



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 4 2000

OFFICE OF
WATER

Honorable Joseph W. Westphal
Assistant Secretary of the Army (Civil Works)
Department of the Army
108 Pentagon
Washington, D.C. 20310-0130

Dear Dr. Westphal:

In accordance with the provisions of the 1992 Memorandum of Agreement (MOA) between the U.S. Environmental Protection Agency (EPA) and the Department of the Army under Section 404(q) of the Clean Water Act (CWA), I am requesting your review of a decision by Colonel Michael J. Walsh, U.S. Army Corps of Engineers (Corps), Sacramento District (District), to issue a Section 404 permit to Diablo Grande Limited Partnership for the Diablo Grande Resort Development, Phase 1 in Stanislaus County, California. The wetlands and other waters to be impacted by the proposed project are not only special aquatic sites constituting an Aquatic Resource of National Importance, but also represent some of the last remaining wetland resources in the Central Valley of California, which has seen over 90% of its historic wetlands destroyed. In addition to the significant value of the resource, the proposed permit suffers from a series of substantive and procedural defects that have resulted in a lack of meaningful analysis of indirect, secondary, and cumulative impacts, an improperly truncated review of alternatives, and insufficient mitigation. After a thorough review of the available information, EPA has determined that this case warrants elevation in accordance with the criteria under Part IV of the MOA, Elevation of Individual Permit Decisions.

This referral meets the criteria in Part IV of the 1992 EPA/Army Section 404(q) MOA. EPA finds that the proposed discharge of fill material into waters of the United States and associated indirect and secondary impacts would result in substantial and unacceptable impacts to an aquatic resource of national importance. The project site lies within the California Floristic Province. The California Floristic Province has been designated by a consortium of international scientists as one of the 25 most significant "biodiversity hotspots" on Earth where exceptional concentrations of endemic species are threatened by exceptional losses of habitat. Of chief concern to EPA, the project area contains several streams and associated watersheds that constitute aquatic resources of national importance (ARNI): Salado Creek, Del Puerto Creek, Crow Creek, Orestimba Creek, and several associated tributaries. These streams qualify as ARNI because they serve as refugia for regionally-declining assemblages of native fishes, reptiles, and amphibians endemic to California. The streams and associated waters on the Diablo Grande site

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provide suitable habitat for a number of increasingly rare amphibian species facing substantial habitat decline. One species in particular, the California Red-legged Frog is a federally-listed threatened species under the Endangered Species Act. These waters are vitally important in California, which has had a substantial portion of its freshwater streams lost or degraded due to development activity. The areas to be impacted by the proposed project possess ecological characteristics of high food-web productivity, physical habitat for fish and wildlife, and water quality functions, among other important and easily disrupted ecological functions. Furthermore, Salado Creek, Del Puerto Creek, Crow Creek, Orestimba Creek and adjacent aquatic habitats are special aquatic sites under EPA's 404(b)(1) Guidelines because they contain wetlands and riffle and pool complexes. As a result, our regulations require an even higher threshold be met concerning the evaluation of alternatives to their destruction (40 C.F.R. 230.10).

The proposed permit would authorize the placement of 5.44 acres of fill into waters of the United States associated with the construction of the first 2,300 acre phase (Phase I) of a 29,500 acre project. Approximately 3.64 acres of fill has already been placed in waters of the United States pursuant to several separate previous nationwide permit (NWP) authorizations (this project segmentation is discussed further in the attached detailed comments). In total, approximately 9.08 acres of alkali seep and freshwater palustrine wetlands, mainstem Salado Creek and its tributaries, and several unnamed streams would be directly impacted through the discharge of dredged and/or fill material at the project site.

The discharges associated with the project would cause additional indirect impacts extending beyond the footprint of the fill area. We estimate that an additional 41 acres of wetlands/waters will be indirectly impacted by the proposed project. The proposed project would result in direct and indirect impacts to 100% of the wetlands/waters in the Phase I site. Indirect impacts will include: (1) reduction in water quality in downstream reaches of Salado Creek due to erosion-related sedimentation, flow impediments, and urban pollutant runoff from filled areas; (2) vegetative changes and disturbance to previously undisturbed wetland habitats, resulting in a reduction in the functional capacity of adjacent wetlands; (3) the introduction of exotic and noxious pests and weeds; and (4) fragmentation of large, undeveloped, high-functioning wetland ecosystems, including fragmentation of wetland habitat along the cut-across road alignment. Such impacts are already apparent in construction that has occurred to date, which has resulted in increased erosion, sedimentation, and flooding within Salado Creek, including a finding by the State of California that the site was out of compliance with stormwater regulations. Adverse impacts linked to the existing development activities include increased inputs of sediment to Salado Creek, destabilization of the Salado Creek channel leading to accelerated bank erosion and failure, changes in stream hydraulics and discharge patterns, hillslope failure, and gully formation. We anticipate that full build-out of Phase I under the current permit application will exacerbate erosion and sedimentation impacts to wetlands/waters.

We are also concerned with the inadequacy of the analysis of the secondary project impacts to the aquatic environment related to the fill discharges. For example, the fill discharges associated with the cut-across road will facilitate urbanization of a 2,330 acre portion of the

Salado Creek watershed. This urbanization will greatly exacerbate the indirect impacts mentioned above. Phase I of the project will bring large scale development of roadways, introduction of exotic plants and weeds, and domestic animals, and application of fertilizers and pesticides to the Salado Creek watershed. The associated adverse watershed impacts would include: degradation of water quality due to urban runoff, loss of native plants due to competition from exotic plants, and loss of wildlife due to water quality decline, native plant decline, and predation from domestic animals. Salado Creek is a tributary to the San Joaquin River, which is an impaired water listed under CWA Section 303(d). The pollutant loading to Salado Creek from the Diablo Grande development may be transported to the San Joaquin River, further stressing this listed water body. The District's draft Decision Document and environmental analysis contains no analysis on the extent or degree of any of these impacts.

We are concerned, moreover, that the proposed project was evaluated in isolation and that the cumulative impacts of past, present, and reasonably foreseeable future related actions have not been considered. Large scale development in watersheds adjoining Phase I is reasonably foreseeable. In fact, such development is planned by the applicant and was, at one point, approved in large measure by the local governing authority. Nonetheless, the District has declined to examine in any meaningful fashion the cumulative impacts that would occur from the developer's own plans for later phases of the same planned development on the basis that the next phases of development are not reasonably foreseeable. The District has apparently adopted the view that future development must have currently valid local approval before being reasonably foreseeable. In addition, the District has not placed the impacts of this development in the context of past regional development impacts. In our view, the District must analyze in reasonable detail the impacts to waters of the United States from the remainder of the developer's planned Diablo Grande project (Phases II-IV) and how these impacts would interact with the impacts of Phase I. The District has a duty to examine likely secondary development that will result from an approved project and this duty is triggered well before the secondary development is actually approved by local authorities.

An adequate cumulative impacts analysis would evaluate the cumulative impacts of Phase I together with past, present, and future expected development. The Central Valley immediately adjacent to the project site has experienced some of the most severe cumulative loss of aquatic habitat in the United States; over 90% of Central Valley wetlands have been lost. A proper cumulative impacts analysis would take this historic loss into account and highlight the clear need to avoid, minimize and/or compensate for any additional impacts to waters from current and future development.

