

## **EUREKA SLOUGH BRIDGES GEOTECHNICAL INVESTIGATION**

### **Humboldt Bay Harbor, Recreation, and Conservation District Development Permit Application**

#### **Attachment 5—Eelgrass Checklist**

#### **Eelgrass Checklist**

##### **Step 1 – Determine the Preliminary Area of Potential Effect (APE) for proposed project:**

There is eelgrass in the project area. However, impacts on eelgrass or eelgrass habitat are not anticipated because eelgrass would not be directly impacted by any geotechnical drilling as it does not extend under the bridge where geotechnical drilling would occur. Eelgrass is not present within the gap between the existing structures and around the existing support structures, likely due to unsuitable light conditions. Caltrans anticipates that eelgrass will not be disturbed based on current conditions and location of eelgrass. However, Caltrans cannot completely discount the possibility that eelgrass may exist at the time of construction in areas closer to shallows, which appear to include up to four areas of drilling. Prior to beginning drilling in locations in the slough channel, qualified environmental personnel will survey the location to ensure drilling does not disturb eelgrass. The drill casings used for this type of sampling are typically two to five inches in diameter. Therefore, the disturbance created by the drill casing is likely to cover a radius of less than one foot depending on how carefully it is placed. Given the limited area of disturbance, the geotechnical work has the flexibility to shift drilling locations to avoid areas of eelgrass. If any eelgrass is impacted, it is expected to recover relatively quickly, and NMFS expects effects to this element of critical habitat to be insignificant (NMFS LOC, March 28, 2023, Attachment 7).

##### **Step 2 – Pre-project Questionnaire for: Maintenance/Repair Projects and Construction Activities-**

*Is project construction likely to increase turbidity? To what extent and for what duration?*

*yes* /  *no*

The project has the potential to temporarily increase turbidity for brief periods. When the drill casing initially contacts the slough bottom, some increase in turbidity is expected. When drilling within the slough channel, potential leakage at the casing mud-line contact could also increase turbidity. The work would be monitored and, if increases are detected, the wet drilling would be stopped and the casing would be advanced by dry drilling to a depth at which leakage has

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stopped, ensuring the area is adequately sealed and turbidity reduced. The Geotechnical Investigation would result in no sediment loading or increased shading and no scouring velocities would be created during the work.

*Will construction require the use of a barge or other vessel that may temporarily impact the bay floor (e.g. spud poles, anchoring, prop scarring, etc.) within known eelgrass habitat or within depths ranging from -10 to +4 feet?*

yes /  no

*Will construction require the use of turbidity curtains in proximity to eelgrass habitat?*

yes /  no

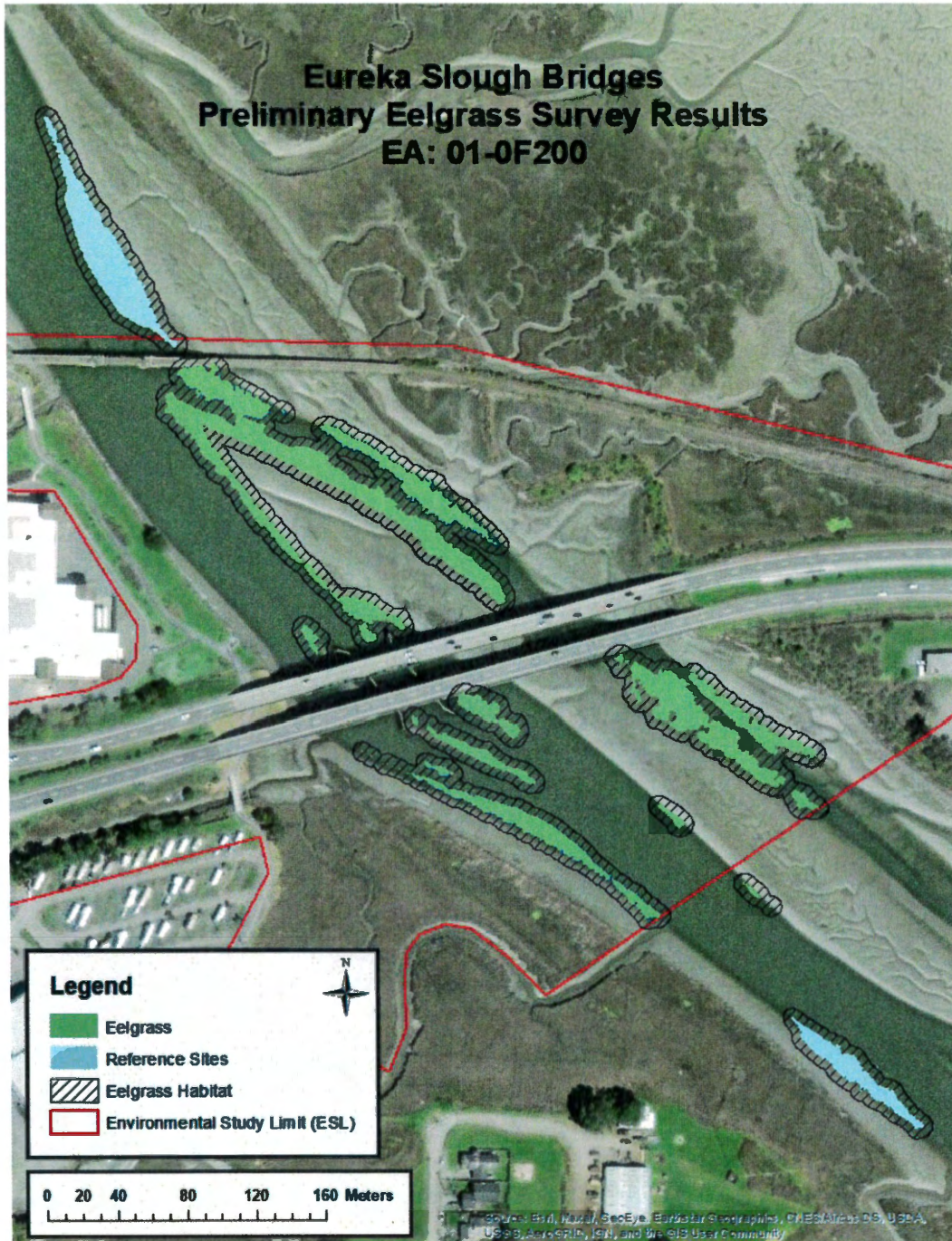
*Will project construction result in temporary shading from moored/anchored working vessel(s)?*

yes /  no

### **Step 3 – Preliminary Eelgrass Survey**

Preliminary eelgrass surveys were performed by Caltrans for the Eureka Slough Bridges Replacement Project. The surveys were performed during the eelgrass growing season in the summer of 2021 to estimate potential project impacts to eelgrass and ensure those impacts are being considered and minimized early in project development. For the Geotechnical Investigation, qualified Caltrans staff will survey in-channel locations prior to beginning drilling to ensure drilling does not disturb eelgrass. Per the NMFS Letter of Concurrence for this work, if eelgrass is disturbed, Caltrans shall monitor the location to determine whether the eelgrass recovers within one year. If the eelgrass does not recover, Caltrans shall consult with NMFS on appropriate mitigation, which will comply with the California Eelgrass Mitigation Policy and Implementing Guidelines (NMFS 2014). Additionally, in areas where eelgrass is disturbed by drilling, Caltrans shall fill the upper three feet of substrate with native slough bottom spoils rather than bentonite clay.

### Eureka Slough Bridges Preliminary Eelgrass Survey Results



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