UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Colonel Michael J. Farrell
U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814

FEB 0 6 2015

Subject: Public Notice (PN) SPK-2006-00425, Tesoro Viejo Master Planned Community Project, Madera County, CA

Dear Colonel Farrell:

Thank you for the opportunity to comment on the subject PN dated December 24, 2014, with the comment period extended until February 7, 2015. The applicant proposes to construct a 1658.75-acre mixed-use, primarily residential development that would result in the permanent fill of approximately 7.027 acres of waters of the United States, including wetlands, adjacent to the San Joaquin River in Madera County, CA.

The following comments were prepared under the authority of, and in accordance with, the provision of the Federal Guidelines (Guidelines) promulgated under section 404(b)(1) of the Clean Water Act (CWA) at 40 CFR Part 230. Based on the available information, the EPA concludes that the applicant has not demonstrated compliance with the restrictions on discharges per the Guidelines. Specifically, the applicant has not: (1) submitted an Alternatives Analysis demonstrating that the proposed project is the least environmentally-damaging practicable alternative (LEDPA); nor (2) provided adequate information regarding compensatory mitigation for unavoidable impacts.

Alternatives Analysis

The overall project purpose is to construct a large-scale, mixed-use development and associated infrastructure in southeastern Madera County. Pursuant to the Guidelines, if discharge is proposed for a special aquatic site (such as wetlands) and does not have a water-dependent project purpose, practicable alternatives are presumed to exist unless clearly demonstrated otherwise. To date, an Alternatives Analysis (AA), which is required by the Guidelines, has not been provided by the applicant. An AA must include an off-site analysis of alternatives as well as on-site analysis. The on-site alternatives analysis must include a comprehensive evaluation of practicable avoidance configurations to eliminate or reduce direct, indirect, and cumulative impacts to waters, especially special aquatic sites such as wetlands. Any indirect impacts that cannot be avoided must be mitigated in addition to the unavoidable direct impacts.

It remains to be demonstrated that the avoidance of 7.027 acres of waters is impracticable or that indirect impacts have been minimized. For example, the applicant should analyze measures such as expanding wetland buffers, road spanning of wetlands, minimizing impacts from the trail system, and avoiding additional wetland swales.

Buffers

EPA appreciates the applicants' efforts to preserve most of the waters on-site in an open space preserve, however, an appropriate wetland buffer is needed to maintain ecosystem integrity. A buffer protects and enhances the quality and health of wetland and in-stream physical, chemical, and biological characteristics, which enables the wetland or stream to provide important services, such as sequestering carbon, metabolizing organic matter, and degrading and processing pollutants. Well-designed buffers remove sediments and associated pollutants from surface water runoff, influence the temperature and microclimate of a water body, and provide organic matter to the wetland. Buffers in urban areas are particularly important in helping to moderate the impacts of altered hydrology and flooding.

A 2014 study by the Journal of the American Water Resources Association reviews the important role buffers play with regard ecosystem function (*e.g.,* nitrate removal, sediment trapping, channel maintenance, temperature stability; and support for macro-invertebrates and fish assemblages).[1] Based on their review of the literature, the authors concluded that buffers 100-feet wide or greater are needed to protect water quality, habitat, and biotic features associated with fifth order or smaller streams (p. 576). Wenger (1999)[2] recommended extending the width of the buffer by the width of all adjacent wetlands, in other words, the buffer should begin at the outer edge of an adjacent wetland (p. 45).

The proposed open space preserve for the Tesoro Viejo project lacks the buffers necessary to maintain the functions of the on-site waters. The functions of these waters will be diminished directly by the landscape alteration associated with the development adjacent to the preserve; and these functions are not likely to recover due to the permanent, indirect impacts associated with human activities in the planned community. Importantly, the property provides habitat to four federally-listed species: the California tiger salamander, vernal pool fairy shrimp, valley elderberry longhorn beetle, and succulent owl's clover[3]; and the establishment and maintenance of large buffers are essential for the conservation of these species. For all the reasons cited above, the AA should include an alternative with a minimum 100-foot buffer around avoided waters.