EPA is also concerned that based on information in the record, it has not been demonstrated that the proposed project is the least environmentally damaging practicable alternative. We believe that an adequate alternatives analysis has not been performed. A fundamental problem with the current alternatives analysis is that the applicant evaluated *only* those sites large enough to accommodate full build-out of all phases of the Diablo Grande project. Applying this criteria, the smallest site considered was 13,254 acres. It is inconsistent for the

District to limit the analysis of impacts on the grounds that the full build-out of Diablo Grande project is so speculative as to be reasonably foreseeable, but then to accept the use of the full build-out Diablo Grande project to limit the range of alternatives for the alternatives analysis.

If the project under review is indeed only Phase I, such an approach to alternatives analysis is not consistent with the CWA Section 404(b)(1) guidelines. Phase one of the project, and the subject of this alternatives analysis is a 2,330 acre development and therefore the analysis of alternatives must look for alternative sites sized to accommodate that size of project. In this case, the District has ruled out smaller sites that may have allowed for a 2,330 acre project to proceed with much less impact than the site chosen by the applicant.

Another area of concern with the proposed permit is the proposed mitigation measures would not offset the lost acreage or functions of waters impacted by the project. The applicant has not fully evaluated project impacts to wetlands/waters and as a result has proposed no mitigation measures to offset these impacts. We are particularly concerned that the proposed mitigation, stormwater detention ponds and open water areas on a golf course would be created by excavating in the existing stream channels. As detailed in the attachment, these efforts fall far short of providing functional replacement for adverse impacts.

EPA has repeatedly urged the District to prepare an Environmental Impact Statement (EIS), but the District has declined. Clearly foreseeable development in this area will bring additional requests for discharges of fill material to waters of the United States in the area. It is paramount to have comprehensive environmental analysis that will carefully consider secondary and cumulative impacts and provide the basis for a comprehensive assessment of future potential impacts. Without such assessment, serious degradation of water quality and other adverse environmental effects would appear inevitable with only piecemeal analysis/authorization of impacts. It is well-settled under NEPA that federal agencies should consider in EISs the full range of adverse environmental impacts facilitated by their actions.

We believe that the District should prepare an EIS that analyzed all expected cumulative development in this region including an examination of the environmental effects of full build-out of all phases of Diablo Grande. There is no basis for the District's determination that converting a 29,500 acre parcel of undeveloped land containing several major watersheds into a new city -- complete with 5,000 housing units, six championship golf courses, swim and tennis facilities, a hotel and executive conference center, a research campus, a winery and vineyards, various municipal facilities, a town center, and shopping and office complexes -- does not warrant completion of an EIS. Even if all other types of adverse environmental impacts were to be ignored (air quality decline, loss of terrestrial habitat, endangered species impacts), the District cannot fail to study the adverse water quality impacts associated with this large development. For this reason the proposed action should be considered a major federal action significantly affecting the quality of the human environment, triggering a need for an EIS.

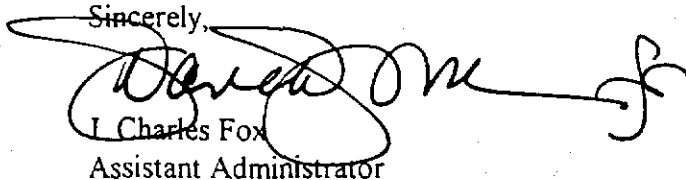
In summary, the proposed permit does not meet the CWA Section 404(b)(1) Guidelines as follows: (1) the permit will allow significant direct, indirect, secondary, and cumulative adverse impacts to sensitive streams and wetlands from the discharge of dredged and fill material, (2) the analysis of alternatives to the proposed project has several major flaws that eliminated consideration of less damaging practicable alternatives to the proposed project, and (3) the permit fails to require adequate mitigation for adverse impacts of the project.

Therefore, EPA requests that the ASA(Civil Works) direct the District Engineer to do the following: 1) require a full and adequate study of the direct, indirect, secondary and cumulative impacts of the project, 2) require a thorough alternatives analysis, 3) independently scrutinize the applicant's proposed alternatives, and 4) require proposal of a complete mitigation package for all impacts. These objectives should be conducted in the context of an EIS.

EPA has attempted to reach resolution of our concerns with the developer, as well as the District. We remain hopeful that these discussions will be successful and obviate the need to complete this elevation. However, should a resolution to our concerns not be achieved we would consider this matter a candidate for action under CWA Section 404(c).

Should you have any questions or concerns regarding this matter, you may contact me or have your staff contact Clay Miller of my staff at (202) 260-6464.

Sincerely,

A handwritten signature in black ink, appearing to read "I. Charles Fox", written over a circular stamp or seal.

I. Charles Fox
Assistant Administrator

Attachment

cc: Felicia Marcus, Regional Administrator, Region IX

**Detailed Comments on Proposed
Diablo Grande Resort
Section 404 Permit**

I. INTRODUCTION

This referral meets the criteria in Part IV of the 1992 EPA/Army Section 404(q) Memorandum of Agreement. EPA finds that the proposed discharge would result in substantial and unacceptable impacts to the aquatic system of the Salado Creek, Del Puerto Creek, Crow Creek and Orestimba Creek, aquatic resources of national importance (ARNI). The District Engineer for the U.S. Army Engineer District, Sacramento (District Engineer) issued a Notice of Intent to issue this permit on October 27, 2000. Pursuant to the U.S. Army Corps of Engineers' (Corps) authority under Clean Water Act (CWA) Section 404, this permit would authorize the discharge of dredged and fill material to waters of the United States needed for Phase I of a multi-phase resort development in Stanislaus County, California.

The complete four-phased Diablo Grande project¹ would consist of a 29,500-acre development west of the City of Patterson in Stanislaus County, California. The project would include six golf courses, swim and tennis facilities, a hotel and executive conference center, a winery, vineyards, a research campus, municipal facilities, a town center, a shopping center, and 5000 residential units divided into five "Villages." The applicant proposes to build this new city over an anticipated build-out period of fifteen to twenty-five years. The District Engineer is currently proposing to issue CWA Section 404 permit authorization for discharges of dredged or fill material for Phase I-related construction only. Phase I would cover 2,330 acres within the Salado Creek watershed and consist of 2,038 residential units, a town center, shopping center, public services, a new north-south access road known as the "cut-across road," and a resort complex.

The proposed permit decision fails to comply with Section 404(b)(1) Guidelines as follows: (1) the permit will allow significant direct, indirect, secondary, and cumulative adverse impacts to sensitive streams and wetlands from the discharge of dredged and fill material, (2) the District Engineer failed to analyze in any meaningful fashion the indirect, secondary, and cumulative adverse impacts of the project, (3) the District Engineer's analysis of alternatives to the proposed project has several major flaws that improperly truncated consideration of less damaging practicable alternatives to the proposed project, and (4) the permit fails to require adequate mitigation for any of the direct, indirect, secondary and cumulative adverse impacts of the project.

¹ Hereinafter, EPA refers to the full build-out of all phases of the Diablo Grande project as "the Diablo Grande project." EPA refers to the development work to be authorized under the District Engineer's proposed permit as "Phase I of the Diablo Grande project" or "Phase I."

Practicable alternatives are available which would reduce the adverse effects of this project to acceptable levels. The proposed permit should be denied and the District Engineer should require additional information from the applicant necessary to fully evaluate these practicable alternatives.

