

# Huffman-Broadway Group, Inc.

ENVIRONMENTAL REGULATORY CONSULTANTS

828 MISSION AVENUE, SAN RAFAEL, CA 94901 • 415.925.2000 • WWW.H-BGROUP.COM

February 11, 2022

Sent via email

Mr. Immanuel Bereket  
County of Marin  
Community Development Agency  
3501 Civic Center Drive, Suite 308  
San Rafael, CA 94903  
[ibereket@marincounty.org](mailto:ibereket@marincounty.org)

**Subject: Response to Public Comments on the Biological Site Assessment for a Single-Family Residence At 726 Point San Pedro Road Marin County, California”**

Dear Mr. Bereket:

As requested by the County, Huffman-Broadway Group, Inc. (HBG) has prepared responses to comments received by the County of Marin Community Development Agency on the Biological Site Assessment prepared by HBG for a proposed Single-Family Residence At 726 Point San Pedro Road Marin County, California (report dated August 2021).

A total of seven comment letters were received by the County during the review period as listed below. HBG has identified these letters as Comment Letter A through G for ease of reference in the attached Response to Comments document. The following comment letters were received by the County and are available for review at the Marin County Community Development Agency:

- Comment Letter A- Memorandum from Stuart Siegel to Bonnie Marmor dated December 6, 2021
- Comment Letter B- Letter from Arlette Cohen to Immanuel Bereket dated December 5, 2021
- Comment Letter C- Letter from Winifred Dajani to Immanuel Bereket (undated)
- Comment Letter D- Bonita Marmor and William Gates Supplemental Comments Re: Rushworth Design Review Application (dated December 6, 2021)
- Comment Letter E- Letter from Hal Lauritzen to Immanuel Bereket (dated November 21, 2021)
- Comment Letter F- Letter from Colin L. McRae and Maureen McRae to Immanuel Bereket (dated November 24, 2021)
- Comment Letter G- Letter from Rodney Ruskin to Immanuel Bereket (dated November 15, 2021).

The comments cover a variety of topics, but this Response to Comments document provides responses solely to all comments specifically referencing the Biological Site Assessment report

prepared by HBG. Individual comments related to the site biology are summarized in the attached document and responses to each individual comment are provided.

If you have any questions or need additional information, please email me at [gdeghi@h-bgroup.com](mailto:gdeghi@h-bgroup.com) or Robert Perrera at [rperrera@h-bgroup.com](mailto:rperrera@h-bgroup.com) or call us at 415-925-2000.

Sincerely,

*Gary Deghi*

Gary Deghi  
Senior Environmental Scientist

Enclosures  
Response to Comments Document

## Response to Public Comments on Biological Site Assessment

### Comment Letter A. Memorandum from Stuart Siegel to Bonnie Marmor dated December 6, 2021

**Comment A1.** The commenter reviewed photographs of the extent of recent “king tides” and compared the reach of the king tides along with other tidal data from the National Ocean Service tide station at the Chevron Pier in Richmond with the wetland buffer zone mapped in the BSA report.

**Response A1.** The Siegel memo discusses the extent of peak high tide during recent king tides. The peak high tide limit is not relevant to the measurement of the buffer zone. The Marin County ordinance establishing the Bayfront Conservation Zone (Section 22.14.060 of the Development Code) refers to “line of tidal highest tidal action (as applied by the Bay Conservation and Development District)”. The line applied by the BCDC is based on the mean high tide/mean high water (MHT/MHW) limit, or in areas with tidal wetlands the line extends to the edge of the tidal wetlands but no more than 5 feet above Mean Sea Level.

The BSA addendum dated December 17, 2021 submitted to the Planning Department shows that the MHT/MHW is located over 25 feet outside the subject parcel. HBG determined that limit to be at slightly under 6 feet NAVD88. Using a Richmond station, the Siegel memo sets it at 6.04 feet NAVD88. In any event, a 100 foot band above the MHT/MHW limit is well below the 100 foot wetlands buffer zone on the subject parcel. The wetlands limit was located near the parcel by HBG at approximately the 7 feet NAVD88 contour. Given its higher elevation, that is the limit that governs development on this parcel pursuant to the Marin Countywide Plan.

**Comment A2.** On page 2 of the memorandum, the commenter reviews the various portions of the project that encroach into the 100 foot WCA buffer zone as recommended in the Marin Countywide Plan. The commenter goes on to state that the basis for the conclusion in the BSA that the biological impacts of these encroachment would have an insignificant impact under the CEQA guidelines is not described.

**Response A2.** The commenter for the most part accurately describes various aspects of the project that result in minimal encroachment into the wetland buffer zone. Most of these are minor encroachments at the upper end of the buffer zone adjacent to the proposed residence. The fence along the property boundary located approximately 9 feet from the wetlands limit is proposed as a wire fence to allow passage of wildlife and also sheet flow of water, mostly from the project site into the wetlands. The proposed temporary construction related to installation of a sewer lateral at the southern end of the property to an existing sewer main in the wetlands area is no longer proposed. As shown in the revised grading and drainage plan submitted to the Planning Department on December 1, 2021, by contrast to the original plan, this sewer lateral will be connected to a sewer main running along Beach Road through an easement to be granted by the adjacent property owner on the west side of the parcel. The new location of the sewer lateral will result less impact on the wetlands than the original plan as it will be 75 feet or more away from the wetlands boundary. As stated in the BSA, the sewer lateral work will include implementation of Best Management Practices related to erosion control (use of silt fence and straw wattles) and will be conducted such that the trench will be backfilled to achieve pre-existing contours and planted with native vegetation.

Also, the removal of non-native vegetation such as ice plant and pampas grass and replacement with native shrubs and grasses would not be considered an incursion into the buffer zone, but would be considered an effort towards habitat restoration within the buffer zone to further ensure that minor encroachments at the upper end of the buffer zone would be considered as insignificant.

