

Appendix A:

Proposed Herring Monitoring Plan

FEIR Appendix A – Humboldt Bay Herring Monitoring Plan December 2016

Coast Seafoods engages in aquaculture activities in Humboldt Bay throughout the year. This includes activities during potential herring spawning periods that will be subject to pre-activity observations based on the approach taken for Pacific Herring Work Window Waivers for San Francisco Bay. The approach for Pacific Herring Work Window Waivers in San Francisco Bay was last updated prior to the 2014 Pacific herring spawning period in response to concerns about in-water activities due to drought conditions.

A. Period of Monitoring

Annual observation periods would be during the typical herring spawning period (December 15 through February 28). Pacific herring spawning activity occurs annually in Humboldt Bay, however several factors affect the timing of spawning events. Spawning could occur one or more months prior to or after the typical spawning period. California Department of Fish and Wildlife (CDFW) may request that spawning monitoring activities start early or extend longer in years when spawning activity is occurring beyond the December 15 to February 28 period.

B. Pre-Activity Monitoring and Reporting

Pre-activity monitoring is comprised of visual observations of the areas within active aquaculture beds where activity is planned to occur up to 24-hours prior to activities, including ground access and egress routes, staging areas, and aquaculture gear. Visual observations will be reported using a Herring Daily Observation Form which identifies the observation location, observer, date, time, activities, whether herring or spawn were observed, and approximate numbers and species observed on-site. A copy of this form is attached at attachment 1. Observer forms will be collected and reported to CDFW once per week. Observations that include herring spawn will result in 1) cessation of activities on the bed for a period of 21 days after initial observation and notification to CDFW.

C. Area of Monitoring

Pacific herring in Humboldt Bay typically use North Bay for spawning. Within North Bay, an area known as the East Bay Management Area (EBMA) has received heightened interest due to the frequency that herring spawning activity occurs within this area. Herring spawning has been detected in other portions of North Bay and may occur in Entrance or South Bay at times.

Coast Seafoods has active and planned oyster aquaculture beds in North Bay (Figure 1). For beds in the EBMA a pre-activity observation will occur prior to harvest or planting activities. Pre-activity observations will be performed by a trained observer. Limited maintenance and observation activities will not require pre-activity monitoring.

For beds outside of the EBMA, pre-activity surveys will not be required. However, if CDFW identifies active spawning near beds outside of EBMA and notifies Coast or if signs of potential spawning activities are present (e.g., presence of adult herring moving in and out of the bed, presence of milt in the water, or elevated bird or marine mammal feeding activity), then pre-activity monitoring activities will occur.

For all beds and activities, potential spawn will be noted and reported to trained Coast herring observers for confirmation and, if confirmed, transmitted to CDFW. During the spawning season, observers will report observations and activities within EBMA to CDFW weekly using the daily reporting form.

D. Observer Qualifications

Prior to the spawning season, Coast field staff will be briefed on the importance of detecting herring spawn. Lead staff will be trained by CDFW in spawn detection and reporting. Observers are staff with 3 or more years of experience working in intertidal environments. Coast is responsible for maintaining a list of qualified staff and for ensuring enough trained observers are available to perform the requirements of this plan. Coast shall transmit its proposed list of qualified observers to CDFW by November 20th each year.

E. Observer Duties

Observers are responsible for observing the aquaculture beds, areas of access or egress, and any staging areas, up to 24 hours prior to activities within that area. Observers shall look at aquaculture gear, vegetation and hard substrates that might be used for spawning. Observers shall have sufficient time in advance of planned oyster culture activities to assess the areas where activities are planned. Observers shall also have sufficient authority to end all field activities in areas where spawn or active spawning activity is observed. The observer is responsible for completing the daily observation forms and submitting the forms to Coast. Coast is responsible for transmitting daily observation forms to CDFW contacts on the Friday of each week for aquaculture activity from December 15 through February 28th or any expanded period required by CDFW under Section A.

