Avoidance and Minimization Measures* for Piping Plover (PIPL) and Red Knot (REKN) for Coastal Activities in Texas for Determination Key (D-key) for NLAA Determination

Piping Plovers and Red Knots – peak non-breeding (wintering) season begins July 15 extending through May 15; however, individuals can be observed year-round.

1. A wildlife monitor (qualified biologist trained in shorebird bird identification) will ensure individual or groups of PIPLs and REKNs are not disturbed or affected by project activities.

2. The project area (i.e., construction/operational areas, access points, travel corridors, staging areas, etc.) will be surveyed by the wildlife monitor for the presence of PIPL and RENK and for suitable habitat features (inlets, bayside sand and mud flats, tidal pools, and beach front and tidal wrack lines) prior to the start of project construction. The wildlife monitor will educate personnel on avoiding areas being utilized by the birds.

3. Daily PIPL and REKN surveys will be conducted in the morning before construction begins and if needed throughout the day.

4. All work will be conducted during daylight hours.

5. When PIPL/REKN are identified, vehicle and foot traffic should not occur within 80 feet (25m) from the birds or within 40 feet optimal habitat features (even when birds are not present). Theses buffers should be maintained for the duration of the work activities even if the birds depart or relocate. Personnel and vehicles should follow existing/established travel and access corridors and maintain slow speeds to avoid disturbing birds.

6. Stay 500 feet or more away from high tide roosting areas, including large flocks of shorebirds, as PIPLs and REKNs may occur in mixed flocks (usually at inlets or bayside). If birds in the area are repeatedly being flushed (i.e., flying away), then you are too close and need to back away.

7. Do not block major egress points in channels, rivers, passes, and bays to avoid disturbance to natural coastal processes.

8. Avoid impacts to any dune systems, both vegetated and non-vegetated, including trampling any dune vegetation. Establish an avoidance buffer from the toe of the slope of the dune to a distance of 10 feet from the dune vegetation line toward the water line.

9. Vehicles and heavy equipment will be checked for PIPL and REKN before equipment is started or if stopped throughout the day. The POC and/or monitor(s) should be aware that PIPLs and REKNs are especially vulnerable during periods of cold temperature, inclement weather, and when roosting at night. Construction personnel will immediately notify the wildlife monitor(s) if listed species occur in the immediate project area. If the bird does not relocate (e.g., injured bird), the Service will be contacted to solicit additional guidance.

10. Designate access points and travel corridors away from known foraging and roosting areas and keep all personnel, vehicles, and equipment within those designated corridors to minimize disturbance to birds and beach topographic alterations. Avoid driving up and down the shoreline to the maximum extent practicable to minimize disturbance to birds and beach topographic alterations. Keep all personnel, vehicles, and equipment within the designated work area/project footprint and access corridors.

11. Materials and equipment required for the project will not be staged in areas identified as PIPL and REKN suitable habitat and transported as needed to the proposed work sites. Staging areas will be designated before work begins.

12. Maintain a clean worksite and remove all trash and work-related debris daily.

13. Completely avoid primary wrack line and swash zone (wet beach). The primary wrack line is the vegetated debris line closest the swash zone/foreshore.

14. Avoid disturbance to all wrack lines while traveling to and from the project site. If the wrack lines (non-primary) must be crossed by equipment or vehicles, gently rake the wrack out of the way to establish a designated travel corridor for crossing the wrack line. Restore the wrack to its original configuration once access across it is no longer needed. The wrack line is defined as vegetative area made up of but not limited to sargassum, shell hash, vegetation, and some light trash and litter.

15. If use of sand is part of the project, only sand that meets the specifications of the local beach quality sand (e.g., grain size, color, composition and mineralogy) will be used for beach nourishment activities. The Texas General Land Office provides Beach/Dune guidelines for placing sand and material seaward of the dune protection line in the Texas Administrative Code (TAC 2019); specifically, in 31TAC § 15.4 (c)(2) and (3). These rules specifically prohibit the placement of sand, soil, sediment or dredged is of an unacceptable mineralogy or grain size when compared to natural or native sediments found on the site. These rules also provide that material intended for beach placement must not contain hazardous substances as found in Volume 40 of the Code of Federal Regulations, Part 302.

16. Avoid disturbing bayside sand and mud flats.

17. Do not fly unmanned aircraft below 500 feet near shorebird concentration areas (i.e., foraging and roosting areas).

18. Avoid hovering or landing unmanned aircraft near dunes, roosting or foraging areas, and large bird concentration areas.

Additional assistance from the USFWS can be requested from the Service as needed https://www.fws.gov/office/texas-coastal-and-central-plains-ecological-services/library

*Guidance based on the Comprehensive Conservation Strategy for PIPL : https://ecos.fws.gov/docs/recovery_plan/Vol%20II%20NGP%20Draft%20Revised%20Winter%20Rec%20Plan%206_05_15