The rationale for why the minor buffer zone encroachments would not be considered as a significant impact under CEQA was described in the BSA report, and are further discussed below.

Page 29 of the BSA currently addresses impacts in the upper section of the buffer zone as follows:

The proposed project qualifies for the exception pursuant to Item 4. The incursion of the residence into the 100 foot buffer zone includes ground disturbance encroaching only two or three feet<sup>[1]</sup> at the southeast corner of the structure to install the foundation. Additional minor encroachment at the upper end of the buffer zone would result from the installation of supports for the deck and deck stairs and a small concrete pad at the base of the stairs, placement of some gravel in the area beneath the deck to prevent erosion. The deck would overhang the area of the WCA by about 12 feet and would shade vegetation in and around the gravel directly beneath the deck. Water from the roof area would be directed to a single planter box installed next to the house beneath the deck and an energy dissipator that would consist of a small area of rock to reduce the velocity of drainage running down the slope to prevent erosion. These minor incursions into the upper limits of the wetland buffer zone would not result in significant indirect biological impacts to the salt marsh located on the adjacent property.

As shown on page 4 of the project plans, only a very small portion of the house foundation would be built within the buffer zone. On one corner of the house near the oak tree, there is an area shown on the plans of around 25-30 square feet that would be within the buffer zone. Two other smaller incursion areas are shown on the plans, where the foundation at several points is approximately one foot into the buffer zone. As the house will be supported on piers (none of which would be within the buffer zone), the perimeter foundation around the understory of the house will be shallow. At its maximum point of incursion, the foundation is approximately 96 feet away from the wetlands edge. The 12-foot deep deck is mostly within the buffer zone, but it will be elevated and its only physical impact in the zone will result from its supporting posts and small concrete pad at the base of the deck stairs. The posts will be at 75 feet or more from the wetlands edge. As shown on the drainage plan on page 14 of the posted plans, a bio-retention planter box (for roof water runoff control) and an A/C compressor will sit on gravel beneath the deck<sup>2</sup>. This box will be connected by a 4-inch pipe at about a one-foot depth to a stormwater level spreader used for water runoff dissipation, further into the zone.

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<sup>1</sup> The largest measurement of the incursion of the house foundation shown on the current project plans is 3 feet, 9 inches. See sheet 4 of the plans found at [https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/projects/rushworth\\_dr\\_p3173\\_sr/rushworthdr\\_p3173\\_resub\\_plans\\_09082021.pdf?la=en](https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/projects/rushworth_dr_p3173_sr/rushworthdr_p3173_resub_plans_09082021.pdf?la=en)

<sup>2</sup> The project civil engineer has confirmed that the bio-retention planter box was incorrectly shown on the plans as being below grade. It will be placed on the surface of the gravel shown underneath the deck.

The level spreader will consist of a layer of 3-inch rocks on the ground surface, with perforated PVC pipe also on the surface.

These incursions are minor in the context of this particular parcel. This is not a pristine, untrammelled site. It is an infill lot within an existing residential neighborhood. The area of the buffer zone that would be impacted is covered with non-native vegetation, and the ground is already heavily disturbed given the location of the parcel between two already developed parcels; the parcel has been walked on and used as an occasional refuse dump for years if not decades. The two neighboring parcels have ancillary structures already built well into the buffer zone, far more intrusively than anything proposed by this project. The presence of shallow foundation walls, deck posts, gravel, and the planter/AC boxes at the upper end of, and in some cases barely within, the buffer zone will have an insignificant impact on the wetlands given the physical distance of the work from the wetlands and its small footprint.

The next paragraph of the BSA addresses the vegetation plan and the fence:

The remaining portions of the property beyond the proposed house and associated deck area are locations within the 100-foot wetland setback currently vegetated with non-native species, including invasive species such as ice plant and pampas grass. The project landscaping plans have specifically been prepared with a goal to improve the quality of the habitat within the Wetland Conservation Area and behind the house by removing the non-native vegetation inland from the sensitive marsh habitat and replacing it with native shrubs and herbaceous plants providing an improved quality of wildlife habitat over that provided by existing vegetation. The plans include installation of a hog wire fence along the property line<sup>3</sup>, approximately 9 feet from the marsh edge, that would allow passage of small animals.

The Siegel memo does not specifically assert any adverse impact caused by the fence. Indeed, as the fence will be elevated (by contrast to many of the existing fences around the marsh), it should have no impact to existing biological conditions. The Siegel memo does not assert that the vegetation plan creates an adverse impact. Indeed, as the current BSA states:

The removal of non-native vegetation and replacement with native species will result in improved habitat conditions considered beneficial to the value of the wildlife habitat within the remainder of the WCA and in areas adjacent to the marsh. .... In fact, on balance, the biological value of the property may actually improve with implementation of the proposed project as the benefit of improved habitat conditions throughout most of the WCA resulting from removal of invasive species and planting with native vegetation may outweigh the insignificant impacts associated with the minor incursions into the upper limits of the 100-foot wetland setback.

In summary, HBG concludes that the project satisfies the standards set forth in exception 4 to the general prohibition under the Marin Countywide Plan to development within the Wetlands Conservation Area buffer zone. That exception allows development where “Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback distance would not result in any significant adverse direct or indirect impacts on wetlands.” This project involves no activity within the wetlands, and allows only minimal incursion within the buffer zone as described

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<sup>3</sup> The project plans at sheet 17 show the proposed hog wire fence several feet into the parcel above the property line.

above and in the BSA. The incursion occurs primarily at the upper end of the buffer zone, and the nature and scope of the incursion is such that it does not result in any significant adverse impacts on the wetlands. The project work will occur on a small infill parcel situated between two already-developed parcels whose existing incursions into the buffer zone are far more significant than what is proposed by the applicants.

