## Planning and Status of Berkeley Pier Enhancement Project

The Trustees for natural resources impacted by the Cosco Busan Oil Spill (November, 2007), including the California Department of Fish and Wildlife, California State Lands Commission, National Oceanic and Atmospheric Administration, United States Fish and Wildlife Service, National Park Service, and Bureau of Land Management have completed a feasibility study (<a href="mailto:memo">memo</a>) and engineering designs (<a href="mailto:90% design">90% design</a>) to enhance portions of the dilapidated Berkeley Pier to benefit pelicans, cormorants, gulls, and shorebirds injured by the spill. The Pier itself is an approximately 2.5 mile long structure extending into San Francisco Bay; however, the pier is no longer maintained nor accessible by the public for safety reasons. The Trustees have allocated approximately \$600,000 to implement this project.

The project includes the following design features: one nesting and roosting platform (Group D) would be installed on old pilings near the end of the dilapidated pier (approximately 2.5 miles from the shoreline) to attract nesting cormorants. Pelicans and gulls would use the platform for roosting as well. A second platform, which was to be installed near the base of the dilapidated pier per the Trustees' original Damage Assessment and Restoration Plan (DARP), will not be installed due to the City of Berkeley's plans to construct a ferry terminal near that location. The second platform (Group C), designed to benefit shorebirds, is now intended to be constructed in a more central location, approximately 1.3 miles from the planned location of the City's new ferry terminal. The Trustees had originally planned to install hawser ropes draped from the sides of the second platform to provide underwater substrate for mussels, barnacles, and other invertebrates that would serve as a food source for scoters and diving ducks. However, based on the Trustees' feasibility study, this component has been dropped from further consideration due to the degrading structural integrity of the existing pier pilings and concern that tidal, wind, and wave action on the ropes could adversely affect the stability and soundness of the pilings and bents.

The pier enhancement project will not interfere with the construction or operation of a new ferry terminal proposed near the base of the old Berkeley Pier (Berkeley Municipal Pier-Ferry Project). Biologists with the Department of Fish and Wildlife have determined that the construction of the ferry terminal would not adversely affect bird nesting or roosting along enhanced portions of the abandoned pier pilings, since construction activities will occur more than 1 to 2 miles from the planned ferry terminal. Furthermore, the operation of ferry boats will be at a great enough distance (at least 1,200 to 1,700 ft) from the proposed enhancement areas such that flushing or disturbance of nesting or roosting birds is not anticipated. Dr. Michael Anderson, representing the Department of Fish and Wildlife, Office of Spill Prevention and Response met the members of the San Francisco Bay Harbor Safety Committee on July 9, 2020 to discuss the feasibility of the enhancement project and address any concerns that boat operators, including ferry boat captains, may have with the proposed locations of the bird nesting and roosting areas (Harbor Safety Committee) Presentation). Members of the committee did not object with the placement and locations of the platform structures and did not express concern that they might pose a hazard to navigation.

Based on nearby, successful efforts to enhance Cormorant nesting in the Bay at the Bay Bridge, the Trustees are encouraged that this project will lead to increased nesting opportunities for cormorants, as well as the increased potential for roosting of pelicans, gulls, and shorebirds. The pier enhancements will also satisfy concerns expressed during City of Berkeley public outreach about mitigating wildlife conflicts while enhancing wildlife habitat and adding potential viewing/educational opportunities from the ferry. Moreover, since these locations experience limited human disturbance, they will provide a cumulative benefit to the spill impacted species, now and in the future, as rising sea levels affect other roosting areas. The Trustees'

next step to implement this project will include securing a pier lease agreement with the City of Berkeley, necessary state and federal permits, and final engineering designs.	