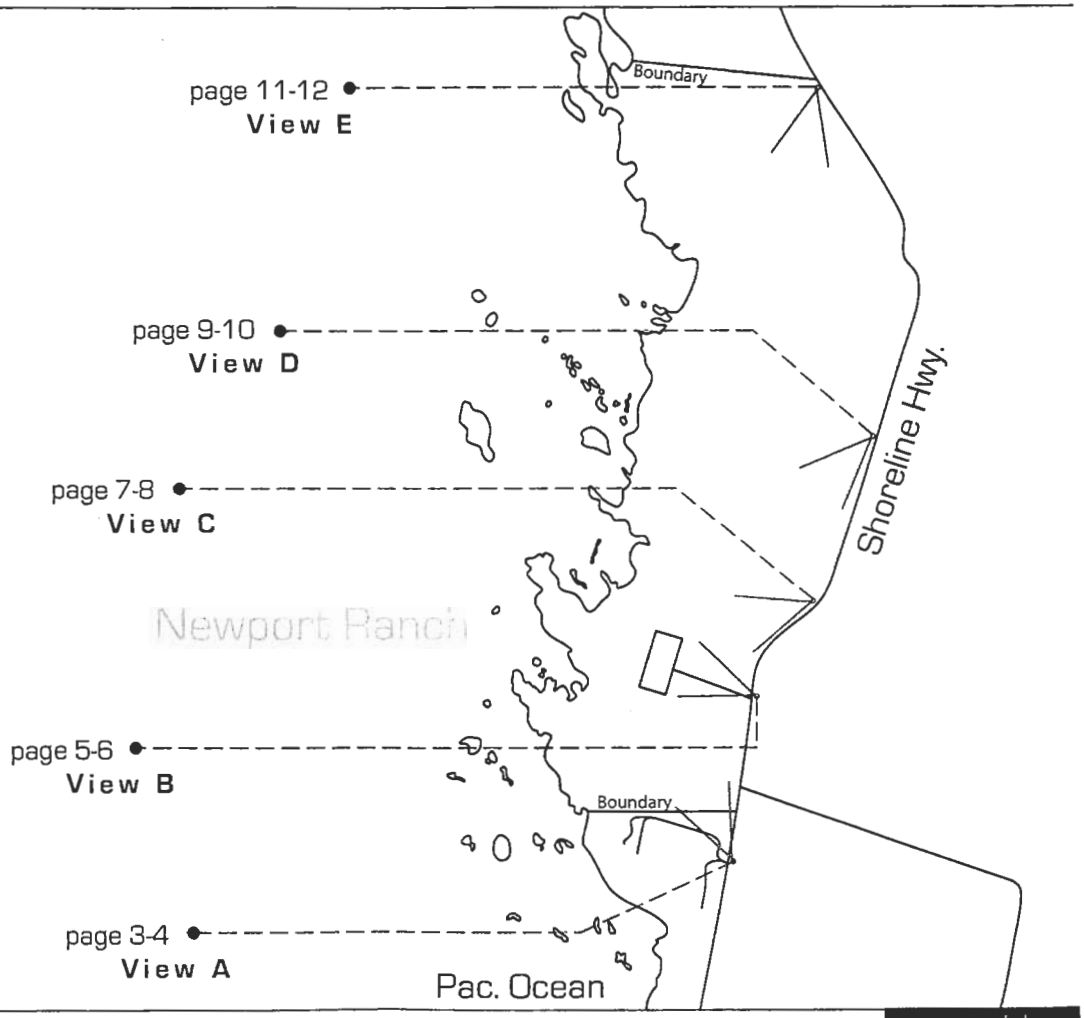
VISUAL IMPACT STUDY

Building Envelope

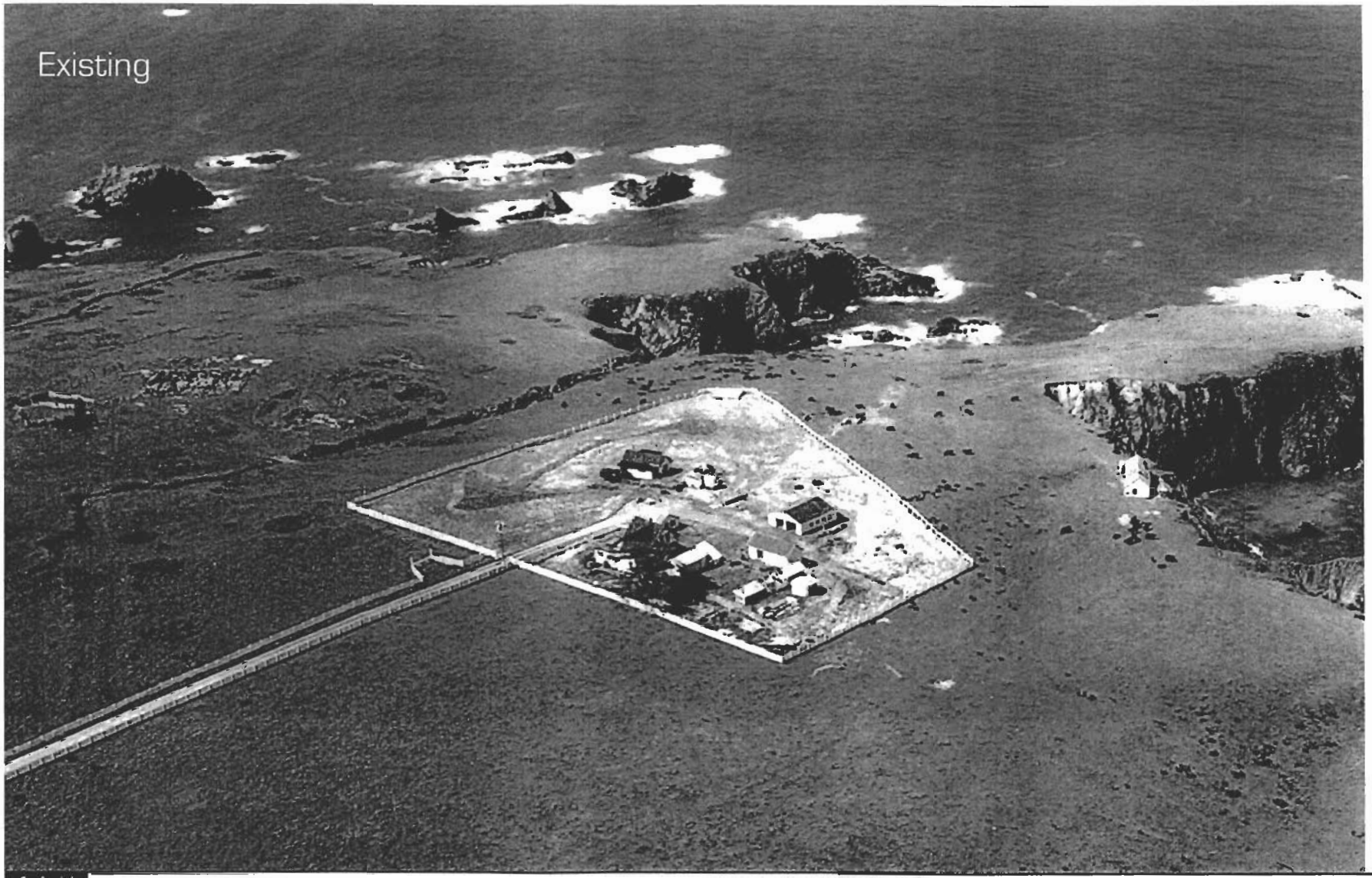
SELLERS AND COMPANY ARCHITECTS
P.O. BOX 288
WARREN, VT 05674

Index

