



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

OCT 14 2010

Eric Lopez
Department of Community Development
City of Long Beach
333 W. Ocean Boulevard, 3rd Floor
Long Beach, California 90802

Dear Mr. Lopez:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Final Phase 2 Engineering Study for the Colorado Lagoon Restoration Project. The City of Long Beach (City) has requested public comments on the Study to assist their decision making process. Specifically, the City has requested resource agencies comment on the study and rank the alternatives, with respect to their ability to provide habitat value that could be translated to compensatory mitigation credits. NMFS is providing this letter in response to the City's request.

NMFS recognizes the recreational and community interest values provided by the Marina Vista Park (Park). In a highly urbanized environment, environmental restoration and/or enhancements often involve inherent trade-offs of different environmental and societal values. Given the dramatic reduction in coastal wetlands and associated shallow water habitats in Southern California and the unique opportunity this area provides for ecological improvements, NMFS believes the ecological benefits associated with developing an open channel outweigh the costs of reducing the size of the Park. Furthermore, from a long-term perspective, the development of another underground culvert along the entire reach of the Park would constitute the least cost-effective means of habitat creation and enhancement.

The Study identifies a number of changes in habitat distribution and quality within Colorado Lagoon that would be attributed to improved tidal range and circulation. NMFS conceptually agrees that functional lift will likely occur and is amenable to consider the increase in function as a source of mitigation credit. However, NMFS believes the presence of culverts may adversely affect fish access to Colorado Lagoon. For example, Alternative 1, which involves an approximately 880-foot long and 20 foot wide culvert would likely adversely affect faunal movements between Marine Stadium and Colorado Lagoon. Therefore, the expected improvements in habitat quality within Colorado Lagoon for this alternative would provide the least benefit to fishery resources. The remaining alternatives would have varying degrees of effects to faunal movements. Alternative 3 involves one 140 foot culvert and one 180 foot culvert, Alternative 4 contains one 135 foot culvert, and Alternatives 2 and 4a contain no culverts, but have more narrow channels and bridge shading under the two roadways. NMFS does not



expect the constrictions posed by Alternatives 2 and 4a would be significant. NMFS is less certain about the level of significance of the culvert constrictions associated with Alternatives 3 and 4. Previous enhancement efforts within Anaheim Bay involved culverts under roadways, which did not appear to have a significant effect on fishery utilization. However, these culverts ranged from 50 to 70 feet, which are 28% to 52% of the length of the proposed Phase 2 culverts. Thus, there is some uncertainty regarding the effects of the proposed culverts for Alternatives 3 and 4 on fishery utilization. For this reason, NMFS is hesitant to concur with the Study's conclusion that culvert length and darkness would not result in any diminishment of abundance or diversity within the connected areas. Based upon the information provided, NMFS ranks the various alternatives from a fishery access perspective highest to lowest in the following order: Alternative 4a, Alternative 2, Alternative 4, Alternative 3, and Alternative 1.

The Study clearly describes the expected amount of new habitats created within each of the open channel alternatives. Although there may be some changes in the acreage numbers after final design and implementation, NMFS concurs that these are good approximations of new habitat acreage potential. In terms of new habitat created that would qualify for compensatory mitigation credits, Alternative 4a would rank the highest. Not only does it provide the most amount of new acreage, it also provides the least amount of artificial channel features (e.g. culverts, shading) that may adversely affect fish movements and least amount of maintenance. Of the remaining alternatives with open channels, NMFS ranks the amount of new habitat created from highest to lowest in the following order: Alternative 4, Alternative 2, and Alternative 3.

Based upon the above rankings, NMFS supports Alternative 4a as the most ecologically desirable alternative. Alternative 4a would result in the greatest amount of new habitat gained, the greatest functional lift of existing habitat within Colorado Lagoon, the most natural tidal connection, and the least amount of long-term maintenance. NMFS recognizes that Alternative 4 may be most attractive to potential funding organizations given that this alternative is the most cost effective and provides a comparable amount of new habitat. However, Alternative 4a is a close second in terms of long-term cost effectiveness - a 2% difference in cost per unit acre created and a 7% difference in cost per unit acre created and enhanced. Given the higher ecological value and reduced maintenance associated with Alternative 4a, NMFS recommends that the City adopt it as their preferred alternative.

If you have any questions related to these comments, please contact Bryant Chesney at (562) 980-4037 or Bryant.Chesney@noaa.gov. Thank you for consulting with NMFS.

Sincerely,




Robert S. Hoffman
Assistant Regional Administrator
for Habitat Conservation