II. PROJECT HISTORY

Since 1992, the District Engineer has incrementally authorized portions of Phase I by issuing six nationwide permit (NWP) authorizations. To date, the District Engineer has authorized under NWPs construction of two golf courses, an eight mile access road from Interstate Highway 5 to the golf courses, bank stabilization, relocation and channelization of Salado Creek, trenching through wetlands for water pipeline construction, and the separate 3-mile cut-across road. The applicant utilized these NWP authorizations to complete all of these projects except for the cut-across road. The NWP authorization for the cut-across road expired before the applicant could utilize the authorization. The projects implemented by the applicant under these NWP authorizations resulted in fill discharge to about 3.64 acres of jurisdictional waters.

The applicant requested an individual permit from the District Engineer to authorize completion of Phase I for the discharge of fill material in an additional 5.44 acres of jurisdictional waters, including 3.33 acres of wetlands and 2.11 acres of stream channel. The total fill discharge to jurisdictional waters involved in Phase I by these seven authorizations would total approximately 9.08 acres.

EPA has consistently expressed its opposition to the District and to the applicant both to the substance of the Diablo Grande project and to deficiencies in the process by which the District Engineer has reviewed the project. In a number of letters (dated 1-26-95, 4-24-96, 9-14-98, 10-27-98 and 5-5-99) to the District, we have consistently expressed the following views:

1. The project as planned would have unacceptable adverse impacts on aquatic resources of national importance;
2. The applicant's planned mitigation for the project's impacts was inadequate because the mitigation projects were neither comparable in function and value to the displaced or degraded waters nor likely to provide any sort of high ecosystem functions;
3. The District Engineer was failing to evaluate secondary and cumulative impacts associated with the project as a whole due to its persistence in taking an impermissibly truncated "piecemealing" approach of examining only each incremental development step proposed by the applicant as stand-alone projects even when additional development was not only reasonably foreseeable, it was actually planned; and

4. The District Engineer and the applicant had failed in the mandatory duty to consider less damaging practicable alternatives to the project in a number of respects.

The applicant has modified Phase I of the project slightly since EPA's original comments, but these modifications have not been sufficiently substantial to affect EPA's views of the project. We have continued to attempt to negotiate a resolution of this matter with the applicant that would involve the applicant agreeing to additional mitigation measures that would address EPA's concerns. We have made some progress in our talks, however a successful settlement that protects core environmental values for the project area has not been achieved. Should a resolution to our concerns not be achieved we would consider this for action under CWA Section 404(c).

III. AQUATIC RESOURCES OF NATIONAL IMPORTANCE

The Diablo Mountain Range encompasses approximately 7 million acres of unfragmented, near pristine oak woodlands, grasslands, and perennial and intermittent streams within the California Floristic Province. This year, a consortium of international scientists designated the California Floristic Province as one of the 25 most significant "biodiversity hotspots" on Earth (Nature, Vol. 403: 853-858, February 24, 2000). A "hotspot" is defined as a region where exceptional concentrations of endemic species are threatened by exceptional losses of habitat. Of chief concern to EPA under the Clean Water Act, the site contains several streams and associated watersheds that collectively constitute aquatic resources of national importance (ARNI): Salado Creek, Del Puerto Creek, Crow Creek, Orestimba Creek, and several associated tributaries. These streams qualify as ARNI because they serve as refugia for regionally-declining assemblages of native fishes, reptiles and amphibians endemic to California. The streams and associated waters on the Diablo Grande site provide suitable habitat for California Red-legged Frog, Southwestern Pond Turtle, and California Tiger Salamander, all of which are increasingly rare species facing substantial habitat decline (California Red-legged Frog is a federally-listed threatened species under the Endangered Species Act). Such jurisdictional waters are increasingly vitally important in California, which has lost upwards of 90% of its wetlands and had a substantial portion of its freshwater streams lost or degraded due to development activity. Salado Creek, Del Puerto Creek, Crow Creek, Orestimba Creek and adjacent aquatic habitats are Special Aquatic Sites under EPA's 404(b)(1) Guidelines because they support wetlands and riffle and pool complexes (40 CFR sections 230.41 and 230.45). Special Aquatic Sites are given special recognition under CWA regulations because of their importance in maintaining the health of aquatic ecosystems. The Special Aquatic Sites impacted by the proposed project possess special ecological characteristics of high food-web productivity, physical habitat for fish and wildlife, and water quality functions, among other important and easily disrupted ecological functions. The creeks and associated wetlands contribute disproportionately to the general overall environmental health and functional capacity of the entire ecosystem of the region.

The streams and watersheds in the vicinity of the Diablo Grande development project have been specifically identified by private environmental groups and the federal government as uniquely valuable and in need of preservation. The Nature Conservancy (TNC) has demarcated a 500,000-acre planning area within an approximate 2-million acre region in which the Diablo Grande property lies. The proposed Diablo Grande Resort is adjacent to a California State Park (Henry Coe State Park) and is contiguous with a TNC preserve (the 33,000-acre Simon-Newman Ranch). This Ranch was purchased in part to protect Orestimba Creek—a watershed embracing one of California's finest remaining sycamore-dominated riparian forests. The U.S. Fish and Wildlife Service plans to acquire this and other TNC holdings to establish a 61,000-acre Diablo Range National Wildlife Refuge. As discussed below, Orestimba Creek is one of the streams that would be adversely impacted by the Diablo Grande full build-out.

IV. SUBSTANTIAL AND UNACCEPTABLE IMPACTS

40 C.F.R. 230.10(c): Significant Degradation

EPA is concerned that compliance with requirements of Section 230.10(c) of the Guidelines has not been demonstrated. Section 230.10(c) requires that no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of waters of the United States. The Guidelines explicitly require evaluation all direct, secondary, and cumulative impacts reasonably associated with the proposed discharge in determining compliance with Section 230.10(c). In accordance with the Guidelines, determining significant degradation requires specific consideration of effects on such functions and values as wildlife habitat, aquatic system diversity, stability and productivity, recreation, aesthetic, and economic values.

Direct Impacts As noted, the Individual Permit in question would permit the completion of Phase I which comprises Village #1 (Oak Flat), expansions of Oak Flat Road, two golf courses, and a new cut-across road for regional access to the Diablo Grande Resort that will intersect with Interstate-5.

When Phase I construction is complete, approximately 9.08 acres of alkali seep and freshwater palustrine wetlands, mainstem Salado Creek and its tributaries, and several unnamed streams would be directly impacted through the discharge of dredged and/or fill material (Table 1). As noted, some of this fill, about 3.64 acres, has already taken place pursuant to previous NWP authorizations. Under the District's permit subject to this elevation request, 5.44 additional acres of fill will be authorized. In EPA's view, however, previous NWP authorizations constituted impermissible piecemealing and failed to provide for adequate mitigation for jurisdictional waters lost or impaired. Accordingly, EPA contends that Phase I should be looked at in its entirety at this stage of the permitting process. All the fill should be evaluated, and mitigation should be required that fully compensates for all of the 9.08 acres of fill discharged in waters in Phase I.