**Comment A3.** The comment questions the BSA description of the adjacent marsh as a managed tidal salt marsh.

**Response A3.** In the BSA the HBG biologist characterized the wetland as a “managed tidal salt marsh” based on the flap gate being open and based on the description of the culvert and flap gate provided by the Point San Pedro Road Coalition in an article promoting the replacement of the old pipe and flap gate which became inoperative and was replaced in February of 2008<sup>4</sup>. The description stated: *A flap gate was included on the Bay end of this pipe to prevent a back flow into the Wetland during incoming tides.* Flap gates are installed to prevent backflow as correctly stated in the referenced article and by the commentor. During HBG’s field visit the flap gate was locked open with a chain. HBG assumed the group managing the wetland would open and close the flap gate depending on what their goals were (water quality, flood control, habitat etc.). If the goal was to lock the flap gate open indefinitely there would be no need to incur the added cost of a culvert attached with a flap gate to begin with. Regardless, as correctly described by the commentor, even with the flap gate open the culvert appears to be undersized and muting the ebb and flow of the tide in and out of the wetland. The upper limit of the vegetated tidal wetland was based on the presence or absence of hydric soils, prevalence of vegetation typically adapted for life in saturated soil conditions, and wetland hydrology as defined in the USACE 1987 Delineation Manual, and not based on whether or not the tidal wetland is managed or muted.

**Comment A4.** The commenter questions the conclusion of the BSA that salt marsh harvest mouse (SMHM) does not occur at the project site, citing that the elements necessary to support the species are present at the site, that SMHM has occupied other disturbed sites in the San Rafael area (e.g., Spinnaker Lagoon), and pointing out that the BSA is faulty because surveys for SMHM were not conducted.

**Response A4.** In developing a response to the commenter’s contention that habitat elements necessary to support salt marsh harvest mouse (SMHM) occur on the site and that the species may occur in the salt marsh adjacent to the site, HBG contracted with a SMHM expert to review site conditions and peer review the findings of the HBG BSA. A habitat assessment for SMHM was conducted by Dr. Mark Jennings under subcontract to HBG. Dr. Jennings’ habitat assessment report is included as Exhibit 1 and his resume is included as Exhibit 2. Dr. Jennings’ report verifies the findings of the BSA that “the area of the salt marsh adjacent to the project site is a small area of managed tidal salt marsh in a heavily disturbed area of roads, housing, and an active marina, that does not provide suitable habitat for this species.”

In his comments, Dr. Siegel suggested that the BSA was somehow inadequate because surveys for salt marsh harvest mouse were not conducted. This comment ignores that fact that SMHM is not only

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<sup>4</sup> The description can be found online at: <https://sprcoalition.org/wetlands/wetlands-beach-drive-wetlands/>

designated as an endangered species under both the federal Endangered Species Act and the California Endangered Species Act, but the species is also considered by the state of California as a Fully Protected Species. As such, no take of the species is allowed. CDFW considers the standard approach to conducting salt marsh harvest mouse trapping surveys as potentially harming individuals of the species such as to constitute “take” of the species, and such surveys are no longer allowed to be conducted.

Dr. Jennings conducted a field review of the project site and surrounding area on January 21, 2022, and found (similar to HBG) the adjacent marsh to be an isolated wetland surrounded by development, roads, and an active marina. He also observed that although the marsh vegetation may be suitable for SMHM, the subject salt marsh lacks suitable refugial habitat where the endangered mice could find cover to escape predation during extreme high tides. Dr. Jennings surmised that primarily because of the lack of suitable refugial habitat, any SMHM that may have historically occupied the subject marsh would have become extirpated decades ago. Dr. Seigel drew comparisons between the subject marsh and Spinnaker Lagoon (where the endangered SMHM actually does occur) but, as Dr. Jennings points out, although the marsh at Spinnaker Lagoon is also in close proximity to urbanized areas, the marsh at Spinnaker Lagoon is a larger, fully tidal, more diverse marsh with sufficient upland refugial habitat that is vitally important for suitability to support SMHM. Dr. Jennings points out that the presence of house cats in residential areas close to the subject marsh is detrimental to use by SMHM.

In summary, Dr. Jennings found that the site likely became unsuitable to support SMHM decades ago; that the marsh adjacent to the project site is currently unsuitable for SMHM due to its small size in a heavily disturbed area of roads, housing, and an active marina; and that current conditions make it impossible for SMHM to colonize the site in the future.

**Comment A5.** The commenter makes the point that the rarity of tidal marsh habitats in the San Rafael area raises the level of importance of the salt marsh adjacent to the subject property as a wildlife habitat.

**Response A5.** The BSA recognizes the importance of wetland habitats adjacent to the Bay shoreline and clearly recognizes the salt marsh as a sensitive habitat covered by sensitive habitat requirements of the Marin Countywide Plan. The BSA clearly recognizes the value of the wetland habitat in Section 4.2 (page 18) where it is stated: “The adjacent salt marsh provides valuable habitat for species of waterbirds, waterfowl, and shorebirds, and other species found in marshes surrounding the San Francisco Bay estuary.” The BSA goes on to provide a list of the waterbirds, waterfowl, and shorebirds, and also passerines, observed in the marsh during both a winter and a spring visit to the project area.

**Comment A6.** Commenter states that the project does not consider the potential effects of sea level rise and its implications for upland refugial habitat for marsh species such as SMHM.

**Response A6.** The applicant is aware of the risk of sea level rise and has designed the proposed residence so that the ground floor of the house is well above any rise projected in the predictable future. The project has been designed to fully comply with current development standards in sensitive wetland areas.

