



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
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Sacramento, California 95825

IN REPLY REFER TO:  
HC-COE

February 23, 2000

District Engineer  
Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, California 95814-2922

Subject: Summary of Fish and Wildlife Service/Corps of Engineers Coordination on the  
Guadalupe River Flood Control Project, Lower Reaches (Downtown Project)

Dear Colonel Walsh:

Since our original Fish and Wildlife Coordination Act report was issued in 1984, the Guadalupe River Flood Control Project, Lower Reaches (Downtown Project) has been substantially amended and revised several times. Ultimately, this has led to a re-evaluation of the project design, impacts, and mitigation, involving a number of activities by the Fish and Wildlife Service (Service), or by consultants under our mutual guidance. Pursuant to our current scope of work, we are submitting this report to document the coordination history of the Service with the Corps of Engineers (Corps) that have led us to an agreement on the principal elements of a mitigation plan, and the anticipated events which shall constitute fulfillment of that agreement.

Our 1984 report, which is included in the Corps' 1985 Final Interim Feasibility Report and Environmental Impact Statement, Guadalupe River and Adjacent Streams Investigation, not only evaluated a very different project design from today, but did so under the erroneous assumption that the project area supported only warmwater, nongame fishes. The basic project design in 1985 was widening on one side from Interstate 880 (then Highway 17) to the Southern Pacific Railroad crossing, an underground bypass from the railroad tracks to West Julian Street, concrete lining from Santa Clara to San Fernando Streets, and a privately-funded underground bypass from Park Avenue to I-280. The river channel in this latter bypass ("Park-Woz bypass") was to remain in a natural state. A Habitat Evaluation Procedures (HEP) analysis was done based on a number of terrestrial and semi-aquatic wildlife guild indices, resulting in a recommendation of 26.9 acres of riparian mitigation for 14 acres of habitat loss. Those mitigation lands were 12.6 acres on low benches within the floodway between Coleman Avenue and I-880, and 14.3 acres top-of-bank between Taylor Street and Brokaw Road.

Several significant changes are reflected in the Corps' 1991 General Design Memorandum (GDM). First, the top-of-bank mitigation areas were no longer available due to conflict with unrelated freeway and airport upgrades. Second, additional riparian impacts were identified in the Park-Woz bypass area: 0.5 acres at the bypass inlet, and 0.8 acres of hardscape for aesthetic purposes as part of the Guadalupe River Park project. As a result of the first change, the Corps proposed to widen the berm area between Coleman Avenue and I-880, and to excavate a secondary channel intended to enhance riparian quality. Considering the second change, we recommended the riparian area be increased by 1.15 acres, but advised that any further changes

in the project be accompanied by a re-analysis of the riparian HEP. The net result was an increase in impact to 14.5 acres riparian, and reduction in mitigation to 20.05 acres. Our coordination to this point is adequately summarized in the 1991 GDM and a 1991 Environmental Assessment (EA).

Unlike previous documents, the 1991 EA acknowledged salmonid runs in the Guadalupe River, whose habitat requirements for temperature, cover, and spawning substrate were not considered in development of the riparian mitigation plan. The long term record of salmon and steelhead in the area had been in evidence by the numerous anecdotal reports in Skinner (1962, An Historical Review of the Fish and Wildlife Resources of the San Francisco Bay Area, Water Projects Branch Report #1, Departments of Water Resources and Fish and Game) as well as collections in the late 1980s by the Department of Fish and Game (Linda Ulmer, Region 3, communication dated January 8, 1987). In 1992, through the recommendation of the Service and others, the State Water Resources Control Board (SWRCB) imposed a number of conditions on its certification of the project pursuant to Section 401 of the Clean Water Act to ensure full mitigation of loss of vegetative shade cover, any associated thermal impacts, gravel losses, and measures to ensure fish passage. Fulfillment of those conditions were to be documented in a Mitigation and Monitoring Plan (MMP). To do so would require an assessment of impacts and mitigation needs for loss of habitat values within the stream channel and its banks, a habitat type known as Shaded Riverine Aquatic cover (SRA cover). SRA cover values are considered necessary for the protection of anadromous salmonids and water-associated wildlife species which use the Guadalupe River. Any recommended SRA cover mitigation would be in addition to the riparian mitigation plan, because the riparian plan did not provide sufficient improvement near or within the stream channel.