Trails and Roads

The heavy trail system surrounding and bisecting the proposed open space preserve may cause indirect, significant, and unmitigable impacts to the on-site waters. Also, several road crossings would fragment the preserve, and cause direct impacts waters, and indirect impacts to watershed processes. Trails and roads may facilitate, and even encourage, disturbances within the proposed preserve such as glare, noise, trash, illegal dumping, introduction of non-native plants and animals, trespassing, and off-road vehicle intrusion. The applicant should formulate and analyze alternatives for eliminating and modifying trails and roads so waters and associated uplands are avoided or spanned both within the proposed preserve and across the entire project area.

Proposed Open Space

The San Joaquin River Parkway and Conservation Trust (Trust) continues to pursue the conservation and restoration of a functional corridor along the San Joaquin River within the reach affected by the proposed development. Expanding the boundary of the proposed open space for the Tesoro Viejo project

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[1] Sweeney, B.W. and J.D. Newbold. June 2014. *Streamside Forest Buffer Width Needed To Protect Stream Water Quality, Habitat And Organisms: A Literature Review*. Journal of the American Water Resources Association. pp. 560-574.

[2] Wenger, S. 1999. *A Review of the Scientific Literature on Riparian Buffer Width, Extent, and Vegetation.* Available at www.rivercenter.ouga.edu/service/tools/buffers/buffer_lit_review.pdf

[3] Biological Assessment for the Tesoro Viejo Project, November 2014. Prepared by US Army Corps of Engineers for the US Fish and Wildlife Service.

to include the parcel west of the existing open space configuration along the San Joaquin River would reduce indirect impacts to the river, increase connectivity with parcels already conserved or prioritized by the Trust, and provide opportunities for habitat restoration that would benefit both the ecosystem and the planned community. EPA suggests that the applicant consider placing this portion of the open space under the management of the State San Joaquin River Conservancy. An additional avoidance area that merits evaluation is the large wetland swale in the southeast corner of the main property.[4] This parcel could be encompassed as a conservation asset by expanding the boundaries of the proposed open space preserve that lies to the west; thereby increasing the functional value of the parcel and providing more upland buffer to the waters nearby.

Open space has been well documented in scientific literature to be a highly valued amenity that increases home prices[5]. The suggested improvements to, and expansion of, the proposed open space preserve, and the enhancement of the San Joaquin River Parkway, will help maintain the integrity of on-site and downstream waters, and contribute to the economic value and well-being of the planned community.

Indirect and Cumulative Impacts

The AA should analyze indirect impacts, with details on how they were measured, and identify ways to avoid, minimize, and mitigate these impacts. The health of streams and wetlands is adversely affected as the proportion of impervious surfaces increases across a watershed.[6] The proposed development would include approximately 1,050 acres of residential units, 152 acres of retail and commercial uses, and 60 acres of schools (Tesoro Viejo Specific Plan Revised EIR 2012). The changes to the landscape and watershed caused by this development will adversely and permanently affect natural hydrologic regimes in local, and perhaps regional, drainages and wetlands unless rigorous "low impact development" features are designed into the planned community. This type of "green infrastructure" includes the establishment and maintenance of the buffers described above.

The AA should also analyze cumulative impacts of the proposed project and offer mitigation scenarios. The Tesoro Viejo project is occurring within the context of all the other development that may replace historic natural lands, farmlands, and rangelands. Cumulative impacts to this watershed may be significant due to the many approved and proposed developments in the area. EPA is aware of three approved developments and eight proposed developments adjacent to the proposed site[7], together comprising about 20,000 acres of new development on existing open lands. As a result, ~30 square miles of natural lands will be converted to suburban uses, with direct impacts to potentially hundreds of acres of vernal pools and other wetlands. Given that 85% of California's wetlands and vernal pools have already been destroyed along with 93% of its riparian habitat, the additional losses corresponding to the proposed development may cumulatively represent the significant degradation of the aquatic ecosystem.