The value of refugial habitat is recognized in the SMHM habitat assessment report prepared by Dr. Mark Jennings (see Exhibit 1). In fact, Dr. Jennings points out that the lack of refugial habitat

surrounding the entirety of the subject marsh may be the primary reason for extirpation of any SMHM that may have been present in this marsh decades ago. The development of the current project consistent with requirements of the Marin Countywide Plan to include vegetation of the buffer zone with native plants will provide upland refugial habitat and cover for animals present in the marsh, perhaps more than provided by nearby residential parcels fronting the marsh. (Note that Dr. Jennings sees very little chance for recolonization of this site by SMHM).

**Comment Letter B. Letter from Arlette Cohen to Immanuel Bereket dated December 5, 2021**

**Comment B1.** Commenter indicates that impacts resulting from trimming of the heritage live oak tree found at the site are potentially greater than stated in the BSA report. Commenter indicates that potential impacts relate to the cutting branches; changes in light, water flow, and other factors after construction of the new residence; and future droughts related to climate change. Comment also questions the potential efficacy of the recommended surveys for nesting birds if work is to occur during the nesting season.

**Response B1.** The extent of pruning depicted in the arborist report (incorporated into the BSA) was an estimate and was produced prior to story pole construction. Some additional pruning may be needed depending on building overhangs. Pruning would only be done as needed, as construction progresses. Obviously, aggressive pruning is not ideal for the health of any tree. However, based on review of the project arborist, the subject tree exhibits good health, and the pruning is unlikely to compromise the tree's health. Mulch treatments, periodic deep irrigation, and fungicide treatments to insulate the tree from disease (*Phytophthora ramorum*) are actions that should be and are planned to be taken to promote health and vigor prior to and during construction.

The recommendations for nesting bird surveys follows requirements of the CDFW to conduct such surveys to protect migratory and other bird species as required by the federal Migratory Bird Treaty Act as well as the California Fish and Game Code. In general, CDFW requires that if vegetation is removed during the nesting season (considered to be the period between February 1 and August 31, a period that encompasses nearly all species), a qualified biologist is to conduct a bird nesting survey to ensure that active nests of bird species remain undisturbed until the biologist demonstrates that either young have fledged from the nest or the nest has failed. The applicant has committed to such bird nesting surveys with establishment of buffer zones around any active nests to ensure no harm to nesting birds as required by the regulations.

**Comment B2.** Comment states that extending the house into the wetland buffer zone will be harmful to the marsh and the creatures who inhabit it.

**Response B2.** For the reasons set forth above regarding the Siegal comments, the project meets the requirements for an exemption for minor development within the wetlands buffer zone.

**Comment Letter C. Letter from Winifred Dajani to Immanuel Bereket (undated)**

**Comment C1.** Because the high tide lines can extend beyond the edge of the wetlands and wetland vegetation is found within areas not considered wetlands in the BSA, the commenter believes that the wetland boundary extends further north into the property. Commenter also suggests that the buffer location be verified by second assessment of wetland boundaries.

**Response C1.** As discussed in response to Comment A1, the mean high tide/mean high water limit is not based on the limit of the peak high tide, and in any case is below the wetlands limit which defines the buffer zone relevant to this project.

With respect to the upper limit of the wetland, HBG's investigation focused on identifying and mapping aquatic resources meeting the definitions of wetlands and other waters of the US under Section 404 of the federal Clean Water Act. Wetlands were identified and delineated using the USACE Corps 1987 Manual, and the Arid West Manual and in accordance with State Water Resources Control Board's procedures and guidelines. In accordance with the referenced manuals, a wetland must support (1) a prevalence (greater than 50% absolute cover) of vegetation typically adapted for life in saturated soil conditions, (2) hydric soils, and (3) wetland hydrology as defined in the USACE 1987 Delineation Manual.

The presence of wetland vegetation alone does not define a wetland as suggested by the commentor. Based on the field data collected by HBG on April 6, 2021, wetland and upland vegetation is present above the limit of the wetland mapped as shown on the wetland determination data form SP-1. However, the absolute cover is not greater than 50%, therefore it does not meet the wetland vegetation criteria. In addition the soils are not hydric and there were no signs of wetland hydrology, therefore this point does not meet the criteria of a wetland. Refer to Exhibit 3 for a copy of the data sheets and a map showing the location of each data point.

**Comment C2.** Commenter suggests that the flap gate is not regularly used, and suggests that the characterization of the adjacent salt marsh as a managed tidal marsh is not only not true, but gives the impression that the integrity of the wetlands has been compromised.

**Response C2.** Refer to the Response to Comment A3.

**Comment Letter D. Bonita Marmor and William Gates Supplemental Comments Re: Rushworth Design Review Application (dated December 6, 2021)**

**Comment D1.** The commenter cites the Siegel Memorandum (Comment A) stating that the encroachment into the Wetland Conservation Area would result in significant adverse direct or indirect impacts on wetlands.

**Response D1.** Refer to the Response to Comment A2.

**Comment D2.** The applicant's plan fails to avoid significant impacts in the Wetland Buffer Zone.

**Response D2.** Refer to the Response to Comment A2.

**Comment D3.** The encroachment into the Wetland Buffer is not minimal.

**Response D3.** Refer to the Response to Comment A2.

**Comment D4.** Information in the Biological Site Assessment is inaccurate because (1) the wetland delineation was conducted during a drought, (2) the BSA incorrectly refers to the marsh as non-tidal,

and (3) the wetland is not a managed tidal marsh as the flap gate has not been used to manage the marsh hydrology.

**Response D4.**

(1) The wetland hydrology is supported by the ebb and flow of the tide, not direct precipitation (i.e. rainfall), therefore an extreme drought such that occurred in 2021, or above average rainfall such that occurred in October of 2022 would not affect the limit of this wetland. (2) The BSA does incorrectly refer to the wetland as non-tidal twice in the report but also refers to the wetland as “managed tidal flows” in Section 4 Existing Biological Setting and several other areas. This discrepancy does not affect the conclusions in the BSA. (3) Refer to response to Comment A3.

