



INCIDENTAL HARASSMENT AUTHORIZATION

The Port of Kalama (POK), is hereby authorized under section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(D)) to harass marine mammals incidental to conducting in-water construction work for the Port of Kalama Expansion Project on the lower Columbia River, when adhering to the following terms and conditions:

1. This Authorization is valid from October 19, 2019 through October 18, 2020.
2. This IHA is valid only for activities associated with in-water construction work for the Port of Kalama Expansion Project on approximately 100 acres (including uplands) at the northern end of the Port of Kalama's North Port site (Lat. 46.049, Long. -122.874), located at approximately river mile 72 along the lower Columbia River along the east bank in Cowlitz County, Washington.
3. General Conditions
 - (a) A copy of this Authorization must be in the possession of the POK, its designees, and work crew personnel operating under the authority of this IHA.
 - (b) The species authorized for taking are harbor seals (*Phoca vitulina richardsi*), California sea lions (*Zalophus californianus*), and Steller sea lions (*Eumetopias jubatus*).
 - (c) The taking, by Level A and Level B harassment only, is limited to the species listed in condition 3(b). See Table 1 (attached) for numbers of take authorized.
 - (d) The taking by serious injury or death of any of the species listed in condition 3(b) of the Authorization, or any taking of any other species of marine mammal not listed in condition 3(b), is prohibited and may result in the modification, suspension, or revocation of this IHA. The taking of any marine mammal in a manner prohibited under this Authorization must be reported within 24 hours of the taking to the National Marine Fisheries Service (NMFS) West Coast Regional Administrator at (206) 526-6150 and NMFS Permits and Conservation Division at (301) 427-8401.
 - (e) The POK must conduct briefings between construction supervisors and crews, marine mammal monitoring team, and POK staff prior to the start of all in-water



construction activities, and when new personnel join the work, in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.

- (f) Timing of Activities Anticipated to Result in Take of Marine Mammals:
 - (i) In-water construction/pile installation (including installation and removal of temporary piles for construction) shall be conducted between September 1 and January 31 only.
- (g) Timing of Activities Not Anticipated to Result in Take of Marine Mammals:
 - (i) Dredging would be conducted between September 1 and December 31.
 - (ii) Construction/installation of engineered log jams (ELJ) may be conducted year-round.
 - (iii) Construction that will take place below the Ordinary High Water Mark (OHWM), but outside of the wetted perimeter of the river (in the dry) may be conducted year-round.
 - (iv) Removal of wooden piles from former trestle in the freshwater intertidal backwater channel portion of the project site (compensatory mitigation measure of removal of 157 wooden piles) may be conducted year-round.

4. Mitigation Measures

The holder of this Authorization is required to implement the following mitigation measures:

- (a) Activities authorized for take of marine mammals by this Authorization (in-water construction work/pile driving (including vibratory and impact pile driving of concrete and steel piles)) must only occur during daylight hours.
- (b) A bubble curtain must be used for sound attenuation if steel piles require impact installation or proofing.
 - (i) If water velocity is 1.6 feet per second (1.1 miles per hour) or less for the entire installation period, the pile being driven must be surrounded by a confined or unconfined bubble curtain that will distribute small air bubbles around 100 percent of the pile perimeter for the full depth of the water column.
 - (ii) If water velocity is greater than 1.6 feet per second (1.1 miles per hour) at any point during installation, the pile being driven must be surrounded by

a confined bubble curtain (e.g., a bubble ring surrounded by a fabric or non-metallic sleeve) that will distribute air bubbles around 100 percent of the pile perimeter for the full depth of the water column.

- (c) Level A Harassment Exclusion Zone and Level B Harassment Zones of Influence:
 - (i) Exclusion zones out to distances shown in Table 2 (attached), encompassing the Level A harassment zones must be implemented.
 - (ii) Disturbance zones must be established as identified in Table 3 (attached).
- (d) Monitoring of marine mammals must take place starting 30 minutes before pile driving begins and must continue until 30 minutes after pile driving ends.
- (e) Soft Start:
 - (i) Soft start procedures must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.
 - (ii) Soft start procedures require that the contractor provides an initial set of three strikes at reduced energy followed by a 30-second waiting period, then two subsequent reduced energy strike sets.
- (f) Shutdown Measures:
 - (i) POK must implement shutdown measures if a marine mammal is sighted within, or is perceived to be approaching, the exclusion zones identified in 4(c)(i) above and the associated construction or pile driving activities must immediately cease. Pile driving or in-water construction work must not be resumed until the exclusion zone has been observed as being clear of marine mammals for at least 15 minutes.
 - (ii) If marine mammals are present within the exclusion zones established in 4(c)(i) above prior to the start of in-water construction activities, these activities must be delayed until the animal(s) leave the exclusion zone of their own volition, or until 15 minutes elapse without resighting the animal(s), at which time it may be assumed that the animal(s) have left the exclusion zone.
 - (iii) If a species for which authorization has not been granted, or for which authorization has been granted but the take limit has been met, approaches or enters the Level A or B harassment zone, activities must cease and the action proponent must contact NMFS' Office of Protected Resources.