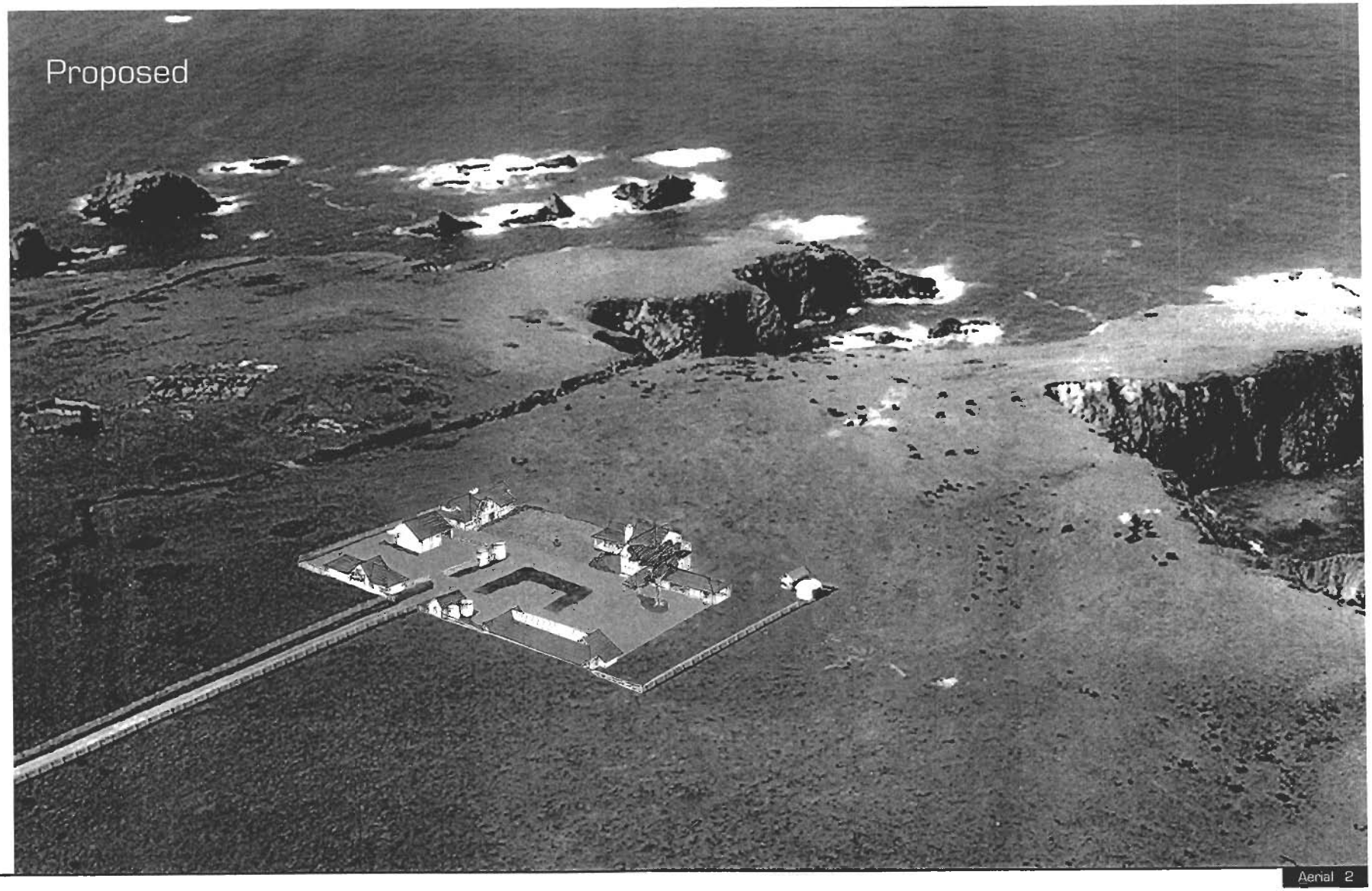
page 1-2
Aerial Views



Graphic indicates location & direction of view.



1 Aerial



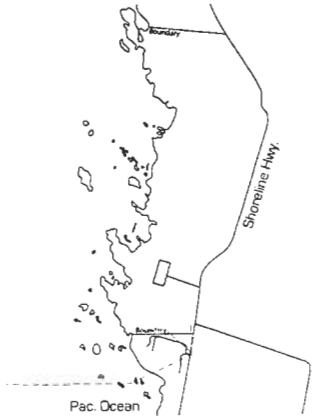
Aerial 2

View A