**Comment D5.** Comment indicates that preservation of the heritage oak tree is important for its biodiversity, further stating that (1) the Tree Protection Plan has not been posted publicly, (2) plans don’t ensure survival of the oak tree, and (3) no mitigation is provided for loss of habitat within branches removed.

**Response D5.** The Tree Protection Plan appears at page 16 of the publicly posted plans. No arborist can ensure the survival of any tree during a construction project. However, the arborist has provided guidelines for the contractor to follow to minimize adverse impacts to the tree. This is the purpose of the tree protection plan. For example, proposed piers located within the dripline of the tree will be located via careful hand excavation and placed to avoid significant roots. Based on the extent of pruning and measures included in the Tree Protection Plan, the arborist has no reason to believe that the tree would not have a strong likelihood of surviving. The subject tree will continue to provide wildlife habitat and benefits after the proposed pruning. In addition, as the BSA notes, the removal of non-native vegetation and replacement with native species proposed by the project will result in improved habitat conditions.

**Comment Letter E. Letter from Hal Lauritzen to Immanuel Bereket (dated November 21, 2021)**

**Comment E1.** Commenter expresses concern that the building lot encroaches on the wetlands where he has observed many wildlife species noted in the comment, including nesting ducks and shorebirds, and other species, including a rare Little Blue Heron.

**Response E1.** The project does not encroach into the wetlands and has been planned to provide a buffer zone from the wetlands that will be established in a manner consistent with the Wetland Conservation Area and buffer zone requirements of the Marin Countywide Plan. As explained in the response to Comment A5, the BSA clearly recognizes the value and sensitive nature of the wetlands within the salt marsh adjacent to the site. Also, HBG biologists were aware of the presence of the Little Blue Heron at the time it was present, and, in fact, some HBG staff made lunchtime trips to the site on a number of occasions to search for it.

**Comment Letter F. Letter from Colin L. McRae and Maureen McRae to Immanuel Bereket (dated November 24, 2021)**

**Comment F1.** Comment states that according to Marin County Development Code Section 22.14.060, the 100-foot buffer zone should be measured from the line of highest tidal action rather than the limit of wetlands, and the project should be re-designed such that there is no encroachment into the buffer zone.

**Response F1.**

As noted in response to Comment A1, the Marin County ordinance establishing the Bayfront Conservation Zone (Section 22.14.060 of the Development Code) refers to “line of tidal highest tidal action (as applied by the Bay Conservation and Development District)”. The line applied by the BCDC is based on the mean high tide/mean high water (MHT/MHW) limit, or in areas with tidal wetlands the line extends to the edge of the tidal wetlands but no more than 5 feet above Mean Sea Level. In addition, although there is minor encroachment into the buffer zone, the project complies with Marin Countywide Plan standards set forth in exception 4 to the establishment of a 100-foot buffer zone. That exception allows development where “Wetlands are avoided and a site assessment demonstrates that minimal incursion within the minimum WCA setback distance would not result in any significant adverse direct or indirect impacts on wetlands.”

**Comment F2.** Concern that after cutting back the oak tree on the property, the tree may not survive.

**Response F2.** Refer to the Response to Comment B1.

**Comment Letter G. Letter from Rodney Ruskin to Immanuel Bereket (dated November 15, 2021)**

**Comment G1.** Comment states that the construction of the new residence will reduce the bird activity whatever the setback from the marsh.

**Response G1.** The BSA recognizes the value of the marsh for various bird species as discussed in BSA Section 4.2 and as explained in response to Comment A5. The proposed project will provide a setback from the marsh as required by requirements of the Marin Countywide Plan. Development of the proposed residential use at this site will have no impact on wildlife present within the marsh any greater than already caused by the residential uses currently surrounding the marsh.

**Comment G2.** Commenter says he has lived in the neighborhood and led the effort for the restoration of the subject wetland.

**Response G2.** Comment noted.

# **Exhibit 1**

**Habitat Assessment for the Salt Marsh Harvest Mouse  
726 Point San Pedro Road, Marin County, California  
Prepared by Mark Jennings, Ph.D. of Rana Resources  
February 6, 2022**

RANA RESOURCES  
P.O. Box 2185  
Davis, CA 95617-2185

(530) 753-2727

[RanaResources@aol.com](mailto:RanaResources@aol.com)

#20,085

February 06, 2022

Mr. Gary Deghi  
Huffman-Broadway Group, Inc.  
828 Mission Avenue  
San Rafael, CA 94901-3209

Subject: Habitat Assessment for the Salt Marsh Harvest Mouse, 726 Point San Pedro Road, Marin County, California

Dear Gary:

This letter reports my findings with regard to my habitat assessment for the State and Federally listed endangered salt marsh harvest mouse (*Reithrodontomys raviventris*; hereafter SMHM) at the site of a proposed single-family residence at 726 Point San Pedro Road near San Rafael in Marin County, California. The site was previously examined for biological resources by Huffman-Broadway Group, Inc. (HBG) and a Biological Site Assessment report was issued on 31 August 2021 (HBG 2021). HBG concluded on page 25 of this report that the adjacent muted tidal marsh adjacent to the Project site "is a small area of non-tidal marsh unsuitable to support the species and located in a heavily disturbed area of roads, housing, and an active marina." Additionally, the report stated that "[The SMHM] is not present in the marsh adjacent to the subject parcel."

Finally, on page 28, the HBG report states that "The area of the salt marsh adjacent to the project site is a small area of managed-tidal salt marsh in a heavily disturbed area of roads, housing, and an active marina, that does not provide suitable habitat for this species."

During the comment period for the Project, a 06 December 2021 Memorandum to Bonnie Marmor from Dr. Stuart Siegel of Siegel Environmental was received by Marin County. He concluded that there is "no basis for [the HBG report's] conclusion that SMHM are not present" as the species is known to be present at Spinnaker Lagoon, a degraded wetland located approximately 1.2 miles away. Additionally, Dr. Siegel was critical that "the BSA did not conduct surveys for SMHM at the Beach Drive wetland."