Table 1. Diablo Grande (Oak Flat Village/Cut-Across Road) - Phase I: Summary of Direct and Indirect Impacts to Waters of the United States

Project Component	Location of Fill/Impact	Type of Water/Wetland Impacted	Fill/Impact (acres)
DIRECT IMPACTS FROM FILL			
Ranch Golf Course ¹	Oak Flat Valley	Streams	0.57
Legends Golf Course ¹	Oak Flat Valley	Streams	0.61
Diablo Grande Parkway and Waterline ¹	Oak Flat Valley to Cut-Across Road	Streams	2.46
Phase I Residential	Oak Flat Valley	Streams (1.82) Seasonal Wetlands (0.03)	1.85
Cut-Across Road	Diablo Grande Parkway to I-5	Streams (0.29) Alkali Seep (2.06) Seasonal Wetland/Natural Pond (1.24)	3.59
Total Fill			9.08
INDIRECT IMPACTS FROM FILL TO WATERS/WETLANDS FUNCTIONS			
Phase I Golf Courses and Residential (On-site Planning Area)	Oak Flat Valley	Streams (12.29) Seasonal Wetlands (1.70) Ponds (3.64)	17.63
Cut-Across Road	Diablo Grande Parkway to I-5	Alkali Seep (16.70) Seasonal Wetland/Pond (5.72) Streams (0.90)	23.32
Total Impacts to Waters/Wetlands Functions			40.95¹
TOTAL DIRECT AND INDIRECT IMPACTS TO WATERS/WETLANDS			
			50.03

¹Component construction completed under previous Nationwide Permit authorizations.

²Does not include indirect impacts to Salado Creek downstream from Oak Flat Valley or watersheds downstream from the Cut-Across Road alignment corridor.

Total Phase I project impacts would affect three watersheds. Construction already completed on Phase I has impacted 3.64 acres of stream channel and wetlands. Additional residential and commercial structure construction to be authorized would fill an additional 1.85 acres of stream channel and wetland. This fill would, among other things, result in headwater tributaries to Salado Creek being filled and placed into 3 miles of underground pipes. The proposed cut-across road would fill 3.59 acres of wetlands and streams along a 300-foot-wide, three-mile-long road corridor. The placement of fill in wetlands and other waters along the road alignment would fragment an additional 23 acres of wetlands (*Delineation of Waters of the United States Along the Diablo Grande Cut-Across Road Corridor*, Stanislaus County, California, January 5, 1999, Prepared for Diablo Grande Limited Partnership by LSA).

Destruction of wetland/waters acreage correlates directly with loss of ecosystem functions. For example, the filling and fragmentation of riverine-type waters (*i.e.*, Salado Creek, unnamed streams) and their associated wetlands is known to result in impairment of biological, biogeochemical and hydrological functions of these ecosystems in similar settings within the Central Valley foothill region (Functional Assessment for the Border Ranch, Sacramento and San Joaquin Counties, California 1997). In EPA's view, discharge of dredged and fill material into wetlands/waters for Phase I would result in significant direct impact to the biological, biogeochemical and hydrogeochemical functions and acreage of the mainstem of Salado Creek and various tributaries, and alkali seep and freshwater palustrine wetlands.

Discharges of fill material into wetlands/waters for the construction of Phase I residential housing, resort facilities would cause the death and displacement of wildlife, and reduce water quality functions. Habitat loss would result in a reduction in the carrying capacity of the area for wildlife; over 50% of the sites' existing habitat would be lost. As a result, populations of many native wildlife species would be reduced or displaced. Aquatic and wetland species directly impacted by discharges of fill material include native and non-native warm water fishes, western toad, Pacific tree frog, and possibly western pond turtle. In addition, the aquatic and wetland habitats (emergent and riparian wetlands) which support these species will also be lost.

Indirect Impacts. The fill discharges associated with Phase I would cause additional indirect impacts extending beyond the footprint of the fill area which the District Engineer has failed to adequately analyze. Phase I would also result in creation of about 1,100 acres of impervious surfaces. EPA estimates indirect impacts on the project site to include an additional 41 acres of wetlands/waters related to the fill discharges in Phase I, plus additional impacts off-site that have not been catalogued or quantified. Indirect impacts will include: (1) reduction in water quality in downstream reaches of Salado Creek due to erosion-related sedimentation, flow impediments, and urban pollutant runoff from filled areas; (2) vegetative changes and disturbance to previously undisturbed wetland habitats, resulting in a reduction in the functional capacity of adjacent wetlands; (3) the introduction of exotic and noxious pests and weeds; (4) fragmentation of large, undeveloped, high-functioning wetland ecosystems, including fragmentation of wetland habitat along the cut-across road alignment; and (5) the creation of noise and other similar human-related disturbances.

The fill associated with the proposed cut-across road would bifurcate a 23 acre area of alkali seep and palustrine emergent wetland, and intermittent streams (*Delineation of Waters of the United States Along the Diablo Grande Cut-Across Road Corridor*, Stanislaus County, California, January 5, 1999, Prepared for Diablo Grande Limited Partnership by LSA). Additional fill discharges will similarly sever continuity in various tributary drainages. Such divisions in the continuity of waters negatively affects wildlife movement and ecosystem function. The fill discharges will further bring urbanization features close to the affected waters, such as roadways and other structures. Vegetation communities bordering Phase I roads would be changed as a result of physical disturbance from road maintenance and repair activities, mowing, or the application of herbicides. Other indirect impacts to wetlands/waters from road construction and use include changes in surface temperatures, humidity, soil chemistry, runoff patterns and amounts, and evaporation rates. These changes can favor the establishment of exotic weeds and pests that displace native vegetation and wildlife. Increased human activity discourages animal activity along the road corridor. Populations of area sensitive aquatic species (which may include California Red-legged Frog, Southwestern Pond Turtle, and California Tiger Salamander) and terrestrial species that utilize the waters in issue would be adversely impacted from noise and increased human activity, increased access for exotic predators (*i.e.*, domestic cats and dogs), and collisions with vehicles.

Such impacts are already apparent in the limited Phase I construction that has occurred to date (authorized under six previous NWP's). This construction has resulted in increased erosion, sedimentation, and flooding within Salado Creek. Adverse impacts linked to the existing development activities include increased inputs of sediment to Salado Creek, destabilization of the Salado Creek channel leading to accelerated bank erosion and failure, changes in stream hydraulics and discharge patterns, hillslope failure, and gully formation. In 1999, the California Regional water Quality Control Board, Central Valley Region, and EPA Region IX storm water inspectors found Diablo Grande, Inc. in noncompliance with their CWA Section 402 storm water permit due, in part, to increased erosion and sedimentation. We anticipate that full build-out of Phase I under the current permit application will exacerbate erosion and sedimentation impacts to wetlands/waters.

Secondary Impacts. The fill discharges from Phase I of the Diablo Grande project will have substantial adverse secondary environmental impacts, *i.e.*, these discharges will facilitate Phase I development that will, in turn, cause both additional adverse water quality impacts and other negative environmental effects. A primary concern of EPA's is with the secondary negative water quality impacts caused by the development facilitated by Phase I's fill discharges. Furthermore, it is a responsibility of the District to fully consider secondary water quality impacts in issuing permits under CWA (See 40 C.F.R. § 230.11(h) (404(b)(1) guidelines provision mandating consideration of secondary impacts to aquatic ecosystems from fill discharges). Under NEPA, however, the federal government must evaluate the full range of secondary environmental effects reasonably foreseeable due to this federal action. NEPA compliance is not directly at issue in this elevation decision, but it is an important backdrop to this matter and is discussed at more length below.