Mitigation

The applicant has not submitted a mitigation plan beyond the proposal to create on-site mitigation within the proposed open space preserve. The applicant is proposing to create seasonal and/or riparian wetlands

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[4] This area was discussed in a meeting with the Corps and the applicant's consultant, ECORP, on 1/28/2015.

[5] Anderson, S.T. and West, S.E. June 2006. *Open space, residential property values, and spatial context*. Regional Science and Urban Economics, p. 773-389.

[6] *The Impacts of Imperviousness on Aquatic Ecosystems*. 2009; State of California (OEHHA). Available at: http://www.oehha.ca.gov/ecotox/pdf/ICbiblio0309.pdf

[7] http://www.maderacountyedc.com/images/Rio%20Mesa%20Developments.pdf

on-site, as well as to restore historic stream meanders. Given additional avoidance and/or minimization of direct, indirect, and cumulative impacts may be necessary and practicable, a detailed discussion of compensatory mitigation actions in this comment letter would be premature. However EPA suggests the applicant consider the elements below in formulating a mitigation plan; these issues will need to be resolved consistent with the 2008 Final Compensatory Mitigation Rule (Rule)[8] prior to permit approval:

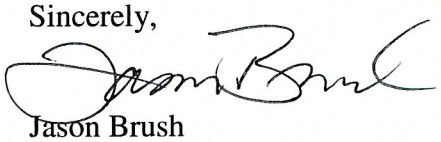
- The Rule gives preference to federally-approved mitigation banks over permittee-responsible mitigation when the unavoidable impacts are located within the service area of an approved bank, and if the bank has the appropriate number and type of credits available. The Rule authorizes the Corps' district engineer to override this preference only when "a permittee-responsible project will restore an outstanding resource based on a rigorous scientific and technical analysis." The proposed mitigation plan will need to justify the use of on-site, in some cases out-of-kind, permittee-responsible mitigation over any approved mitigation banks or in-lieu fee programs located near the project.
- The Corps' South Pacific Division's Standard Operating Procedure for determining mitigation ratios will be applied to any mitigation proposal. The cursory information provided to date suggests that the mitigation ratio would be higher than 1:1.
- Any mitigation strategy must result in high-quality aquatic resources that maintain their functional integrity over the long-term, and adhere to performance standards determined by the Corps. The current open-space proposal, which contains only 50-foot buffers, a heavy trail system, and little space for additional created wetlands where appropriate buffers could be maintained, does not appear adequate for use as mitigation.
- Wetlands created or restored for mitigation cannot be used to process untreated stormwater, but "constructed wetlands" that serve as part of the project's green infrastructure might be permitted to retain and polish stormwater, encourage aquifer recharge, and provide ancillary habitat that is periodically maintained.[9]

In summary, the EPA recommends that the applicant take the following actions:

1. Prepare an AA to address the points made above regarding avoidance and practicability.
2. Perform a cumulative impacts analysis that considers the significant historical losses to aquatic resources in the region, as well as reasonably foreseeable impacts in the project area.
3. Develop a compensatory mitigation plan that is consistent with regional conservation planning efforts and fulfills the requirements of the 2008 Final Compensatory Mitigation Rule.

Thank you for the opportunity to provide comments on the Public Notice. As additional information becomes available on this proposal, please contact Leana Rosetti of my staff at (415) 972-3070, or rosetti.leana@epa.gov.

Sincerely,



Jason Brush
Supervisor
Wetlands Office

[8] http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/mitig_info.aspx
[9] http://water.epa.gov/type/wetlands/restore/cwetlands.cfm

Cc: Jason Deters, Corps of Engineers Sacramento Office
Applicant