Looking northwest from the southern end of the ranch.

Existing

| Building Envelope |



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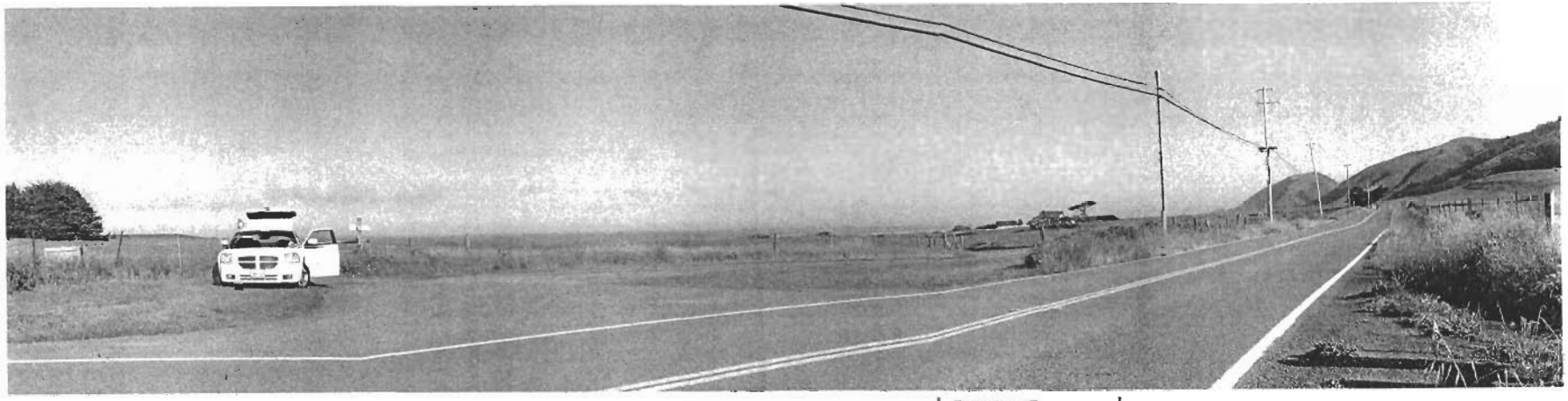
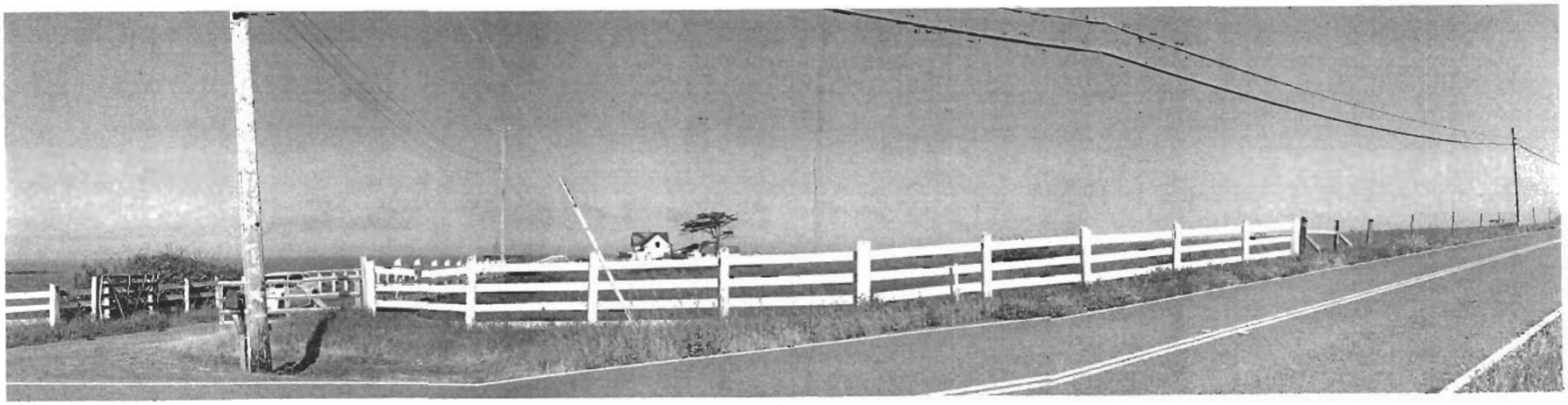