The District has not adequately analyzed secondary project impacts to the aquatic environment related to the fill discharges in Phase I. As the applicant has made clear, the fill discharges are essential for construction of the cut-across road and for development of the project as currently designed. Accordingly, these fill discharges will facilitate urbanization of a 2,330 acre portion of the Salado Creek watershed. This urbanization will greatly exacerbate the indirect impacts discussed above. Phase I of the Diablo Grande project will bring large scale importation of roadways, introduction of exotic plants and weeds, fertilizer and pesticide applications, and domestic animals that prey on native species onto the uplands immediately surrounding the waters of the Salado Creek watershed. The associated adverse watershed impacts would include those outlined above: degradation of water quality due to urban runoff (from roads, residences, golf courses, and other commercial structures associated with the project) to streams and other waters, loss of native plants due to competition from exotic plants, and loss of wildlife due to water quality decline, native plant decline, predation from domestic animals, and noise and the close presence of human activity. The District's draft Decision Document and supporting environmental analysis provided to the District by the applicant contain only mere mention of these impacts, without any analysis as to their extent or degree.

Notably, Salado Creek is a tributary to the San Joaquin River, which is an impaired water listed under CWA Section 303(d). The pollutant loading to Salado Creek from the Diablo Grande development may well be transported to the San Joaquin River, further stressing this already stressed water body. The District has not analyzed this secondary impact.

The secondary impacts discussed above could be lessened with more careful urban planning. Unfortunately, the prerequisite adequate study of secondary impacts necessary for such planning has not been performed.

Cumulative Impacts. Phase I of the Diablo Grande project should not be looked at in isolation; instead the District has a duty to consider the cumulative impacts of past, present, and reasonably foreseeable future related actions. See, e.g., 40 C.F.R. § 230.11(g); 33 C.F.R. § 320.4(a). In this case, large scale development in watersheds adjoining the Phase I targeted area is not only reasonably foreseeable, it is actually planned by the applicant and was, at one point, approved in large measure by the local governing authority, Stanislaus County.²

The District has failed to adequately analyze the cumulative effects of this project. One, the District has not placed the impacts of this development in the context of past regional development impacts. Two, the District has not analyzed in any detail the impacts to waters of the United States from the remainder of the applicant's planned Diablo Grande project (Phases II-IV) and how these impacts would interact with the impacts of Phase I. Three, the District has not analyzed in any meaningful fashion the impacts to waters of the United States reasonably foreseeable from the secondary urban development in the vicinity surrounding the Diablo Grande

² This approval was set aside by an adverse state court ruling, but the applicant has not abandoned its long-term plans to develop the remainder of the Diablo Grande project.

project that will be facilitated and prompted by the Diablo Grande development and how these impacts would interact in cumulative fashion with the impacts of Diablo Grande.

In EPA's view, the most obvious problem with the District's failure to consider cumulative impacts is the lack of any meaningful study of the expected cumulative effect of building out the remaining phases of the Diablo Grande project. The District's draft Decision Document justifies this failure by observing that these latter phases of development "do not have local entitlements and development of these phases may occur over the next 25 to 30 years or not at all. Development of these phases cannot be considered to be reasonably foreseeable and their impacts cannot be evaluated." Decision Document at 26. In EPA's view, this ignores case law and EPA policy on what is required for development to be reasonably foreseeable such that it must be considered under cumulative impacts analysis. See, e.g., Friends of the Earth, Inc. v. Army Corps of Engineers, 109 F. Supp.2d 30 (D.C.D.C. 2000). In this very recent Friends of the Earth decision, the District Court for the District of Columbia confirmed that the Corps has a duty to examine likely secondary development that will result from an approved project and that this duty is triggered well before the secondary development is actually approved by local authorities. Moreover, the District's insistence that build-out of the Diablo Grande project is so speculative as to not be reasonably foreseeable development is internally inconsistent with its alternatives analysis--a point discussed further below.

If the District had performed an adequate cumulative impacts analysis, the conclusion would clearly be that the cumulative impacts of Phase I together with past, present and future expected development would be substantial and significant. The Central Valley immediately adjacent to the project site has experienced some of the most severe cumulative loss of aquatic habitat in the United States; over 90% of Central Valley wetlands have been lost. A proper cumulative impacts analysis would highlight the clear need to avoid impacts to waters in Phase I.

V. ALTERNATIVES ANALYSIS

40 C.F.R. 230.10(a): Alternatives Analysis

A fundamental precept of EPA's CWA section 404(b)(1) guidelines is that: "... no discharge shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem . . ." EPA is concerned that based on information in the record, it has not been demonstrated that the proposed project is the least environmentally damaging practicable alternative. The District has failed to meet this mandate in several respects, as discussed below.

Failure to Analyze Off-Site Alternatives. The District's failure to perform an adequate alternatives analysis of off-site alternatives is the most unmistakable. As is clear in the District's draft Decision Document, the District relied upon the applicant's alternatives analysis, found it adequate, and performed no additional analysis of its own (Decision Document at 5-6

(incorporating by reference 404(b)(1) Alternatives Analysis Oak Flat Village, Stanislaus County, California, Prepared for U.S. Army Corps of Engineers Sacramento District by LSA Associates, Inc. (March 8, 1999) ("Applicant's Alternatives Analysis")). The fundamental problem with the applicant's alternatives analysis, however, is that the applicant looked *only* at sites large enough to accommodate full build-out of all phases of the Diablo Grande project. Indeed, the applicant expressly adopted as one of its criteria for selection of alternative sites that the site *had to be large enough to accommodate all phases of the Diablo Grande project*.³ Applying this criteria, the smallest site considered by the applicant and the District was 13,254 acres and the largest was 32,495 acres. Moreover, the applicant even failed to adequately study these alternative sites as bona fide alternatives. The applicant only looked at *one* of these three alternatives in any detail, the very largest site, the 32,495-acre Simon-Newman Ranch site. See EIR at VI-16.

Obviously, if "the project" under review is indeed only Phase I, such an approach to alternatives analysis is not consistent with the CWA Section 404(b)(1) guidelines. If "the project" is indeed only a 2,330 acre development, then the applicant and the District must look for alternative sites sized to accommodate that size of project and *could not permissibly adopt as a criteria that an alternative site must be large enough to accommodate a 10,000 acre or larger project*. By so doing, the applicant and the District would necessarily have ruled out smaller sites that might have allowed for a 2,330 acre project to proceed with much less impact than the site finally chosen by the applicant. It may well be, for example, that a site large enough to accommodate a 2,330 acre project could be found where *no* discharges of fill to waters of the United States would be required.

In contradiction to this Alternatives Analysis, the District insists, as noted above, that full build-out of the Diablo Grande project is so speculative that full-build out should not only not be considered to be "the project," it should not even be examined in a robust cumulative impacts analysis (See draft Decision Document at 26). The District cannot advance this view while at the same time maintaining that it is appropriate to limit the range of project alternative sites to those large enough to accommodate full build-out of Diablo Grande.

The only suitable remedy is to require an appropriate alternatives analysis focusing on properly sized alternative sites and to hold the permit decision in abeyance until this is completed.

³ The Applicant's Alternatives Analysis provided to the District adopted the same alternatives analysis performed as part of an environmental impact report prepared for Stanislaus County under the California Environmental Quality Act (CEQA). Diablo Grande Specific Plan Draft Environmental Impact Report (Aug. 31, 1992) ("the EIR") (attached). The EIR expressly stated that to be considered an alternative site "must be greater than 10,000 acres to accommodate the primary objective of the project sponsor to create a planned residential and resort community" project, which was defined in the EIR as full build-out of all phases of the Diablo Grande project. EIR at VI-12.

Regional Access Alternatives. The majority of the fill discharge to be authorized under the permit will be for the cut-across road, to improve access to the Diablo Grande development. Again, the District relied upon and accepted the Applicant's Alternatives Analysis as the basis for the District's own analysis of alternatives to the cut-across road. In EPA's view, there are key flaws in this analysis.

The Applicant's Alternatives Analysis considered three alternative road alignments to bring increased regional access to the Phase I project. This analysis, however, contains scant information concerning these alternative road alignments and makes conclusions that are not adequately supported in the record.

The Applicant's Alternatives Analysis rules out the second alternative, the "Oak Flat Alternative," because "physical and engineering constraints preclude the construction of a workable interchange at the crossing of Oak Flat Road and [Interstate 5]." In EPA's view, this is a conclusory statement unsupported by substantial evidence. Neither the applicant nor the District has supplied any meaningful engineering design study that would support this conclusion. The Applicant's Alternatives Analysis further rules out the Oak Flat Alternative because this alternative allegedly would impact a creek in this area, leading the applicant to conclude that "biotic impacts are potentially greater in this alternative than in the preferred alternative." Again, this is a conclusory statement unsupported by substantial evidence. Neither the applicant nor the District has provided any design analysis indicating what fill discharges into the creek would be required to allow this alternative to proceed, neither have quantified potential fill discharge acreage in this alternative, and neither have examined how fill discharge in this area would actually affect the creek in issue.

The Applicant's Alternatives Analysis rules out the third alternative, the "Southern Cut-Across Road Alternative," because this route would require longer driving distances and time for most vehicle trips compared to the preferred alternative. This determination is insufficient for finding that this alternative not practicable. Specifically, there is no showing that these longer driving times would defeat the basic purpose of the road, which is to provide sufficient regional access to the Phase I project. If the impacts to jurisdictional waters between this alternative and the preferred alternative were roughly equal, this "more efficient route" consideration could be a reasonable basis for selecting the applicant's preferred alternative, but this more efficient route consideration cannot permissibly be the basis for ruling out an option that would be less damaging to aquatic resources.

The Applicant's Alternatives Analysis states that this Southern Cut-Across Road Alternative has more rugged topography and more drainage features than the preferred alternative and would cover a similar distance. Based on this scant information, the Analysis concludes that the Southern Cut-Across Road Alternative would have "equal, and possibly greater, environmental impacts" compared to those of its preferred alternative. This scant record, however, cannot possibly be the basis for concluding that the Southern Cut-Across Road would have equal or greater impacts compared to the preferred alternative route. Neither the applicant nor the District

has produced any analysis of how much acreage of fill discharge into waters would be required for the Southern Cut-Across Road nor any meaningful analysis of what the actual impacts of such fill discharge would be.

The Applicant's Alternatives Analysis rules out the fourth alternative, the "Fink Road Extension Alternative," because this alternative would require twice the driving distance and road construction (14 miles versus 7 miles for the preferred alternative) and twice the estimated expense (\$28 million versus \$14 million, according to the applicant's cost estimates). The Analysis further contends that acquiring rights-of-way for this route "could be extremely difficult and time-consuming." However, these assertions are insufficient bases for ruling out the Fink Road Extension Alternative if this alternative would have substantially less impact on aquatic resources. Again, neither the applicant nor the District has produced evidence that the longer driving distance would defeat the basic purpose of the road and not provide sufficient access to the Phase I site. Further, neither has shown that increasing the road cost renders this option not practicable. Neither the applicant nor the District has evaluated this expense in the context of the total expense of the project and the revenues expected to be yielded to the applicant. If the additional expense is only a small increment of total project cost or the applicant's expected return, then the added expense may be practicable.

The Applicant's Alternatives Analysis includes very speculative observations that the Fink Road Extension Alternative "would be inconsistent with the biotic/environmental criterion in that it would *potentially* impact more wetlands due to its longer length and proximity to Crow Creek and its tributaries." (emphasis added). Neither the applicant nor the District has actually studied the amount of fill discharge to jurisdictional waters that would be necessitated by this alternative, nor quantified or otherwise seriously analyzed the impacts associated with this alternative. On such a scant record, one may not reach a robust determination regarding alternatives.

Project Purpose. The Public Notice (PN) states that the project purpose is, "...the construction of the Phase I residential areas and a three mile connector road (cut across road) from Del Puerto Canyon Road to Oak Flat Road." Applying this definition, the District should have performed (or insisted upon) an alternatives analysis that examined whether there exists environmentally preferable alternative sites for a housing project, together with road access and other necessary appurtenances. Again, however, the District relies solely upon the Applicant's Alternatives Analysis. This document, like many others prepared by the applicant, has an improperly narrow project purpose definition that unduly truncated the range of alternatives considered:

The purpose . . . of the project is to create a recreation-oriented, golf course community . . . [with] several integrated components, each of which is necessary and appropriate to the project as a whole. (Applicant's Alternatives Analysis at 13)

Relying upon this definition of project purpose, the applicant and the District have concluded that alternative sites are not practicable unless they can accommodate housing, golf courses, and a variety of other resort and recreation amenities proposed for Diablo Grande all on the same

contiguous site. It is inconsistent for the District and the applicant to advance this view in that the District and the applicant, in response to EPA Region IX opposition, previously justified NWP authorization for the two golf courses and other development already completed at the site on the basis that this development had independent utility. Such independent utility was the justification for the development not needing authorization only under an individual permit covering the Diablo Grande project as a whole.

In EPA's view, it is contrary to Corps and EPA policy to so limit the range of alternative sites by such an unduly restrictive definition of project purpose. Allowing consideration of extraneous factors, such as project amenities not essential to achieving the project purpose, improperly limits the range of alternatives and is contrary to a basic goal of the Guidelines, to prevent avoidable or unnecessary discharges of fill. Only when an analysis is correctly structured can the applicant or the permitting authority be assured that no discharge other than the practicable alternative with the least adverse impact on the aquatic ecosystem has been selected.

The applicant is currently seeking permit authorization only for fill necessary to build residential housing, road access to the housing, and some additional recreational and business facilities, but not to build golf courses. These golf courses already exist and were previously viewed by the District as stand-alone projects with independent utility. In EPA's view, under these circumstances, the applicant's project should be considered to be a housing project, not a combination golf course and housing project that must necessarily be at the same site. The District should analyze whether the new housing and other development could practicably be located at one or more off-site locations away from the existing golf courses. Under well established tests of practicability, the District should evaluate whether the new housing and development could be located at one or more off-site locations where fill discharge to waters of the United States could be avoided or diminished and the applicant could still achieve its basic purpose of constructing a housing project and the other profitable commercial and recreational development it proposes. The applicant should be seen as able to meet its basic purpose if it could construct these facilities at one or more alternative locations at reasonable cost and with an adequate rate of return. (See Sylvester v. U.S. Army Corps of Engineers, 882 F.2d 407, 409 ("an alternative site does not have to accommodate components of a project that are merely incidental to the applicant's basic project purpose")).