However, the Corps recognized that the MMP could not be finalized until the Service could conduct and complete a HEP for SRA cover impacts, and provide site recommendations to the Corps. The effect of a series of correspondence between the Corps, Service, and SWRCB was to allow construction of the first phase of the project (Contract 1 - I-880 to Hedding Street) to commence in July 1992, with additional commitments from the Corps to revise the MMP to include a detailed plan of locations and quantities of SRA cover plantings based on Service recommendations. The draft HEP report was provided to the Corps in October 1993, recommending that Reach A and other sites be considered for such plantings. Soon thereafter, the local sponsor, Santa Clara Valley Water District (SCVWD), indicated that additional Reach A plantings were not possible for hydraulic reasons, and requested that the final HEP report be deferred pending development of a low-flow channel design which would include limited planting in Contract 3 (Grant Street to Coleman Avenue), the phase with the most significant amount of hardscape of the invert and/or banks. The Corps requested that we defer issuance of the final HEP report until such time that the consultant's design of that channel and plantings were complete. However, we proceeded with other scoped activities, including a revised thermal model analysis using our SNTTEMP model and these results were provided to the Corps and SCVWD in July 1994.

Several events in the summer of 1994 led our agency to request (letter dated September 9, 1994) that the Corps complete its commitments prior to initiation of Contract 3. We were aware of the much greater direct losses of SRA cover in Contract 2 (Hedding Street to Coleman Avenue) than had previously occurred in Contract 1; and excavation of Contract 2 had begun in mid-1994, with removal of the vegetation to follow in 1995. Second, the fact that SCVWD had contracted with a consultant to comment on the draft HEP implied forthcoming issues that could delay our final

HEP report. Third, absent findings to the contrary, it could not be assumed that a re-design of the low-flow channel with limited plantings would substantially reduce SRA cover mitigation below that which we recommended in the draft report. It was clear in 1994 that the planning for SRA cover mitigation had fallen too far behind the timeline contemplated by the SWRCB in its May 8, 1993, clarification of conditional certification.

During 1995 and 1996, we participated in a number of related activities. We reviewed design documents for Contracts 2 and 3, and changes to the plant palette and surface preparation of the riparian planting area. Our staff proposed a number of sites in the Park-Woz bypass for in-fill vegetation enhancement that would be consistent with habitat, aesthetic, and safety concerns. With our concurrence, additional temperature modeling and HEP tasks were conducted by a consultant for evaluating the proposed low-flow channel design and other mitigation sites, addressing matters of precision identified in the consultant's comments on our draft HEP report, and deciding assumptions to be used in both the new temperature model and HEP. At that time, Reach A plantings were still not considered viable given the known geometry and expected velocities and discharges under flood conditions. These activities culminated in another draft HEP report in late 1996, provided by a consultant, which concluded that only half of the habitat value loss predicted by the salmonid model could be mitigated in-kind with full development of habitat within both Reach 12 and Guadalupe Creek, and that the deficit stemmed from insufficient thermal mitigation. The out-of-kind measure of removing a small barrier to enhance passage to Alamitos Creek was proposed in that report, but we deemed it to be inconsistent with both the nature of the impact and traditional application of HEP. A less urgent, but still significant habitat value deficit also remained for non-salmonid species.

In late June, 1997, the Corps met with the Service and other State and Federal representatives to review and list a very broad range of supplemental mitigation options which could potentially contribute to a solution to these deficits. Further coordination was interrupted until early 1998, when the Service and other resource agencies agreed to participate in a facilitated negotiation with the Corps and local sponsor. Early in 1998, the local sponsor expressed a desire to investigate two suggestions from these supplemental options -- reconsideration of SRA cover plantings in Reach A, and avoiding impacts in Contracts 3a and 3b (Park to Coleman Avenues) by redesigning the project concept in this area as a covered bypass. At about the same time, the Corps wished to proceed with the features which were not included in the re-design concept (Contract 3c - Grant Street to Woz Way). Such further construction was clearly in conflict with the Service's desire that it be deferred until such time a mitigation plan for the entire project was in place.

The solution to this conflict was first outlined in an "early implementation package" developed by the Service in May 1998, which requested the Corps and local sponsors commit to complete a series of mitigation actions, the sum of which would not only be sufficient to mitigate the impacts of Contracts 1, 2, and 3c, but do so in a way that would preserve the salmonid resources and be consistent with the Service's policies of avoidance and minimization first, and preference to maximize on-site mitigation potential. The proposed package expressly conditioned further construction of the project upon scheduled completion of mitigation commitments.