5. Monitoring

The holder of this Authorization is required to conduct marine mammal monitoring during all in-water construction work. Monitoring and reporting shall be conducted in accordance with the Monitoring Plan.

- (a) Marine Mammal Observers – POK shall employ observers to conduct marine mammal monitoring for its construction project. Observers shall have the following minimum qualifications:
 - (i) Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water’s surface with the ability to estimate target size and distance. Use of binoculars may be necessary to correctly identify the target.
 - (ii) Experience and ability to conduct field observations and collect data according to assigned protocols (this may include academic experience).
 - (iii) Experience or training in the field identification of the marine mammals that could potentially be encountered.
 - (iv) Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations.
 - (v) Writing skills sufficient to prepare a report of observations that will include such information as the number and types of marine mammals observed; the behavior of marine mammals in the project area during construction; the dates and times when observations were conducted; the dates and times when in-water construction activities were conducted; the dates and times when marine mammals were present at or within the defined disturbance zone; and the dates and times when in-water construction activities were suspended to avoid incidental harassment by disturbance from construction noise.
 - (vi) Ability to communicate orally, by radio or in person, with project personnel to provide real time information on marine mammals observed in the area.
- (b) Individuals meeting the minimum qualifications identified in 5(a), above, shall be present on site (on land or dock/barge) at all times during pile driving activities conducted for the project.
 - (i) One trained marine mammal observer must monitor to implement shutdowns and collect information at each active pile driving location (whether vibratory or impact driving of steel or concrete piles).

- (ii) For impact driving (either steel or concrete piles) at least three marine mammal observers must be on duty at all times. One of these observers must monitor and implement shutdown zones and collect information at each pile driving location at all times. In addition, two shore-based observers (one upstream of the project and another downstream of the project) must be on duty, whose primary responsibility will be to record marine mammals in the Level B harassment zone and to alert the observer at the pile location to the presence of marine mammals.
 - (iii) For vibratory pile driving, one observer must monitor and implement shutdown zones and collect information at each pile driving location at all times. At least three marine mammal observers must be on duty for the first two days, and thereafter on every third day to allow for estimation of Level B harassment takes. In these instances, one observer must be located at the pile driving location and two shore-based observers (one upstream of the project and another downstream of the project) must be on duty. The shore-based observers' primary responsibility will be to record marine mammals in the Level B harassment zone and to alert the observer at the pile location to the presence of marine mammals.
- (c) During all impact pile driving activities, observers must be stationed to allow a clear line of sight of the exclusion zone (10 m [33 ft] for all in-water heavy machinery operations except for pile driving; the entirety of the Level A harassment zone, and the entire disturbance zone for pile driving activity, as identified in Table 2 (attached)). Three marine mammal observers must monitor for the first two days of vibratory pile driving, and thereafter on every third day of vibratory pile driving. Monitoring must be conducted by a minimum of three observers during vibratory pile driving activities. One observer must be stationed in the general vicinity of the pile being driven and have clear line of sight views of the entire inner harbor. Another observer must be stationed at an accessible location downstream and observe the northern (downstream) portion of the disturbance zone. A third observer must be stationed at an accessible location upstream and observe the southern (upstream) portion of the disturbance zone.
- (d) Marine mammal observers must scan the waters within each monitoring zone activity using binoculars (Vector 10 X 42 or equivalent), spotting scopes (Swarovski 20-60 zoom or equivalent), and visual observation.
- (e) Marine mammal presence within the Level B harassment zones of influence (disturbance zones) must be monitored, but pile driving activity will not be stopped if marine mammals are found present unless they enter or approach the exclusion zone. Any marine mammal observed within the disturbance zone must be documented and counted as a Level B harassment take. Monitoring during

vibratory pile driving must occur during the first two days of activity and during every three days thereafter to estimate the number of individuals present within the Level B harassment area.

- (f) If waters exceed a sea-state which restrict the observers' ability to make observations within the Level A harassment exclusion zone, relevant activities must cease until conditions allow the resumption of monitoring. Vibratory pile installation would continue under these conditions.
- (g) The waters must be scanned 30 minutes prior to commencing pile driving activities and during all pile driving activities. If marine mammals enter or are observed within the designated exclusion zones during, or 15 minutes prior to, impact pile driving, the monitors must notify the on-site construction manager to not begin, or cease, work until the animal(s) leave of their own volition, or have not been observed within the zone for 15 minutes.