This analysis is consistent with a proper reading of the Corps of Engineers' decisions in Permit Elevation, Old Cutler Bay Associates (October 9, 1990) and Permit Elevation, Twisted Oaks Joint Venture (March 15, 1991). In Old Cutler Bay, the Corps determined that the District had "defined a project purpose that is too specific to the applicant's proposal . . . The project purpose statement must be defined so that an applicant is not in the position to direct, or attempt to direct, or appear to direct, the outcome of the Corps evaluation required under the 404(b)(1) Guidelines" (HOUSACE Review and Findings Old Cutler Bay 404(q) Elevation at 7). In Twisted Oaks, the Corps reiterated this basic point from the Old Cutler Bay decision, and concluded that the District's analysis, particularly with regard independently evaluating the need for certain project features, was inadequate (HOUSACE Review and Findings Twisted Oaks Joint Venture 404(q)

Elevation at 6-7 (viewed from a post-mitigation MOA perspective, we believe the applicant's on-site alternatives analysis would be insufficient to support a conclusion that the proposed project is the only economically viable (practicable) alternative)). The Corps determined that a proper alternatives analysis would require a hard look at whether certain project amenities, specifically the recreational lake, were needed for a practicable project. The Corps did not require this analysis to be reconsidered by the District because the Twisted Oaks project's permit application predated the mitigation MOA, and the Corps determined "we do not believe it would be fair to the applicant to reject the District's alternatives analysis merely because it would not necessarily satisfy current requirements as clarified by the Army-EPA MOA on mitigation" (Twisted Oaks at 9).

Therefore, Old Cutler Bay, and Twisted Oaks are consistent with the position advocated by EPA that the Corps must independently evaluate the need for and least environmentally damaging means to implement project features for this applicant's residential development. This basic principle is jeopardized if the District accepts that the applicant's project purpose is to implement a "master planned" residential development integrated with golf courses and other amenities all at the same site.

Market Area. The case law and permit elevations all support the basic principle that the District must make an independent determination of the appropriate market area for purposes of an alternatives analysis. These decisions are project specific and driven by the circumstances surrounding a particular project proposal and a particular market area. For example, while the Corps endorsed the use of "South Dade County" as the market area in Old Cutler Bay, it noted with approval the District's decision to require consideration of a three county area in the Hartz Mountain decision (HQUSACE Review Findings Hartz Mountain Permit Elevation at 3).

In evaluating the appropriate market area, it is critical that the District Engineer not allow the applicant to so narrowly segment the market as to preclude a legitimate assessment of offsite alternatives. EPA does not question that the applicant has identified an area with a demand for housing when it focused on Stanislaus County. However, there are a number of areas in the Central Valley with demand for housing. It appears that the applicant limited its search to the area west of Interstate-5 in Stanislaus County in order to maximize a demand that could service the East Bay, the Interstate-580/205 corridor, Central Valley communities such as Modesto, Stockton, and Tracy, and second homeowners nationwide. The proper perspective here is the relevant market for a typical applicant, in this context a typical residential developer. A typical residential developer will assess a variety of submarkets within a broader market to determine where to pursue a project. The District need not be bound to a particular applicant's preference for a particular submarket in defining the range of offsite alternatives.

When, as in this case, an applicant wishes to develop a "large scale" residential development, it is particularly important to not unduly constrain the market area. If the District accepts the applicant's desire to limit alternatives to large scale project sites, this will severely constrain the available offsite options. Only a limited number of sites can support large scale residential

development. In Hartz Mountain, the Corps addressed this issue by broadening the market area to three New Jersey counties to ensure a reasonable range for development of offsite alternatives. In this case as well, the size of the applicant's proposed development demands assessment of a broad geographic market.

Additional Inappropriate Criteria for Screening Less-Damaging Practicable Alternatives.

In evaluating alternative sites, the applicant included the following criteria as reasons for dropping consideration of an alternative site: extended permitting process and special permitting conditions would likely be required. EPA concludes that "extended permitting process" and "special permitting conditions" are impermissible limiting criteria. Such factors do not truly render a site impracticable. It is not unreasonable to expect that a residential development in the Diablo Grande Range would encounter local land use issues and potential delays through modifications to local general plans, zoning and permitting. Such delays are generally not sufficient basis for making a site impracticable.

VI. MITIGATION

Proposed Mitigation. The applicant proposes to create approximately 15.21 acres of wetlands to mitigate for the direct loss from discharges of fill material to 9.08 acres of wetlands/waters (Table 1). The mitigation acreage represents a replacement-to-loss ratio (created:filled) of 1.67:1. The mitigation consists of: (1) two open water golf course detention ponds embedded within a golf course; (2) a third pond constructed within the Salado Creek corridor (total acreage of three ponds is 3.39 acres); (3) the realignment and widening of Salado Creek combined with riparian plantings downstream of the proposed Phase I/Oak Flat Village (2.15 acres); (4) the realignment and widening of Salado Creek and construction of within-channel storm water detention basins in order to create seasonal and riparian wetlands immediately adjacent to Oak Flat Village (6.58 acres); and (5) excavation of upland to create a seep wetland adjacent to the existing seep along the cut-across road (3.09 acres). Mitigation constructed on-site and off-site totals 13.06 acres and 2.15 acres, respectively. In-kind and out-of-kind mitigation totals 5.24 acres and 9.97 acres, respectively. Approximately 5.54 acres of mitigation (golf course detention ponds and the East Salado Creek channel realignment and widening) has already been constructed as mitigation under several previous NWP authorizations).

The applicant has not evaluated indirect, secondary, or cumulative project impacts to wetlands/waters. The applicant has proposed no mitigation measures to offset impacts due to indirect, secondary, or cumulative project impacts to wetlands/waters.

Adequacy of the Proposed Mitigation. The proposed mitigation measures would not offset the lost acreage and functions of waters/wetlands from the project. Below is a summary of the inadequacies of the proposed mitigation.

(1) The approximate 2.5 acres of golf course ponds are aesthetic amenities, and the 3.6 acres of open water detention basins are intended to treat urban storm water runoff. Storm water detention basins and golf course ponds contain concentrations of sediment, nutrients, and other pollutants associated with urban runoff, such as heavy metals, oil and grease, and organic contaminants. Detention basins and ponds must be intensively maintained, typically through periodic dredging to remove sediment and restore their capacity to retain storm water. Maintenance activities would reduce the functions of open water and wetland habitats in the basins for wildlife. In addition, the basins and ponds would be constructed within stream channels. We anticipate adverse changes in stream hydrology by the placement of these pond features within stream channels.

(2) The applicant has widened the main channel of Salado Creek (a third order intermittent stream within Phase I) to create more waters/wetlands as mitigation for the filling of smaller headwater tributaries of Salado Creek. The lost wetland functions associated with the headwater tributaries which were located within an undeveloped, grassland ecosystem will not be fully replaced and maintained with in a widened stream reach that will receive chronic storm water flows from the proposed development.

(3) Much of the on-site mitigation would be embedded within a matrix of urban development. As such, the mitigation will consist of small, fragmented habitat patches exposed to urban runoff and other human disturbances (e.g., exotic pests and plants). For example, the golf course detention ponds will only have habitat buffers along part of their perimeters. The unbuffered portions of the ponds will be exposed to golf course users and maintenance activities.

(4) The applicant proposes to create 3.09 acres of seep wetland to mitigate for 3.59 acres of fill in an existing seep wetland for construction of the cut-across road. The applicant's proposed replacement-to-loss ratio for seep wetlands is less than 1:1. The minimum mitigation for filling seep wetlands and associated waters should be at a replacement-to-loss ratio of 2:1, or approximately 7.2 acres.

(5) Over half (9.97 acres) of the proposed mitigation is out-of-kind and will not fully replace lost wetland functions.

(6) The applicant proposes no mitigation for indirect and cumulative wetland impacts. We estimate on-site indirect impacts to wetlands/waters from Phase I at an additional 41 acres.

To comply with CWA Section 404(b)(1) Guidelines, mitigation measures must offset project-related impacts to wetlands/waters *acreage* and *function*. We are particularly concerned that the applicant's proposed mitigation plan, approved by the District, does not adequately address the permanent loss of wetlands/waters functions from long-term direct, indirect, and cumulative impacts attributable to the Phase I development. The applicant proposes to permanently convert approximately 2,330 acres of grassland and oak-savannah habitat, including wetlands/waters, into urban uses. The proposed wetlands and other waters mitigation would be embedded within this

matrix of urban development and accordingly be subjected to chronic human perturbation. This perturbation will seriously degrade the water quality of these mitigation waters and substantially diminish their function as wildlife habitat. Under these circumstances, the newly-created waters that are supposed to mitigate for adverse project impacts will fall far short of providing credible, full mitigation for adverse impacts.

Alternative Mitigation Options. We believe an effective mitigation strategy to offset Phase I impacts should include an element to increase and maintain wetlands/waters functions within a landscape/watershed setting similar to pre-disturbance conditions (*i.e.*, a grazed, grassland, oak-savannah landscape). Within such a landscape/watershed context, the functions of the impacted habitat types (*e.g.*, first through third order streams, freshwater and alkali palustrine wetlands) could be increased and sustained, largely through implementation of an effective grazing management plan. The applicant and the District would have little difficulty finding appropriate mitigation sites in nearby undeveloped areas. For example, excellent opportunities exist within the Orestimba Creek valley to implement such mitigation measures. Other suitable, non-urbanized areas in this relatively undeveloped part of California could readily be found, as well.

VII. NATIONAL ENVIRONMENTAL POLICY ACT CONSIDERATIONS

The need for an Environmental Impact Statement (EIS) in this matter and the District's failure to prepare one, also makes this elevation necessary. Many of the problems with the District's proposed permit decision stem directly from its failure to prepare an EIS. EPA has repeatedly urged the District to prepare an EIS, but the District has declined to follow EPA's recommendations.

Economic growth and development is occurring in Stanislaus County, California and will continue to expand in the future. Clearly foreseeable development in this area will almost certainly bring additional requests for discharge of fill material to waters of the United States in the area. In this setting, it is paramount to have comprehensive environmental analysis that will carefully consider secondary and cumulative impacts and provide the basis for a comprehensive planning process. Without such planning, serious degradation of water quality and other adverse environmental effects would appear inevitable.

The District has justified not preparing an EIS in this matter by contending that the impacts to jurisdictional waters from Phase I, the only project permitted by the District, are not significant after implementation of mitigation. EPA strongly disputes this contention, however. As noted above, it appears clear that the mitigation waters proposed by the applicant and accepted by the District will have low ecological function and will not replace the environmental functions of the waters lost and/or degraded as a result of Phase I.

The District has further justified not preparing an EIS that would look beyond the immediate impacts to jurisdictional waters from the fill discharges to be authorized in Phase I with the contention that all other types of adverse environmental impacts, such as air quality decline correlated with increased automobile traffic, loss of terrestrial habitat for rare or significant terrestrial species such as the federally endangered San Joaquin Kit Fox, etc., will stem from activity beyond the Corps' jurisdiction under the Clean Water Act. The District concludes that because these impacts will be caused primarily by construction activity on upland areas, they need not be considered by the District in a District-prepared EIS. It is well-settled under NEPA, however, that federal agencies should consider in EISs the full range of adverse environmental impacts facilitated by their actions.

The District's approach to NEPA compliance reflects a broader defect, however. EPA sees the District's approach as impermissible piecemealing in focusing only on Phase I as "the project." (See, e.g., Environmental Defense Fund v. Marsh, 651 F.2d 983, 999 n.19 (5th Cir. 1981). Notably, the District in the past allowed a portion of Phase I to proceed under NWP authorization, determining that the subset of Phase I authorized under NWPs were separate projects. The District failed to look at the cumulative impacts from the remainder of Phase I in authorizing part of Phase I under NWPs, a clear example of piecemealing. The District continues this piecemealing approach in bifurcating Phase I from the remainder of the Diablo Grande project. While it would not be unreasonable for the District to prepare a programmatic EIS that analyzed all expected cumulative development in this region, at the very minimum the District should prepare an EIS that examines the environmental effects of full build-out of all phases of Diablo Grande. As noted above, full build-out of Diablo Grande is not only reasonably foreseeable, it is actually planned by the applicant and has met with favorable reception with the local permitting authority.

If the District focused on the Diablo Grande project as a whole, it would not be reasonable to conclude that its CWA Section 404 permitting action would not significantly affect the environment, even if the relevant environment is defined only as waters of the United States. Converting a 29,500 acre parcel of undeveloped land containing several major watersheds into a new medium-sized city—complete with 5,000 housing units, six championship golf courses, swim and tennis facilities, a hotel and executive conference center, a research campus, a winery and vineyards, various municipal facilities, a town center, and shopping and office complexes—does have significant potential for adverse impacts on the water quality of the watersheds within the development footprint. Even if extensive mitigation measures are instituted, these watersheds will clearly experience substantial degradation universally experienced in urbanized watersheds due to urban storm water runoff, invasion of nuisance exotic plant species, introduction of domestic animal predators, human presence affecting wildlife behavior, and so forth. Even if all other types of adverse environmental impacts were to be ignored (air quality decline, loss of terrestrial habitat, endangered species impacts, etc.) as beyond the Corps' jurisdiction under the Clean Water Act, the District cannot fail to study the adverse water quality impacts associated with the development that will follow as a result of the fill discharges authorized by the District. The District's permitting of the fill that will facilitate the development that will degrade these watersheds is a

major federal action significantly affecting the quality of the human environment (See 40 C.F.R. § 1501).

VIII. CONCLUSIONS AND RECOMMENDATION

In summary, EPA requests the ASA(CW) to direct the District Engineer to do the following in a revised permit decision:

1. Require a full and adequate study of the direct, indirect, secondary and cumulative impacts of the project in the context of an EIS.
2. Require a study off-site alternative sites that can accommodate a project of the same size as that proposed for the Phase I development.
3. Require an adequate evaluation of the alternative locations for the regional access road that includes sufficiently detailed information about the environmental impacts associated with developing the road at those locations.
4. Require an evaluation of whether the housing and other features of the Phase I development could feasibly be sited at separate locations and thus avoid discharges to waters of the United States.
5. Require the applicant to evaluate a more broadly defined market for potential sites.
6. Independently scrutinize the applicant's proposed alternatives without accepting the various impermissible criteria adopted by the applicant as basis for rejecting alternatives.
7. Require complete mitigation of all impacts from Phase I, and to the extent that mitigation consists of newly created waters, insist that such waters be sited away from areas that will be degraded by foreseeable urbanization.