



September 3, 2008

Mr. Sean Trippi  
Senior Planner  
County Administration Building  
Planning & Conservation Dept.  
1195 Third Street, Suite 210  
Napa, CA 94559

**Subject: Wetland Mitigation Requirement Discussion  
Greenwood Commerce Center  
Napa County, California**

Dear Mr. Trippi:

Per your request I have included a brief overview of the Corps mitigation requirements, a brief discussion about mitigation feasibility, and proposed mitigation measures to expand in detail on the recommendations included in the April 2008 Biological Resources Assessment.

**Corps Mitigation Requirements:**

The Corps first requires avoidance of impacts to aquatic resources, followed by minimization of impacts to such resources. Following avoidance and minimization of impacts, the Corps then considers compensation of such impacts. The overall objective of the compensatory mitigation plan is to ensure that there will be no net loss of wetland function or area resulting from the proposed project.

Compensatory mitigation can include creation, enhancement, restoration, or preservation. Mitigation banks and in-lieu funds also provide a viable choice for mitigation options which are acceptable to and often are encouraged by, the Corps. Mitigation must satisfy the Corps' compensatory mitigation policies as set forth in the Regulatory Guidance Letter No. 02-2, dated December 24, 2002, as well as the Memorandum of Agreement between the U.S. Environmental Protection Agency (EPA) and the Department of the Army Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines dated November 15, 1989. Additionally, in the San Francisco District of the Corps, mitigation must satisfy the Mitigation and Monitoring Proposal Guidelines dated October 25, 1996, as updated on December 30, 2004 and further updated on April 10, 2008. The final rule applies to permit applications received after the effective date of the rule, unless the district engineer has made a written determination that applying these new rules to a particular project would result in a substantial hardship to a permit applicant.

Based on the Corps' mitigation guidelines, restoration is usually preferred over any of the other methods (establishment (creation), restoration, enhancement, or preservation) because this form of compensatory mitigation involves replacement of impacted habitat in areas that provide wetland signatures.

The Corps considers the following criteria in its determination of suitable mitigation sites:

- Natural hydrology
- Wildlife Corridors ( linkages to 2 or more habitats)
- Suitable soils
- Compatibility with adjacent land uses and watershed management plans

In-kind mitigation is preferred over out-of-kind mitigation. The minimum one-to-one acreage or linear foot compensation ratio must be used. The district engineer may require a greater mitigation ratio (more than one-to-one) to account for the method of compensatory mitigation (i.e., preservation) and the potential temporal loss associated with the proposed activity.

As part of the compensatory mitigation site design use a reference site that supports the target habitat.

For on-site and off-site mitigation sites involving restoration and preservation, a plan will need to be created that includes the following general ideas:

- *Clearly define the purpose;*
- *Develop a comprehensive hydrological component;*
- *Develop a grading plan making use of the hydrological data;*
- *Adequacy of the soils;*
- *Documentation of baseline information (existing conditions);*
- *Discuss established reference site;*
- *A draft of the plant palette (also include how to control exotics);*
- *Propose realistic success criteria.* Should include performance standards based on the objectives of the compensatory mitigation project and science based. Quantifiable success criteria is proposed by applicant and approved by the Corps and should address such ideas as hydrological success, appropriate vegetation, and habitat establishment. The objective of these success criteria is to establish no net loss of wetlands.
- *Include a maintenance plan;*
- *Include specific maintenance and monitoring program including contingency measures incase mitigation fails and these contingency measures should be considered in mitigation site design;*
- *Discuss monitoring plan; and*
- *Discuss the adaptive and long-term management plan.*

The Corps prefers a mitigation site to be constructed prior to or concurrently with the project. No construction will begin until a final mitigation and monitoring plan is approved by the Corps. After the site has been graded and planted the maintenance and monitoring phase begins. It is important to ensure appropriate depth, duration and timing of onsite water (by comparing with the established reference site). Protection of the mitigation site is in "perpetuity" so the plan must include the identification of a long term owner, including long-term financing mechanisms and party responsible for long-term management. The permit conditions or instrument may contain provisions allowing the permittee or sponsor to transfer

the long term management responsibilities of the mitigation site to a land stewardship entity. The land stewardship need not be identified in the original permit or instrument, as long as the future transfer of long-term management responsibility is approved by the district engineer. The permittee is usually required to provide a realistic endowment or other financial assurance to cover long-term maintenance activities.

The monitoring plan must provide for a monitoring period that is sufficient to demonstrate that the mitigation project has met the performance standards, but not less than five years (usually five to ten years). It shall include the monitoring requirements, including the parameters to be monitored, the length of the monitoring period, the party responsible for monitoring, the frequency for submitting reports, and the party responsible for submitting those reports. First year monitoring generally doesn't begin until one full growing season or target activity (hydrology) has passed. Failure to complete monitoring reports may result in an action by the Corps. The monitoring reports may include photo documentation and as built plans. For mitigation plantings, final success criteria will not be considered met until a minimum of two years after all maintenance has ceased.