Although there have been adjustments in the schedule for completion of these commitments, the essential elements of this mitigation package and relationship between construction and mitigation actions remain the same: on-site mitigation measures include a) limited areas in the Park-Woz bypass and in-fill/repair in Contracts 1 and 2; b) Reach A would be replanted to

provide most of the thermal mitigation but would do so over the long term; and c) Guadalupe Creek would be enhanced through replanting and other measures, its percolation ponds retired, and would remain thermally suitable for salmonids over the life of the project. All of these actions began prior to the onset of Contract 3c in 1999, and would be substantially complete by the year 2000, prior to the onset of Contracts 3a and 3b, with the sole exception of less than 1,000 linear feet of SRA cover infill in Contract 3 that must await completion of that contract. Other important elements of the package included slight adjustment of the Contract 3 design to avoid impacts in the vicinity of Woz Way, and agreement by the Service to quantify excess mitigation benefits anticipated from the Guadalupe Creek restoration that could be used by the local sponsor for other activities. Examples of the types of activities envisioned for this excess mitigation are ongoing channel maintenance and the Upper Guadalupe Flood Control Project. The agreement built in assurances that the imminent construction of Contract 3c would not impair habitat value or salmonid passage through inadequate functioning of the low-flow channel, by requiring sufficient hydraulic analysis.

Between 1994 and 1998, certain elements of mitigation were initiated under our review. These included the 20 acres of riparian plantings (and replantings) in Contracts 1 and 2, biotechnical repair of a Park-Woz bypass site near the Children's Discovery Museum, several other fixes done under permit to SCVWD to preserve the riparian mitigation area and river berm, and several SRA cover planting test areas: one on Reach A near I-880 and another on Guadalupe Creek downstream of Camden Road.

Also in 1998, we continued to participate in revision of the HEP that included the additional mitigation sites described above and re-design of Contracts 3a and 3b as a bypass, and we developed a project-specific model to account for values to species other than salmonids. Eventually, after consideration of the revised HEP and temperature model analyses, we achieved agreement with the Corps and local sponsor that the essential elements of the early implementation package, and redesign of Contracts 3a and 3b, would be sufficient to mitigate impacts of the revised project design. This agreement was outlined in a Dispute Resolution Memorandum signed by all involved parties and amended in summer 1998, and supplemented in April 1999. Through the remainder of 1999, we participated in the development and revision of two related documents: a mitigation and monitoring plan, and a measureable objectives and adaptive management plan. Both now conform substantially with the provisions of the April 1999 agreement. We expect to conduct a review of a revised draft HEP report that includes Reach A and the new Contract 3a-3b bypass, in the very near future.

The outstanding activities which we hope to resolve in the near future involve the final design of the low-flow channel in Contract 3c and overall vegetation allowances in Reach A. As you know, we have taken a non-traditional approach of granting credit for hardscaped sections where, as in the low-flow channel sections of Contract 3c, cellular concrete mattress (CCM) is expected to provide limited vegetation and modest aquatic functions and values. Originally, this was conceived of as a trapezoidal channel formed out of the same CCM used in the floodway, but there has been discussion to replace the CCM sideslopes of the low flow channel with poured concrete steps as a safety measure, a feature which may modestly attenuate habitat quality. We believe this issue can be readily addressed by negotiation with the Corps, local sponsors, and other resource agency representatives, a process that must occur in order to obtain resource agency approval of the low-flow channel design as mandated by the SWRCB.

The matter of Reach A capacity has been of greater concern because of a history of conflicting hydraulic analyses. This site is utterly essential to achieve thermal mitigation for the flood control project. In the same reach, but on a bench farther from the river edge, 7 acres of riparian planting were planned in 1993 to mitigate the California Department of Transportation's (Caltrans) Route 87 project (Julian Street to Route 101); these plantings are now scheduled for installation in fall 2000. Although SCVWD had rejected the site for SRA cover plantings in 1993, they later proposed this site for reconsideration on the basis of a preliminary 1998 re-analysis that concluded SRA cover plantings could be done. After further study, SCVWD is now uncertain whether both mitigation plans can be accommodated in Reach A. The Corps has informally indicated that it would be possible to allow both the Caltrans and Corps SRA cover mitigation in Reach A with some additional excavation and maintenance, however, the analysis and coordination necessary for these adjustments are not yet final.

As we discussed earlier in this letter, it was the Caltrans project which, in part, prompted a 1989 revision (and substantial reduction) of the riparian mitigation for the flood control project from 27 to 20 acres. Much later, in 1998, we agreed to a SCVWD request to further modify those 20 acres to a plant palette of more xeric, slower-growing species because of site conditions unknown at the time of the 1984 HEP. If hydraulic capacity once again became an issue that required substantial alteration of either the Caltrans riparian mitigation plan or the Corps SRA cover mitigation plan in Reach A, we would need to re-evaluate the flood control and transportation projects together, considering the overall balance of riparian impacts with proposed mitigation measures, separate from SRA cover impacts and mitigation measures.

If you have any questions, please contact Steve Schoenberg of my staff at (916) 414-6564.

Sincerely,

  
for Wayne S. White  
Field Supervisor

cc: FWS, AES, Portland, OR  
CDFG, Region III, Yountville, CA  
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