Proposed

| Building Envelope |

View B

Looking due west at ranch from Shoreline Hwy.



Existing

Building Envelope

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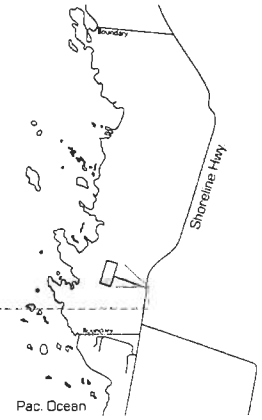

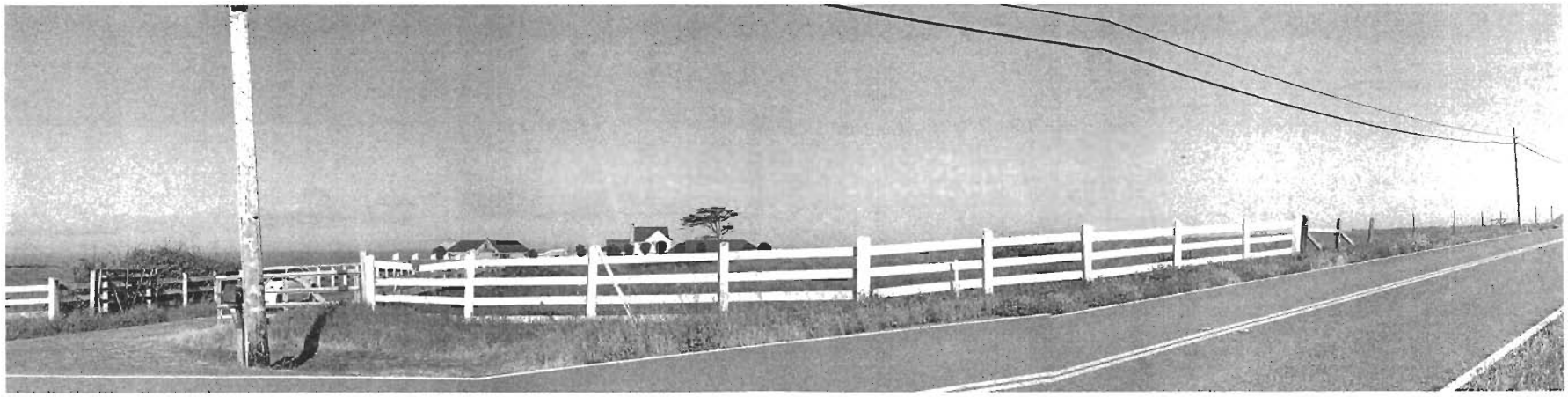

Building Envelope

Proposed

View C

Looking southwest from the middle of the ranch.