Given the above statements, I examined the Project site on 21 January 2022 and reviewed all the documents associated with this Project. Additionally, I reviewed the literature and relied upon my own first-hand experience with SMHM.

Mr. Gary Deghi  
February 06, 2022  
Page 2.

Based on my review, the comment by Dr. Siegel that "the BSA did not conduct surveys for SMHM" is based on a lack of current knowledge regarding this species. SMHM are a Fully Protected Species by the State of California and the California Department of Fish and Wildlife has ruled that live trapping for this species can no longer be sanctioned as no take is authorized. Therefore, one couldn't have conducted the old standard for presence/absence surveys of live trapping for this species.

Additionally, there seems to be some confusion regarding the suitability of tidal marsh habitat at Spinnaker Lagoon for SMHM, versus the adjacent muted tidal marsh next to the Project. Spinnaker Lagoon has long been known to harbor SMHM (Shellhammer 2000). SMHM have also been found at nearby Pickleweed Park (Bias 1994). Although immediately adjacent to urbanized areas, both of these existing habitats are larger and contain more diverse salt marsh, wetland, and upland habitats than the muted tidal marsh next to the Project site. Most importantly, they also contain upland segments of grassland habitats that provide important refugia for SMHM during high tides and flooding events.

Examination of the muted tidal marsh next to the Project site does show it to be an isolated wetland surrounded by development, roads, and an active marina. Although stands of Virginia pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), and other species of plants required by SMHM for survival are present, this wetland is subject to periodic flooding by King Tides and heavy rain events. Since the surrounding roadway and houses lie close to the 100-year flood zone, the entire wetland is often underwater for short periods of time (e.g., see the photograph and statements in the supplemental comments letter by Bonita Marmor and William Gates on 06 December 2021). This means that although SMHM may have well historically occupied the site, any population found at the site would almost certainly have been extirpated here decades ago due to the lack of suitable refugia (i.e.: grasslands or other suitable plant cover) because the upland area adjacent to this wetland now contains largely ornamental vegetation (e.g., common non-native grasses such as wild oat (*Avena fatua*), rip-gut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Festuca perennis*), foxtail barley (*Hordeum murinum leporinum*), Bermuda grass (*Cynodon dactylon*), and common non-native herbaceous species such as sourgrass (*Oxalis pre-capris*), Cape ivy (*Delairea odorata*), Chilean sea fig (*Carpobrotus chilensis*), and English plantain (*Plantago lanceolata*)), asphalt roadway, or structures. The continued presence of domestic cats (*Felis catus*) in the area also contributes to a conclusion that SMHM can no longer survive here. The current situation is now better suited for deer mice (*Peromyscus maniculatus*) or introduced house mice (*Mus musculus*).

Checking aerial photographs on Google Earth Pro, I find historical photographs dating back to 1985. During that time, there has been little change to the developed areas and roads around the muted tidal wetland. Of course, the wetland itself has changed over time. According to the 15 November 2021 letter from Rodney Ruskin, "about 17 years ago, there was an urgent need to rescue the Beach Drive wetlands which were not "flushing" properly and had become stagnant and in danger of filling in with silt." Therefore, the crushed and broken outlet pipe, as well as the broken flap gate were replaced so that the

Mr. Gary Deghi  
February 06, 2022  
Page 3.

marshland would remain influenced by tidal action. Such statements support my contention that the marshland became unsuitable for SMHM decades ago.

In conclusion, I support HBG's statements in the BSA that the muted tidal marsh next to the Project site is unsuitable for SMHM due to its small size in a heavily disturbed area of roads, housing, and an active marina.

Further, I find it impossible for any SMHM individuals to colonize the site (via rafting on woody debris) from known occupied habitats to the west at Spinnaker Lagoon due to the presence of an active marina directly west of the Project area. This marina effectively prevents any debris from floating via San Pablo Bay, directly into the area adjacent to Beach Drive.

Thanks for allowing me to be involved with this project. Please let me know if you have any questions on my SMHM Habitat Assessment.

Sincerely,

A handwritten signature in blue ink that reads "Mark R. Jennings". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Mark R. Jennings  
President and Wildlife Biologist

### References Cited

- Bias, M. A. 1994. Ecology of the salt marsh harvest mouse in San Pablo Bay. Ph.D. Dissertation, University of California at Berkeley. 243 p.
- Huffman-Broadway Group. 2021. Biological site assessment, single-family residence at 726 Point San Pedro Road, Main County, California. Report prepared for Mr. John Wright, San Anselmo, California. The Huffman-Broadway, Group, Inc., San Rafael, California. August 2021. [53 p.].
- Shellhammer, H. S. 2000. Salt marsh harvest mouse, *Reithrodontomys raviventris*. Pages 219-228 In: P. R. Olofson (editor). Baylands Ecosystem Species and Community Profiles: Life Histories and Environmental Requirements of Key Plants, Fish and Wildlife. San Francisco Bay Area Wetland Goals Project, San Francisco Bay Regional Water Quality Control Board, Oakland, California. xvi+408 p.