6. Reporting

The holder of this Authorization is required to adhere to the following:

- (a) POK must provide NMFS with a draft monitoring report within 90 calendar days of the expiration of this Authorization, or within conclusion of the construction work, whichever comes first. This report shall detail the monitoring protocol, summarize the data recorded during monitoring, and estimate the number of marine mammals that may have been harassed.
- (b) If comments are received from NMFS on the draft report within 30 days, a final report shall be submitted to NMFS within 30 days thereafter. If no comments are received from NMFS within 30 days after receipt of the draft report, the draft report will be considered final.
- (c) In the unanticipated event that the construction activities clearly cause the take of a marine mammal in a manner prohibited by this Authorization, such as an injury, serious injury, or mortality (Level A take), POK shall immediately cease all operations and immediately report the incident to the NMFS Office of Protected Resources and the NMFS West Coast Regional Stranding Coordinator. The report must include the following information:
 - (i) Time, date, and location (latitude and longitude) of the incident;
 - (ii) Description of the incident;

- (iii) Status of all sound sources used in the 24 hours preceding the incident;
- (iv) Environmental conditions (wind speed, wind direction, sea state, cloud cover, visibility, water depth);
- (v) Description of the marine mammal observations in the 24 hours preceding the incident;
- (vi) Species identification or description of the animal(s) involved;
- (vii) The fate of the animal(s); and
- (viii) Photographs or video footage of the animal(s), if equipment is available

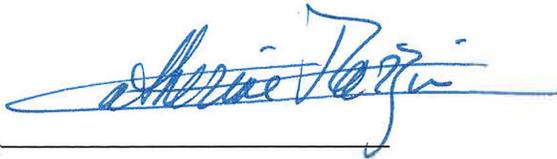
Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS shall work with POK to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. POK may not resume their activities until notified by NMFS via letter, email, or telephone.

- (d) In the event that POK discovers an injured or dead marine mammal, and the marine mammal observer determines that the cause of injury or death is unknown and the death is relatively recent (less than a moderate state of decomposition), POK will immediately report the incident to the NMFS Office of Protected Resources, and the NMFS West Coast Regional Stranding Coordinator. The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with POK to determine whether modifications in the activities are appropriate
- (e) In the event that POK discovers an injured or dead marine mammal, and the marine mammal observer determines that the injury or death is not associated with or related to the activities authorized in the IHA (previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), POK shall report the incident to the NMFS Office of Protected Resources, and the NMFS West Coast Regional Stranding Coordinator within 24 hours of the discovery. POK shall provide photographs or video footage (if available) or other documentation of the stranded animal(s) to NMFS Office of Protected Resources and the West Coast Regional Stranding Coordinator. POK may continue its operations under such a case.

- 7. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein, or if NMFS determines the authorized taking is

having more than a negligible impact on the species or stock of affected marine mammals.

8. Renewals - NMFS may issue a one-year IHA renewal with an additional 15 days for public comments when (1) another year of identical or nearly identical activities as described in the Specified Activities section of this notice is planned or (2) the activities as described in the Specified Activities section of this notice would not be completed by the time the IHA expires and a second IHA would allow for completion of the activities beyond that described in the Dates and Duration section of this notice, provided all of the following conditions are met:
- (a) A request for renewal is received no later than 60 days prior to expiration of the current IHA.
 - (b) The request for renewal must include the following:
 - (i) An explanation that the activities to be conducted beyond the initial dates either are identical to the previously analyzed activities or include changes so minor (e.g., reduction in pile size) that the changes do not affect the previous analyses, take estimates, or mitigation and monitoring requirements.
 - (ii) A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized.
 - (c) Upon review of the request for renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures remain the same and appropriate, and the original findings remain valid.



for
Donna S. Wieting,
Director, Office of Protected Resources,
National Marine Fisheries Service

OCT 17 2019

Date

Table 1. Species and numbers of takes allowed under this IHA.

Species	Level A	Level B	Total Take
Harbor seal	10	1,530	1953
California sea lion	0	372	372
Steller sea lion	0	372	372

Table 2. Level A harassment zones to be monitored for shutdown.

Activity	Level A (PTS) Threshold	Isopleth (distance)
Impact-driving concrete piles	185 dB SEL _{cum}	63 m (207 ft)
Impact-driving steel piles	185 dB SEL _{cum}	252 m (828 ft)
Vibratory-driving steel piles	201 dB SEL _{cum}	26 m (85 ft)

Table 3. Modeled maximum monitoring zones for various pile driving activities.

Pile type	Hammer type	Distance to disturbance monitoring zones (m)	
		160 dB	120 dB
24in Concrete pile	Impact	117	N/A
18in Steel pipe pile	Vibratory	N/A	Line of Sight, (max 5.7km)
18in Steel pipe pile	Impact	1,848	NA