Existing | Building Envelope |

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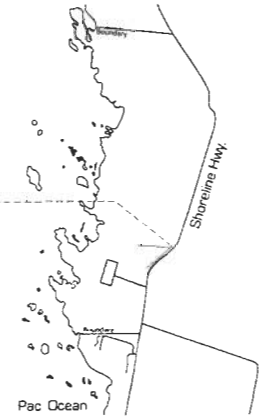
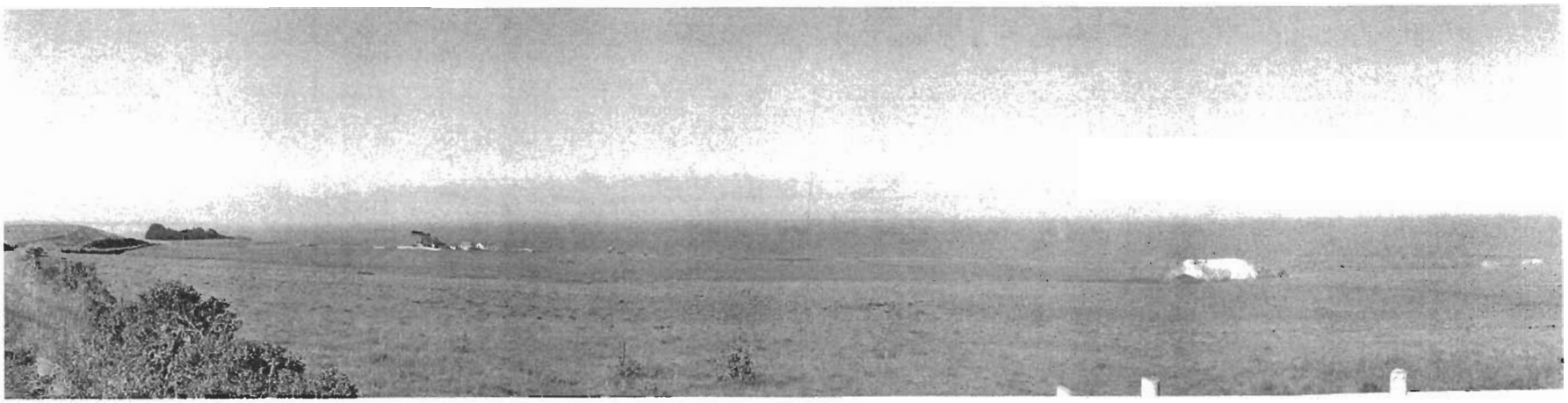


Proposed | Building Envelope |

View D

Looking southwest from north end of the ranch.



Existing

Building Envelope

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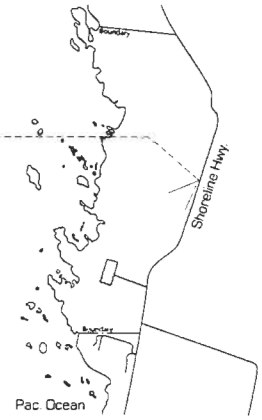
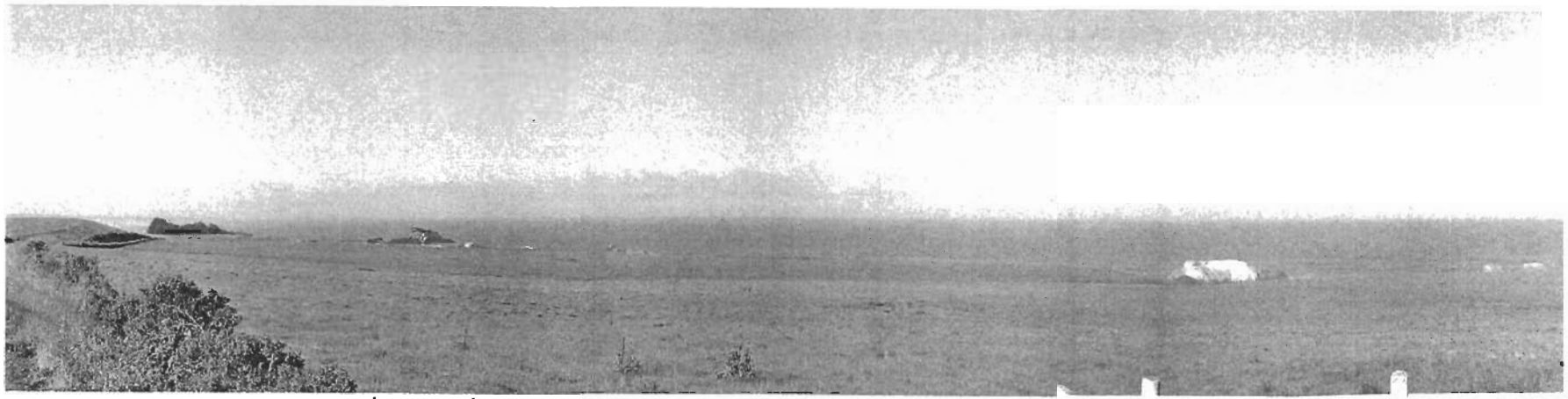


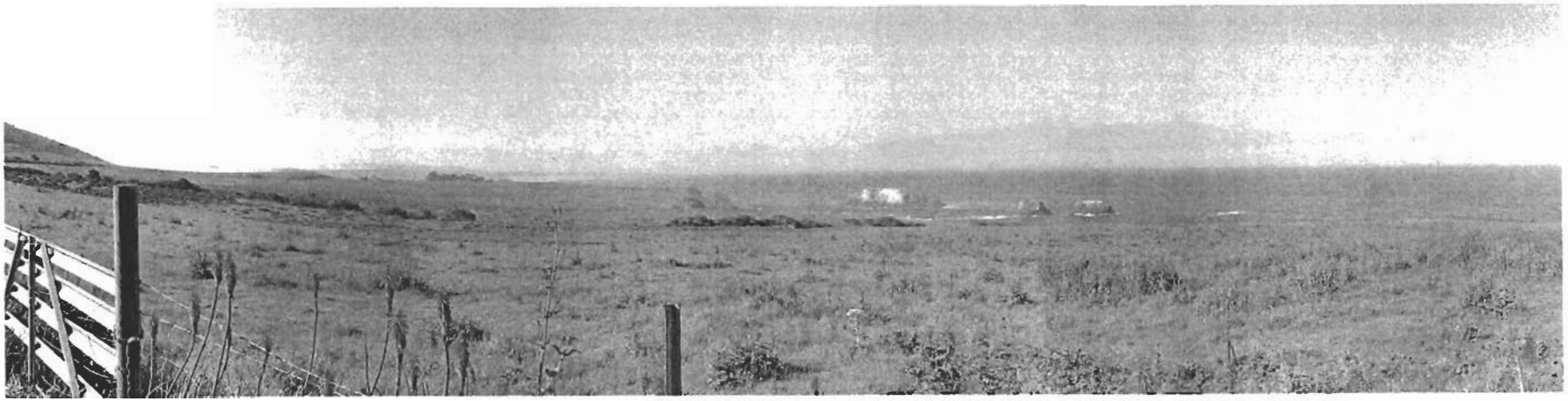


Proposed

Building Envelope

View E

Looking northwest from the southern end of ranch.



Existing

Building Envelope

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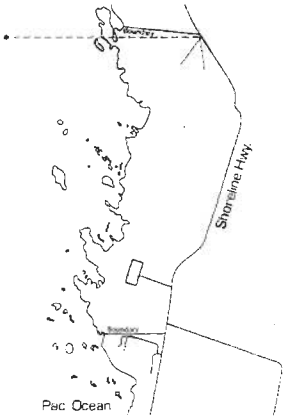
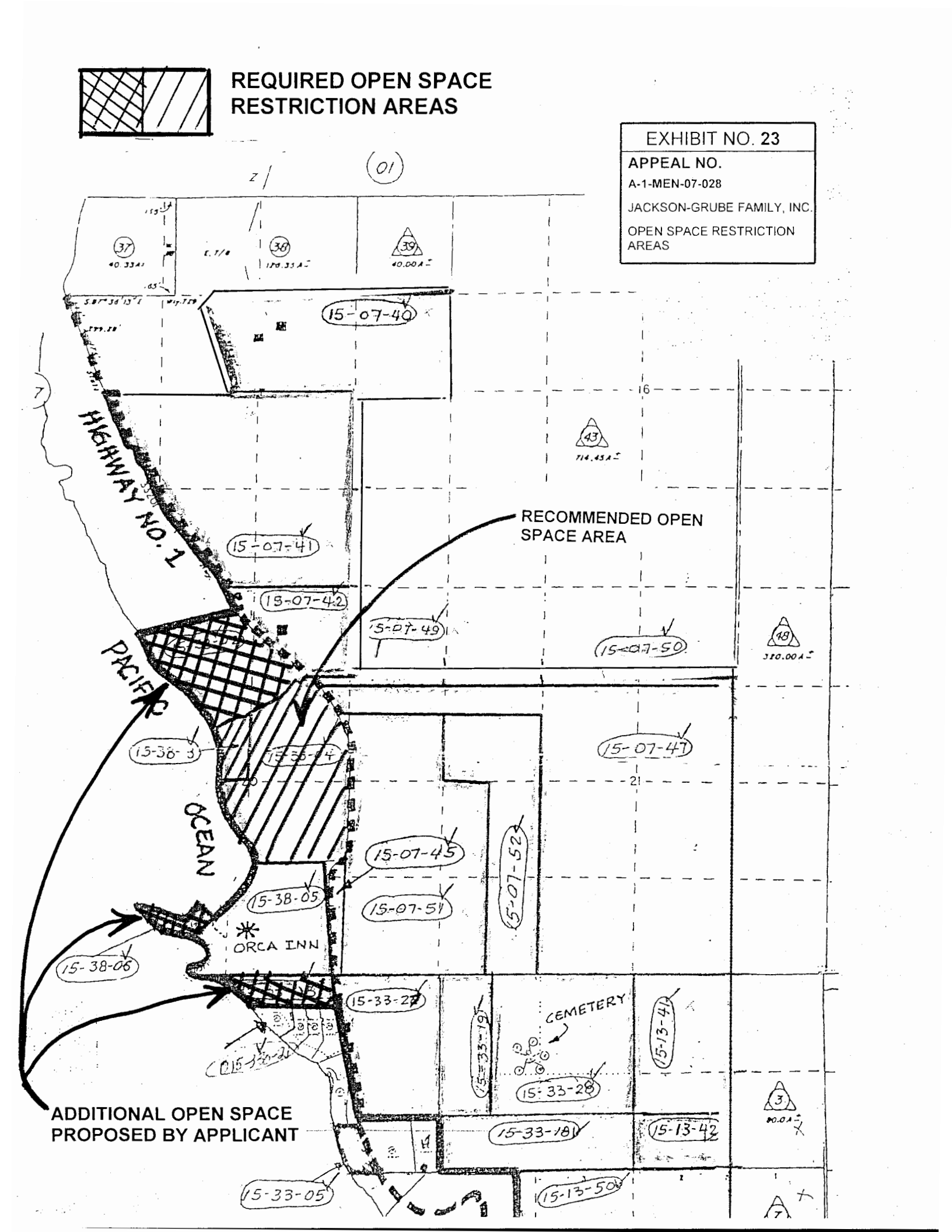