# **Exhibit 2**

**Resume of Mark Jennings, Ph. D.**

**MARK R. JENNINGS, Ph.D.**  
**Wildlife Biologist**  
**RANA RESOURCES**  
**P.O. Box 2185, Davis, CA 95617-2185**  
**RanaResources@aol.com**

***EDUCATION***

Ph.D., Wildlife and Fisheries Science, The University of Arizona, 1986  
M.S., Natural Resources, Humboldt State University, 1981  
B.S., Fisheries, Humboldt State University, 1978

***AREAS OF EXPERTISE***

Ichthyology, herpetology, mammalogy, parasitology, conservation, and the history of natural history

***PROFESSIONAL EXPERIENCE***

Senior Associate Herpetologist and Fisheries Biologist, Live Oak Associates, Inc., 1999-Present  
President and Wildlife Biologist, Rana Resources, 1988-Present  
Research Associate, Department of Herpetology, California Academy of Sciences, 1987-Present  
Assistant, Agricultural Experiment Station, University of California, Davis, 1995-1998  
Assistant Adjunct Professor, University of California, Santa Barbara, 1993-2002  
Research Fish and Wildlife Biologist, U.S. Geological Survey, 1992-1999  
Associate Aquatic Biologist and Herpetologist, H. T. Harvey & Associates, 1990-2000  
Research Fisheries Biologist, U.S. Fish and Wildlife Service, 1986-1990  
Biologist, Harding Lawson Associates, 1985-1986  
Research Associate in Fisheries Science, The University of Arizona, 1982-1986  
Fisheries Teaching Staff, Humboldt State University, 1979-1981

***QUALIFICATIONS***

I am a versatile ecologist, with specialties in fisheries biology, herpetology, and mammalogy. Over the past 40 years, I have worked extensively on a wide variety of vertebrate species in western North America including chinook salmon, coho salmon, steelhead, bull charr, candlefish, tidewater goby, desert pupfish, California tiger salamander, Santa Cruz long-toed salamander, arroyo toad, California red-legged frog, foothill yellow-legged frog, mountain yellow-legged frog, western pond turtle, coast horned lizards, San Francisco gartersnake, giant gartersnake, deer mouse, brush mouse, salt marsh harvest mouse, California vole, Heerman's kangaroo rat, giant kangaroo rat, San Joaquin antelope squirrel, eastern fox squirrel, and San Joaquin kit fox. During the 1990s, I co-authored a book chapter on the present status of all the native salmonids in California, as well as a ground breaking publication for the California Department of Fish and Wildlife on the status of all third category (species of special concern) amphibians and reptiles in the state. In 2000, I helped design an economical safe house for small mammals in pitfall traps which was subsequently adopted for use by the California Department of Fish and Wildlife for all permitted pitfall trapping work.

I have worked on hundreds of projects over the past decade, including endangered species surveys and EIR's. In doing so, I have completed hundreds of protocol surveys for California tiger salamanders and California red-legged frogs, as well as many dozens of protocol surveys for blunt-nosed leopard lizards, salt marsh harvest mice, San Joaquin kit foxes, western burrowing owls, and Swainson's hawks. Additionally, I have conducted many other non-protocol surveys for foothill yellow-legged frogs, western pond turtles, coast horned lizards, San Francisco gartersnakes, giant gartersnakes, San Joaquin antelope squirrels, and giant kangaroo rats. I have also served as an Expert Witness in the Federal District Court of San Francisco for a number of vertebrate species.

Since 1980, I have published over 105 peer-reviewed scientific papers in the fields of fisheries biology, herpetology, and mammalogy. Some of my publications continue to be cited in current college textbooks. During my career, I have received awards from scientific societies for my publications and work in fisheries biology and amphibian conservation. I have also peer-reviewed hundreds of manuscripts, environmental impact reports, and endangered species petitions for scientific journals, biological consulting firms, and state and federal agencies.

