Doug George, ESA PWA Project Manager
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sent via electronic mail: dgeorge@esassoc.com

July 24, 2012

Re: San Francisco Littoral Cell CRSMP Comments

Dear Mr. George:

This brief letter serves to identify public concerns that Coastal Regional Sediment Management Plans (CRSMPs) for the San Francisco Littoral Cell and San Francisco Central Bay are being developed independently, despite that peer-reviewed research strongly suggests sand resources from Central San Francisco Bay play a key factor in the maintenance of coastal beaches along the San Francisco Littoral Cell. We encourage the California Coastal Sediment Management Workgroup to combine these planning areas, for the purposes of developing sustainable and cost-effective erosion mitigation and beach management strategies. Failure to do so poses the risk of conducting redundant planning efforts and encourages public perception that resource agencies are willfully ignoring science that indicates regulated activities within the Golden Gate are contributing to erosion of nearby coastal beaches.

As some project proponents are surely aware, recent research published by USGS and others has strongly suggested that anthropogenic influences within the Golden Gate have reduced the available sand supply to open coast beaches along the San Francisco Littoral Cell.[1,2,3] This relationship was recently refined by Dallas and Barnard, who quantified morphological changes of the San Francisco Bar since the 1880s, in relation to permanent sand removal from Central SF Bay and erosion along the outer coast.[4] They found the mouth of the San Francisco Bar, an ebb-tidal delta at the mouth of the San Francisco Estuary, has eroded approximately 80 cm over a 125 km^2 area, equating to the loss of 100 ± 52 million m^3 of fine- to course-grained sand. During the same time, around 54 million m^3 of sand was permanently removed from Central San Francisco Bay through dredging and sand mining; coinciding with contraction of the San Francisco Bar towards the Golden Gate. Authors of the study indicate these changes altered wave patterns to such an extent that human-induced change has played a significant role in erosion at Ocean Beach.

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[1] Barnard PL and RG Kvitek. 2010. *Anthropogenic influence on recent bathymetric change in west-central San Francisco Bay*. San Francisco Estuary and Watershed Science 8(3): 13 pp. http://escholarship.org/uc/item/6k3524hg

[2] Barnard, PL, JE Hansen and LH Erikson. 2012. *Synthesis Study of an Erosion Hot Spot, Ocean Beach, California*. Journal of Coastal Research 28(4): pp. 903 – 922.

[3] Chin, JL, FL Wong and PR Charlton. 2004. *Shifting Shoals and Shattered Rocks – How Man Has Transformed the Floor of West-Central San Francisco Bay*. Circular 1259, U.S. Geological Survey, Menlo Park, CA.

[4] Dallas, KL and PL Barnard. 2011. *Anthropogenic influences on shoreline and nearshore evolution in the San Francisco Bay coastal system*. Estuarine, Coastal and Shelf Science 92: pp. 195 – 204.

Mounting evidence supports the assertion that regulated sand extraction activities occurring within Central SF Bay are currently exacerbating erosion of coastal beaches along the SF Littoral Cell. Failure to consider this relationship in a meaningful manner seriously threatens the credibility of CRSMP processes both for the SF Littoral Cell and the Central SF Bay. Aggregation of these two planning areas would not only serve to enhance our understanding of sustainable long-term solutions, but would minimize the development of redundant studies and ensure research is being conducted in a complementary manner. In addition, evaluating these areas in sync would permit better understanding of the cost-benefits of permitting unsustainable rates of dredging and sand mining in San Francisco Bay at the expense of managed retreat of San Francisco's coastal shoreline, on-going placement of sand along Ocean Beach, and installation of highly engineered reefs or groins. Failure to consider the significant adverse impacts of sand mining on coastal erosion processes hampers meaningful analysis and development of reasonable mitigation measures.

We understand that multiple factors contribute to the need for developing CRSMPs along California's coast - and that making regulatory or policy decisions is not included among them. We recognize it is not the role of a CRSMP to determine dredging or mining decisions, but we feel a CRSMP should evaluate all significant inputs to a littoral cell, determine potential impacts, and identify management and mitigation options. Creation of a CRSMP for the SF Littoral Cell without evaluating significant inputs and impacts associated with activities taking place just a short distance away, in the Central Bay, simply does not make sense. Although a separate CRSMP is to be developed for the Central Bay it is unlikely these plans will be synchronized to a meaningful extent.

This process poses a unique opportunity to explore options for harmonizing management of San Francisco Bay with the outer coast. Simply because these areas suffer from separate and somewhat arbitrary jurisdictions does not mean they should be treated as such. We hope the California Coastal Sediment Management Workgroup and local proponents take this opportunity to explore mitigation measures and management regimes that truly benefit the entire region.

Thank you for the opportunity to comment and we look forward to engaging on this project.

Sincerely,

Ian Wren
Staff Scientist, San Francisco Baykeeper

Carin High
Vice Chair, Citizens Committee to Complete the Refuge

Bill McLaughlin
Erosion Committee Project Manager,
Surfrider Foundation, San Francisco Chapter