Proposed

Building Envelope


REQUIRED OPEN SPACE RESTRICTION AREAS
EXHIBIT NO. 23
APPEAL NO.
A-1-MEN-07-028
JACKSON-GRUBE FAMILY, INC.
OPEN SPACE RESTRICTION AREAS
HIGHWAY NO. 1
PACIFIC OCEAN
RECOMMENDED OPEN SPACE AREA
ADDITIONAL OPEN SPACE PROPOSED BY APPLICANT
ORCA INN
CEMETERY
15-07-40
15-07-41
15-07-42
15-07-49
15-07-50
15-07-47
15-38-3
15-38-4
15-07-45
15-07-52
15-07-51
15-38-05
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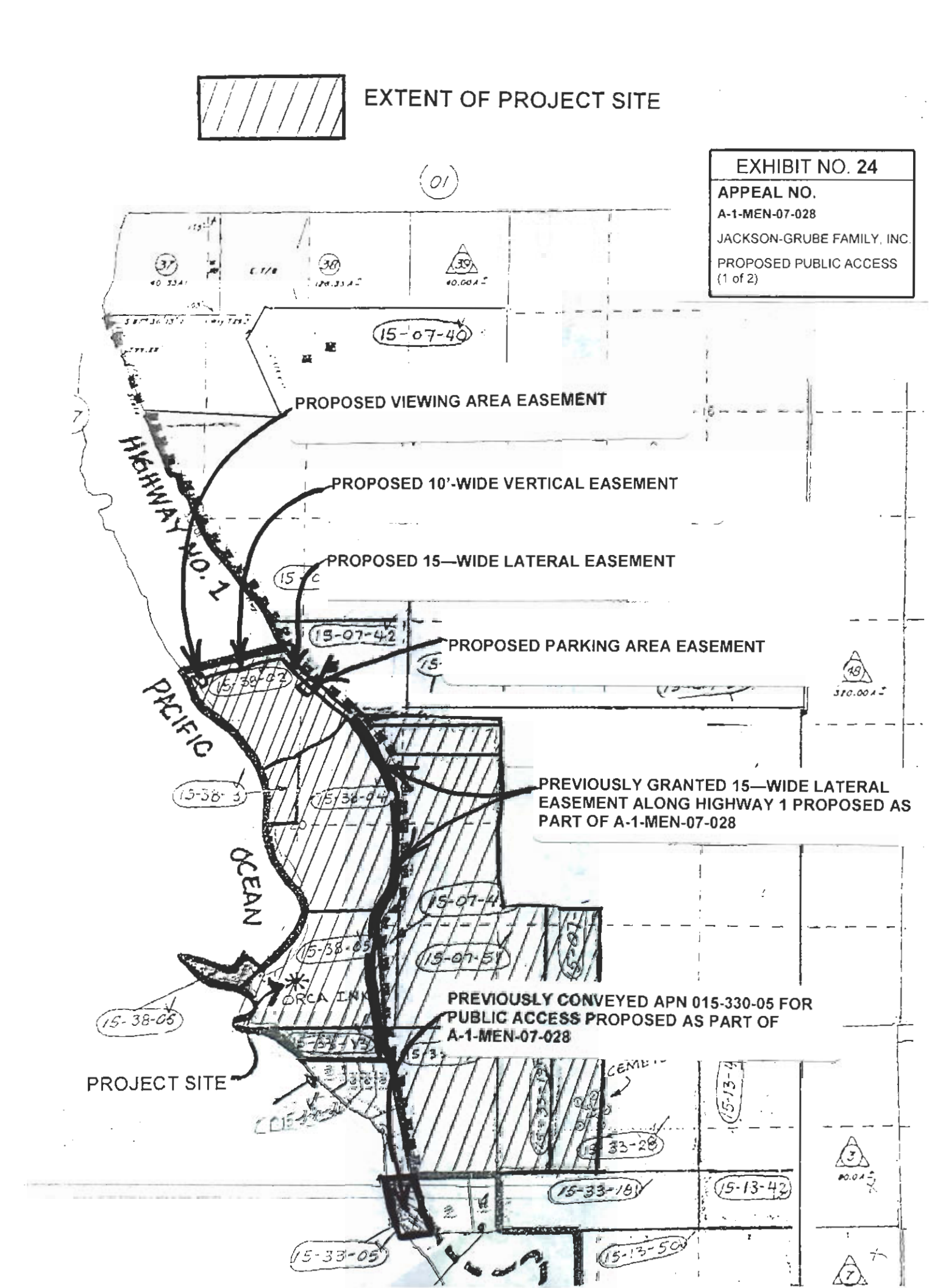
EXTENT OF PROJECT SITE
EXHIBIT NO. 24
APPEAL NO.
A-1-MEN-07-028
JACKSON-GRUBE FAMILY, INC.
PROPOSED PUBLIC ACCESS
(1 of 2)