# **Exhibit 3**

## **Wetland Delineation Data Sheets**



# WRIGHT RESIDENCE

726 POINT SAN PEDRO ROAD, SAN RAFAEL, CA 94901  
APN: 186-141-03

# ENGELHARDT ARCHITECTURE

126 Laurel Avenue • San Anselmo, CA 94960  
415.572.8895 • en-arch.com • bill@en-arch.com

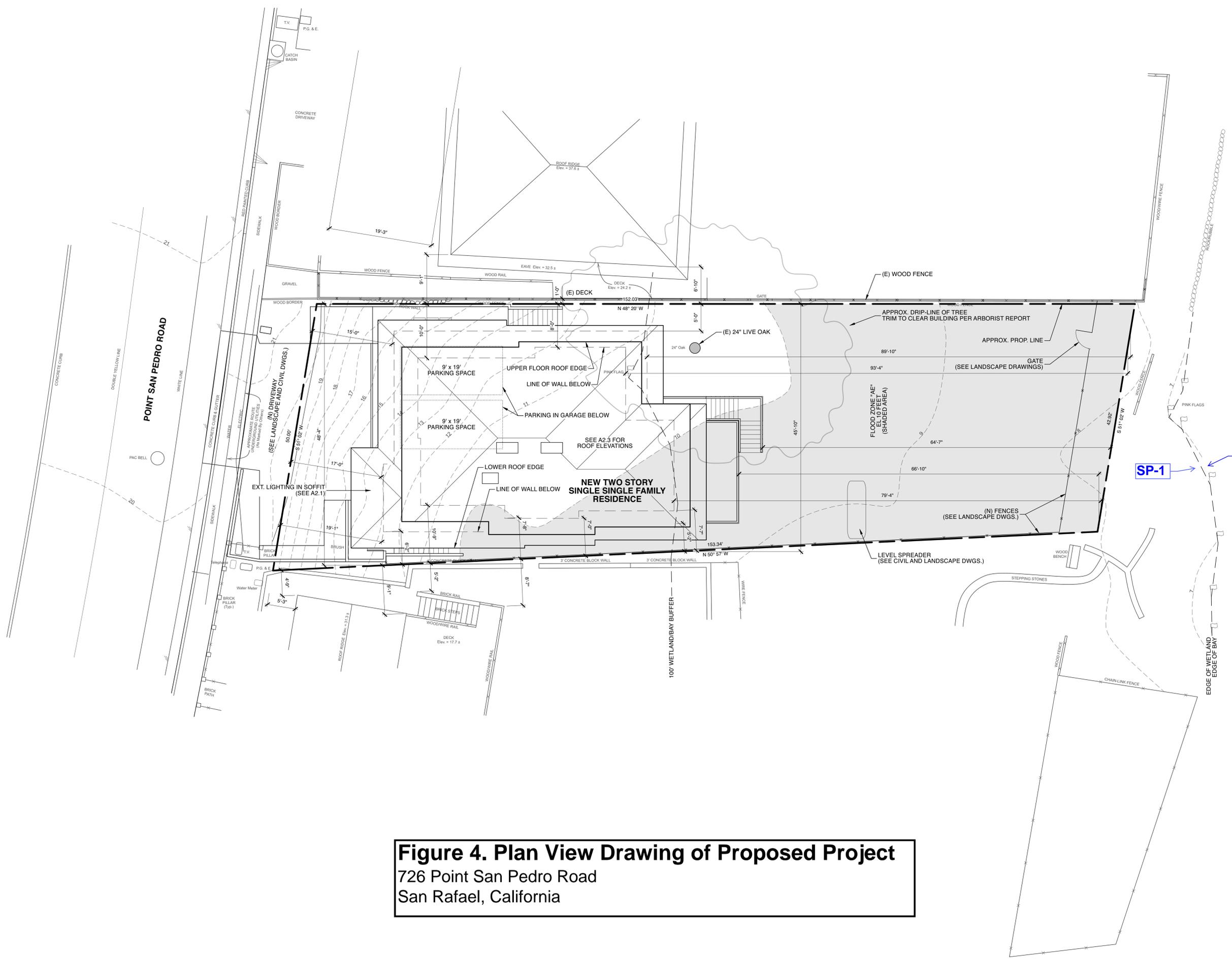
**NOT FOR  
CONSTRUCTION**  
5/14/21

Issue/Rev | Date | Description

Site Plan

1/8" = 1'-0"

**A1.1**  
© 2021



**Figure 4. Plan View Drawing of Proposed Project**  
 726 Point San Pedro Road  
 San Rafael, California

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 726 Point San Peadro Road Project City/County: San Rafael / Marin County Sampling Date: 4-6-2021  
 Applicant/Owner: Mr. & Mrs Wright State: CA Sampling Point: SP-1  
 Investigator(s): Robert F. Perrera Section, Township, Range: NA  
 Landform (hillslope, terrace, etc.): hills / backslope Local relief (concave, convex, none): convex Slope (%): 4  
 Subregion (LRR): C - Mediterranean California Lat: 37.975335 Long: 122.475313 Datum: NA  
 Soil Map Unit Name: Tocaloma-McMullin-Urban land complex, 30 to 50 percent slopes NWI classification: NA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>3x3</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Festuca perenne</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Hordeum murinum</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Avena fetua</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>	
4. <u>Distichlis spicata</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. <u>Frankenia salina</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
6. <u>Vulpia sp.</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
7. <u>Bromus hordeaceus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
8. <u>Bromus diandrous</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
<u>95</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				
Remarks:				

**SOIL**

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR3/2	100					Sandy L	with asphalt & gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) ( <b>LRR C</b> ) <input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR D</b> ) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) ( <b>LRR C</b> ) <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR B</b> ) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____ No <input checked="" type="checkbox"/>
--	--

Remarks:  
 Significant amount of debris in the soil profile such as asphalt (1"-2" diameter pieces) and gravel and pebbles (possibly crushed concrete debris/road base)

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) ( <b>Nonriverine</b> ) <input type="checkbox"/> Sediment Deposits (B2) ( <b>Nonriverine</b> ) <input type="checkbox"/> Drift Deposits (B3) ( <b>Nonriverine</b> ) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Biotic Crust (B12) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) ( <b>Riverine</b> ) <input type="checkbox"/> Sediment Deposits (B2) ( <b>Riverine</b> ) <input type="checkbox"/> Drift Deposits (B3) ( <b>Riverine</b> ) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 Aerial imagery from google earth pro going back to 2001 does not show this sample point inundated or saturated.

Remarks:  
 There is a culvert with a flap gate on the bay-side which prevents tidal water from entering the site. On the day of the site visit the flap gate had been manually secured open. Even with the flap gate open the ebb and flow of the tide does not appear to reach this area due to the culvert being undersized. I would call this area "muted" or managed tidal.

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: 726 Point San Peadro Road Project City/County: San Rafael / Marin County Sampling Date: 4-6-2021  
 Applicant/Owner: Mr. & Mrs Wright State: CA Sampling Point: SP-2  
 Investigator(s): Robert F. Perrera Section, Township, Range: NA  
 Landform (hillslope, terrace, etc.): hills / backslope Local relief (concave, convex, none): convex Slope (%): 2  
 Subregion (LRR): C - Mediterranean California Lat: 37.975313 Long: -122.479485 Datum: NA  
 Soil Map Unit Name: Tocaloma-McMullin-Urban land complex, 30 to 50 percent slopes NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:  	

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				<b>Prevalence Index worksheet:</b> _____ Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5x5</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>Distichlis spicata</u>	<u>25</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Salicornia pacifica</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Festuca perenne</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Avena fetua</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
5. <u>Bromus diandrous</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____				

Remarks:  
 20% is open water

**SOIL**

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR4/3	98	7.5YR4/6	2	C	PL	Silty CL	redox distinct/w gravel asphalt
4-13	10YR4/3	95	7.5YR4/6	5	C	PL	Silty CL	redox distinct

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:  
Some debris in the soil profile such as asphalt and gravel and pebbles (possibly crushed concrete debris/road base)

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
Aerial imagery from google earth pro going back to 2001 does show this sample point inundated and water levels appear consistent.

Remarks:  
There is a culvert with a flap gate on the bay-side which prevents tidal water from entering the site. On the day of the site visit the flap gate had been manually secured open. Even with the flap gate open the ebb and flow of the tide does not appear to move more than 1-2 inches in this area due to the culvert being undersized. I would call this area "muted" or "managed tidal".