#### **Mitigation Feasibility:**

Consistent with the Corps' mitigation requirements, the Greenwood Commerce Center Project either will include on-site wetlands creation, wetlands preservation, off-site restoration, enhancement at a 2:1 mitigation ratio (or a ratio that is otherwise agreed to mutually by the Corps) or contribution to an in-lieu fee program or mitigation bank subject to Corps and/or RWQCB approval. Current potential projects include stream restoration, stream enhancement, stream and wetland preservation, habitat enhancement, water quality protection through road improvements, and wetland habitat improvement. This list of mitigation options is not yet complete. Participation in any of these projects for purposes of mitigation is ultimately subject to the Corps and/or RWQCB approval.

Due to the difficulty in creating a long-term hydrology source, restoration or enhancement of an existing feature would ultimately be more successful and more likely to become self sustaining than creation. Potential locations for restoration may include an on-site detention feature or more likely an off-site location within Napa County that contains the appropriate, soils, and hydrology, and would benefit from restoration or enhancement.

Alternatively, mitigation might involve contribution towards an endowment to fund management and enhancement activities currently being undertaken by a third party conservation organization in Napa County. This can be valuable as a regional landscape-based approach; can provide benefit to a much larger wetland system; and/or provide desirable corridors creating habitat connectivity of two currently isolated systems. Such an approach also is consistent with the Final Mitigation Rule emphasis on contribution to large-scale wetland mitigation sites.

#### **Proposed Mitigation Measures:**

If the US Army Corps of Engineers (Corps) and/or RWQCB determines that fill of jurisdictional (jurisdictional for the Corps, and jurisdictional or otherwise for the RWQCB) wetlands will occur as a result of the project and subsequently requires mitigation for jurisdictional wetlands loss, prior to approval of improvement plans by Napa County the project proponent shall provide documentation from the Corps and/or the RWQCB indicating that one or more of the following measures will or has occurred and is or will be considered mitigation.

- Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, on the project site by enhancing existing wetlands or creating new wetlands to provide for no net loss of wetlands function. Onsite mitigation using the proposed drainage facilities such as a detention basin or vegetated swales may be a viable option for restoring wetlands function although the acceptability of such to the Corps and/or RWQCB cannot be guaranteed; or,
- Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by off-site establishment (creation), restoration, enhancement, or preservation of wetlands in Napa County consistent with state and federal policies providing for no net loss of wetland function; or
- Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by purchase of wetlands creation or preservation credits in an existing or future wetlands bank that "services" Napa County, consistent with state and federal policies providing for no net loss of wetland function; or
- Mitigate for wetlands fill, in a ratio acceptable to the Corps and/or RWQCB, by financial participation in an existing wetlands enhancement or creation project in Napa County sponsored by a state, federal, County agency, or public entity such as the Napa County Resource Conservation District (RCD) consistent with state and federal policies providing for no net loss of wetland function. The applicant is currently exploring locations for wetlands creation or enhancement. These locations include but should not be limited to:

*Carneros Creek Stream Restoration:* Funding is needed to implement restoring a failed water retaining stock pond back to a more natural channel condition for a length of 900 linear feet. Native plants and willows will be planted within the riparian corridor which will also be fenced off from grazing cattle. The benefits of the project include water quality protection, minimizing erosion and sediment delivery to Carneros Creek, increasing bird habitat, and improving downstream fish habitat. Permitting and planning on-going.

*Dry Creek Stream Restoration:* This project will restore 200 linear feet of eroding streambank along Dry Creek, a significant steelhead bearing stream within the Napa River watershed. Work entails installing a live willow brush mattress, willow walls, and stream barbs to stabilize the banks, provide canopy, and improve fish habitat. RCD will work with Center for Land Based Learning students to harvest willow and plant natives. Plans and permits are complete.

*Huichica Creek Wetland Habitat Improvement:* This project involves the continuation of planting up to 10,000 native grass plugs at the RCD's Huichica Creek Demonstration Vineyard site over a three year period. The RCD has an on-going relationship with Center For Land Based Learning SLEWS program which bridges classroom education with outdoor field experiences for high school students who will collect seeds and install some of the plantings under the direction of RCD staff. The project will benefit local birds and increase wetland habitat by ½ acre.

*Carneros and Sulphur Creek Water Quality Protection:* This project improves water quality and minimizes sediment delivery to fish bearing streams by improving stream crossings and eroding rural roads in the Carneros and Sulphur Creek watersheds. Up to 15 miles of rural roads will be "storm-proofed" resulting in the protection of significant steelhead habitat in the Heath Canyon, Sulphur Creek, and Carneros Creek watersheds. Plans and permits have been completed.

Or:

- a combination of the above measures, which in aggregate meets the prescribed ratio dictated by the Corps and/or RWQCB.

If you have any questions or need additional information, please contact me at (530) 887-8500.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Britton', with a stylized, flowing script.

Patrick Britton  
Associate Biologist