PROPOSED VIEWING AREA EASEMENT
PROPOSED 10'-WIDE VERTICAL EASEMENT
PROPOSED 15—WIDE LATERAL EASEMENT
PROPOSED PARKING AREA EASEMENT
PREVIOUSLY GRANTED 15—WIDE LATERAL EASEMENT ALONG HIGHWAY 1 PROPOSED AS PART OF A-1-MEN-07-028
PREVIOUSLY CONVEYED APN 015-330-05 FOR PUBLIC ACCESS PROPOSED AS PART OF A-1-MEN-07-028
PROJECT SITE
HIGHWAY NO. 1
PACIFIC
OCEAN
ORCA INN
15-07-40
15-07-42
15-38-03
15-38-04
15-38-05
15-07-41
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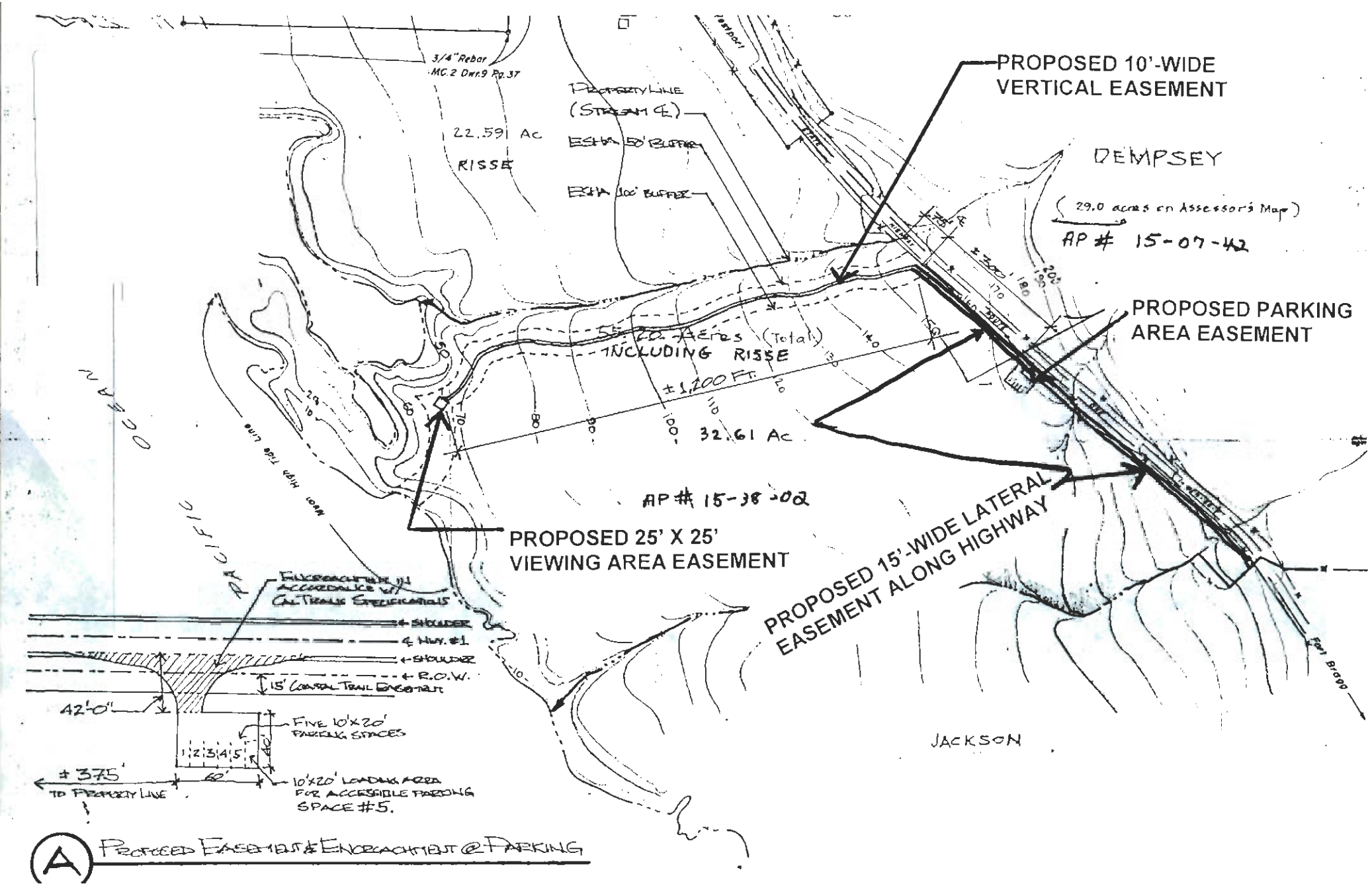
15-13-4



A Proposed Easement & Encroachment @ Parking

DETAIL OF PROPOSED NEW PUBLIC ACCESS OTD's ON APN 015-380-02