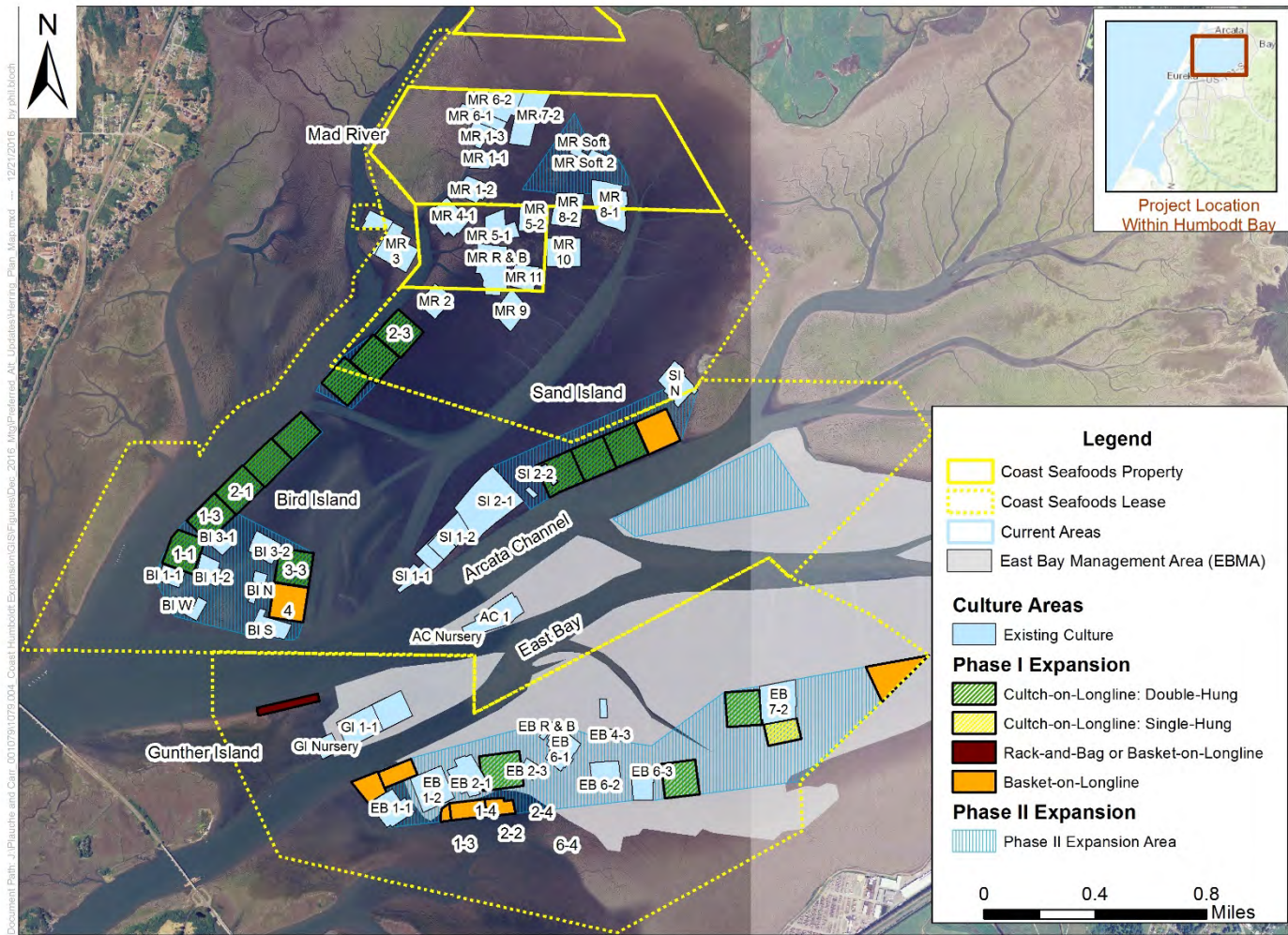


Figure 1: Existing and Proposed Oyster Culture Beds for Coast Seafoods in Humboldt Bay

Attachment 1: Pacific Herring Daily Observation Form

If at any time Pacific herring are detected within the aquaculture bed, all activities shall stop immediately and Department staff (see contact information below) shall be notified.

California Department of Fish and Wildlife Contact Information

James Ray, Marine Environmental Scientist

Office phone: 707-441-5755

Email: James.Ray@wildlife.ca.gov

Coast Seafoods Bed Name/Location: _____

Observer Name: _____

Date: _____

Start Time: _____

Stop Time: _____

Environmental Conditions (tide stage, wind, cloud cover, etc.):

Project activities during observation period (Circle one):

Harvest

Planting

Maintenance

Other: _____

Describe Pacific herring activity and location(s), if observed:

Identify any species aggregations within 500 meters (1/4 mile):

- California Least Tern # _____
- Brown Pelican # _____
- Cormorant # _____
- Gulls # _____

- Harbor Seal # _____
- California Sea Lion # _____
- Other: _____ # _____

Additional notes and observations: