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

SEP 0 1 2009

Mr. Aaron Allen, North Coast Branch Chief
U.S. Army Corps of Engineers
Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Subject: Draft Environmental Impact Statement for the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan, Santa Clarita, California (CEQ #20090134)

Dear Mr. Allen:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (project) pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. These comments were also prepared under the authority of, and in accordance with, the provisions of the Federal Guidelines (Guidelines) promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act (CWA). Our detailed comments are enclosed. 1

The EPA appreciates efforts of the Corps and the project applicant, Newhall Land and Farming Company (Newhall) to coordinate with the EPA prior to and during the review of the Project DEIS including several meetings since 2004 consisting of site visits, face-to-face meetings, and phone calls. We also appreciate the participation of other agencies such as the California Department of Fish and Game and the Los Angeles Regional Water Quality Control Board in some of these meetings. The resulting DEIS for the Project provides a robust analysis of the potential impacts of the Project alternatives. Quality of the DEIS not withstanding, we have rated the document EO-2, Environmental Objections – Insufficient Information (see enclosed EPA Rating Definitions), based on potential impacts to aquatic resources of national importance that should be avoided. 2

Newhall's Alternative 2 is the Proposed Project and would result in significant direct impacts to tributaries of the Santa Clara River, which include modifying 10.5 miles of tributary and burying 11.3 miles in stormdrain resulting in the fill of approximately 79 percent of the natural tributaries on the site. 3 The Proposed Project would also result in the net loss of 157 acres of the 100-year floodplain of the Santa Clara River and place approximately 3,000 linear feet of riprap along banks of the river to protect three new bridges, and 22 outfalls, and to armor tributary confluences in place. 4 The EPA does not consider the Proposed Project to be the least 5

environmentally damaging practicable alternative, consistent with the Guidelines, and, as a result has clarified in our August 24, 2009 letter to the Corps that additional avoidance of waters of the United States is necessary. This enclosed letter was provided consistent with the Memorandum of Agreement between the EPA and the Corps regarding Section 404(q) of the CWA, and is hereby incorporated into our NEPA comments. 5 Continued

Concerns pertaining to waters of the U.S. and water resources include the use of the Hybrid Assessment of Riparian Condition (HARC) assessment tool to identify the amount and location of compensatory mitigation. Although we support the use of this method as a diagnostic tool we do not consider it appropriate for determining the amount and location of compensatory mitigation. 6 We are also concerned about the proposed extensive use of tributary channel stabilization without a commitment to sufficient use of low impact development best management practices to control post-project runoff. 7 Furthermore, we recommend additional measures to reduce water supply demands, and suggest the FEIS discuss the potential impacts of climate change on water supply for the Proposed Project. 8

We concur that Alternative 7, which avoids impacts within the 100-year floodplain, is the environmentally superior alternative, based on the Corps' conclusion that the Proposed Project would have substantially more environmental impacts. 9 At the same time we recognize that the existing tributaries are degraded, and support the use of fluvial geomorphic methods to restore and stabilize these systems. We are concerned with the narrow purpose and need of the project to meet the basic objectives of the 2003 Newhall Ranch Specific Plan that was adopted by LA County, and recommend the Corps revise the purpose and need statement, in the FEIS, in order to avoid eliminating Alternative 7, or a similar alternative from further consideration. 10 We also recommend the Corps and Newhall adopt the Spineflower Conservation Plan in Alternative 6 that would maximize habitat connectivity on site. 11

Regarding air quality, we are concerned with the insufficiency of the general conformity determination of consistency with the State Implementation Plan, and suggest additional emission reduction measures to improve the already robust analysis and mitigation commitments for global climate change. 12 Additional green building resources are also provided in our enclosed detailed comments.

We appreciate the opportunity to review this DEIS and look forward to continued coordination with the Corps and Newhall. When the FEIS is published, please send two copies to us at the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Paul Amato, the lead reviewer for this project. Paul can be reached at 415-972-3847 or amato.paul@epa.gov.

Sincerely,

Enrique Manzanilla, Director
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating System
EPA's Detailed Comments
EPA's August 24, 2009 ARNI Letter to the Corps

cc:

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SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Aquatic Resources of National Importance

The Corps should work with the EPA during the development and selection of the Least Environmentally Damaging Practicable Alternative (LEDPA). Based on information for the Proposed Project (Alternative 2), the applicant, Newhall Land and Development (Newhall) has not demonstrated compliance with the Clean Water Act Section 404(b)(1) Guidelines. The Guidelines require the Corps to select the LEDPA based on alternatives avoidance, minimization and finally, mitigation of unavoidable impacts to waters of the United States. The EPA strongly believes that the Proposed Alternative is not the LEDPA and that further avoidance of waters is necessary. The project alternatives generally avoid impacts to the Santa Clara River; however, the Proposed Project would modify 10.5 miles of tributary and bury 11.3 miles in stormdrain resulting in the fill of approximately 79 percent of the natural tributaries on the site. Of this, 40 percent would occur in the Potrero Canyon drainage alone. Impacts to Potrero Canyon include placing 10,918 linear feet (7.15 acres) of the stream in buried stormdrains; filling the valley with 5 to 25 feet of fill and recreating the remaining channel with 98 grade control structures and a confined floodplain; and filling and relocating 6.52 acres of wetlands and rare cismontane wetland. Of all the drainages assessed for baseline conditions, Potrero Canyon was rated the highest using the Hybrid Assessment Riparian Condition (HARC) method. 13 14 15 16 17

Based on these impacts, and the apparent lack of avoidance, the EPA has identified the Santa Clara River and its tributaries as an Aquatic Resource of National Importance (ARNI) and determined that the Proposed Project may result in significant and unacceptable impacts. Accordingly, we have sent our August 24, 2009 letter to the Corps consistent with the August 1992 Memorandum of Agreement between the EPA and the Corps regarding Section 404(q) of the CWA. The letter provides detailed comments regarding our concerns with the impacts of the Proposed Project on the Santa Clara River and tributaries and is incorporated into our Draft Environmental Impact Statement (DEIS) comments by reference. 18

Given the above, the EPA would be opposed to approval of the Proposed Project, and we strongly encourage the Corps to work with us during the development of the LEDPA. For additional information pertaining to waters of the U.S., please contact Eric Raffini, EPA Wetlands Regulatory Program, at (415) 972-3572, or by email at raffini.eric@epa.gov. 19

> Recommendation:
> The Corps should not permit the Proposed Project and should work with the EPA during development and identification of the LEDPA for the project.

Alternatives

Of the action alternatives assessed, the Corps should select Alternative 7 or a similar "hybrid" as the Preferred Alternative in the FEIS. The EPA agrees with the DEIS determination that of the action alternatives considered, Alternative 7 is the Environmentally Superior Alternative 20

because it would result in the lowest level of environmental impacts for the majority of the resource categories assessed. As stated in the DEIS, Alternative 7 avoids the 100-year floodplain, eliminates two planned bridges and avoids spine flower. This avoidance is largely achieved by reducing the Proposed Project footprint. Noteworthy reductions in environmental impacts of Alternative 7, when compared to the Proposed Project include: 20 Continued

- A net gain of 141.9 acres of FEMA floodplain on the Santa Clara River vs. a net loss of 157 acres for the Proposed Project;
- A 66 percent increase in preserved tributary drainage;
- A 77 percent reduction in modified tributary drainage;
- A 68 percent reduction in tributary drainage converted to buried stormdrain, including the entire Magic Mountain and Middle Canyon drainages;
- An 87 percent increase in avoidance of impacts to jurisdictional waters;
- A 35 percent reduction of impacts on geomorphology and riparian resources;
- A 34.4 percent reduction of permanent vegetation community and land cover loss, including an 82.7 percent reduction of impacts to riparian and bog/marsh communities;
- Alternative 7 impacts to waters would be mitigated on site while the Proposed Project would require over 80 acres of unidentified off-site mitigation for tributary impacts and 52 acres of unidentified off-site mitigation for Santa Clara River impacts;
- A gain of 371.5 more HARC-AW Score Units;
- 60 percent reduction in water supply demands;
- Substantially less impacts to biological resources, including listed species;
- A 35 percent decrease in average daily traffic and 6 fewer deficient off-site road segments; and
- 54,328 (18 percent) fewer tons of carbon dioxide equivalent greenhouse gas emissions per year.

Impacts from the Proposed Project are discussed below in greater detail as part of our specific resource impact comments.

In terms of the proposed Spineflower Conservation Plan, the EPA considers Alternative 6 to be environmentally superior because it focuses on providing the maximum amount of habitat connectivity within and among the proposed spineflower preserves. We understand, through personal communication, that the California Department of Fish and Game (CDFG) concurs with this determination[1]. 21

We recognize that several reaches of tributaries are highly degraded from past land use and that some channel stabilization may be required in order to prevent further impacts to these resources. The EPA has conducted site visits to Newhall Ranch, most recently on July 25, 2009, where we observed these degrading conditions with representatives of Newhall. Implementation of Alternative 7 would avoid the tributaries and their 100-year floodplains and could potentially fail to address currently unstable conditions. Given the potential for reduced sediment from increased impervious surfaces and increased flows from the proposed development, we suggest 22

[1] Based on input from Dennis Bedford, CDFG during a July 13, 2009 phone call with the Corps, Newhall, CDFG, the LA Regional Water Quality Control Board, and EPA.

Alternative 7 be modified to include stabilization of degraded tributary reaches using fluvial geomorphic principles, including maximizing the floodplain buffers between proposed development and the stream channel corridor. 22 Conituned

For the purposes of NEPA, the EPA assumes that all alternatives, including Alternative 7, are considered reasonable. We understand, however, that a hybrid alternative may be considered in the FEIS following consideration of all DEIS comments; and for this reason, the DEIS lacks identification of a preferred alternative. We also understand that the Corps is waiting for DEIS comments before completing the CWA Section 404(b)(1) alternatives analysis and selection of the LEDPA. In the event the anticipated alternatives analysis clearly demonstrates that Alternative 7 is not practicable and feasible, the Corps and Newhall should be prepared to consider a "hybrid" version of Alternative 7 that maintains avoidance measures to the maximum extent practicable. Increased development densities that cluster residential and commercial development in the reduced project footprint should be maximized before reducing the amount of impact avoidance areas in order to increase residential units and square footage of commercial space. The EPA is available to coordinate with the Corps and Newhall through the alternatives analysis process to identify the Preferred Alternative for the FEIS, and the LEDPA for CWA Section 404. 23 24

Recommendations:
Based on the alternatives assessed in the DEIS, the Corps should not permit Newhall's Proposed Project and instead, should select Alternative 7 or a similar "hybrid" version that maximizes avoidance of environmental resource impacts. The Spineflower Conservation Plan in Alternative 6 should be included. The FEIS should identify the Preferred Alternative and the LEDPA following coordination with the EPA. 25 26 27

In the FEIS, the Corps should assess Alternative 7, or a similar version that incorporates fluvial geomorphic principles to address existing unstable tributary reaches and prevent further degradation. Buffers along streams should be maximized to allow for channel migration and reduce the need for engineered stabilization structures. 28 29

Purpose and Need

The Overall Purpose and Need should be revised in order to avoid too narrow a range of reasonable alternatives. The DEIS states that the project purpose is to "practicably and feasibly achieve the basic objectives of the Specific Plan, thereby helping to meet the regional demand for housing and jobs." While we recognize that the project is intended to meet regional housing and job demands, we are concerned that the purpose of meeting the basic objectives of the Specific Plan, adopted by LA County in 2003, is too narrow and could limit the choice of reasonable alternatives. The objective of the Specific Plan is to meet growth projections by providing 20,885 homes and 20,000 jobs. Meeting this objective would automatically eliminate Alternative 7 from the reasonable range of alternatives as it only provides 17,323 residential units and reduced commercial space. The same could be true for other alternatives if reduced commercial space would not accommodate 20,000 jobs. 30 31

Recommendation:
We strongly recommend the Corps modify the project purpose and need to be less narrow.[2] We believe the purpose and need statement would be appropriate if it were to state that the overall project purpose is to help meet projected housing and job demands in the region through the development of a master planned community. 32

Waters of the United States

Avoid impacts to the Santa Clara River 100-year floodplain. The DEIS states that the Proposed Project would result in a net loss of 157 acres of the Santa Clara River FEMA 100-year floodplain. This would result partially due to major fill to raise existing floodplain elevations out of the designated FEMA floodplain. DEIS significance criteria for flooding focus on the potential for the project alternatives to increase flood hazards and do not include impacts to floodplains themselves. The Presidents' Floodplain Management Executive Order 11988[3] was adopted to avoid impacts associated with the occupancy and modification of floodplains. The Order specifically states that federal agencies shall provide leadership to preserve the natural and beneficial values of floodplains. While still only in draft form, the proposed update to the Floodplain Management Executive Order[4] states that federal agencies must strengthen their commitment to protecting and restoring the natural resources and functions of floodplains. It also includes a provision that federal agencies "shall avoid placing fill in the floodplain to achieve flood protection to the extent practicable." The EPA considers the loss of 157 acres of FEMA floodplain to be inconsistent with the intent of the adopted and draft Floodplain Management Executive Order 11988. 33 34 35 36

Recommendation:
The Corps should refrain from permitting a project alternative that would result in the loss of 157 acres of the FEMA floodplain and instead consider alternatives that avoid fill or increase FEMA floodplain area. 37

Riprap should be avoided on channel banks to the maximum extent practicable. Page 2.0-85 states that nearly 3,000 linear feet of ungrouted riprap would be used to prevent erosion at bridge abutments, stormdrain outlets, and tributary confluences. In order to inspect riprap, the LA County Department of Public Works (DPW) requires a 16-foot-wide paved maintenance road at top of bank. The EPA recognizes the need to prevent erosion at bridge abutments and outfall locations to reduce future maintenance and repair of these structures; however we strongly encourage the Corps to not permit the use of riprap to reinforce tributary confluences along the Santa Clara River, and the associated maintenance roads that would be constructed. Riprap bank protection reduces the habitat functions and values provided by natural vegetated banks and should be reserved for areas where there is little to no allowance for erosion. Roads would also 38

[2] See Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664 (7th Cir. 1997) (finding the Corps must demonstrate truly independent analysis in EIS of a permit applicant's proposal, even where the proposal is based on years of study and comes from a municipality);
[3] Executive Order 11988 Floodplain Management (42 FR 26951), May 24, 1977
[4] See the Environment & Energy Publishing, LLC website for a copy of the proposed draft Executive Order found at: http://www.eenews.net/public/25/11835/features/documents/2009/07/21/document_gw_01.pdf

result in the permanent removal of natural top of bank habitat at the confluences. Tributary confluences should have adequate buffers to allow erosion to occur, and any stabilization should be done using native vegetation and fluvial geomorphic methods that avoid engineered hardscape features and maintenance roads. 38 Continued 39

Recommendations:
The Corps should not approve an alternative that uses riprap and appurtenant maintenance roads to reinforce and maintain tributary confluences. The Corps should commit to approving an alternative that provides adequate buffers at tributary confluences that would allow for natural erosion to occur, or that, at a minimum, commits to using native vegetation and fluvial geomorphic methods. 40 41

The FEIS should discuss why tributaries would need to be reinforced, especially in light of the low impact development measures and stormwater controls that would be implemented by the project. 42

The FEIS should clarify the temporary impact zone for soil-cement installation. Page 2.0-81 of the DEIS states that soil cement construction requires an 85-foot temporary impact zone. Figure 2.0-26 illustrates a conceptual design cross-section for soil cement that would result in approximately 120 feet of temporary ground disturbance. It is unclear what width was used to determine temporary impacts to riparian and upland habitats from soil cement installation. 43

Recommendation:
The FEIS should clarify the approximate temporary impact zone for riparian and upland habitats and verify how the impact zone was applied to accurately determine temporary impacts.

Geomorphology and Riparian Resources

The EPA is concerned with the use of the HARC assessment tool to identify the amount and location of compensatory mitigation. To further support the impact analysis, the applicant conducted an assessment of all Corps and CDFG jurisdictional areas within the Resource Management and Development Plan (RMDP) site. The purpose of this analysis, the Hybrid Assessment of Riparian Condition (HARC), was to evaluate the relative functional quality of the jurisdictional areas within the RMDP site so that direct and indirect impacts of the proposed project could be determined and compared. The HARC utilized 15 field parameters to assess functional capacity of jurisdictional areas across three categories: biological, biogeochemical and hydrology. 44

EPA has long supported the use of functional or condition assessments in the Section 404 regulatory program. As a diagnostic tool, the HARC analysis is useful because it provides a relative gradient of riparian condition across the project site, with some areas having higher functional capacity over others.

Although the HARC was intended to assess functions of the jurisdictional areas, most of the indicators incorporated into the assessment are measures of riparian structure rather than processes. Measurement of these variables is assumed to be closely correlated to function. Therefore, the HARC is mainly a qualitative tool, with metrics that are subject to interpretation, rather than a tool that directly measures ecological processes. 44 Continued

Although we support the use of the HARC as a diagnostic tool, in its current form we do not support using the HARC to determine the amount and location of compensatory mitigation for the following reasons:

1. **Lack of reference dataset** – Wetland assessment methodologies, such as the Hydrogeomorphic Method (HGM) or the California Rapid Assessment Method (CRAM), rely heavily on a domain of reference systems to capture a range of natural functions across the landscape. This reference dataset, sensitive to regional variation in functional performance, is essential so that the structural characteristics of the site can be related to resulting function in the same subclass of wetlands within the same watershed or ecoregion. Although the HARC may be useful for assessing function in a particular hydrogeomorphic setting, because it does not incorporate a regional reference dataset, we find that it is deficient at assessing the effect of wetland mitigation at the landscape scale. 45

2. **Assumes functions are explicitly multiplicative** – In addition to providing a score in each of the three major categories, a "HARC Total Score" was calculated by averaging each of the 15 metric scores for each reach. The total score was then area-weighted by multiplying by the entire reach area to provide "HARC AW-Score Units". Combining functions in this way can result in certain functions being masked, thereby underestimating the importance of tributaries in a watershed and decreasing the resolution of the functional assessment. . The recent interagency implementing guidance for CRAM cautions against adding CRAM scores for individual assessment areas to get an overall average.[5] It further advises to be cautious in interpreting CRAM scores, as attribute scores might be better indicators of what is driving condition than an overall score. For example, using CRAM, a site can get an "index" score (total score) of 75 by having 25 for landscape, 25 for hydrology, 15 for physical, and 10 for biotic. Another site can have an index score of 75 by having 10 landscape, 15 hydrology, and 25 each for physical and biotic attributes. By looking only at the total score, you mask the underlying condition or functional assessment of the individual categories. If you then multiply that by area, you risk inflating the error. This practice also conflicts with one of the primary goals of the HARC which is to, "account for differences between the Santa Clara mainstem and the tributaries (DEIS 4.6.3.2.1)." 46 47 48 49

3. **Does not predict Post-Project Function-** To determine the impacts of the proposed project and alternatives, functions of the post-project drainages were predicted using the 50

[5] See *Using CRAM (California Rapid Assessment Method) to Assess Wetland Projects as an Element of Regulatory and Management Programs: Framework for Agency-specific Guidance.* Prepared by Southern California Wetland Recovery Project (WRP) Integrated Wetlands Regional Monitoring Program (IWRAP) Implementation Workgroup , June 30, 2008

HARC. For example, areas such as Potrero Canyon and the Santa Clara River that included newly created channels or wetlands were assigned a post-project HARC AW-Score (see Section 4.6.5). This score was based on assumptions regarding the performance and structural integrity of the mitigation area following implementation of the RMDP. EPA feels that these post-project HARC scores are unsubstantiated because the basis for these assumptions is not described in the DEIS and because the HARC is a completely new methodology, the validity of which remains unknown since it has not been tested within the Santa Clara watershed. Furthermore, the HARC does not specifically lay out design parameters that ensure the likelihood that hydrology, desired riparian vegetation, and desired animals will be reestablished or that exotics will not invade. 50 Continued 51

Recommendation:
The FEIS should clearly address the EPA's concerns with the HARC, including the lack of a reference data set, the underestimation of the importance of tributaries in the Santa Clara watershed, and post-project functional assumptions. 52

The DEIS provides inconsistent information regarding design and impacts of Alternative 7. Chapter 4.2 tributary descriptions for Alternative 7 include the use of creek bed grade control structures and significant narrowing of the floodplain width, similar to the Proposed Alternative. This is inconsistent with Page 3.0-127 of the DEIS, which states that, for Alternative 7, bank protection for tributaries would be outside the 100-year floodplain and that the major tributaries would not be regraded or realigned. Page 4.2-241 further states that, for Alternative 7, there will be no grade stabilizers in the tributaries, resulting in less of an effect on channel geomorphology. The inclusion of grade stabilization structures and narrowing of the floodplain width is also contrary to the figures for Alternative 7 in Chapter 3. It is our understanding from personal communication with Newhall that the Chapter 4.2 tributary descriptions are erroneous due to cut and paste errors from other alternatives, and that designs for Alternative 7 do not include grade control structures or narrowing of the floodplain.[6] 53

Recommendation:
The FEIS should provide a consistent and accurate description of Alternative 7 and correct any sections that include erroneous text copied from other alternative descriptions. The FEIS should clarify that, under Alternative 7, tributaries would not include grade control structures and narrowed floodplains similar to the Proposed Alternative.

Water Quality

The FEIS should commit to increasing the use of low impact development best management practices. To prevent and control hydromodification impacts to the Santa Clara River and the 54

[6] August 2009 phone conversation between EPA and Matt Carpenter, Director of Environmental Resources for Newhall Land and Farming Company.

tributaries from the build-out of the project, the DEIS (Section 4.4) relies on three main control strategies: 54 Continued

1. On-site practices such as low-impact development (LID) best management practices (BMPs);
2. Regional detention basins and;
3. In-stream stabilization techniques.

Although the DEIS provides examples of all three types of strategies, the primary method of controlling peak discharge (Q_{cap}) is by installing grade control structures and buried bank stabilization in the natural channels and newly constructed drainages. For example, in the applicant's preferred alternative, 98 grade control structures are proposed to handle peak discharge in Potrero Canyon. The channel design for Potrero Canyon does not assume any reduction in Q_{cap} from either on-site practices or regional detention basins. 55

The EPA believes that impacts to jurisdictional waters could be reduced by aggressively designing and implementing BMPs that promote infiltration on-site. The Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (Appendix 4.4) should include minimum performance standards and requirements that promote infiltration of post-development flows rather than relying on in-stream stabilization techniques. In its current form, the Mitigation Plan only encourages LID BMPs. 56

Recommendation:
The EPA recommends that BMPs be designed, installed, and maintained to infiltrate sufficient runoff volume such that post-development infiltration volume shall be at least 90 percent of the predevelopment infiltration volume, on the basis of average annual rainfall. That is, no more than a 10-percent decrease in infiltration would be allowed. In all cases, if this is not feasible, then off-site infiltration (detention basins) may be utilized to meet this requirement as part of the Sub-Regional Stormwater Mitigation Plan. 57

Mitigation Measure GRR-3 should be changed to avoid concrete, soil cement, and secured riprap. On page 4.2-262, mitigation measure GRR-3 calls for all outlets, bank and grade stabilization structures, bridge abutments, culverts, and other features subject to flows to be concrete, soil cement or secured riprap to ensure stability and reduce maintenance. 58 The EPA disagrees that all such structures need to be made of armored hardscape materials. While some structures may require more erosion protection based on their location and vulnerability, others should be constructed using biotechnical methods that provide improved habitat over concrete, soil cement, and grouted riprap. 59

Recommendation:
Structures subject to flows should be evaluated by an experienced geomorphologist prior to designing them with concrete, soil cement, and secured riprap. Biotechnical methods and materials should be maximized where feasible. The FEIS and any Corps permit should commit to this more flexible approach. 60

Water Resources

The FEIS should discuss the water conservation benefits of expanding recycled water for additional uses such as toilets, and consider including infrastructure to facilitate this use now or in the future. The DEIS concludes that there is adequate water supply for all alternatives from existing and reliable sources. Demand for non-potable water for the Specific Plan, Valencia Commerce Center (VCC), and Entrada development would be largely met by the proposed Water Recycling Plant (WRP) and other recycled sources. The EPA commends Newhall for committing to meet non-potable water demands through water recycling; however, in order to further reduce potable water consumption, Newhall should consider installation of "purple pipe" infrastructure for residential and commercial development that could use recycled water for flushing toilets or any other non-potable water uses now or in the future. 61

The FEIS should incorporate additional water conservation measures beyond those discussed in the DEIS. The DEIS includes several water conservation measures previously adopted by LA County for the SP and the VCC but could be expanded to further reduce impacts to water resources. Additional mitigation measures not described in Section 4.3 could include maximizing the use of high water efficiency toilets, faucets, showers, and appliances in all commercial and residential developments. Variable pricing which accurately reflects the economic and environmental costs of water could also be used to influence water demand. For additional information, we recommend referring to the *USEPA Water Conservation Guidelines, Appendix A, Water Conservation Measures.*[7] Water saving strategies can be found in the EPA's publication *Protecting Water Resources with Smart Growth.*[8] 62

Recommendations:

The FEIS should include a discussion of potential water conservation benefits that could be achieved through the use of recycled water for other uses beyond irrigation. 63

Installation of "purple pipes" that would enable the use of recycled water for toilets should be considered. 64

The FEIS should include an in-depth discussion of pricing and how it could be utilized to balance water demands and water supply. 65

Describe potential effects of climate change on water availability. A discussion of climate change and its potential effects on water supply and reliability would better serve decision-making on this project, as well as long-term, regional water management planning and planned development. 66

Recommendation:

We recommend the FEIS include a qualitative discussion on climate change and the potential effects on water supply for the project. We recommend this discussion provide a 67

[7] EPA provides several conservation measures that utilities can use to develop water conservation plans at: http://www.epa.gov/watersense/docs/app_a508.pdf

[8] Several strategies for water resource protection are found in the EPA publication Protecting Water Resources with Smart Growth, found at http://www.epa.gov/piedpage/pdf/waterresources_with_sg.pdf.

short summary of climate change studies relevant to Southern California and their recommendations for addressing these effects. 67 Continued

Air Quality

The FEIS should include additional information regarding general conformity. In Section 4.7.9, the conformity determination sets forth the Corps' position regarding continuing program responsibility associated with the Project. The description of the applicable general conformity requirements in the DEIS state that "The Corps will not maintain control over those elements of the Project associated with construction and operation of facilities related to development under the Newhall Ranch Specific Plan." 68

The DEIS also indicates that projected emissions from the Newhall Ranch project do not exceed "emissions budgets" in the applicable State Implementation Plan (SIP), which is the 1997 South Coast Air Quality Management Plan (AQMP). Please clarify the location of the "emissions budgets" in the 1997 AQMP, provided by Jill Whynot of the South Coast Air Quality Management District (SCAQMD) as footnoted in Table 4.7-51 of the DEIS. We do not find the documentation in the general conformity determination under 40 CFR 93.158(a)(5)(i)(A) with respect to budgets in the 1997/1999 South Coast SIP to be convincing for the simple fact that the most recent SCAQMD baseline NO_x emissions estimates for on-road and nonroad source categories (i.e., the two categories affected by project construction) greatly exceed the applicable general conformity budgets from the 1997/1999 South Coast SIP (see chart below). We acknowledge that the 2007 South Coast AQMP is not yet the applicable SIP for conformity purposes because it has not been approved; nonetheless, the emissions estimates contained in the 2007 AQMP represent the most recent emissions estimates available and inform us as to the plausibility of reliance on the budget test under 40 CFR 93.158(a)(5)(i)(A). 69 70

Here is a comparison between general conformity SIP budgets for NOx and the corresponding 2007 AQMP's estimates of baseline emissions: 71

	Onroad		Nonroad	
Year	Applicable SIP	2007 AQMP	Applicable SIP	2007 AQMP
2002	447.1	611.3	270.7	378.1
2010	277.8	379.3	164.3	315.7

Note: The applicable SIP budgets are found on page V-4-24 in appendix V of the Final 1997 AQMP (November 1996), as amended by table 2-7 on page 2-20 of the Final 1999 Amendments to the 1997 Ozone SIP Revision for the South Coast Air Basin (December 1999). See, also, EPA's Proposed Rule at 65 FR 6091 (February 8, 2000), at 6100 and 6101 (including table 8). The most recent estimates of emissions are from tables B-1 through B-4 in appendix III of the Final 2007 AQMP. All emissions shown are for NO_x and represent summer season (tons per day).

Tables 4.7-49 and 50 incorrectly list annual NOx emission thresholds for the SCAQMD to be 10 tons per year, which is required under an "extreme" nonattainment classification. The current classification for the 8-hour ozone standard in the South Coast is "severe-17," and the applicable de minimis threshold for such areas under EPA's General Conformity regulation is 25 tons per year for VOC or NO_x. While the California Air Resources Board (CARB) has requested that EPA reclassify the South Coast from "severe-17" to "extreme," EPA has not yet taken action on this request, and thus the 25 tons per year threshold remains in effect. The decrease in the de minimis threshold from 25 to 10 tons per year for VOC or NO_x will not occur until the effective date of our final approval of CARB's reclassification request. As of this date, EPA has not yet proposed action on CARB's reclassification request. 72 73

In Section 4.7.9, end of the first full paragraph, please note that EPA approved SCAQMD's general conformity rule, Rule 1901, as part of the California SIP on April 23, 1999 (64 FR 19916) and thus the mitigation measures relied upon for general conformity determinations in the South Coast Air Basin are federally enforceable under the SIP. 74

In the first full paragraph on page 4.7-109, please note that the South Coast is classified as "maintenance" for NO_2. 75

The applicable SIP for PM_{10} is the 2003 South Coast AQMP. See EPA's proposed and final rules approving the South Coast PM_{10} SIP at 70 FR 43663 (July 28, 2005) and 70 FR 69081 (November 14, 2005), respectively. The 2003 1-hour ozone SIP was acted on, but it is not the applicable SIP because we disapproved the attainment demonstration. (see 73 FR 63408, October 24, 2008, and 74 FR 10176, March 10, 2009). For questions pertaining to air quality, please contact Wienke Tax, EPA Air Division, at (415) 947-4192, or by email at tax.wienke@epa.gov. 76

Recommendations:
We recommend that the Corps explain in the FEIS why it has no continuing program responsibility over operational emissions from the Project. 77

For General Conformity, an alternative test under 40 CFR 93.158(a)(5)(i) will need to be met in order to demonstrate general conformity. In addition, the State needs to provide documentation confirming the assertion that the emissions from this project are included in the SIP. 78 79

Traffic

The FEIS should further discuss the assumption for vehicle miles traveled (VMT) for commuters who would reside at the proposed project. Page 8.0-40 in the Climate Change section states that based on the Santa Clarita Valley Consolidated Traffic Model, the average home-based trip length is 10.7 miles for work, 5.2 miles for shopping, and 7 for others. Based on personal communication, the SCAQMD estimates 16-18 mile one way commutes for residents in the LA Region.[9] This is a significant difference. The DEIS makes the assumption 80

[9] July 29, 2009 phone call between EPA and Roosevelt Brown, SCAQMD.

that commercial space that would be developed as part of the project would create sufficient jobs to accommodate enough project residents that VMTs for work would be reduced below the regional average. This assumption could also reduce the projected amount of automobile emissions from cars. It is unclear, based on the DEIS, how this assumption is supported; if wrong, it could artificially reduce projected automobile emissions by 33 to 40 percent compared to the regional average. 80 Continued

Recommendation:
The FEIS should further substantiate the assumption that commuters would only travel an average of 10.7 miles each way to work when the SCAQMD regional average is 16-18 miles.

The FEIS must ensure mitigation for impacts to traffic is adequate for a less than significant finding. According to Table 4.8-7 of the DEIS, indirect traffic impacts of the project resulting from the Specific Plan would not occur within the project site, but the level of service (LOS) would be reduced and exceed LOS significance thresholds in several off-site locations, including eleven segments of Interstate 5 and three major surface street arterials. These impacts would be greatest for the Proposed Project but according to the DEIS would be reduced to less than significant through financial contribution towards road widening and the addition of high occupancy vehicle (HOV) lanes, as described in mitigation measures TR-10 to TR-18. The EPA is concerned that mitigation measures for impacts to traffic are beyond the control of Newhall and that there is no assurance these measures would be funded by third parties, or even Newhall (for example, the mitigation measures are dependent on determining Newhall's "fair share" of funding HOV lanes, lane widening efforts, etc).[10] Because these measures would likely require a sufficient period of time for planning and separate environmental review, the DEIS does not provide assurance that they would be implemented within a timeframe that would adequately mitigate impacts of the project. Because the feasibility of mitigation measures TR-10 to TR-18 is not self-evident, the EPA believes the DEIS does not provide a rational basis for determining that the Corps has adequately complied with NEPA.[11] 81 82 83

[10] See e.g, RMDP-SCP EIS/EIR, 4.8-105-106 (TR-18 - "The Project applicant shall contribute its fair-share of the costs of adding one HOV lane.") (emphasis added).

[11] See O'Reilly v. United States Army Corps of Eng'rs, 477 F.3d 225, 234 (5th Cir. 2007) (Finding in part that Corps' NEPA analysis of traffic mitigation efforts by applicant (including promise of funding improvements) was inadequate where EA provides only cursory detail as to what those measures are and how they serve to reduce those impacts to a less-than-significant level.); Wetlands Action Network v. U.S. Army Corps of Eng'r, 222 F.3d 1105, 1121 (9th Cir. 2000) (held that prospective mitigation plans satisfied NEPA's mitigation requirements where the plans were "developed to a reasonable degree"); NRDC v. United States Army Corps of Eng'rs, 457 F. Supp. 2d 198, 220 (S.D.N.Y. 2006) ("A proposed mitigation measure should be accompanied by some level of assurance as to its efficacy. An agency must study the likely effects of the measure, propose monitoring to determine how effective the planned mitigation would be, and consider alternatives in the event the measure failed. Otherwise, an agency may not rely on that mitigation measure to reduce environmental or cumulative impact below the level of significance that would require an EIS or an SEIS."); Ohio Valley Envtl. Coalition v. Hurst, 604 F. Supp. 2d 860 (2009) (Reliance on proposed mitigation for less than significant finding must satisfy two factors. "First, the proposed mitigation ... "must be more than a possibility" in that it is "imposed by statute or

Recommendation:
The FEIS should include assurances that mitigation measures that reduce traffic are feasible and within the control of Newhall to fund and implement within a timeframe that would affectively offset traffic impacts. 84

Biological Resources

The FEIS should explain the reason for phasing conservation easements for the High Country Special Management Areas (SMA). The EPA recognizes the value of the 4,205 acres High Country SMA included in the Specific Plan Land Use Plan and commends Newhall for committing to place these acres in permanent conservation. It is unclear from the description in Section 2 why granting of the conservation easements would occur in phases of approximately 1,400 acres each as building permits are issued. As described on page 2.0-50, the first offer would occur after the 2,000th building permit is issued, the second offer after the 6,000th and the final offer after the 11,000th building permit. Why was it not determined in the Specific Plan to grant all 4,205 acres of conservation easement up front? The EPA is concerned that this conservation measure is contingent upon issuance of sufficient building permits and that the High Country HMA would not be fully realized until a certain number of building permits are offered. 85 86

Recommendation:
Additional information should be provided in the FEIS explaining the rationale for phasing in the High County SMA as building permits are issued. The FEIS should also explain how these lands will be managed in the interim prior to issuance of building permits. 87 88

Riparian areas of the Santa Clara River should be avoided. Figure 2.0-25 illustrates a large permanent riparian impact area on the north side of the Santa Clara River in proximity to the proposed Potrero Canyon Bridge. This area consists of mature native riparian vegetation and is a part of the contiguous riparian corridor along the river. The Santa Clara is Southern California's longest free-flowing river and provides important habitat for a variety of plant and animal species, including several federally and state protected species. These riparian areas are critical for several reasons, including nesting, foraging, cover, and migration, and should be preserved to the maximum extent. Even with mitigation, mature riparian habitat can take several years to replace resulting in temporal impacts to a variety of species. 89 90

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regulation or have been so integrated into the initial proposal that it is impossible to define the proposal without mitigation." [ ] Second, there must be some assurance that the mitigation measures "constitute an adequate buffer against the negative impacts that result from the authorized activity to render such impacts so minor as to not warrant an EIS." [citing Wetlands Action Network at 1121.] In other words, there must be some assurance that the proposed mitigation measures will be successful.")

Recommendation:
The Corps and Newhall should assess an alternative, in the FEIS, such as Alternative 7, that avoids impacts to riparian areas along the Santa Clara River. The FEIS should commit to avoiding the large riparian area north of the proposed Potrero Canyon Bridge. 91 92

Further avoid impacts to federally and state protected species. As described in the DEIS, several protected species and/or their habitats have been identified within the project site that would incur significant and unavoidable impacts from the Proposed Project. Based on a comparison of the different alternatives, Alternative 7 would have substantially less impact to these species and their habitats. For example, compared to the Proposed Project, Alternative 7 would: 93

- reduce permanent vegetation community impacts by 34.4 percent;
- reduce impacts to riparian and bog/marsh communities by 82.7 percent;
- impact 16 acres of least bells vireo habitat compared to 111 acres; and
- impact 8.5 acres of southwestern willow flycatcher habitat compared to 47 acres;

Recommendation:
Based on the conclusions of the DEIS impacts assessment on biological resources, including protected species and their habitats, the EPA concurs with the conclusion that Alternative 7 would have substantially less impacts to these resources and recommends the Corps and Newhall select Alternative 7 as the Preferred Alternative in the FEIS. 94

Global Climate Change

Section 8.0 of the DEIS provides a very comprehensive climate change analysis with respect to the inclusion of background information regarding current federal and state policies for greenhouse gases, and analyses of the potential impacts that the project and Specific Plan could have on climate change resulting from greenhouse gas (GHG) emissions. The document provides a rigorous analysis of potential impacts and mitigation strategies--even some strategies pertaining to factors not typically considered, such as the effect of land use changes (e.g., vegetation loss) on climate change. The EPA recognizes the level of effort that has gone into this analysis. Regardless, the DEIS estimates the project would produce over 600,000 tons per year, one time emissions, and approximately 345,000 tons per year of CO_2 equivalent emissions thereafter. We have provided the following comments that should be addressed in the FEIS: 95

Greenhouse gas emission reduction mitigations should refer to air quality mitigation measures in Chapter 4.7. Table 8.0-1 and Section 8.6 list several mitigation measures that would reduce GHG emissions but there does not appear to be any reference to emission reductions from construction-related mitigations as described in Chapter 4.7, Air Quality. Even though impacts to air quality would be significant, several construction mitigation measures have been provided in Chapter 4.7 that should also be considered as GHG emission reduction measures. 96

Recommendation:
The FEIS should clarify that mitigation measures to reduce air quality impacts from construction will also provide mitigation to reduce GHG construction emissions. If these 97

measures were not considered in the GHG emissions inventory for the project, the Corps should consider quantifying these reductions and including them in the FEIS. 97 Continued

The FEIS should be updated to accurately reflect outdated language regarding the EPA's Advanced Notice of Proposed Rulemaking (ANPR). Page 8.0-10 states that "In response to the recent U.S. Supreme Court decision, the USEPA issued an Advanced Notice of Proposed Rulemaking in July 2008, subject to a 120-day comment period, to seek further comment on the regulation of GHG emissions pursuant to the Clean Air Act. With the recent administration change, it is expected that the USEPA will adopt a new approach to climate change, particularly as President Obama has expressed his support for a nationalized cap-and-trade program; however, it is uncertain how exactly the agency will address GHG emissions." 98

Recommendation:
To more accurately reflect the status of the ANPR, the Corps should consider using the following language: "On July 11, 2008, EPA released an advance notice of proposed rulemaking (ANPR) to gather information and determine how to proceed. The ANPR reflects the complexity and magnitude of the question of whether and how greenhouse gases could be effectively controlled under the Clean Air Act. A "Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act" was signed on April 17, 2009."

Green Building

The FEIS should include a commitment to place individual photovoltaic systems on all residential and nonresidential buildings. Section 8.6.2 of the Global Climate Change chapter states that individual photovoltaic systems shall be considered when undertaking design and construction of residential and nonresidential buildings. This is intended to help meet mitigation measures GCC-3 and 4, which require developers to produce or purchase renewable electricity equivalent to the installation of a 2.0 kilowatt photovoltaic system for each detached single-family home or 1,600 square feet of nonresidential roof area. Mitigation measure GCC-5 also provides for the offering of a solar energy option for single-family homes under specific circumstances when the application for a subdivision map has been deemed complete on or after January 1, 2011. The EPA recognizes the importance of these measures and supports the use of renewable energy sources, including solar. To that end, we strongly encourage Newhall to maximize the use of individual photovoltaic systems on all project buildings, including multi-family units and nonresidential roof area less than 1,600 square feet. In addition, we suggest a solar option be provided to buyers for all homes, including those on land for which an application for a tentative subdivision map has been deemed complete before January 1, 2011. 99 100

Recommendation:
The FEIS should strengthen the language in mitigation measures GCC-3, 4 and 5 to maximize the installation of individual photovoltaic systems for all types of residential buildings and all sizes of nonresidential buildings in the project. 101

The FEIS should include commitments to maximize the use of green building design. The DEIS includes several mitigation measures that would implement green building designs. 102

Specifically, several of the global climate change mitigation measures for the Specific Plan and for the project are consistent with green building design standards, as are the low impact development measures for stormwater runoff. The EPA commends Newhall for committing to these measures. Based on the scale of the project, Newhall should commit to additional measures that target greenhouse gas emission reductions, energy conservation, water conservation, and indoor air quality. A list of resources is provided below. For questions on green building, please contact Leif Magnuson, EPA at (415) 972-3286 or by email at magnuson.leif@epa.gov. 102 Continued

ENERGY STAR Qualified Homes: To earn the ENERGY STAR, a home must meet strict guidelines for energy efficiency set by the EPA. These homes are at least 15 percent more energy efficient than homes built to International Residential Code (IRC), and include additional energy-saving features that typically make them 20–30% more efficient than standard homes. Go to http://www.energystar.gov/index.cfm?c=new_homes.hm_index for more information. 103

In California, energy codes are updated every 3 years and Title 24 requires buildings to exceed these codes by 15 percent. ENERGY STAR requires buildings be at least 15 percent more efficient than Title 24 requirements. Currently the DEIS mitigation measures GCC-1 and GCC-2 commit to building residential and commercial and public homes to exceed Title 24 2005 efficiency standards by 15 percent. The FEIS should be revised to reflect the most current energy code update for 2008 that will take effect January 1, 2010 (not July 1, 2009 as stated on Page 8.0-18 of the DEIS) and require a 15 percent increase in efficiency. 104 In addition, given the potential 20-year timeframe to complete the Specific Plan, the FEIS should include a commitment to achieve ENERGY STAR status by constructing buildings that are 15 percent more efficient than the most current Title 24 standard. 105

Recommendations:

Newhall should commit to achieving the EPA's ENERGY STAR rating for new homes and include this commitment as a mitigation measure in the FEIS. 106

The FEIS should be revised to commit to exceeding Title 24 2008 energy efficiency standards, effective January 1, 2010, for California by 15 percent and further commit to always exceed the most current Title 24 requirement by 15 percent for the duration of project construction. 107

Newhall should consider attending the ENERGY STAR Qualified Homes training on September 11, 2009 at Southern California Edison's Customer Technology Application Center in Irwindale, California. In addition, the training will discuss EPA's new label called "Climate Choice" for leading edge builders willing to demonstrate an aggressive package of energy efficiency measures. More information on this training can be found at: http://www.sce.com/b-sb/energy-centers/ctac/ctac.htm. 108

Indoor Air Plus: EPA created Indoor airPLUS to help builders meet the growing consumer preference for homes with improved indoor air quality. EPA developed additional construction specifications to help improve indoor air quality in new homes. Go to http://epa.gov/indoorairplus/ for more information. 109

Water Conservation: The Shappell Homes Alamo Creek development in Danville, California implemented an aggressive conservation approach to meet the demands of the local water supplier. This was done through measures such as the use of drought tolerant native vegetation and artificial turf for playfields and was a finalist for the American Society of Landscape Architects. The Camino Tassajara, also in Danville, California, strived to achieve neutral water demands. For more information on these efforts go to http://www.sldtonline.com/content/view/67/17/, and http://www.texaswatermatters.org/pdfs/water2_richard.pdf

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Additional green building resources include:

- EPA Region 9's Green Building Resources webpage: http://www.epa.gov/region09/greenbuilding/index.html
- Green Building Products: http://www.buildinggreen.com/menus/index.cfm and http://www.pharoslens.net/about/;
- The EPA's Environmentally Preferable Purchasing website: http://www.epa.gov/opptintr/epp/; and
- Low-emitting products for schools and buildings at: http://www.betterbuildingsbetterstudents.org/dev/Drupal/node/381.

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

AUG 24 2009

Colonel Thomas H. Magness
District Engineer, Los Angeles District
U.S. Army Corps of Engineers
PO Box 532711
Los Angeles, California 90053-2325

Subject: Public Notice (PN) 2003-01264-AOA for the proposed Newhall Ranch Management and Development Plan, Los Angeles County, California

Dear Colonel Magness:

This letter is in response to your May 1, 2009 PN that describes the proposed Newhall Ranch Management and Development Plan for portions of the Santa Clara River and several adjacent tributaries, near the city of Santa Clarita, Los Angeles County, California. According to the PN, the applicant proposes to discharge dredged or fill material into approximately 82.3 acres of waters of the United States across the 12,000 acre project site.

The May 1, 2009 PN also provided notice of the publication of the Draft Joint Environmental Impact Statement and Environmental Impact Report (DEIS/DEIR) for the proposed project, pursuant to the National Environmental Policy Act (NEPA). EPA will provide comments on the DEIS in separate correspondence. The following comments were prepared under the authority of, and in accordance with, the provisions of the Federal Guidelines (40 CFR 230) promulgated under §404(b)(1) of the Clean Water Act (CWA). Our detailed comments on the project are enclosed.

Although the DEIS considered six separate alternatives to satisfy the requirements of NEPA, the PN did not provide information on how impacts associated with the proposed project have been avoided, minimized and compensated as required by 33 CFR 332.4(b)(1). Furthermore, the applicant has not yet prepared an 404(b)(1) Alternatives Analysis as required at 40 CFR 230.10(a). Therefore, we cannot determine whether the proposed discharge complies with the restrictions as specified in the Guidelines.

The Santa Clara River is Southern California's longest free-flowing river. The Santa Clara is home to 12 federally endangered plant and animal species and another 25 species of special concern. The river also supports an aquifer that provides drinking water to half of the residents in the Santa Clarita Valley. For these reasons, we are defining the Santa Clara River as an aquatic resource of national importance. Several of the drainages in the Newhall Ranch project area are significant tributaries to the Santa Clara River that provide important watershed functions (e.g., aquatic habitat, water and sediment supply

and retention, and groundwater recharge). Modifications of these tributaries have the potential to cause adverse impacts to the Santa Clara River. Given the available information and the potential impacts to the Santa Clara River and its tributaries, EPA has determined that the project, as presently proposed, may result in significant and unacceptable impacts to aquatic resources of national importance and therefore recommends denial of the project. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of Army, Part IV, paragraph 3(a) regarding §404(q) of the CWA.

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Thank you for the opportunity to provide comments on this project. We look forward to working with the Los Angeles Corps District and the applicant to resolve the important environmental issues concerning the proposed project. If you wish to discuss this matter further, please call me at (415) 972-3572, or have your staff contact David W. Smith, Chief of our Wetlands Office, at (415) 972-3464.

Sincerely,

24 Aug. 2009

Alexis Strauss, Director
Water Division

Cc:

Aaron Allen, North Coast Branch Chief
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Regulatory Branch – Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Diane Noda, Field Supervisor
U.S Fish and Wildlife Service, Ventura Office
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Ventura, CA 93003

L.B. Nye, Region Program Manager
Los Angeles Regional Water Quality Control Board
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South Coast Region
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Matt Carpenter, Director
Environmental Resources
Newhall Land and Farming Company
23823 W. Valencia Boulevard
Valencia, CA 91355

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DETAILED PROJECT COMMENTS

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I. Project Description

The Newhall Ranch Project is a master-planned development encompassing approximately 12,000 acres along the Santa Clara River ("the River") in unincorporated Los Angeles County. The applicant proposes to develop approximately 2,550 acres of the site for residential, commercial and industrial purposes. The applicant's proposed project includes the construction of 22,610 homes (in four separate villages), seven schools, a golf course, and a water reclamation plant.

The entire project area supports approximately 636 acres of waters of the United States, including 251 acres of wetlands, according to the preliminary jurisdictional determinations performed by the Corps to date. The majority of the jurisdictional waters on the site are located along the River. The site also includes several major tributaries that flow from the steep headwater areas down through the project to the River. As proposed by the applicant, the project would result in the destruction of approximately 82.3 acres of waters from direct discharges of fill material. Nearly 95% of the permanent impacts will occur in the ephemeral tributaries and small drainages that flow through the site. To create development areas, fill material from the surrounding upland areas would be placed into the valleys and canyons. New drainages and channels with grade control structures would be recreated on top of this fill material. Additionally, 59,845 linear feet of drainages would be converted to underground storm drain. Excluding the Salt Creek Open Area, the applicant proposes to fill approximately 79% of the natural tributaries on the project site.

II. Project Purpose

A key issue is whether the Corps' adoption of applicant's project purpose – implementation of the Newhall Ranch Resource Management and Development Plan (RMDP) – as the overall project purpose will allow it to adequately consider practicable alternatives to the Project design under CWA section 404(b)(1).

EPA understands the Corps has not yet concluded its alternatives analysis pursuant to the CWA Section 404(b)(1) guidelines, and that the alternatives analysis is to be completed concurrently with the EIS/EIR on the broader Newhall Ranch Specific Plan (Specific Plan), of which the RMDP is described as a component, and will be provided as an appendix in the Final EIS/EIR.[1] EPA nevertheless believes it useful to provide our comments on the overall project purpose at this stage in the permit review process because the Corps acknowledges in its PN that this NEPA alternatives analysis will "provide the basis for the 404(b)(1) alternatives analysis."[2] Thus, EPA anticipates the

[1] RMDP-SCP EIS/EIR, (Executive Summary) ES-12.

[2] PN at 5 ("To satisfy the requirements of NEPA and provide the basis for the 404(b)(1) alternatives analysis, a total of six alternatives are being considered .... In consideration of the 404(b)(1) Guidelines, the five project alternatives were designed to increase the level of avoidance and minimization of impacts to waters of the United States, including wetlands.")

Corps' adoption of the overall project purpose in this EIS/EIR will likely be consistent when the Corps completes its 404(b)(1) analysis.

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Pursuant to the 404(b)(1) Guidelines, there is a rebuttable presumption that practicable alternatives that do not involve special aquatic sites or are not water dependent are presumed to be available and "presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise."[3] The Corps' burden in finding the least environmentally damaging practicable alternative under the CWA Guidelines is "heaviest" for non-water dependent projects planned for a special aquatic site, such as a wetlands area. Because of this heavy presumption, the Corps may not issue a 404 permit unless the applicant, with independent verification by the Corps, provides detailed, clear and convincing information proving that an alternative with less adverse impact is "impracticable."

The Corps is required to take the applicant's purpose into adequate regard, and may consider local plans, such as the Specific Plan approved by the Los Angeles County Board of Supervisors in 2003, in its decision-making. On the other hand, the Corps must ensure that the overall project purpose is not so narrow that is constrains the alternatives analysis performed pursuant to the 404(b)(1) Guidelines.

From an overall review of the planning documents the applicant's overall project purpose may best be described as development of a master-planned community.[4] As such, it is not water dependant but does contain special aquatic sites, e.g., the alkali marsh areas in Potrero Canyon.[5] The EPA thus encourages the Corps to steer the project toward alternatives that do not involve discharges into these special aquatic sites. Currently, all of the applicants' build alternatives would impact special aquatic sites to some degree. Only Alternative 7 shows avoidance of most impacts.

EPA is concerned the DEIS relies on an overall project purpose that is narrowed to a development consistent with implementation of the RMDP.[6] While the RMDP is described as a "a conservation, mitigation, and permitting plan for sensitive biological resources",[7] the applicant acknowledges that "[t]he RMDP also includes development-related infrastructure projects in the Santa Clara River and its tributary drainages that are

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[3] 40 C.F.R. § 230.10(a)(3).

[4] RMDP-SCP EIS/EIR, ES-10 ("The [RM&D Plan] would allow for the build-out of about 5.5 million square feet of commercial uses on 258 acres, and the development of approximately 643 acres devoted to uses such as community parks, neighborhood parks, a golf course, a community lake, new elementary, junior high and high schools, a library, electrical substation, fire stations, and a 6.8 million gallon per day water reclamation plant.")

[5] RMDP-SCP EIS/EIR, 4.6-8, 11.

[6] RMDP-SCP EIS/EIR, ES-11.("The overall purpose/objective of the Project is to implement the approved Newhall Ranch Specific Plan, and thereby help to meet the regional demand for jobs and housing in Los Angeles County; and, at the same time, implement the [RM&D Plan] to address the long-term management of sensitive biological resources and develop infrastructure needed to implement the approved Specific Plan.") (emphasis added).

[7] RMDP-SCP EIS/EIR, ES-1.

needed to implement the approved Specific Plan."[8] The DEIS further provides that "[i]f the [RMDP] is approved ... development associated with the approved Specific Plan would be facilitated."[9] Consequently, EPA believes that a more accurate description of the overall project purpose would encompass these broader plans as set forth in the Specific Plan. A broader statement of purpose, such as "construction of a large scale, high density housing and commercial project" might suffice.

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III. Mitigation Sequencing

The basic premise of the 404 permitting program is that no discharge of dredged or fill material into waters of the United States shall be permitted if (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the discharge would cause the nation's waters to be significantly degraded. In order for a project to be permitted, it must be demonstrated that, to the extent practicable, steps have been taken to avoid impacts to wetlands and other aquatic resources, potential impacts have been minimized, and compensation will be provided for any remaining unavoidable impacts. This process is commonly referred to as the mitigation sequencing requirement of the 404 regulatory program.

Avoidance is the first step in the sequencing process by which the Corps determines whether or not the applicant's proposed project is the least environmentally damaging practicable alternative (LEDPA). The Guidelines state:

> *...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative doe not have other significant adverse environmental consequences.*

Seven alternatives were analyzed in the DEIS jointly issued by the Corps and the California Game and Fish Department (CDFG), with varying levels of avoidance and impacts analyzed in accordance with the NEPA. The applicant's preferred NEPA alternative (Alternative 2) in the EIS would result in the greatest amount of permanent impacts (82.3 acres) and does not appear to follow the sequencing process. EPA strongly believes that further avoidance of waters of the United States is necessary prior to formulation of the LEDPA.

IV. 404 (b)(1) Alternatives Analysis & Determination of the LEDPA

Although both NEPA and Section 404 require a range of alternatives be considered and analyzed during the environmental process, the requirements of the different regulations differ slightly. NEPA regulations require that an EIS rigorously explore and objectively evaluate "all reasonable alternatives," while the 404(b)(1) Guidelines require the consideration of "practicable" alternatives. The Guidelines define "practicable" as available and capable of being done, taking into account cost, existing technology, and

[8] RMDP-SCP EIS/EIR, ES-6.
[9] RMDP-SCP EIS/EIR, ES-9.

logistics. Although the DEIS examined five additional project alternatives that had permanent impacts ranging between 11.4 acres in Alternative 7 to 71 acres in Alternative 3, it is unclear at this point whether these alternatives are "practicable" under Section 404.

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From discussions with your staff, we understand that the applicant has not finished preparing the 404(b)(1) Alternatives Analysis for the proposed project. It has long been the position of EPA Region 9, that in order for the analysis of practicable alternatives under Section 404 to serve its intended purpose as a planning and screening tool, the analysis must be applied by potential permit applicants as early in the planning phases of their projects as possible. EPA would like the opportunity to review and provide comments on the 404(b)(1) alternatives analysis when this document becomes available.

The NEPA process includes alternative development and analysis leading to the identification and selection of a preferred alternative. However, the NEPA preferred alternative must also be considered the LEDPA for the Corps to proceed with authorization under the CWA. The LEDPA, as defined in 40 CFR Part 230.10(a), is the alternative with the least impacts to the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

V. Aquatic Resources of National Importance

The Santa Clara River is an Aquatic Resource of National Importance (ARNI) because it is Southern California's longest free-flowing river and is home to 12 federally endangered plant and animal species plus another 25 species of special concern. The River also supports an aquifer that provides drinking water to half of the residents in the Santa Clarita Valley.

The impacts to the River may be significant and unacceptable. First, the applicant's proposed Project alternative (as provided in the DEIS) would result in a net loss of 157 acres of the River's FEMA 100-year floodplain (as well as nearly 4.43 acres of permanent impacts to the River itself associated primarily with bridge crossings).[10] This would result partially due to major fill to raise existing floodplain elevations out of the designated FEMA floodplain. DEIS significance criteria for flooding focuses on the potential for the project alternatives to increase flood hazards and does not include impacts to the River's floodplains themselves. The Presidents' Floodplain Management Executive Order 11988[11] was adopted to avoid impacts associated with the occupancy and modification of floodplains. The Order specifically states that federal agencies shall provide leadership to preserve the natural and beneficial values of floodplains. While still only in draft form, a newly proposed Floodplain Management Executive Order states that federal agencies must strengthen their commitment to protecting and restoring the

[10] RMDP-SCP EIS/EIR 4.6-51.
[11] Executive Order 11988 Floodplain Management (42 FR 26951), May 24, 1977

natural resources and functions of floodplains.[12] It also includes a provision that federal agencies "shall avoid placing fill in the floodplain to achieve flood protection to the extent practicable." The EPA considers the loss of 157 acres of FEMA floodplain to be inconsistent with the intent of the adopted and draft Floodplain Management Executive Orders.

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Second, the applicant's proposed Project alternative poses significant and potentially unacceptable impacts to the River as result of proposed impacts to the River's ephemeral and intermittent streams and tributaries, which provide a wide range of functions that are critical to the health and stability of the River. These tributaries provide hydrologic connectivity within the watershed, linking ephemeral, intermittent, and perennial stream segments, thereby facilitating the movement of water, sediment, nutrients, debris, fish, wildlife, and plant propagules throughout the Santa Clara watershed. In general, the processes that occur during ephemeral and intermittent stream flow include dissipation of energy as part of natural fluvial adjustment, and the movement of sediment and debris. Ephemeral and intermittent streams are responsible for a large portion of basin ground-water recharge in arid and semi-arid regions such as this one through channel infiltration and transmission losses. These stream systems contribute to the biogeochemical functions of the River and its watershed by storing, cycling, transforming, and transporting elements and compounds.[13]

Ephemeral and intermittent streams also support a wide diversity of plant species, and serve as seed banks for these species. Because vegetation is more dense than in surrounding uplands, ephemeral and intermittent streams provide habitat, migration pathways, stop-over places, breeding locations, nesting sites, food, cover, water, and resting areas for mammals, birds, invertebrates, fish, reptiles and amphibians. Here, as in other arid and semi-arid regions, the variability of the hydrological regime is the key determinant of both plant community structure in time and space and the types of plants and wildlife present in the ephemeral and intermittent streams at issue, as well as the River itself.

Ephemeral and intermittent streams in arid and semi-arid regions have distinctly different characteristics from perennial streams that are in wetter, more humid (mesic to hydric) environments. These complex systems have developed in a climatic regime of wide fluctuations of precipitation, ranging from drought to flood. Anthropogenic uses, such as urbanization, superimposed on that climatic regime can exacerbate or ameliorate their effects on soils and vegetation, and may affect hydrologic and ecological functions throughout the watershed. Stability and resiliency to disturbance are important for ecological integrity, but because of the deficiency of water, terrestrial arid and semi-arid region ecosystems do not recover quickly from human-imposed disturbance. Thus, EPA

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[12] See the Environment & Energy Publishing, LLC website for a copy of the proposed draft Executive Order 11988 found online at:
http://www.eenews.net/public/25/11835/features/documents/2009/07/21/document_gw_01.pdf

[13] See Levick, L., J. Fonseca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D. P. Guertin, M. Tluczek, and W. Kepner. 2008. *The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest.* U.S. EPA and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.

would expect the amount and scope of permanent fill proposed by the applicant to significantly impact the hydrologic and ecological functions of the ephemeral and intermittent streams at issue, as well as the River itself.

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Relatively intact low-order ephemeral streams with adequate buffers, such as the ones proposed to be filled by the applicant, perform a diversity of hydrologic, biogeochemical and habitat support functions that directly affect the integrity and functional condition of higher-order waters downstream, such as the River. Collectively, ephemeral and intermittent tributaries serve as the filtering headwaters for the primary sources of drinking water, and their coarse beds allow water infiltration that recharges groundwater aquifers. Healthy ephemeral waters with characteristic plant communities control rates of sediment deposition and dissipate the energy associated with flood flows to, e.g., downstream waters such at the River. The loss of these waters results in increased need for costly and often environmentally undesirable flood control facilities (such as the one proposed by the applicant for the River), as well as the increased need for drinking water and wastewater treatment infrastructure.

The goal of the CWA is to maintain and restore the physical, chemical, and biological integrity of the nation's waters. Ephemeral streams constitute a critical component of stream, river, and wetland systems throughout the United States, especially in the arid west where ephemeral systems are the primary characteristic of many watersheds. These systems provide important services, both to public health and the economy that our region depends upon. Impacts to ephemeral streams have largely been either unmitigated or mitigated out-of-kind, and a significant loss of headwater streams in many watersheds of the arid southwest has incrementally occurred. Ephemeral streams are, more than ever, of critical value regionally, and their support of human health and the economies of the west underscore their national importance.

In short, the Newhall Ranch project, as it is currently described in the PN, poses significant and unacceptable impacts to the River because it permanently removes much of the River's floodplain, and because the Project will both cause and contribute to the significant degradation and/or elimination of functions and values of the reach of the River that flows through the Project area by permanently impacting a significant portion of its tributaries, including Potrero Canyon, the impacts to which are discussed specifically below. The range and severity of environmental consequences resulting from the Newhall Ranch project to the River's aquatic environment are substantial and unacceptable and are contrary to the goals of the CWA.

VI. Potrero Canyon

EPA is particularly concerned about the applicant's proposed development and impacts to Potrero Canyon, a River tributary, where 40% (32.73 acres) of the permanent impacts to aquatic resources from the proposed project will occur. According to the DEIS, Potrero Canyon contains 37.9 acres of waters of the United States including 6.52 acres of wetlands. The wetlands in Potrero Canyon include a rare, difficult to replace cismontane alkali marsh located in the lower portion of the Canyon. The 404 regulations establish a

rebuttable presumption that, "where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem."

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Under the applicant's preferred proposed project, nearly all of stream channel that flows through Potrero Canyon will be placed under 6 to 25 feet of fill material and a new channel will be constructed on top of this material. The new channel will be bound by 32,530 linear feet (lf) of buried bank stabilization and will include 98 grade control structures and 5 bridge crossings. In addition, 10,918 lf (7.15 acres) of the stream in the headwater areas will be converted to underground storm drain. The wetland at the downstream end of Potrero Canyon would likely become hydrologically isolated from the active stream system and would likely not persist due to this interruption.

According to the results from the Hybrid Assessment of Riparian Condition (HARC) that was conducted on 57 stream reaches and across the study area (including the Santa Clara River), Potrero Canyon had the highest average HARC total score (.82) of all the major drainages (including the Santa Clara River). This is score is even higher than the Salt Creek Open Area that had been used as a reference site for many of the geomorphic assessments. Using the post-project assumptions that were developed for the HARC, after implementation of the applicant's proposed project, Potrero Canyon will lose 15.86 HARC Average Weighted Total Score Units. Although the Corps has proposed to mitigate for this loss elsewhere in the project area (at Salt Creek and/or along the Santa Clara River), under the mitigation ratios specified in Mitigation Measure BIO-2 of the DEIS, the CDFG would require 74.91 acres of mitigation for the impacts to Potrero Canyon. After construction of the new channels, there would remain a deficit of 52.8 acres that would mitigated through creation, preservation, enhancement of jurisdictional areas at an off-site location.

EPA strongly believes that further avoidance is necessary in Potrero Canyon since it will be difficult, if not impossible to replace and mitigate for both the lost cismontane alkali wetland and the ephemeral tributary in this area. The Corps has not yet provided the science or evidence of prior experience that is required to support the conclusion that the new streams would replace the functions and values of the wetlands and tributaries proposed to be filled and buried.[14] We are also concerned about the sustainability of creating ephemeral streams on top of fill material, since the survival of the riparian vegetation may not persist as it will be further separated from existing groundwater supplies. Most importantly, we are concerned about the impacts to the River caused by the potential loss of these special aquatic sites in Potrero Canyon for the reasons discussed in Section IV above.

[14] Ohio Valley Environmental Coalition v. USACOE, 479 F. Supp. 2d 607, 65 ERC 1234 (S.D.W.V. 2007) (Corps was arbitrary and capricious to conclude that mitigation plan that would replace filled stream with artificial streams called for a finding of no adverse impacts where Corps had no science or prior experience to support conclusion that article streams constructed out of abandoned sediment ditches would replace the functions and values of the headwaters systems being destroyed)

VII. Summary

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Prior to granting a permit pursuant to Section 404 of the CWA, the Corps must determine that the project complies fully with EPA's 404(b)(1) Guidelines and the project is not contrary to the public interest.

At this point, there is not sufficient information to determine whether the proposed discharge complies with the substantive requirements in the regulations related to alternatives analysis, water quality, endangered species, significant degradation, and/or mitigation. Based on the information presented to date, the applicant has not demonstrated that the project complies with any of the restrictions to discharges under the Guidelines.

Once the applicant completes a 404(b)(1) alternatives analysis for the proposed project, EPA would like the opportunity to review and provide comments on this document. We must therefore reaffirm our conclusion that there is presently insufficient information to make a finding of compliance, and we urge you to deny the application.

006. Letter from Enrique Manzanilla, U.S. Environmental Protection Agency -- Communities and Ecosystems Division, dated September 1, 2009

Response 1

This comment serves to introduce the remainder of the comment letter. The comment states that the document under review is the Draft EIS/EIR, describes the U.S. Environmental Protection Agency's (USEPA) role in the agency coordination process for the proposed Project to date, and indicates the legal authority under which the comments are being provided. Because the comment does not address the adequacy of the Draft EIS/EIR, no further response is provided.

Response 2

The comment states that USEPA has rated the Draft EIS/EIR as EO-2 (Environmental Objections -- Insufficient Information) due to potential impacts to Aquatic Resources of National Importance (ARNI) that should be avoided. The U.S. Army Corps of Engineers (Corps) acknowledges the USEPA's rating, and understands this rating to indicate: (1) the USEPA review has identified significant environmental impacts that should be avoided to provide adequate protection for the environment; and (2) that the Draft EIS/EIR analyzed an appropriate range of alternatives, such that any new alternatives identified by the USEPA to reduce impacts of the proposed action would fall within the spectrum of alternatives analyzed in the Draft EIS/EIR (*i.e.*, Alternative 2 has direct impacts of approximately 87.5 acres of waters of the United States, and Alternative 7 has direct impacts of approximately 13.5 acres of waters of the United States). Avoidance of the proposed Project's adverse environmental impacts was addressed through the range of alternatives and mitigation measures in the Draft EIS/EIR. Since completion of the Draft EIS/EIR, further avoidance of impacts on the environment were evaluated by the Corps in the draft Clean Water Act (CWA) section 404(b)(1) alternatives analysis (hereinafter referred to as 404(b)(1) alternatives analysis). Please refer to the Corps' draft 404(b)(1) alternatives analysis found in **Appendix F1.0** of the Final EIS/EIR.

Response 3

The comment restates information contained in the Draft EIS/EIR related to the proposed Project's impacts on waters of the United States within the Project area, but expresses the quantities in linear miles and as a percentage of the tributary acreage on site. **Response 16,** below, addresses this comment. Because the comment does not address the adequacy of the Draft EIS/EIR, no further response is provided.

Response 4

The comment restates information contained in the Draft EIS/EIR related to the build characteristics and reduction in acreage of the Santa Clara River's 100-year floodplain that would occur under the proposed Project (Alternative 2). This comment focuses on the 157 acres of impact to the Santa Clara River 100-year floodplain, much of which is not subject to the Corps' jurisdiction under the CWA. Of the 1,408 acres of HEC-RAS modeled floodplain within the Project area, the proposed Project would result in the loss of 124 acres of modeled floodplain in the constructed condition. (See Draft EIS/EIR, **Figure 4.5-61**.) In the Santa Clara River (including the tributary confluences), the proposed Project would permanently impact 14.6 acres of waters of the United States under the Corps' jurisdiction. **Responses 33 through 36**, below, further addresses this issue.

Response 5

The comment states that USEPA does not consider the proposed Project (Alternative 2) to be the least environmentally damaging practicable alternative (LEDPA) because additional avoidance of waters of the United States is necessary, and references the letter from USEPA, dated August 4, 2009 (Letter 004) commenting on the Corps' Public Notice for the proposed Project. The Corps concurs that the Resource Management and Development Plan (RMDP) as proposed by the applicant in Alternative 2 is not the LEDPA, and has reviewed and independently verified the applicant's analysis of practicable alternatives to the proposed discharge as required by the CWA section 404(b)(1) Guidelines. The Corps' draft 404(b)(1) alternatives analysis is included in **Appendix F1.0** of this Final EIS/EIR, and includes a determination of the Draft LEDPA. The Draft LEDPA includes substantial avoidance and minimization of impacts to jurisdictional areas compared to the applicant's proposed Project (Alternative 2), and the Corps has identified the Draft LEDPA in the Final EIS/EIR as the Preferred Alternative for National Environmental Policy Act (NEPA) purposes.

Response 6

The comment states that USEPA supports the use of the Hybrid Assessment of Riparian Condition (HARC) method as a diagnostic tool; but, does not consider the method to be an appropriate tool for determining the amount or location of compensatory mitigation. **Responses 44 through 53**, below, address this comment.

Response 7

The comment states that USEPA is concerned about the proposed extensive use of tributary channel stabilization without a commitment to sufficient use of low impact development best management practices (BMPs) to control post-Project runoff. **Responses 54 through 57**, below, address this comment.

Response 8

The comment states that USEPA recommends additional measures to reduce the proposed Project's water demands, and suggests that the EIS/EIR evaluate the effects of climate change on water supply.

Climate Change/SWP Water Reliability

As indicated in the analysis, Draft EIS/EIR **Section 4.3**, Water Resources, neither the proposed Project nor the alternatives studied would result in significant water resource impacts. The Draft EIS/EIR includes an analysis of potential impacts of climate change on water supply for the proposed Project. See Draft EIS/EIR **Section 4.3**, Water Resources, **Subsection 4.3.4.2.2**, SWP Operations, Deliveries and Constraints, and Draft EIS/EIR **Section 8.0**, Global Climate Change, **Subsection 8.5**, Impacts of the Proposed Project and Alternatives, under "Municipal Emissions." Draft EIS/EIR **Subsection 4.3.4.2.2** explains the efforts of the Department of Water Resources (DWR) to address potential climate change impacts to the state's water resources in its 2007 Delivery Reliability Report (August 2008). The Draft EIS/EIR states:

> "As described in the 2007 Delivery Reliability Report (August 2008), simulations to evaluate future (2027) SWP delivery reliability incorporate the current interim court-

> ordered operating rules related to Delta smelt and a range of possible climate change impacts to hydrology in the Central Valley. The interim operating rules for Delta smelt are simulated at a more restricted level and a less restricted level for Delta exports to provide a range of estimated water deliveries. Therefore, for 2007, two studies were conducted. For 2027, ten simulations were used to reflect the four assumed scenarios for climate change and the two levels of operating rules."

The Draft EIS/EIR used DWR's published estimates of State Water Project (SWP) delivery reliability from DWR's 2007 Reliability Report, August 2008. (See Draft EIS/EIR, pp. 4.3-23-4.3-25.) The estimates were based on DWR's use of CALSIM II modeling to determine the SWP delivery capability under current conditions (2007) and future conditions (2027). (*Id.*) The Draft EIS/EIR also included a complete copy of the 2007 Reliability Report in **Appendix 4.3**. This data represented the best available information at the time the Draft EIS/EIR was released for public review in April 2009.

Since circulation of the Draft EIS/EIR, DWR has updated the report it produces every two years as part of the Monterey Settlement Agreement provisions signed in 2003. The updated draft report, entitled, "State Water Project Delivery Reliability Report 2009," dated December 2009 (DWR 2009 Draft Reliability Report), was released for public review and comment on January 26, 2010.[1] Please see **Topical Response 9: State Water Project Supply Reliability**, for related information.

Specifically, the report is an update to the 2007 Delivery Reliability Report, issued as final in August 2008. The report updates estimates of the current (2009) and future (2029) SWP delivery reliability and incorporates regulatory requirements for SWP and Central Valley Project (CVP) operations in accordance with a U.S. Fish and Wildlife Service (USFWS) biological opinion for the Delta smelt (December 2008) and a National Marine Fisheries Service (NMFS) biological opinion for salmon (June 2009). Estimates of future SWP delivery reliability also reflect potential impacts of climate change, sea level rise, and vulnerability of Delta levee failure due to floods and earthquakes. In summary, the report provides as follows:

> "The report shows that future SWP deliveries will be impacted by two significant factors. The first is significant restrictions on SWP and Central Valley Project (CVP) Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (December 2008) and National Marine Fisheries Service (June 2009). The second is climate change, which is altering the hydrologic conditions in the State."

This report represents the state of water affairs if no actions for improvement are taken. It shows continued erosion of SWP water delivery reliability under the current method of moving water through the Delta. The updated analysis shows that the primary component of the annual SWP deliveries (referred to as Table A deliveries) will be less under current and future conditions, when compared to the preceding report (State Water Project Delivery Reliability Report 2007).

The report discusses areas of significant uncertainty to SWP delivery reliability:

- restrictions on SWP and CVP operations due to State and federal biological opinions to protect endangered fish such as delta smelt and spring-run salmon;

[1] DWR's 2009 Draft Reliability Report is provided in **Appendix F4.3** of the Final EIS/EIR.

- climate change and sea level rise; and
- the vulnerability of Delta levees to failure due to floods and earthquakes.

The 2009 draft report shows greater reductions in water deliveries on average when compared to the 2007 report. The 2007 report incorporates the interim operation rules established by Judge Wanger in the federal court in 2007. It shows very significant reductions in SWP deliveries when compared to the 2005 report, which assumes operation rules that were less restrictive. The 2007 report shows current SWP annual Table A deliveries averaging 63 percent (2,595 thousand acre feet (taf)) of the maximum contract amount of 4,133 taf per year. The 2009 report shows a corresponding value of 60 percent (2,485 taf). The 2007 report projects an annual average of 66 percent to 69 percent (2,725-2,850 taf) for the future condition, whereas the updated report has 60 percent.

Although the averages of the updated estimates are less than were estimated in the 2007 report, the annual deliveries during drier conditions are projected to be somewhat higher than estimated in the 2007 report. This is due to the updated analysis incorporating the ability of SWP contractors to save water allocated in one year for delivery in the subsequent year and because water stored upstream cannot be delivered in some years due to export restrictions and is, therefore, available in drier times.

The Final EIS/EIR, **Section 4.3**, has been revised to reflect the latest DWR estimates in determining SWP delivery capability under current and future conditions, based on DWR's updated 2009 Draft Reliability Report. As reflected in the Final EIS/EIR, **Section 4.3**, even with DWR's latest estimates, which have been reduced to account for restrictions in operations due to federal biological opinions, climate change, sea level rise, and vulnerability of Delta levees, substantial evidence in the Final EIS/EIR and record supports the conclusion that sufficient SWP supplies remain available to serve the proposed Project and alternatives, as well as projected cumulative development in the Santa Clarita Valley. Please note that while the draft 2009 SWP Delivery Reliability Report (December 2009) represents reasonable scenarios, recent reductions in SWP supply narrow the gap between the available supply and demand in the future, thereby making the Castaic Lake Water Agency (CLWA) service area more susceptible to shortages in certain dry years. Accordingly, the reduction in SWP supply reinforces the need to continue diligent efforts to conserve potable water and increase the use of recycled water, both to meet the goals in the 2005 Urban Water Management Plan (UWMP) and to maximize utilization of potable water supplies. According to CLWA and the retail water purveyors, they will continue to work diligently with Los Angeles County and the City of Santa Clarita with water conservation ordinances and the enforcement mechanisms to aggressively implement water conservation in the CLWA service area.

Additional analysis of impacts related to climate change are included in the Draft EIS/EIR, including an estimate of emissions from provision of municipal services to the project study area. As stated in the Draft EIS/EIR, **Section, 8.0**, Global Climate Change:

> "Municipal sources of GHG emissions following Specific Plan build-out would include both the supply and treatment of water and wastewater, public lighting, and municipal vehicles (*e.g.*, police cars and garbage trucks). The bulk of emissions from municipal sources are indirect emissions attributable to energy and electricity use. These sources would result in approximately 18,375 tonnes of CO_2e per year."

In addition, please refer to **Topical Response 13: Global Climate Change Update** for further responsive information.

Water Conservation

Despite not creating significant water resource impacts, the Draft EIS/EIR includes a series of mitigation measures that are aimed at reducing Project demand (see **Subsection 4.3.7**, Mitigation Measures). Foremost among those measures is the construction of a system to deliver reclaimed water to land uses within the project study area from local water reclamation plants (WRPs), including the Newhall Ranch WRP. The list of water conservation measures included in the Newhall Ranch Specific Plan and the Draft EIS/EIR is presented below.

SP-4.11-1 The proposed Specific Plan shall implement a water reclamation system in order to reduce the Specific Plan's demand for imported potable water. The Specific Plan shall install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to Los Angeles County Department of Health Standards.

SP-4.11-2 Landscape concept plans shall include a palette rich in drought-tolerant and native plants.

SP-4.11-3 Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation.

SP-4.11-4 Water conservation measures as required by the State of California shall be incorporated into all irrigation systems.

Since circulation of the Draft EIS/EIR, the state legislature passed and the Governor signed new legislation regarding water resources in the state. Governor Schwarzenegger and the California Legislature crafted a comprehensive package of bills aimed at ensuring a reliable water supply in the future, as well as restoring the Delta and other ecologically sensitive areas. This comprehensive legislation places water supply and the Delta environment on an equal footing, establishing those principles as the State of California's fundamental and co-equal goals for the Delta. In summary, the plan is comprised of four policy bills and an $11.14 billion bond. The package establishes a Delta Stewardship Council, sets ambitious water conservation policy, ensures better groundwater monitoring, and provides funds for the State Water Resources Control Board (SWRCB) for increased enforcement of illegal water diversions. The bond, if approved in the November 2010 general election, will fund, with local cost-sharing, drought relief, water supply reliability, Delta sustainability, statewide water system operational improvements, conservation and watershed protection, groundwater protection, and water recycling and water conservation programs.[2] Portion of package includes a bill addressing specifically water conservation. As it is referred to, SB 7 is summarized below:

SB 7 Statewide Water Conservation: SB 7 creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California's water use. For the first time in California's history, this bill requires the development of agricultural water management plans

[2] Please refer to Final EIS/EIR, **Appendix F4.3**, for a copy DWR's 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary, dated November 2009.

> and requires urban water agencies to reduce statewide per capita water consumption 20 percent by 2020.

The water purveyors in the Santa Clarita Valley are in the processes of responding to this conservation requirement. For additional information regarding the new legislation and its water conservation requirements, please see **Topical Response 5: Water Litigation and Regulatory Action Update**.

In addition to this recent legislation, the Valencia Water Company, a California Public Utilities Commission (CPUC)-regulated water retailer and the expected water service provider to the Specific Plan site, Valencia Commerce Center (VCC), and Entrada developments, is already required by the CPUC to provide water conservation programs to its customers. Valencia Water Company and other regulated water retailers provide these programs in order to encourage water conservation beyond state requirements. Included in these programs is the Water Smart Allocation Program[3] offered by Valencia Water Company. As indicated by Valencia Water Company, the program is a:

> "method of providing residents an amount of water calculated to efficiently meet their specific needs. This system is based on extensive national research and local studies. Calculations take into account lot size, amount of landscaping for each property, and daily weather readings to give each house an individualized allocation. Allocations are divided to show indoor and outdoor amounts. Indoor amounts will generally remain constant, but outdoor amounts will fluctuate depending upon actual weather conditions. A customer's individual allocation, how their actual use compares to their allocation, and other helpful details will be provided both on their bills and on their private online accounts on the Valencia Water Company website."

The website also includes water conservation tips to save water without sacrificing lifestyle, rebate programs to install high efficiency toilets, the free Residential Water Survey program, the free weather based irrigation controller/water-wise landscape classes. Once approval from the CPUC is received, most likely by early 2011, Valencia Water Company intends to assign a tiered rate structure to the allocations. Customers who remain at or below their allocations will pay the lowest rates. Those who exceed their allocation pay more. Such a program would apply to all projects and land uses located within the Valencia Water Company service area, including Newhall Ranch, VCC, and Entrada.

Because the proposed Project does not result in significant water resources impact and because water conservation measures that reduce water demand in the Project study area are already included in the Draft EIS/EIR and will be implemented by the local water provider (Valencia Water Company), no further mitigation is required. The Corps and California Department of Fish and Game (CDFG) appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

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[3] For more information regarding the Water Smart Allocation Program, please go to the Valencia Water Company website at http://www.valenciawater.com/conservation/watersmart.asp (last visited June 7, 2010).

Response 9

The comment indicates USEPA's concurrence with the Draft EIS/EIR's conclusion that Alternative 7 is the environmentally superior alternative, and indicates USEPA's support for the use of fluvial geomorphic methods to stabilize degraded streams. Although Alternative 7 is environmentally superior to the other alternatives considered, the draft 404(b)(1) alternatives analysis (see **Appendix F1.0**) indicates that this alternative is impracticable because it fails to meet the "overall project purpose" as that term is used in the draft 404(b)(1) alternatives analysis, would be unreasonably costly, and would pose unacceptable public safety risks. However, fluvial geomorphic concepts that would maintain channel stability while lessening impacts in the post-Project condition have been incorporated into the Draft LEDPA, also identified in the Executive Summary and revised **Section 5.0** of the Final EIS/EIR as the Corps' Preferred Alternative.

Response 10

The comment states USEPA's concern with the "narrow" purpose and need in the Draft EIS/EIR, and recommends that the purpose and need be revised to avoid eliminating Alternative 7 from consideration. **Responses 30 through 32**, below, address this comment. In addition, in response to USEPA comments, the Corps, nonetheless, revised the NEPA purpose and need statement in the Final EIS/EIR. Please see, for example, Final EIS/EIR, revised **Section 2.0**, Project Description.

Response 11

The comment recommends that the Corps adopt the Spineflower Conservation Plan (SCP) as described in Alternative 6, because this alternative maximizes habitat connectivity on site. The Draft LEDPA included in the Final EIS/EIR and the draft 404(b)(1) alternatives analysis contemplate a spineflower preserve design within the RMDP planning area. However, the Draft LEDPA does not intend to dictate where the various preserves are established. The SCP is under the jurisdiction of CDFG pursuant to the California Endangered Species Act (CESA). Any final CESA authorization issued by CDFG would establish the preserve network design to be incorporated with the Final LEDPA when the Corps issues its Record of Decision (ROD). Please refer to the draft 404(b)(1) alternatives analysis in this Final EIS/EIR (**Appendix F1.0**) for additional detail regarding the incorporation of spineflower preserves in the Draft LEDPA.

At the time of the release of the Draft EIS/EIR, the draft 404(b)(1) alternatives analysis had not yet been made available for public review, thus the USEPA's recommendations were made without consideration of the information provided in the draft 404(b)(1) alternatives analysis. The draft 404(b)(1) alternatives analysis is included in **Appendix F1.0** of this Final EIS/EIR. The Corps and CDFG appreciate the USEPA's recommendation regarding Alternative 6 spineflower preserves. This recommendation will be made available to the decision makers prior to a decision on the proposed Project.

Response 12

The comment expresses USEPA's concern regarding the sufficiency of the general conformity determination of consistency with the State Implementation Plan (SIP). The comment also recommends additional mitigation commitments for global climate change, which are detailed in comments 99 though 109. The general conformity analysis for air quality is presented in **Section 4.7**, Air Quality, of the Draft and Final EIS/EIR, including **Appendix F4.7**, Draft Conformity Analysis found in the Final EIS/EIR. The global climate change analysis is presented in revised **Section 8.0**, Global Climate Change, of the Final EIS/EIR. The portion of this comment relating to the sufficiency of the general conformity

determination is addressed under **Responses 68 through 79**, below. The portion of this comment relating to global climate change is addressed under **Responses 99 through 109**, below. Please refer to **Topical Response 13: Global Climate Change Update** for further responsive information.

Response 13

The comment states that the Corps should work with USEPA during development and selection of the LEDPA. On February 24, 2010, the Corps (via conference call) and the applicant met to consult with USEPA regarding the development of the Draft LEDPA and the draft 404(b)(1) alternatives analysis. The applicant, the Corps, and USEPA have met at on-site and off-site locations periodically since 2009 to discuss CWA requirements and LEDPA concepts.

Response 14

The comment asserts that based on Alternative 2, the applicant has not demonstrated compliance with the CWA section 404(b)(1) Guidelines, which require avoidance, minimization, and finally compensation for unavoidable impacts to aquatic resources. At the time of the release of the Draft EIS/EIR, the draft 404(b)(1) alternatives analysis had not yet been made available for public review, thus the USEPA's comment was made without consideration of the information provided in the Corps' draft 404(b)(1) alternatives analysis. The draft 404(b)(1) alternatives analysis is included in **Appendix F1.0** of this Final EIS/EIR.

Response 15

The comment states USEPA's belief that the proposed Project is not the LEDPA, and states that further avoidance of waters is necessary. The Corps concurs that the RMDP as proposed by the applicant is not the LEDPA, and the applicant conducted an analysis of practicable alternatives to the proposed discharge as required by the CWA section 404(b)(1) Guidelines, which have been independently reviewed and verified by the Corps in the Corps' draft 404(b)(1) alternatives analysis. The Corps' draft 404(b)(1) alternatives analysis is included in **Appendix F1.0** of this Final EIS/EIR, and includes a determination of the Draft LEDPA. The Draft LEDPA includes substantial additional avoidance and minimization of impacts to waters compared to the applicant's proposed Project, and the Corps has identified the Draft LEDPA as the Preferred Alternative in the Final EIS/EIR (revised **Executive Summary** and revised **Section 5.0**) for NEPA purposes.

Response 16

The comment restates information contained in the Draft EIS/EIR related to the impacts of Alternative 2 on tributary drainages within the Project area and emphasizes Potrero Canyon, but expresses the quantities in linear miles and as a percentage of the tributary acreage on site. **Section 4.6**, Jurisdictional Waters and Streams, of the Draft EIS/EIR evaluated a range of alternatives that avoided 50 to 90 percent of tributary drainages within the RMDP site. The alternatives evaluated in the Draft EIS/EIR represent a reasonable range of alternatives. For additional information concerning the practicability of additional avoidance and minimization of impacts to waters of the United States, including tributaries to the Santa Clara River, please refer to the Corps' draft 404(b)(1) alternatives analysis, presented in **Appendix F1.0** of this Final EIS/EIR. The Draft LEDPA identified in this analysis would avoid 69 percent of tributary drainages within the Project site. Because the comment does not address the adequacy of the Draft EIS/EIR, no further response is provided.

Response 17

The comment restates information contained in the Draft EIS/EIR related to the development characteristics of the proposed Project within Potrero Canyon and the high HARC scores within that drainage. Because the comment does not address the adequacy of the Draft EIS/EIR, no further response is provided.

Response 18

The comment states that USEPA has identified the Santa Clara River and its tributaries as an ARNI, and references the letter from USEPA, dated August 4, 2009 (Letter 004) commenting on the Corps' Public Notice for the proposed Project. The Corps acknowledges USEPA's determination and will comply with the elevation procedures stipulated in the August 1992 Memorandum of Agreement between the USEPA and the Department of the Army regarding 404(q) of the CWA. No further response is provided. For more information pertaining to the Corps' consultation with USEPA on the Draft LEDPA, please refer to **Response 13**, above.

Response 19

The comment states that USEPA would be opposed to approval of the proposed Project, and urges the Corps to work with USEPA in developing the LEDPA. For information pertaining to the Corps' consultation with USEPA on the Draft LEDPA, please refer to **Response 13**, above.

Response 20

The comment indicates USEPA's agreement with the conclusion in the Draft EIS/EIR that Alternative 7 is the environmentally superior alternative, and encourages the Corps to adopt Alternative 7 or a similar hybrid as the Preferred Alternative in the Final EIS/EIR. The comment further enumerates some of the environmental benefits of Alternative 7 compared to the proposed Project, citing quantitative comparisons which appear to be calculated from information contained in the Draft EIS/EIR. The Corps' preferred alternative (*i.e.*, the Draft LEDPA) is presented in revised **Section 5.0**, Comparison of Alternatives, of the Final EIS/EIR. In addition, the Draft LEDPA is assessed in the Corps' draft 404(b)(1) alternatives analysis found in **Appendix F1.0** of the Final EIS/EIR. The Draft LEDPA includes many of the avoidance and minimization measures included in Alternative 7, and represents substantial additional avoidance of waters of the United States compared to the proposed Project.

Response 21

The comment states USEPA's belief that Alternative 6 is environmentally superior with regard to conservation of the San Fernando Valley spineflower, and cites communication representing that CDFG staff concur with this position. Identification of an environmentally superior alternative under CEQA and the environmentally preferred alternative under NEPA is based on impacts of the alternative in totality, and not necessarily on the effects of discrete project components. As described in the Draft EIS/EIR, Alternative 7 has been identified as the environmentally superior alternative overall, although the Corps and CDFG acknowledge that Alternative 6 includes the largest acreage of spineflower preserves. USEPA's comment will be made available to Corps and CDFG decision makers for consideration before a decision on the proposed Project is made.

Response 22

The comment states that Alternative 7 should be modified to include stabilization of degraded tributary reaches using fluvial geomorphic principles, including maximizing the floodplain buffer between proposed development and the stream corridors. The Corps' draft 404(b)(1) alternatives analysis, presented in **Appendix F1.0** to this Final EIS/EIR, indicates that Alternative 7 is impracticable because it does not meet the overall project purpose, is unreasonably costly, and would result in unacceptable public safety impacts. The draft 404(b)(1) alternatives analysis also evaluated a "no fill, stabilized" channel design in major tributaries (Potrero, Long, Chiquito, Lion, and San Martinez Grande Canyons). Many of the fluvial and geomorphic principles from Alternative 7 have been incorporated into the Draft LEDPA where practicable. In cases where drainages to be avoided would be subject to hydromodification from adjacent upland development, these tributaries would be treated in accordance with design principles and objectives described in **Section 4.2** of the Draft EIS/EIR (*e.g.*, Geomorphic Stability, Flood Conveyance, Ecological function, Hydromodification, Low Maintenance).

Response 23

The comment states USEPA's understanding that the 404(b)(1) alternatives analysis for the proposed Project has not yet been completed, and states that, if the analysis demonstrates that Alternative 7 is not practicable, the Corps and the applicant should consider a "hybrid" version of Alternative 7 that maintains avoidance measures to the maximum extent practicable. The Draft EIS/EIR evaluated a reasonable range of alternatives and many of the avoidance and minimization measures in Alternative 7 are included in Alternatives 3, 4, 5, and 6. Therefore, the Corps and CDFG have determined that the addition of another alternative is not necessary. In the draft 404(b)(1) alternatives analysis (**Appendix F1.0** in the Final EIS/EIR), the analysis of practicability in light of cost, logistics and technology has led to the Corps' selection of a Draft LEDPA that incorporates additional avoidance measures as suggested by USEPA and required by the CWA section 404(b)(1) Guidelines.

Response 24

The comment states that increasing development density through clustering should be maximized prior to reducing the extent of impact avoidance areas. The Draft LEDPA incorporates reasonable density adjustments to development land uses, in order to maximize resource impact avoidance, while also meeting the Corps' defined overall project purpose, as stated in the draft 404(b)(1) alternatives analysis. As described in **Response 13**, the Corps has consulted with the USEPA on several occasions throughout the NEPA and CWA section 404(b)(1) processes to obtain input on developing the draft 404(b)(1) alternatives analysis.

Response 25

The comment states that the Corps should not permit the applicant's proposed Project, and should instead select Alternative 7 or a similar "hybrid" alternative. The Corps concurs that the proposed Project alternative (Alternative 2) is not the LEDPA, and the applicant has conducted an evaluation of alternatives to the proposed discharge as required by the CWA section 404(b)(1) Guidelines, which has been independently reviewed and verified by the Corps in the draft 404(b)(1) alternatives analysis. The Corps' draft 404(b)(1) alternatives analysis, included in **Appendix F1.0** to this Final EIS/EIR, indicates that Alternative 7 is not practicable. The draft 404(b)(1) alternatives analysis has identified a Draft

LEDPA that incorporates many additional avoidance and impact minimization measures as suggested by USEPA and required by the CWA section 404(b)(1) Guidelines.

Response 26

The comment states that the Spineflower Conservation Plan (SCP) as described in Alternative 6 should be adopted. **Responses 11** and **21** address this comment. Please also see the revised SCP, which is found in **Appendix F1.0** of the Final EIS/EIR.

Response 27

The comment states that the Final EIS/EIR should identify the Corps' Preferred Alternative and the LEDPA following coordination with USEPA. The Corps has coordinated with the USEPA, and has identified a Draft LEDPA through the draft 404(b)(1) alternatives analysis (Final EIS/EIR, **Appendix F1.0**). The Draft LEDPA also has been identified by the Corps as the Preferred Alternative in the Final EIS/EIR for NEPA purposes. For more information, please refer to the revised **Executive Summary** and revised **Sections 3.0** and **5.0** of the Final EIS/EIR.

Response 28 and 29

The comment states that the Corps should evaluate Alternative 7, or a hybrid version that incorporates fluvial geomorphic principles to address existing unstable tributary reaches and prevent further degradation, in the Final EIS/EIR. The comment also states that buffers along streams should be maximized to allow for lateral channel migration and reduce the need for engineered stabilization structures. **Responses 21** and **25** address this comment.

The Corps' draft 404(b)(1) alternatives analysis, presented in **Appendix F1.0** to this Final EIS/EIR, indicates that Alternative 7 is impracticable because it does not meet the overall project purpose, is unreasonably costly, and would result in unacceptable public safety impacts. However, the draft 404(b)(1) alternatives analysis evaluated a "no fill, stabilized" channel design in major tributaries (Potrero, Long, Chiquito, Lion, and San Martinez Grande Canyons). Many of the fluvial and geomorphic principles from Alternative 7 have been incorporated into the Draft LEDPA. In cases where drainages to be avoided would be subject to hydromodification from adjacent upland development, these tributaries would be treated in accordance with design principles and objectives described in **Section 4.2** of the Draft EIS/EIR (*e.g.*, ensuring geomorphic stability, adequate flood conveyance, ecological function, minimized hydromodification, and low maintenance).

Response 30

The comment asserts that the overall project purpose and need, as stated in the Draft EIS/EIR, is too narrow and may limit the choice of reasonable alternatives. The Corps understands the USEPA's comment to mean that the statement of purpose and need presented in the Draft EIS/EIR is too narrow to be suitable as an overall project purpose statement for purposes of the draft 404(b)(1) alternatives analysis. As discussed in the Corps' draft 404(b)(1) alternatives analysis, the proposed Project is a major investment in infrastructure and development that is intended to accommodate projected population growth and economic development based on local and regional land-use planning decisions. The comprehensive nature of land-use regulation in California, the complexity of developing a project of this scale, and the interrelated effects on transportation, jobs, housing, recreation, public finance, and open

space underscore the importance of the decisions made by the County in approving the Newhall Ranch Specific Plan in 2003. The proposed Project is constrained by the need to maintain some general consistency with those decisions, although the details of the proposed Project may be modified by the CWA Section 404 process. *See Florida Clean Water Network, Inc. v. Grosskruger*, 587 F.Supp.2d 1236, 1244-47 (M.D. Fla. 2008). Consequently, achieving the basic objectives of the Specific Plan is a necessary and not incidental component of the proposed Project, and, therefore, the purpose includes the basic objectives of the Specific Plan. In addition, in response to USEPA comments, the Corps, nonetheless, revised the NEPA purpose and need statement in the Final EIS/EIR. Please see Final EIS/EIR, revised **Section 2.0**, Project Description.

Response 31

The comment claims that since the objective of the Specific Plan is creating 20,085 homes and 20,000 jobs, including this objective as part of the Project purpose and need would eliminate Alternative 7, as well as possibly other alternatives with insufficient space to provide 20,000 jobs, from consideration. Although meeting the basic objectives of the Specific Plan is a necessary component of the Project purpose (see **Response 30**, above), this does not imply that an alternative must provide exactly the number of developable acres, homes or jobs identified in the Specific Plan. The Corps recognizes that this would be too narrow a definition of the Project to allow for consideration of all reasonable alternatives that have the potential to reduce adverse impacts. The Project purpose and need stated in the Draft EIS/EIR allows for a range of values within which the proposed Project could be modified and still achieve the basic objectives of the Specific Plan. All alternatives were evaluated individually to determine whether they were capable of meeting the basic objectives of the Specific Plan. Alternatives were not eliminated "automatically" for failing to match the numeric parameters included in the Specific Plan (see Draft EIS/EIR, **Table 4.14-9**, Land Use). For additional responsive information, please refer to the Corps' draft 404(b)(1) alternatives analysis, included in **Appendix F1.0** to the Final EIS/EIR.

Response 32

The comment states that the purpose and need as stated in Draft EIS/EIR is overly narrow, and suggests that "to help meet projected housing and job demands in the region through the development of a master-planned community" would be appropriate as an overall project purpose. The Corps notes that this comment confuses NEPA and CWA concepts somewhat, as the statement of purpose and need is a NEPA requirement while the overall project purpose is a CWA concept. Notwithstanding this technicality, the Corps does not believe that a purpose as broad as that suggested by USEPA -- *i.e.*, "to help meet projected housing and job demands in the region through the development of a master planned community" -- would allow for meaningful analysis of the practicability of alternatives. Such a description fails to take into account the numerous requirements and constraints, including land use planning decisions and regulations embodied in the Specific Plan. In addition, the USEPA formulation does not provide standards against which to compare alternatives. The term "master planned community" includes a wide range of sizes, mix of features, and purpose. For the overall project purpose in the CWA section 404(b)(1) analysis to be meaningful, sufficient information needs to be included about what kind of master planned community is contemplated. Incorporation of the basic objectives of the Specific Plan provides this information without unduly constraining the consideration of alternatives. For more information regarding the statement of overall project purpose, please see **Responses 30** and **31**, above and the Corps' draft 404(b)(1) alternatives analysis included in the Final EIS/EIR in **Appendix F1.0**. In addition, in response

to USEPA comments, the Corps, nonetheless, revised the NEPA purpose and need statement in the Final EIS/EIR. Please see Final EIS/EIR, revised **Section 2.0**, Project Description.

Response 33

The comment restates information contained in the Draft EIS/EIR related to the proposed Project's reduction of the Santa Clara River's 100-year floodplain, and states that the significance criteria in the Draft EIS/EIR for flooding evaluated only flood hazards, and not impacts to floodplains themselves. The Corps and CDFG do not concur with this assessment. While **Section 4.1** (Surface Water Hydrology and Flood Control) of the Draft EIS/EIR was focused on flood hazards, **Section 4.2** (Geomorphology and Riparian Resources) included a resource-based assessment focusing on geomorphic function, sediment equilibrium, and impacts to riparian habitats in the floodplain, as well as evaluating larger-scale river issues such as preventing perennialization of the "dry gap" and reductions in sediment delivery to downstream beaches. **Section 4.2** of the Draft EIS/EIR evaluated impacts, supported by HEC-RAS modeling, to the 2-, 5-, 10-, 20-, 50-, and 100-year floodplains within and downstream of the Project area. This analysis evaluated the change in floodplain acreage from existing to proposed conditions under each modeled return storm, and also looked at the extent to which changes in flow velocity would scour existing riparian vegetation, affecting floodplain habitat values for fishes and wildlife. In addition, Alternative 7 in the Draft EIS/EIR analyzed complete avoidance of the 100-year floodplain; however, the Corps' draft 404(b)(1) alternatives analysis (see **Appendix F1.0** of this Final EIS/EIR) indicates that this alternative is impracticable because it would fail to meet the overall project purpose, would be unreasonably costly, and would pose unacceptable public safety risks.[4]

As noted in Executive Order (EO) 11988, one of the primary goals of studying impacts to floodplains is to "minimize the impact of floods on human safety, health and welfare." (EO 11988, Section 1.) Thus, a focus on flood hazards is an appropriate component of carrying out the intent of the EO. Furthermore, the amount of area covered by the 100-year floodplain discussed by the USEPA is distinct from the limits of waters of the United States, which extend only to the ordinary high water mark, in the absence of adjacent wetlands, and are the Corps' primary regulatory concern.

Response 34 through 36 (consolidated)

The comments discuss the requirements of EOs pertaining to floodplains, including EO 11988 (Floodplain Management) and a new EO currently in draft form that, if issued by the President, would require federal agencies to avoid placing fill material in floodplains to the maximum extent practicable. The comments further state that the proposed Project is inconsistent with the intent of these EOs due to the placement of fill material within 157 acres of the River's 100-year floodplain. **Section 7.0** of the Draft EIS/EIR discussed EO 11988, and floodplain impacts were discussed in detail in **Sections 4.1** and **4.2** of the Draft EIS/EIR. Using the significance criteria identified in this section, it has been determined that the proposed Project and alternatives would result in significant impacts to geomorphology and riparian habitat in the Santa Clara River and tributaries. However, with implementation of the mitigation measures

[4] As used in EO 11988, "practicable" is defined by Corps and USEPA guidance documents as "capable of being done within existing constraints . . . what is practicable depends upon the situation and includes consideration of the pertinent factors such as environment, community welfare, cost, or technology." (U.S. Army Corps of Engineers, Engineering Regulation 1165-2-26 (Mar. 30, 1984); USEPA, Statement of Procedures on Floodplain Management and Wetlands Protection (Jan. 5, 1979).)

identified in the Draft EIS/EIR **Subsection 4.2.6**, Mitigation Measures, these impacts would be reduced to less-than-significant levels. Impacts resulting from the proposed Project and alternatives along with the applicable mitigation measures are presented in the section.

The draft EO is not legally binding on federal agencies at this time. Consistent with the existing EO 11988, the Corps and CDFG considered an alternative that avoided the 100-year floodplain -- Alternative 7 in the Draft EIS/EIR. Additionally, the USEPA's comment has omitted a key stated purpose of the EO, namely that the agency should seek "to minimize the impact of floods on human safety health and welfare." (EO 11988, Section 1.) This purpose is echoed by the draft EO. (See draft EO, Section 1.) The Draft EIS/EIR's discussion of floodplain impacts and flood hazards is appropriate relative to EO 11988 and the draft EO's stated purposes.[5]

Response 37

The comment states that the Corps should refrain from permitting a Project alternative that would result in the loss of 157 acres of the FEMA 100-year floodplain, and should instead consider alternatives that avoid fill or increase floodplain area. For clarification, under the proposed Project, there would be a net loss of approximately 124 acres of the Santa Clara River 100-year floodplain. Geographic Information System (GIS)-supported hydraulic modeling (HEC-RAS model, and thus more up to date than the FEMA mapped floodplain) conducted to support the Draft EIS/EIR (**Figure 4.5-61**) identifies 1,408 acres of 100-year floodplain in the existing condition, of which 293 acres are considered "disturbed" in the form of cultivated agricultural fields, farm roads and other agricultural facilities. The net reduction in 100-year floodplain acreage is comprised of 133.5 acres of disturbed land. Therefore, the net reduction of 100-year Santa Clara River floodplain is predominantly comprised of disturbed agricultural land, rather than natural riparian habitat within and adjacent to the River.

The Draft EIS/EIR evaluated Alternative 7, which includes floodplain avoidance within the Santa Clara River and all on-site tributaries with FEMA-mapped floodplains. The draft 404(b)(1) alternatives analysis, presented in **Appendix F1.0** to the Final EIS/EIR, also analyzed this alternative, and indicates that Alternative 7 would be impracticable because it would fail to meet the overall project purpose, would be unreasonably costly, and would pose unacceptable public safety risks. However, based on input from CDFG and USEPA, the Corps has included a step in the draft 404(b)(1) alternatives analysis

[5] The Draft EIS/EIR included other discussions contemplated by the draft EO. Specifically, the agencies considered alternatives that "use other sites outside the floodplain that would not adversely affect a floodplain" (see, *e.g.*, discussion of Hathaway Ranch off-site alternative, Draft EIS/EIR, p. 3.0-12); those that "serve essentially the same purpose as the proposed covered action but are not in a floodplain or would not adversely affect a floodplain" (see, *e.g.*, discussion of Alternative 7, which would avoid the 100-year floodplain, Draft EIS/EIR, p. 3.0-52); and "taking no action" (see, *e.g.*, Alternative 1, the No Project/No Action alternative, Draft EIS/EIR, p. 3.0-49). (draft EO, Section 4(b); see also Corps Engineering Regulation 1165-2-26 at p. 4.) These alternatives were found to be not feasible or practicable by the Draft EIS/EIR and the draft 404(b)(1) alternatives analysis. The Draft EIS/EIR also demonstrated the proposed Project's compliance with state and local flooding regulations. (See draft EO, Section 4(c)(3)(f).) **Section 4.1** of the Draft EIS/EIR demonstrated the proposed Project's consistency with Los Angeles County Department of Public Works (DPW) design requirements and the County Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit issued by the Regional Water Quality Control Board (RWQCB). (See also, **Response 38**.)

incorporating increased floodplain avoidance into the Draft LEDPA. Specifically, the Draft LEDPA avoids additional 100-year floodplain area as compared to the applicant's proposed Project (Alternative 2). For more information on the draft 404(b)(1) alternatives analysis process, please refer to **Appendix F1.0** of the Final EIS/EIR. The USEPA's comment will also be made available to Corps and CDFG decision makers for their consideration when making a decision on the proposed Project.

Response 38

The comment restates information contained in the Draft EIS/EIR related to the proposed use of 3,000 linear feet (lf) of riprap bank stabilization at particular locations, and strongly discourages the Corps from permitting riprap at tributary confluences due to the impacts of this stabilization method on habitat functions and values. The location and extent of proposed flood control infrastructure under the proposed Project and alternatives were developed to satisfy County requirements regarding the protection of land uses from flood damage. The design of the flood protection system for the County is based upon DPW's capital flood (or Qcap) hydrology. This method is based on a "design," or theoretical storm event, which is derived from 50-year frequency rainfall values and is patterned after actual major extra-tropical storms observed in the Los Angeles region. All facilities in developed areas that are not covered under the capital flood protection conditions above must be designed for the "urban flood," equivalent to a 25-year frequency design storm falling on a saturated watershed. For projects in unincorporated Los Angeles County, the County's Hydrology Manual (DPW 2006b) specifies the level of flood protection (Capital Flood, Urban Flood, *etc*.) required for various types of facilities and land uses.

The proposed Project includes 29,779 linear feet of buried bank stabilization along the Santa Clara River, as presented in **Table 3.0-6** of the Draft EIS/EIR, to meet the requirements of flood control while maintaining the natural resources within the Santa Clara River. Specifically, the Conceptual Backbone Drainage Plan of the Newhall Ranch Specific Plan specifies drainage and flood control protection for developed uses while preserving the Santa Clara River as a natural resource. The Drainage Plan utilizes several generalized criteria that are to be implemented by projects that develop within the Specific Plan Area. The primary criteria are as follows:

- Flood corridor must allow for the passage of Los Angeles County Capital Flood Flow without the permanent removal of natural river vegetation (except at bridge crossings);
- The banks of the River will generally be established outside of the waters of the United States;
- Where the Corps delineation width is insufficient to contain the Capital Flood flow, the flood corridor will be widened by an amount sufficient to carry the Capital Flood flow without the necessity of permanently removing vegetation or significantly increasing velocity; and,
- Bank stabilization will occur only where necessary to protect against erosion.

Buried bank stabilization is a modern flood control technique used to protect against erosion while maintaining natural vegetation and soft banks. The Drainage Concept plans include the use of buried bank stabilization where necessary to protect against erosion except at specific locations discussed in **Section 2.0** of the Draft EIS/EIR. At these locations, other structural approaches are needed for flood protection and to protect against erosion. The location and extent of proposed flood control infrastructure under the proposed Project and alternatives were developed to satisfy DPW requirements regarding the

protection of land uses from flood damage. Ungrouted riprap is only proposed along certain reaches of the Santa Clara River where there is insufficient space to install buried soil cement and as required by the DPW.

The DPW has specific requirements regarding the location, type, and size of flood control improvements located within natural and improved drainage courses. Criteria covered by their design standards include hydrological, hydraulic, durability, and maintenance criteria. For projects in unincorporated Los Angeles County, the County's Hydrology Manual (DPW, 2006b), Hydraulic Design Manual (DPW, 1982) and Sedimentation Manual (DPW, 2006a) specify the level of flood protection (Capital Flood, Urban Flood, Probable Maximum Flood) required for various types of facilities and land uses.

Flood protection is required by DPW within unlined natural watercourses consistent with Section 5.2 and 5.7 of the DPW Sedimentation Manual (DPW, 2006a). Accordingly, pursuant to the channel design requirements specified in the Sedimentation Manual, acceptable methods of protection include riprap or concrete lining, along with associated access roads and ramps for maintenance and inspecting. These features are required for public safety and channel stability.

Section 5.7 of the 2006 DPW Sedimentation Manual requires that developers prove through use of hydraulic and sediment transport analyses that their development will not have any adverse effect on neighboring properties such as increased flood hazard, scour, or deposition. Accordingly, several hydraulic, geomorphic, and related technical studies have been prepared for the Project to comply with this requirement as discussed in **Section 4.1**, Surface Water Hydrology and Flood Control. and **Section 4.2**, Geomorphology and Riparian Resources, of the Draft EIS/EIR. The technical studies have been performed by Pacific Advanced Civil Engineering, Inc. (2006, 2008a, 2008b) and Philip Williams Associates (2008, 2007a-f) for the Santa Clara River and tributaries within the Project area to assess the geomorphic effects of the Project (*e.g.*, hydrologic, hydraulic, and sedimentation) and the associated flood control/stabilization infrastructure that would be required to meet DPW standards. The results of these studies have demonstrated that the Project will not have any adverse effect on neighboring properties.

Although the construction of a flood control system conforming to DPW requirements is not explicitly stated as an objective of the proposed Project, any alternative that does not include such a system would not be approved by the DPW, and would therefore not be feasible. With respect to the Corps' CWA Section 404 regulatory program, an alternative that would be unable to obtain required local government approvals might be considered impracticable from a logistical perspective. Thus, while the Corps has considered various alternatives avoiding and lessening the proposed Project's effects on waters of the United States in the Draft EIS/EIR, alternatives that would omit all County-required flood control and safety elements were not evaluated in detail. Concepts of increased buffers and floodway setbacks to avoid the need for flood control facilities, thereby minimizing the extent of development within floodplains, were considered in the Draft EIS/EIR through many of the alternatives evaluated, including Alternative 7, which avoided placing development within mapped 100-year floodplains.

References:

The following references were used or relied upon, are available for public review upon request to the Corps or CDFG, and are incorporated by reference:

Los Angeles County Department of Public Works. 2006a. Sedimentation Manual. March 2006.

Los Angeles County Department of Public Works. 2006b. Hydrology Manual as Amended January 2006. January 2006.

Los Angeles County Department of Public Works. 1982. Hydraulic Design Manual. March 1982.

Pacific Advanced Civil Engineering, Inc. 2008. Newhall Ranch Resource Management & Development Plan: River & Tributaries Drainage Analysis, Santa Clara River. December 2008.

Pacific Advanced Civil Engineering, Inc. 2008. "Newhall Ranch River Fluvial Study Phase 2" (January 2008).

Pacific Advanced Civil Engineering, Inc. 2006. "Newhall Ranch River Fluvial Study Phase 1, Final Draft". March 2006.

Philip Williams and Associates, Ltd. 2008. "Newhall Ranch Tributary Channel Design Guidelines". November 20, 2008.

Philip Williams and Associates, Ltd. 2007a. "Memorandum Regarding Channel Geomorphic Assessment of Chiquito Canyon". June 12, 2007.

Philip Williams and Associates, Ltd. 2007b. "Memorandum Regarding Channel Geomorphic Assessment of Grande Canyon". June 12, 2007.

Philip Williams and Associates, Ltd. 2007c. "Memorandum Regarding Channel Geomorphic Assessment of Lion Canyon". June 12, 2007.

Philip Williams and Associates, Ltd. 2007d. "Memorandum Regarding Channel Geomorphic Assessment of Long Canyon". June 12, 2007.

Philip Williams and Associates, Ltd. 2007e. "Memorandum Regarding Channel Geomorphic Assessment of Potrero Canyon". June 12, 2007.

Philip Williams and Associates, Ltd. 2007f. "Memorandum Regarding Channel Sediment Characteristics In Potrero, Long, Lion, Chiquito and Grande Canyons". June 26, 2006.

Response 39

The comment states that tributary confluences should have adequate buffers to allow erosion to occur, and that any stabilization should be done using native vegetation and fluvial geomorphic methods that avoid engineered hardscape features and maintenance roads. The bank protection and drainage modifications near the tributary confluences with the Santa Clara River have been minimized and allow for ongoing fluvial geomorphic processes. As discussed in **Response 38**, vegetation alone would not provide adequate bank protection with the expected flow velocities in the Santa Clara River and would, therefore, not meet DPW design requirements.

Response 40

The comment states that the Corps should not approve an alternative that uses riprap and appurtenant maintenance roads to reinforce and maintain tributary confluences. Vegetation alone would not provide adequate bank protection with the expected flow velocities in the Santa Clara River and would, therefore, not meet DPW design requirements. Please refer to **Response 38**.

Response 41

The comment states that tributary confluences should have adequate buffers to allow erosion to occur, and that any stabilization should be done using native vegetation and fluvial geomorphic methods. Please refer to **Response 38**.

Response 42

The comments states that the Final EIS/EIR should discuss why tributaries would need to be stabilized, especially in light of the low impact development measures and stormwater controls that would be implemented by the proposed Project. As discussed in **Sections 4.1** and **4.2** of the Draft EIS/EIR, Los Angeles County's flood control standard is based on controlling peak discharge for the "capital flood event" (known as "Qcap"), which represents a rare hydrologic condition (*i.e.*, four days of rain causing saturated watershed conditions after a wildfire; the analysis is based on the 50-year return frequency storm event with a burned and bulked runoff condition). Los Angeles County's Hydrology Manual specifies the hydrologic analysis methods that must be used to analyze the Project's impacts on peak flows. Although the proposed stormwater management system (both the Low Impact Development (LID)/site design BMPs and the treatment control BMPs) would reduce the average annual runoff volume, these reductions would not affect Qcap, which represents a saturated condition after four days of rainfall, during which BMPs sized for smaller, more frequent storm events (basis of water quality control BMPs) would be bypassed. For further information, see **Responses 38**, **44**, and **45**.

Response 43

The comment states that the Draft EIS/EIR text and figures contain inconsistent descriptions of the width of the temporary construction zone required for the installation of buried soil cement bank stabilization. The construction zone widths depicted in the Draft EIS/EIR figures are typical of impacts from conventional soil cement construction methods, but are approximations and are labeled as such. The actual widths of temporary disturbance zones associated with soil cement installation would vary depending on site-specific factors, as well as the toe-down depth of the facility being constructed. The analysis of temporary impacts associated with buried bank stabilization utilized a GIS database with individual polygons for each bank stabilization feature to calculate specific impacts. Using this methodology, temporary impact zones were determined to range from 70 to 105 feet, and this range was used to determine temporary impacts to habitats for the installation of the buried bank protection. The Draft EIS/EIR, **Figure 2.0-26**, which is referenced in the comment, depicts an excavation zone of approximately 122 feet (including 78 feet of temporary impacts and 44 feet of permanent impacts). The figure was intended to show a *conceptual* design of the buried bank installation (as identified in the title to the figure). As stated above, the actual temporary impact zone was determined using GIS layers for the design of the buried bank stabilization. Utilizing that methodology, while the actual temporary impact zone varies, the impact zone was determined to be in the range of 70 feet to 105 feet. The Final EIS/EIR,

Section 2.0, Project Description, **Figure 2.0-26**, has been revised to show this actual impact zone. In addition, the text in the Final EIS/EIR has been revised for consistency. The details of this analysis were described in greater detail in **Section 4.6**, Jurisdictional Waters and Streambeds of the Draft EIS/EIR.

Response 44

The comment states that USEPA is concerned about using the Hybrid Assessment of Riparian Condition (HARC) to identify the location and amount of compensatory mitigation, and summarizes information contained in the HARC, an appendix to the Draft EIS/EIR. The comment further suggests that the HARC is mainly a qualitative tool, with metrics that are subject to interpretation, rather than a tool that directly measures ecological processes. As stated in the HARC technical document (see **Appendix 4.6** of the Draft EIS/EIR), the HARC is a hybrid analytical method comprising components of the Corps' Hydrogeomorphic (HGM) method, the California Rapid Assessment Method (CRAM), and a Landscape-Level Functional Assessment (LLFA) method used in Special Area Management Plans in neighboring Orange County. The HARC's sources consist of qualitative, relatively low resolution (CRAM), semi-quantitative (LLFA), and quantitative, relatively high resolution (HGM) methods. The resulting hybrid is a semi-quantitative analytical tool, with resolution adequate for the Corps' purposes. It should be noted that one CRAM core team member and two regional team members were also involved in technical oversight of the HARC. Thus, several individuals who helped with the development of CRAM have also been involved in the development and review of the HARC.

With respect to the objectivity of the HARC's metrics, it is important to recognize that all metrics, even those used in the HGM method (the most quantitative and scientifically rigorous of the HARC's source methods), are somewhat subject to interpretation and depend upon the professional having a strong basis of knowledge to justify the interpretation of the metrics/indicators. However, using the HARC method, every metric was measured quantitatively and was scaled to have a value, or metric score, between 0 (degraded condition) and 1.0 (optimal condition). These scores were assigned based on a rubric correlating specific field conditions with particular metric scores (see Appendix A of the HARC technical document), and the same criteria were used to assess all reaches within the Project area. The potential for subjectivity was further reduced by relying upon the same investigators to assign the scores for all assessment reaches.

With regard to mitigation, the Corps has not used the HARC to determine the amount or location of compensatory mitigation required. Rather, the HARC was used to supplement the Draft EIS/EIR's impact evaluations and to identify high-quality riparian resource areas for impact avoidance. Loss of stream/wetland function was included as a component of the impacts analysis, but the mitigation measures related to this component simply required that the applicant ensure no net loss of function. The mitigation acreages and locations for impacts to waters of the United States were influenced by other mitigation measures in the Draft EIS/EIR, which did not rely on the HARC analysis.

Response 45

The comment states that because it does not rely on a regional reference dataset, the HARC is deficient as a tool for assessing the effect of wetland mitigation at a landscape scale. The Corps acknowledges that for an assessment method to yield meaningful results, a standard of comparison against which to measure results must be defined. As described in the HARC technical document, presented in **Appendix 4.6** to the Draft EIS/EIR, the HARC employed a "culturally unaltered" reference condition against which to

measure and scale the various metrics evaluated in the assessment (see Smith 2003). Rather than measuring assessment reaches against a watershed-specific reference domain, metric scores were instead evaluated relative to a pristine condition that would have been present in pre-Columbian times prior to European contact and influence. Thus, effects of activities such as farming and irrigation, grazing, water diversion, oil and gas extraction, introduction of non-native plants and wildlife, and urban development were not considered part of the reference conditions, and areas affected by these activities were scored accordingly.

The Corps has relied upon "culturally unaltered" reference conditions in prior assessments, including assessments of riparian ecosystem integrity associated with Special Area Management Plans in Riverside County, San Diego County, and Orange County, California. One of the advantages of the "culturally unaltered" reference approach is that the reference standard is absolute, rather than relative, and applicability of the method is, therefore, not limited to a single watershed. Because it can be assumed that under culturally unaltered conditions, no anthropogenic stressors (grazing, urban development, weeds, *etc.*) existed, extensive reference site reconnaissance in the watershed prior to conducting the assessment was not required (Smith 2003).

The culturally unaltered approach used in the HARC method is actually a more conservative method of defining reference conditions than the reference domain method used in traditional HGM. While the reference domain method selects actual reference sites within the target watershed, the culturally unaltered approach evaluates assessment reaches relative to theoretical, pristine reference sites. Thus, in a heavily impacted watershed, HGM's reference domain would likely show some signs of impairment, leading all assessment reaches to be evaluated against a lower standard. The use of "culturally unaltered" reference conditions circumvents this problem by using theoretical reference sites.

Response 46

The comment claims that calculating a "Total Score" by averaging each of the 15 HARC metric scores for a reach can result in certain functions being masked, thereby underestimating the importance of tributaries in a watershed and decreasing the resolution of the assessment. Although the HARC assessment did include calculation of a "Total Score," three separate functions (Hydrologic, Biogeochemical, and Habitat) were also calculated in the assessment. Each of these function-specific calculations was based on only a relevant subset of the 15 HARC metrics. Results of this assessment were presented in the HARC technical document (see **Appendix 4.6** to the Draft EIS/EIR), and were provided in addition to the "Total Score" results. Thus, the HARC did not include a "Total Score" at the expense of function-specific information, and no functions were masked by the addition of this composite score. As the HARC method is not HGM, and the metrics assessed are not as detailed as those in a formal HGM, it was reasonable to incorporate all fifteen metrics to give an overall quality score for each particular reach.

With respect to the use of simplified mathematical combinations (averaging) rather than the more elaborate functional equations used in traditional HGM, the use of functional indices is an acceptable compromise between two extremes (intensive data collection and subjective methods) that attempt to reduce a large amount of information into a simpler form, while retaining the essence of the information.

Response 47

The comment states that a recent interagency implementing guidance for the California Rapid Assessment Method (CRAM) cautions against adding CRAM scores for individual assessment areas to get an overall average. While the referenced guidance does advise against adding CRAM scores, it is important to note that the HARC is not CRAM. The HARC is a semi-quantitative method incorporating metrics from three different assessment methods, including HGM, a method that calculates functional capacity based on area and reach quality. As described in **Response 44**, CRAM is a relatively low resolution method, while LLFA, a semi-quantitative method, and HGM, a quantitative method, are relatively higher resolution quantitative methods, involving substantial field data collection. Specifically, of the 15 metrics used in the HARC method, nine metrics required rigorous field data collection. The remaining six metrics could be scored through a combination of literature review and reconnaissance-level field investigations. Without the semi-quantitative and quantitative components, the HARC would be a qualitative assessment similar to CRAM; one of the Corps' reasons for requiring the HARC to be prepared was the Corps' belief that the CRAM method was not quantitative or field-intensive enough to meet the Corps' assessment needs for the proposed Project.

Response 48

The comment states that a recent interagency implementing guidance for CRAM advises users to be cautious when interpreting CRAM scores, as the individual attribute scores may be better indicators of what is driving condition than an overall score. The comment provides a hypothetical example using CRAM of two sites with identical "index" scores, but which score very differently in Landscape, Hydrology, Physical, and Biotic attributes. The comment also states that error in the assessment would be inflated when scores are multiplied by area. As discussed in **Response 47**, above, the HARC method is not CRAM, and incorporates HGM metrics that are more quantitative and field intensive than those used in CRAM.

Additionally, the example presented in the USEPA's comment is substantially different from the actual combination of metrics that occurred in the HARC. The example combined scores for four totally dissimilar attributes (Landscape, Hydrology, Physical, and Biotic), and combined them into a single score. These attributes are very broad compared to the HARC metrics, which are far more specific. For example, Hydrology, identified in the example as a single attribute, is a function calculated in the HARC from a combination of the Source, Hydroperiod, Floodplain Connection, Surface Water Persistence, and Flood Prone Area metrics. Each of these metrics is a distinct, quantitative variable that tells the investigator something about the hydrology of the subject reach, and combining these variables to reach a composite Hydrology function score is therefore appropriate. The combination of attributes seen in the USEPA's example would be more similar to a combination of the Hydrology, Biogeochemical, and Habitat functions from the HARC than to the combination of metric scores to calculate function scores.

The HARC method was not intended to determine what is driving a condition of the stream reach to occur, rather to determine general condition of the reaches to allow for grouping them into condition group categories (high, medium and low) to aid in the assessment of pre-Project conditions compared to post-Project conditions.

Response 49

The comment states that the practice of calculating a "Total Score" by averaging the individual metric scores for each reach conflicts with the HARC objective to account for differences between the Santa Clara River mainstem and the tributaries. The practice of calculating the HARC AW-Total Score was specifically utilized to understand the overall distribution of scores throughout the project site (*i.e.*, whether or not the method adequately captured the range of disturbances present on the Project site), including the difference in condition between the Santa Clara River mainstem and the tributaries. The distribution of the HARC Total scores and the presence of very high (0.98) and low (0.10) scores suggests that the HARC did in fact capture the disturbance gradient present in the project area, and was sensitive enough to detect variability (in condition) among reaches (see the HARC technical document, **Appendix 4.6** to the Draft EIS/EIR, pp. 4-8). Although the River mainstem and the tributary drainages have overall similar average HARC scores (0.77 and 0.76, respectively), the range of scores vary quite drastically. Within the River, habitat functions and services are relatively constant, with primary differences occurring due to native plant composition and adjacent disturbance or existing development (ranging from 0.6 to 0.85). Conversely, the tributary drainages present a very wide range of habitat functions and services, ranging from 0.10 in the most degraded, agricultural tributaries to over 0.97 in portions of Salt Creek and in the near pristine Middle Canyon Spring Complex.

Response 50

The comment states that the HARC does not accurately predict post-Project function, because the basis for the post-Project scoring assumptions was not described in the Draft EIS/EIR and because the HARC method is new and has not been tested in the Santa Clara River watershed. The scoring assumptions used to predict post-Project metric and attribute scores were presented in the HARC technical document, which was included in **Appendix 4.6** to the Draft EIS/EIR. Although the HARC method has not been previously tested, the components of this method are not new; each of the metrics used in the HARC has been widely tested and used in one of three established functional assessment methods: HGM, CRAM, and the LLFA. The CRAM method has been validated for use throughout the state of California. The LLFA method has been used successfully in several jurisdictions within the general geographic region of the Project area, including San Diego, Orange, and Riverside counties; and there has been validation of its habitat and hydrologic indices using and Index of Biological Integrity (IBI) and Indicators of Hydrologic Alteration (IHA), respectively. The Corps' HGM method has been used extensively in this region, including the Santa Margarita River watershed in San Diego County, the Aliso Creek watershed in Orange County, and the coastal streams of Santa Barbara County.

Response 51

The comment states that the HARC does not specifically lay out design parameters ensuring that the desired hydrology, riparian vegetation, and animals will be re-established or that exotics will not invade. The HARC evaluated the proposed Project and alternatives, based on the proposed facility configurations and post-Project vegetation, assuming a 5-year mitigation commitment following construction. Therefore, the post-project scores represent an estimate of what the functions would be five years following project construction within the reach and watershed.

With regard to the Nativeness metric, temporary impact zones would be revegetated with native species as specified in the RMDP following construction. However, although no exotic species would be planted,

it is unrealistic to believe that the impacted reaches would contain only native plants after five years of mitigation monitoring. Performance of 75 percent Nativeness is a reasonable expectation for mitigation after five years (see the HARC technical document, **Appendix 4.6** to the Draft EIS/EIR, pp. 3-20).

With regard to the Riparian Vegetation Condition metric, after five years, mitigation plantings in temporary impact zones would have sufficient time to become established and for shrub and herb species to become mature. However, the lack of mature trees at this point could increase the susceptibility of the plantings to erosion, as has been evidenced in locations where the buried bank stabilization approach has been used (see the HARC technical document, **Appendix 4.6** to the Draft EIS/EIR, pp.3-21).

Response 52

The comment states that the Final EIS/EIR should address USEPA's concerns with the HARC, including the lack of a reference data set, underestimation of the importance of tributaries in the Santa Clara River watershed, and post-Project functional assumptions. **Responses 44 through 51** address this comment.

Response 53

As the comment states, **Sections 3.0** and **4.2** of the Draft EIS/EIR contain inconsistent descriptions of the build characteristics of Alternative 7 with regard to the use of in-channel grade control structures. As requested, the Final EIS/EIR includes revisions to **Section 4.2** of the Draft EIS/EIR.

Response 54

The comment states that the Final EIS/EIR should commit to increasing the use of Low Impact Development (LID) best management practices (BMPs). The comment states that the Draft EIS/EIR relies on a combination of three control strategies to prevent and control hydromodification impacts to the Santa Clara River and the tributaries from build-out of the proposed Project: (1) on-site practices such as LID BMPs; (2) regional detention basins; and (3) in-stream stabilization techniques. The comment states that the primary method of controlling peak discharge (Qcap) by the Project is by installing grade control structures and buried bank stabilization in the natural channels and newly constructed drainages. The comment illustrates the point by citing that the applicant's preferred alternative includes 98 grade control structures proposed to handle peak discharges in Potrero Canyon.

Hydromodification impacts are discussed in **Section 4.2** and **Appendix 4.4** of the Draft EIS/EIR. In summary, urbanization modifies natural watershed and stream hydrologic and geomorphic processes by introducing increased volumes and duration of flow via increased runoff from impervious surfaces and drainage infrastructure. Potential changes to the hydrologic regime include increases in runoff volumes, frequency of runoff events, long-term cumulative duration, as well as increased peak flows. Urbanization may also introduce dry weather flows where only wet weather flows existed prior to development. These changes are referred to as "hydromodification."

Hydromodification control approaches have evolved over time, with efforts first focused on managing peak flows and then on matching the peak, volume and timing of an event hydrograph. The current understanding is that the long term frequency, magnitude, and durations of the range of sediment transporting flows needs to be managed. This can be accomplished through the use of a combination of LID-type BMPs that reduce the increase in runoff volume and structural BMPs designed based on flow

duration control. In-stream measures, such as grade control structures, can also be used to prevent excess erosion due to increased flow durations.

The comment mixes the concept of flood control with hydromodification control. Los Angeles County's flood control standard is based on controlling peak discharge for the "capital flood event" (known as "Qcap"), which represents a rare hydrologic condition (*i.e.*, four days of rain causing saturated watershed conditions after a wildfire; the analysis is based on the 50-year return frequency storm event with a burned and bulked runoff condition). While the Qcap analysis is appropriately used for flood control design in Los Angeles County, hydromodification control should address the cumulative effects of the hydrologic changes to small storm event runoff (typically from ten percent of the two-year return frequency storm event through the 5-year or 10-year event). Consideration for reductions in sediment supply due to development is also critical, as channel stability is a long term balance between sediment transported from and sediment supplied to a stream reach.

There are various alternatives for siting hydromodification control measures, including on-site, regional, and in-stream; each of which has advantages and disadvantages. The choice of control measure siting is strongly determined by site-specific considerations, including existing stream conditions. Control measure sizing is also highly influenced by local characteristics including rainfall, climate, soils, topography, geology, and stream type. These factors determine the extent to which development changes the natural hydrologic processes and the potential for stream impacts. Therefore, management requires a suite of strategies that are tailored to local circumstances and stream conditions.

LID principles have been applied to help reduce the effects of urbanization on increasing runoff and as an important component of the overall hydromodification management strategy for the Project. As discussed in **Appendix 4.4**, the Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan (NRSP Sub-Regional SWMP), a series of progressive hydromodification control measures will be used in the Project build-out to prevent and control hydromodification impacts to the Santa Clara River and the tributaries:

- Avoid, to the extent possible, the need to mitigate for hydromodification impacts by preserving natural hydrologic conditions and protecting sensitive hydrologic features, sediment sources, and sensitive habitats.
- Minimize the effects of development through site design practices (*e.g.*, reducing connected impervious surfaces), implementation of stormwater volume-reducing BMPs (project-based hydrologic source control), and incorporation of flow duration control into water quality treatment basins, as needed.
- Mitigate hydromodification impacts in-stream using geomorphically-based channel design.

In some cases, hydromodification control measures that provide habitat, water quality treatment, hydromodification control, and flood control in one integrated solution may be feasible.

The comment states that, in the opinion of the USEPA, the primary method of controlling peak discharge is by installing grade control structures and buried bank stabilization in the natural channels and newly constructed drainages. Although in-stream controls are an important hydromodification management tool for the Project, the hydrologic source controls that will be incorporated into the Project build-out, which

will limit impervious area and disconnect imperviousness (key LID principles), are key measures that have been incorporated into the Project to avoid and minimize hydromodification impacts.

LID implementation for the build-out of the Specific Plan is specifically discussed in **Section 4.4**, pages 4.4-73 - 4.4-75, and in the NRSP Sub-Regional SWMP (**Appendix 4.4**). **Table 4.4-13** of the Draft EIS/EIR (also provided below) lists specific LID BMPs that will be implemented by the Specific Plan projects at various spatial scales. More specific implementation details will be provided at the Village, Land Use, and Lot/Parcel scale in future, project-level stormwater plans.

Low impact/site design implementation for the Project build-out accounts for the different spatial scales of development. These spatial scales are listed below, from larger to smaller scale:

- Ranch scale -- the Newhall Ranch Specific Plan sub-region (the Project scale);
- Village scale -- Landmark Village, Mission Village, Homestead, Potrero Valley, Entrada, and Legacy projects;
- Land use scale -- single family residential, multi-family residential, commercial, education, parks, and roadways within each village; and
- Lot or parcel scale -- individual lots or parcels within each project.

Table 4.4-13 from the Draft EIS/EIR, reproduced below, lists the low impact/site design BMPs that would be implemented by the Specific Plan projects at each spatial scale.

Table 4.4-13
Newhall Land Low Impact/Site Design BMPs

Spatial Scale	Corresponding Low Impact/Site Design BMP
Ranch	The Specific Plan clusters development into Villages. Approximately 70% (8,335 acres) of the Specific Plan subregion would remain undeveloped.
	A system of Open Areas would weave through the central portion of the Specific Plan subregion. The Open Areas include community parks, prominent ridges, bluffs, slopes, creek beds, and utility and trail system easements, and would often function as a transition between development areas. The Open Areas are designed to protect significant landforms and natural resources, and to provide an opportunity to integrate the proposed development within its natural context.
	The Specific Plan Land Use Plan designates a total of 5,159 acres for the River Corridor and High Country SMAs. These SMAs are designed to protect the existing natural resources within Los Angeles County's Significant Ecological Areas (SEA) 20 and 23.
	The 976-acre River Corridor SMA is designed to protect the sensitive biological resources in SEA 23, which consists of the Santa Clara River Corridor. The River Corridor SMA is to be dedicated to the Center for Natural Lands Management (CNLM), and the CNLM would assume responsibility for management of this area.
	The largest land use designation of the Specific Plan Land Use Plan is the 4,185-acre High Country SMA. The High Country SMA is located in the southern portion of the subregion and includes oak savannahs, high ridgelines, and various canyon drainages, including Salt Creek (a regionally significant wildlife corridor that provides an important habitat link to the Santa Clara River). The High Country SMA is to be dedicated in fee to a joint powers authority, consisting of representatives from the County of Los Angeles, the city of Santa Clarita, and the Santa Monica Mountains Conservancy.

Table 4.4-13
Newhall Land Low Impact/Site Design BMPs

Spatial Scale	Corresponding Low Impact/Site Design BMP
	To enhance the wildlife corridor movement through the High Country SMA, the 1,517-acre portion of the Salt Creek watershed situated in Ventura County, which is under the ownership of the applicant, would be dedicated to the public. This dedication area is west of Newhall Ranch, and would be managed in the same manner as the High Country SMA.
	Conservation easements would be granted to CDFG for the purpose of conserving populations of spineflower that occur on the Specific Plan subregion.
Village	Impervious areas would be minimized by incorporating landscaped areas into each Village. Significant portions of each Village area would remain as open space or parks.
	The Village-level stormwater treatment system would include the use of vegetated treatment BMPs, including bioretention, vegetated swales, and/or extended detention basins.
	In areas not subject to mass grading, the smallest site disturbance area possible would be delineated and flagged, and temporary storage of construction equipment would be restricted in these areas to minimize soil compaction on site. Site clearing and grading would be limited as necessary to allow development, allow access, and provide fire protection.
	Riparian buffers would be provided along the Santa Clara River Corridor and major tributaries by clustering development upland and away from the River and tributary drainages.
Land Use	Streets, sidewalks, and parking lot aisles would be constructed to the minimum widths specified in the Specific Plan and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access.
	Trails in reserve areas and some parks would be constructed with open-jointed paving materials, granular materials, or other pervious materials.
	Native and/or nonnative/noninvasive vegetation that requires less watering and chemical application would be utilized within the common area landscaping in commercial areas and multi-family residential areas.
	Impervious surfaces would be minimized in common area landscape design.
	Landscape watering in common areas, commercial areas, multi-family residential areas, and in parks would use efficient recycled water irrigation technologies with centralized irrigation controls.
Lot	Bioretention or vegetated swales would be placed within the road right-of-way in some locations.
	Runoff from most sidewalks, walkways, trails, and patios would be directed into adjacent landscaping or to vegetated swales.
	Bioretention areas or vegetated swales would collect and treat runoff from some of the industrial, commercial and multi-family residential areas. These bioretention areas would be located in parking lot islands and other on-site landscaped areas.
	Landscape areas would be determined by zoning requirements, Village setback/parkway standards, and design objectives.
	Porous pavement would be used in some parking and low traffic areas.
	Building materials for roof gutters and downspouts would not include copper or zinc.
	Home builders would be encouraged to direct rooftop runoff through landscaped areas.

Source: Geosyntec, 2008.

Response 55

The comment states that the channel design for Potrero Canyon does not assume any reduction in peak discharge from on-site practices or regional detention basins. The response to this comment below addresses two aspects of this comment: (1) channel design standards; and (2) the established basis for tributary design.

Channel design must comply with the DPW-approved design methodologies to ensure that the channel is stable and that the floodplain is able to convey the flood control design event. As stated in **Response 54**, Los Angeles County's flood control standard is based on controlling peak discharge for the "capital flood event" (known as "Qcap"), which represents a rare hydrologic condition (*i.e.*, four days of rain causing saturated watershed conditions after a wildfire; the analysis is based on the 50-year return frequency storm event with a burned and bulked runoff condition). Los Angeles County's Hydrology Manual specifies the hydrologic analysis methods that must be used to analyze the Project's impacts on peak flows. Although the proposed stormwater management system (both the LID/site design BMPs and the treatment control BMPs) will reduce the average annual runoff volume, these reductions would not affect Qcap, which represents a saturated condition after four days of rainfall, during which BMPs sized for smaller, more frequent water quality-based design events would be bypassed. For this reason, the design of the grade control structures for Potrero Canyon did not assume any reduction in peak discharge from on-site practices or regional detention basins.

The basis for tributary design is summarized in **Appendix 4.2** of the Draft EIS/EIR, the Newhall Ranch Tributary Channel Design Guidelines. As described in these guidelines, the dominant discharge will be used as the design basis for the main low flow channel, in keeping with standard geomorphic practices. Dominant discharge is the flow that cumulatively transports the majority of sediment over a long period of time. This analysis approach assumes dominant discharge is equivalent to the 2-year post-development flow for purposes of channel design. The 2-year recurrence interval storms for the post-developed conditions was estimated using a long-term continuous rainfall-runoff hydrologic simulation for the Newhall Ranch watersheds which incorporated the volume reduction expected in the regional detention basins. The regional basins were incorporated into the model because the approximate basin sizes are known and can be modeled at this programmatic level of analysis. The LID practices were not modeled for the Draft EIS/EIR, as their location and sizing is not quantified at the programmatic level of analysis. Future stages of tributary design modeling will incorporate LID practices that are incorporated into the project plans at the Village, Land Use, and Parcel scale.

Response 56

The comment states that the USEPA believes that impacts to jurisdictional waters could be reduced by aggressively designing and implementing BMPs that promote infiltration on-site. The comment states that the NRSP Sub-Regional SWMP (Draft EIS/EIR, **Appendix 4.4**) should include minimum performance standards and requirements that promote infiltration of post-development flows rather than relying on in-stream stabilization techniques. The comment states that the NRSP Sub-Regional SWMP currently only encourages LID BMPs.

The assumption in this comment is that infiltration alone can sufficiently control hydromodification impacts. Although infiltration practices can be used to address increases in runoff volume caused by development, infiltration practices alone do not address the potential hydromodification impacts of

decreased sediment supply. The combination of geomorphic processes and hydrologic processes determines channel stability. Lane's Principle, a method for sediment transport prediction, is a useful way of visualizing the fundamental relationships governing channel form. This principle states that the product of sediment load and grain size is proportional to the product of discharge and channel slope. A balance exists between streamflow, slope, and sediment transport capacity. Where streamflow is increased, or sediment supply decreased, a decrease in slope is required to re-establish equilibrium; this often leads to channel incision or downcutting. In contrast, an increase in sediment supply will often be manifest as aggradation or sedimentation.

Initial efforts at developing hydromodification control criteria were focused on matching pre-development site hydrology, but did not take into account stream conditions. Research then began to consider how the selected control strategy affects what is happening in the streams and, specifically, how sediment supply and the ability of the stream to transport that sediment may be affected by the control practice. This insight suggested that the ideal control strategy should take into account stream dynamics and the processes that affect the channel geometry or geomorphology. The fundamental advance in thinking was that, to be effective, a control would ideally address the sediment transport capacity of the stream in context of the anticipated sediment supply (again, a consideration illustrated by the Lane Principle). An erosion potential approach is a way to express the goal of matching sediment transport capacity. The Erosion Potential (Ep) metric is a numeric representation of the ratio of post-development sediment transport capacity to the pre-development capacity. The Ep metric calculation combines in-stream hydraulic calculations with continuous rainfall-runoff simulations for the entire range of flow events at representative reaches along a stream. An Ep equal to one represents a post-development condition with the same transport capacity as the pre-development condition, whereas an Ep greater than one indicates a higher transport capacity in the post-development condition. As the Ep value increases, so does the likelihood of channel instability where discharges are to natural stream systems. The Ep metric can be used to design in-stream hydromodification controls, such as grade control structures, and has been used with modifications for the proposed Project to design on-site controls that account for sediment supply reductions.

The NRSP Subregional SWMP includes a hydromodification control performance standard for the Specific Plan projects [provided in **Section 4.2**, page 4.2-15, of the Draft EIS/EIR]. The NRSP projects will be conditioned to require, as a project design feature, sizing and design of hydraulic features as necessary to control hydromodification impacts in accordance with the following performance standard:

> *The erosion potential (Ep) of stormwater discharges from the Project shall be maintained within 20% of the target value in the tributary drainages that will receive postdevelopment flows. The target erosion potential (Ep) will consider changes in sediment supply.*

The hydromodification performance standard will be met for all of the NRSP projects from the point of discharge to the tributary drainage channel downstream to the confluence of the tributary drainage with the Santa Clara River, and shall be achieved through a combination of on-site and in-stream controls.

In addition, a technical memorandum has been developed that further defines the LID performance standard for the Project embodied in the NRSP Subregional SWMP. (See Technical Memorandum from Lisa Austin, *et al*. to Matt Carpenter, April 2, 2010, **Appendix F4.4** to this Final EIS/EIR.) In summary, the Los Angeles County Low Impact Development Ordinance (Chapter 12.84 of the Los Angeles County

Municipal Code), adopted in November 2008, establishes standards for the incorporation of LID into development projects. To implement the provisions of this ordinance, the DPW has developed a LID Standards Manual that outlines stormwater runoff quantity and quality control development principles, technologies, and design standards for achieving the LID Standards of Chapter 12.84. The NRSP Sub-Regional SWMP establishes performance standards for BMPs implemented within the Specific Plan projects. The attached memorandum demonstrates that the performance standards contained in the NRSP Sub-Regional SWMP are equivalent to or exceed the runoff volume retention LID requirements of the Los Angeles County LID Manual when applied to the Project.

Response 57

The comment states that the USEPA recommends that BMPs be designed, installed, and maintained to infiltrate sufficient runoff volume such that the post-development infiltration volume is at least 90 percent of the pre-development infiltration volume, on the basis of average annual rainfall (*i.e.*, no more than a 10 percent decrease in infiltration would be allowed. The comment states that if this standard is infeasible, off-site infiltration (detention basins) may be utilized.

As discussed in **Response 56**, above, the proposed Project incorporates a state-of-the-art hydromodification performance standard. Volumetric retention standards such as that recommended in the comment have not been shown to be effective at preventing hydromodification impacts. In addition, the proposed Project will meet or exceed the LID performance standard that has been established for projects within Los Angeles County by DPW. The water quality impact analysis presented in **Section 4.4** of the Draft EIS/EIR is a conservative analysis that does not account for the Village, Planning Area, or Parcel LID BMPs that will be implemented by the Specific Plan projects. Mitigation Measure WQ-1 would require the implementation of prescribed BMPs included in the NRSP Sub-Regional SWMP, which would reduce water quality impacts to the Santa Clara River and its tributaries to a level less than significant and in compliance with applicable water quality standards.

Response 58

The comment restates information contained in the Draft EIS/EIR related to the content of Mitigation Measure GRR-3. **Responses 38-40**, above, addressed this comment. In addition, please refer to **Responses 55-60**, below.

Responses 59 and 60

The comment states USEPA's belief that not all stabilization structures, bridges, and other proposed Project elements subject to flows must be constructed of armored hardscape materials, and that biotechnical methods providing increased habitat value should be used in some cases.

The proposed Project largely utilizes buried bank stabilization techniques to meet the requirements of flood control while maintaining the natural resources within the Santa Clara River. **Responses 38 through 41** address this issue.

The intent of Mitigation Measure GRR-3 is to ensure compliance with DPW design standards. Specifically, the DPW requires concrete inlet and outlet structures for all storm drains located in natural channels and that they consist of a headwall, apron, and wing walls as a minimum. For soft bottom channels subject to erosion, the DPW requires hardened grade control structures with the structure type

based upon the DPW Sedimentation Manual (2006a) standards. In addition, Sections 5.2 and 5.7 of the DPW Sedimentation Manual (2006a) specify that unlined natural watercourses require flood proofing using methods such as riprap or concrete lining. These features are required for public safety and channel stability. See also, **Responses 38** and **54 to 55.**

References:

The following reference was used or relied upon, is available for public review upon request to the Corps or CDFG, and is incorporated by reference:

Los Angeles County Department of Public Works. 2006a. Sedimentation Manual. March 2006.

Response 61

The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project. As summarized in **Response 8**, above, Draft EIS/EIR **Section 4.3**, Water Resources, concludes that neither the proposed Project nor the alternatives studied would result in significant water resource impacts. As a result, further mitigation to reduce the demand for potable water is not required.

The use and benefits of using recycled water on the Specific Plan site is addressed in Draft EIS/EIR **Section 4.3**, Water Resources, **Subsection 4.3.6.2.2**, Indirect Impacts, where it states,

> "A portion of the Specific Plan's non-potable demand would be met with recycled water from the Newhall Ranch WRP. The availability of this source would occur in stages, mirroring the staged construction of the WRP on the Specific Plan site. Approximately 4,984 afy of the non-potable supply (treated discharges from the Newhall Ranch WRP) would be available to meet a portion of the Specific Plan's non-potable demand. The balance of the total non-potable demand (3,280 afy) would be met by using other recycled water from the two existing upstream WRPs, consistent with CLWA's "Reclamation Water System Master Plan." This additional recycled water supply would meet the remaining non-potable water demand of the Specific Plan. The source of CLWA's recycled water is imported water delivered to CLWA's service area, consumptively used, discharged to the two local WRPs, and made available for reuse under a contract between the Los Angeles County Sanitation Districts and CLWA (see 2005 UWMP, section 4.3.3)."

See also the discussion of water conservation in **Response 8**, above. Water purveyors in the Santa Clarita Valley, including Valencia Water Company, the expected retail service provider for the Project area, have implemented a coordinated approach to the use of recycled (reclaimed) water. CLWA's Recycled Water Master Plan (Master Plan), incorporated into the Draft EIS/EIR by reference, shows how recycled water facilities will be sited across the valley. The Plan calls for a total of 17,400 acre feet per year (afy) of recycled water use by 2030, and an additional 5,400 afy will be generated and used under the Newhall Ranch WRP. The grand total of recycled water use will ultimately be about 22,800 afy, or about 20 percent of the total water supply in the Santa Clarita Valley. This high level of use of recycled water will permit CLWA to forgo the purchase of more expensive imported water and will reduce energy use associated with pumping and treatment of potable water in the valley. The next phase of the recycled

water system will distribute more recycled water from the Valencia WRP. The design is being guided by the principle of providing the greatest amount of recycled water at least cost. Existing customers currently using potable water for uses that are appropriate for recycled water (such as large landscape and golf course irrigation) would connect to the new recycled water pipelines. CLWA expects that ultimately the annual cost savings for using recycled water rather than potable water should more than compensate for the cost of connecting to the recycled water system. While yet to be included specifically as part of the Master Plan, the use of reclaimed water within homes for use in bathrooms and kitchens is being considered by Valencia Water Company and other purveyors as a means of meeting SB 7 conservation requirements.

Response 62

As indicated in the Draft EIS/EIR **Section 4.3**, Water Resources, neither the proposed Project nor the alternatives studied would result in significant water resource impacts. Consequently, no further mitigation measures are required. Nonetheless, Draft EIS/EIR **Section 4.3**, **Subsection 4.3.7**, Mitigation Measures, includes the provision of water conservation measures to reduce the potable water demand of the Specific Plan. Please see **Response 8**, above for additional responsive information.

The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

Response 63

The comment recommends that the Final EIS/EIR include a discussion of potential water conservation benefits that could be achieved through the use of recycled water for other uses beyond irrigation. **Responses 8** and **61** above address this recommendation. The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

Response 64

The comment recommends that the Corps consider the instillation of "purple pipes" that would enable the use of recycled water for toilets and other non-potable uses. **Responses 8** and **61** above address this recommendation. The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

Response 65

The comment requests that the Final EIS/EIR include an in-depth discussion of pricing and how it could be used to balance demand and water supply. Neither CEQA nor NEPA requires an evaluation of economic considerations (see Cal. Code Regs., tit. 14, § 15131; 40 C.F.R. § 1508.14). Although beyond the scope of this EIS/EIR, Valencia Water Company intends to assign a tiered rate structure to the water allocations once approval from the CPUC is received, most likely in 2011. Customers who remain at or below their allocations will pay the lowest rates. Those who exceed their allocation pay more. Tiered pricing program would apply to all projects/land uses located within the Valencia Water Company service area, including the Newhall Ranch Specific Plan, VCC, and Entrada.

Response 66

The Draft EIS/EIR addressed the potential impact of climate change on water resources. Draft EIS/EIR, **Section 4.3**, **Subsection 4.3.4.2.2**, explains the efforts of DWR to address potential climate change impacts to the state's water resources in its 2007 Delivery Reliability Report (August 2008). Since circulation of the Draft EIS/EIR, DWR has updated the report it produces every two years as part of the Monterey Settlement Agreement provisions signed in 2003. The updated draft report, entitled, "State Water Project Delivery Reliability Report 2009," dated December 2009 (DWR 2009 Draft Reliability Report), was released for public review and comment on January 26, 2010.[6] Please see **Response 8**, above, and **Topical Response 9: State Water Project Supply Reliability**, for related information.

Draft EIS/EIR **Section 8.0**, Global Climate Change, **Subsection 8.5**, Impacts of the Proposed Project and Alternatives, "Municipal Emissions" also addresses the impact of emissions generated to provide water and wastewater services to the proposed Project. Please see **Response 8**, above, for more information on this topic. In addition, please refer to **Topical Response 13: Global Climate Change Update** for further responsive information regarding global climate change and its potential effects on water supplies and reliability.

Response 67

The comment recommends that the Final EIS/EIR include a qualitative discussion on climate change and the potential effects on water supply for the proposed Project, including a short summary of climate change studies relevant to Southern California, and recommendations for addressing these effects. **Responses 8** and **66**, above, address this recommendation. The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

Response 68

The comment generally states that the Final EIS/EIR should include additional information regarding general conformity. However, the comment does not specifically identify what additional information should be included. The Draft EIS/EIR addresses the topic of "general conformity" in **Section 4.7**, Air Quality, **Subsection 4.7.9**, General Conformity. As stated in the Draft EIS/EIR:

> "Under section 176(c)(1) of the federal CAA, federal agencies that "engage in, support in any way or provide financial assistance for, license or permit, or approve any activity"[7] must demonstrate that such actions do not interfere with state and local plans to bring an area into attainment with the NAAQS."

Draft EIS/EIR **Subsection 2.3.2.3** states that "the Corps is the lead agency under NEPA responsible for review of the environmental impacts of the proposed Project. In that capacity, the Corps must assess, and is analyzing in this EIS/EIR, the potential for significant direct and indirect impacts on the environment that may result from approval and implementation of the proposed RMDP and SCP components of the proposed Project and issuance of the requested section 404 permit." The Corps would maintain control

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6 DWR's 2009 Draft Reliability Report is provided in **Appendix F4.3** of the Final EIS/EIR.

7 42 U.S.C. § 7506, subd. (c).

only over those elements of the proposed Project specifically related to the activities permitted under the Corps' regulatory authority (*i.e.*, activities directly allowed by the CWA section 404 permits to be issued by the Corps if the proposed Project is approved). Under the general conformity regulations, both the direct and indirect emissions associated with a federal action must be evaluated for those project elements *that will remain under the Corps' regulatory authority*. The EIS/EIR states:

40 C.F.R. Part 93, Subpart B defines direct emissions as:

> [T]hose emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.[8]

Indirect emissions are defined as:

> [T]hose emissions of a criteria pollutant or its precursors:
>
> (1) That are caused or initiated by the Federal action and originate in the same nonattainment or maintenance area, but occur at a different time or place as the action;
>
> (2) That are reasonably foreseeable;
>
> (3) That the agency can practically control; and
>
> (4) For which the agency has continuing program responsibility.
>
> For purposes of this definition, even if a Federal licensing, rulemaking, or other approving action is a required initial step for a subsequent activity that causes emissions, such initial steps do not mean that a Federal agency can practically control any resulting emissions.[9]

The Corps can practicably and will maintain control over the elements of the proposed Project which fall under the conditions set forth under the CWA section 404 permit (*e.g.*, construction of drainage outfalls, bridge crossings, *etc*.). The Corps will not maintain control over the planning and build-out of the land uses allowed under the Newhall Ranch Specific Plan as approved by Los Angeles County in 2003. The County is the regulatory agency responsible for the planning and build-out of the Specific Plan. Therefore, the emissions related to land uses associated with the Specific Plan (*e.g.*, residential units, commercial square footage, *etc*.) are not applicable for a determination of conformity.

The following discussion has been added to **Section 4.7** of the Final EIS/EIR to clarify the emissions evaluated for general conformity:

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[8] 40 C.F.R. § 93.152 (as revised April 5, 2010, effective July 6, 2010, 75 Fed.Reg. 17273). The previous version of 40 C.F.R. § 93.152 (mirrored in former 40 C.F.R. § 51.852) stated "[T]hose emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and occur at the same time and place as the action."

[9] 40 C.F.R. § 93.152 (as revised April 5, 2010, effective July 6, 2010, 75 Fed.Reg. 17273).

When describing the 2010 revisions to the definition of indirect emissions, USEPA offered the following explanation:

> EPA is revising the definition for indirect emissions to clarify that only indirect emissions originating in a nonattainment or maintenance area need to be analyzed for conformity with the applicable SIP. In addition EPA is revision the definition of "indirect emissions" to clarify what is meant by "the agency can practically control" and "for which the agency has continuing program responsibility." This clarification represents EPA's long standing position that Congress did not intend for conformity to apply to "cases where although licensing or approving action is a required initial step for a subsequent activity that causes emissions, the agency has no control over that subsequent activity, either because there is no continuing program responsibility or ability to practically control."[10]
>
> The 2010 revisions to the definition of "indirect emissions" are consistent with the preamble to the 1993 General Conformity Rule, which explicitly defined and limited the responsibilities of the Corps with regard to non-federal activities needing Corps permit authorization. In essence, the Corps is not legally required to document, analyze, and seek mitigation measures for any indirect emissions of actions requiring Corps permit authorization, since it will not be practicable for the Corps to control such emissions; and, frequently, the Corps will not have a continuing program responsibility to maintain control over them.
>
> As explained in the 1993 preamble: USEPA does not believe that it is reasonable to conclude that a federal agency "supports" an activity or emissions by third persons over whom the agency has no practicable control, based on the mere fact that if one inspects the "causal" chain of events, the activity or emissions can be described as being foreseeable results of the agency's actions.
>
> USEPA explained in the 1993 preamble that "the person's (*i.e.*, permit applicant's) activities that fall outside of the federal agency's continuing program responsibility to control are subject to control by state and local agencies."[11] Therefore, the Corps does not have a continuing program responsibility to measure, monitor, control, or mitigate for air emissions that may result from the construction or operation of a non-Corps facility, even though some part, portion, or phase of that facility requires a permit from the Corps. Under the CAA, the state and local clean air agencies have full responsibility and authority to address those emissions, and to prevent or condition the construction of the non-federal facility as necessary to deal with those air emissions.
>
> USEPA also stated that it would be impractical to force a federal regulatory agency, like the Corps, to do potentially time-consuming and costly air quality analyses when the activity that the agency permits may be a very minor aspect of a much larger non-federal

[10] 75 Fed.Reg. 17260 April 5, 2010 (citations omitted).

[11] 58 Fed.Reg. 63222 (Nov 30, 1993).

undertaking, and when that specific Corps permit activity may have little or no effect on air quality.[12]

The preamble to the 1993 General Conformity Rule provided an explicit example that defines the Corps' responsibility and shows a close relationship between the definition of federal action and the restrictive language from the definition of indirect emission as follows:

> "Assume for example, that the Corps issues a permit and that permitted fill activity represents one phase of a larger non-federal undertaking; i.e., the construction of an office building by a non-federal entity. Under the conformity rule, the Corps would be responsible for addressing all emissions from that one phase of the overall office development undertaking that the Corps permit; i.e., the fill activity at the wetland site. However, the Corps is not responsible for evaluating all emissions from later phases of the overall office development (the construction, operation, and use of the office building itself), because later phases generally are not within the Corps continuing program responsibility and generally cannot be practicably controlled by the Corps."[13]

In addition, this EIS/EIR's approach is consistent with the Corps' guidance memorandum regarding implementation of the General Conformity Rule:

> "[G]enerally, speaking the Corps does not have a continuing program responsibility to measure, monitor, control, or mitigate for air emissions that may result from the construction or operation of a non-Corps facility (such as a shopping center, factory, or non-Federal port), even though some part, portion, or phase of that facility requires a permit from the Corps. Under the CAA, the state and local clean air authorities have full responsibility and authority to deal with those emissions, and to prevent or condition the construction of the non-Federal facility as necessary to deal with those air emissions."[14]

Based on the above discussions, because the Corps would only authorize construction of the RMDP infrastructure pursuant to section 404 of the CWA, that portion of the overall Newhall Ranch land use development project specified in the approved Specific Plan, is considered to be the federal action, and the resulting emissions from that portion alone are analyzed for conformity with the California's SIP for the SCAB.[15] Furthermore, the Corps would not practicably control and would not maintain control over activities beyond the RMDP infrastructure due to a continuing program responsibility. Consequently, the direct and indirect construction and operation emissions associated with the overall Newhall Ranch land

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12 58 Fed.Reg. 63219 (Nov 30, 1993).

13 58 Fed. Reg. 63227, Nov 30, 1993.

14 U.S. Army Corps of Engineers. Memorandum For All Major Subordinate Commanders, and District Commanders, Subject: USEPA's Clean Air Act (CAA) General Conformity Rule, from Lester Edelman, Chief Counsel, USACE (CECC-E). (April 20, 1994).

15 *Ibid.*

use development, which would be facilitated by the RMDP, are not included in this draft conformity determination.

The comment also states that the EIS/EIR should clarify the location of the "emissions budgets" in the South Coast Air Quality Management District (SCAQMD) 1997 Air Quality Management Plan (AQMP). Impact Sciences contacted SCAQMD for this information when it prepared the Air Conformity subsection of the Draft EIS/EIR. According to written correspondence received on October 27, 2009 from Jill Whynot, Director of Strategic Initiatives of the SCAQMD, "the level of detail for the information provided is not in the AQMP documents but is the supporting data that was used to prepare the tables in the AQMP. Appendix III of the 1997 AQMP lists baseline emissions by major source category and does not list controlled emissions at this level of detail. Emission budgets are the emissions after the proposed control measures are implemented." Jill Whynot from SCAQMD confirmed that "the data source of the file that was sent [to Impact Sciences] is the 1997 AQMP AA/PL 2020 controlled case run and runs for the years 2007, 2008, 2010, and 2020. Other years in [the file] are interpolated values." This information was included in the Draft EIS/EIR as part of the analysis. For further responsive information, please refer to the Draft General Conformity Determination includes this information as well as a comparison to the 2007 AQMP and is included in **Appendix F4.7** of the Final EIS/EIR.

Response 69

The comment states that the most recent SCAQMD baseline nitrogen oxide (NO_X) emission estimates for on-road and non-road source categories greatly exceed the conformity budgets from the 1997/1999 South Coast Air Basin portion of the State Implementation Plan (SIP). The comment then notes that the SCAQMD 2007 AQMP is not yet the applicable SIP for conformity purposes because it has not been approved by the USEPA. However, the comment states that "the emission estimates contained in the 2007 AQMP represent the most recent emissions estimates available and inform us as to the plausibility of reliance on the budget test under 40 C.F.R. Part 93.158(a)(5)(i)(A)." The comment provides a comparison between the general conformity SIP budgets for NO_X in the 1997/1999 AQMP for years 2002 and 2010 and the corresponding 2007 AQMP baseline emission estimates for years 2002 and 2010. The comparison provided by the comment indicates that the baseline emissions numbers in the 2007 AQMP exceed the corresponding 1997/1999 general conformity budgets.

The emission estimates contained in the SCAQMD Final 2007 AQMP are revisions to the previous AQMP emission inventories. The revisions to previous years' emissions inventories are a result of improved modeling techniques and emission factors. The following is an excerpt from the SCAQMD 2007 AQMP:

> An effective AQMP relies on an adequate emission inventory. Over the years, significant improvements have been made to quantify emission sources upon which control measures are developed. Increased use of continuous monitoring and source tests has contributed to the improvement in point source inventories. Technical assistance to facilities and auditing of reported emissions by the District also have improved the accuracy of the emissions inventory. Area source inventories that rely on average emission factors and regional activities have inherent uncertainty. Industry specific

> surveys or source-specific studies during rule development have provided much needed refinement to the emissions estimates.[16]

As stated in the 2007 AQMP, emission inventories for the base year (2002), and future projected years were modeled using California Air Resources Control Board's (CARB) EMFAC2007 Version 2.3 for on-road mobile sources.[17] Emission inventories for non-road sources were modeled using CARB's November 1, 2006 OFFROAD model.[18] These particular versions of the models were not available when the 1997/1999 AQMP was developed.

The comment correctly observes that the 2007 AQMP baseline NOx emission estimates for on-road and non-road source categories exceed the conformity budgets from the 1997/1999 South Coast Air Basin portion of the SIP. The comment implies that because the 2007 AQMP baseline is greater than the 1997/1999 budgets, the project's emissions "together with all other emissions in the nonattainment (or maintenance) area"[19] cannot be accounted for within the SIP budget. As detailed below, the 2007 baseline is based on demographic and industry growth figures, such that the proposed Project's emissions were accounted for, given the previous approval of the Specific Plan in 2003. Moreover, the upward adjustment of the baseline emission estimates corresponds to an increase in the SIP NOx emission budget in the 2007 AQMP; and therefore increases the certainty that the proposed Project's emissions are included in the emission budget.

Appendix III from the 2007 AQMP provides the following explanation regarding development of the emissions budgets in the AQMP:

> "Information necessary to produce an emission inventory for the Basin is obtained from the AQMD and other governmental agencies, including CARB, California Department of Transportation (Caltrans), and Southern California Association of Governments (SCAG).
>
> Each of these agencies is responsible for collecting data (e.g., industry growth factors, socio-economic projections, travel activity levels, emission factors, emission speciation profile, emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. Entire statewide emissions inventories are compiled and maintained by CARB in its emission related information databases named California Emission Inventory Development and Reporting System (CEIDARS), and California Emission Forecasting and Planning Inventory System (CEFIS). CARB is the agency responsible for developing the emissions inventory for all the mobile sources. CARB provided on-road and off-road inventories from their EMFAC2007 V2.3 and Off-Road Models in the Final 2007 SCAG and is the primary agency for projecting the growth. Caltrans provides SCAG with information regarding highway projects. SCAG incorporates these data into their Travel Demand

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16 South Coast Air Quality Management District, *Final 2007 Air Quality Management Plan*, (2008) 3-4.

17 *Ibid.*, 3-1.

18 *Ibid.*, 3-1.

19 See 40 C.F.R. Part 93.158.

> Model for estimating/projecting vehicle miles traveled (VMT) and speed. CARB's on-road inventory also relies on SCAG's VMT estimates."[20]

Since the emission budgets in the 2007 AQMP were based on SCAG demographic projections and CARB emission models, the construction impacts associated with the Specific Plan (originally approved in 1999, and finally approved in 2003) were accounted for in the 2007 AQMP emission budgets. Moreover, as explained in the EIS/EIR, the Project would represent a very small fraction of the applicable NOx emissions budgets. Based on the timeline and amount of the NOx emissions at issue, all construction associated with the Newhall Ranch RMDP infrastructure improvements are included in the most recent 2007 AQMP for the SCAB. The upward adjustment of the emission budgets in the 2007 correspond to newer, more accurate, modeling techniques, increase the certainty that the Project was accounted for in the emission budgets, *e.g.*, approximately 0.021 percent to 0.043 percent of the budget -- depending on the year. Because the conformity budget in the 2007 AQMP exceeds that of the 1997/1999 AQMP, the direct Project emissions would be below the levels in the SIP emissions budget for the South Coast Air Basin.[21] Therefore, the direct RMDP (construction) emissions are accounted for in the SIP (*e.g.*, these emissions are well within the emissions budgets for the applicable source categories) and together with all other emissions in the nonattainment area would not be likely to exceed the emissions budgets specified in the SIP. In addition, the 2007 AQMP represents a commitment by the state to revise the SIP in a way that accommodates additional growth and construction activities in the SCAB, including those included in the subject federal action. The 2007 AQMP satisfies the required elements of a SIP revision commitment that supports a positive conformity determination for the proposed Project.[22]

In addition, the direct emissions associated with the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. The Draft General Conformity Determination is included in **Appendix F4.7** of the Final EIS/EIR.

On September 27, 2007, the CARB Board adopted the State Strategy for the 2007 SIP and the 2007 South Coast AQMP as part of the SIP. On August 18, 2009, the USEPA's Acting Regional Administrator for Region 9 signed a proposed rule to grant requests from the State of California to reclassify four 8-hour ozone nonattainment areas as follows: San Joaquin Valley from "serious" to "extreme," South Coast Air Basin from "severe-17" to "extreme," and Sacramento Metro and Coachella Valley from "serious" to "severe-15." This reclassification has been approved by USEPA, and will be effective by June 2010. Therefore, while the conformity budget in the 2007 AQMP exceeds that of the 1997/1999 AQMP, the 2007 AQMP, even with the granting of the reclassification request, would support a finding of conformity for the proposed Project.

Response 70

Please see **Response 69**, above, which addresses this comment.

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[20] Final 2007 AQMP: Appendix III, p. II-1-1 (2007); http://www.aqmd.gov/aqmp/07aqmp/aqmp/Appendix_III.pdf (last visited May 20, 2010).

[21] 40 C.F.R. Part 93.158(a)(5)(i)(A) requires the use of the latest and most accurate emission estimation techniques available. Therefore, it is appropriate to look to the 2007 AQMP for both the baseline emissions data cited by the USEPA and the emission budget.

[22] See 40 C.F.R. § 93.158(a)(5)(i)(B).

Response 71

Please see **Response 69**, above, which addresses this comment.

Response 72

The comment states that the EIS/EIR incorrectly lists the annual NO_X general conformity emission threshold as 10 tons per year. CARB has requested that the USEPA reclassify the South Coast Air Basin from "severe-17" to "extreme" nonattainment for ozone. USEPA has approved the reclassification, but the 10 tons per year threshold that applies to "extreme" nonattainment areas technically does not apply until the effective date of the USEPA's final approval of CARB's reclassification request (to be effective by June 2010). The Draft EIS/EIR utilized the more conservative 10 tons per year threshold in anticipation that the request would be approved. The Final EIS/EIR includes updated **Section 4.7** text to reflect that USEPA has approved the reclassification. The analysis in the Draft EIS/EIR concluded that construction-related NO_X emissions would **not** be de minimis for all analyzed years except 2014 and 2016. (Draft EIS/EIR, **Table 4.7-50**.) The emissions for other pollutants were determined to be below the applicable thresholds for all construction years and, therefore, were found to be de minimis. The comment's request to revise the analysis to reflect the less stringent 25 tons per year threshold is no longer appropriate given the pending reclassification, which will be effective by June 2010.

Response 73

Please see **Response 72**, above, which addresses this comment.

Response 74

The comment correctly notes that the USEPA approved SCAQMD's general conformity rule, Rule 1901, as part of the California SIP. Thus, the mitigation measures relied upon for general conformity determinations in the South Coast Air Basin are federally enforceable under the SIP. Revisions to the first paragraph of Draft EIS/EIR **Subsection 4.7.9** have been made in accordance with this comment, and is included in revised **Section 4.7**, Air Quality, of the Final EIS/EIR.

Response 75

The comment states that the South Coast Air Basin is classified as "maintenance" for NO_2. **Subsection 4.7.9** has been corrected in accordance with this comment.

Response 76

The comment states that the applicable SIP for PM10 is the SCAQMD's 2003 AQMP, which was approved by the USEPA in 2005. Draft EIS/EIR **Subsection 4.7.9** has been updated to reflect this information.

Response 77

Please see **Response 68**, above, which addresses this comment.

Response 78

The comment states that an "alternative test" under 40 C.F.R. section 93.158(a)(5)(i) will need to be met in order to demonstrate general conformity. The comment implies that the Corps cannot rely on the test provided under 40 C.F.R. section 93.158(a)(5)(i)(A); however, the comment does not identify any inadequacy in the Corps' reliance on 40 C.F.R. section 93.158(a)(5)(i)(A). An "alternative test" is not required to demonstrate general conformity, because the Corps has properly relied on the 1997 and 2007 AQMPs to conclude, pursuant to 40 C.F.R. section 93.158(a)(5)(i)(A),[23]

An "alternative test" is not required to demonstrate general conformity because the Corps has properly relied on the 1997/1999 and 2007 AQMPs to conclude, pursuant to 40 C.F.R. § 93.158, subd. (a)(5)(i)(A),[24] that "[t]he total of direct and indirect emissions from the action (or portion thereof) is determined and documented by the State agency primarily responsible for the applicable SIP to result in a level of emissions which, together with all other emissions in the nonattainment (or maintenance) area, would not exceed the emissions budgets specified in the applicable SIP." As noted in **Response 68**, above, data obtained from the SCAQMD was used in the general conformity analysis. According to the written correspondence from the SCAQMD, "the level of detail for the information provided is not in the AQMP documents but is the supporting data that was used to prepare the tables in the AQMP. Appendix III of the 1997 AQMP lists baseline emissions by major source category and does not list controlled emissions at this level of detail." As further noted in **Response 69**, above, the emissions inventories and budgets from the 2007 AQMP are updated versions of previous AQMP inventories using more accurate emissions estimation techniques. The SCAQMD 2007 AQMP is not yet the applicable SIP for conformity purposes because it has not been approved by the USEPA. However, the USEPA states that "the emission estimates contained in the 2007 AQMP represent the most recent emissions estimates available and inform us as to the plausibility of reliance on the budget test under 40 C.F.R. section 93.158(a)(5)(i)(A)." The 2007 AQMP provides revised emissions budgets which include SCAG estimates occurring after the 1999 and 2003 approval, *i.e.*, approval of the Specific Plan by Los Angeles County.

The 2007 AQMP includes a request to voluntarily reclassify to the next higher classification from "severe-17" to "extreme." The reclassification has been approved by USEPA, and will be effective by June 2010. Therefore, while the conformity budget in the 2007 AQMP exceeds that of the 1997/1999 AQMP, the 2007 AQMP, even with the granting of the reclassification request, would likely demonstrate conformity.

As shown in Final EIS/EIR (Revised) **Table 4.7-51**, the analysis indicates that the direct Project emissions are below the levels in the applicable SIP emissions budget for the South Coast Air Basin and that the direct (construction) emissions are accounted for in the SIP (*e.g.*, these emissions are well within the emissions budgets for the applicable source categories) and that, together with all other emissions in the nonattainment area, would not be likely to exceed the emissions budgets specified in the applicable SIP. Moreover, the development associated with the Specific Plan was anticipated by the AQMP emission budgets as part of the demographic projections on which the emission budgets are based. In

[23] The implementing regulations for general conformity are found in Code of Federal Regulations, title 40, part 93, subpart B.

[24] The implementing regulations for general conformity are found in Code of Federal Regulations, title 40, part 93, subpart B.

addition, the 2007 AQMP represents a commitment by the state to revise the SIP in a way that accommodates additional growth and construction activities in the SCAB, including those included in the subject federal action. The 2007 AQMP satisfies the required elements of a SIP revision commitment that supports a positive conformity determination for the proposed Project.[25] Thus, the "alternative test" set forth in 40 C.F.R. § 93.158(a)(5)(i)(B) would also be satisfied.

Based on the conformity analysis included in **Appendix F4.7** of the Final EIS/EIR, the direct emissions associated with the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan (*i.e.*, SIP for South Coast Air Basin) .

Response 79

The comment recommends that additional documentation be provided confirming the assertion that the emissions from the Project are included in the SIP. Based on the analysis performed, emissions from the proposed Project are included in the SIP. As noted in **Response 68** above, the data used in the general conformity analysis were provided by the SCAQMD. According to written correspondence received on October 27, 2009 from Jill Whynot, Director of Strategic Initiatives of the SCAQMD, "the level of detail for the information provided is not in the AQMP documents but is the supporting data that was used to prepare the tables in the AQMP. Appendix III of the 1997 AQMP lists baseline emissions by major source category and does not list controlled emissions at this level of detail. Emission budgets are the emissions after the proposed control measures are implemented." The SCAQMD was contacted as part of the general conformity analysis. Jill Whynot from the SCAQMD confirmed that "the data source of the file that was sent is the 1997 AQMP AA/PL 2020 controlled case run and runs for the years 2007, 2008, 2010, and 2020. Other years in [the file] are interpolated values." This information was included in the Draft EIR as part of the analysis. Based on the analysis performed using data provided by the SCAQMD, emissions from the proposed Project are included in the SIP. To verify the results of the draft conformity determination, the Corps will forward the Draft General Conformity Analysis, included in the Final EIS/EIR, **Appendix F4.7**, to the California Air Resources Board, South Coast Air Quality Management District, and USEPA, for a 30-day review.

See also, **Response 69**, above.

Response 80

The average trip lengths utilized in the Draft EIS/EIR to calculate vehicle miles traveled (VMT) were determined based on the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). (Draft EIS/EIR, **Subsection 4.8.2.2**.) The SCVCTM is a computerized travel demand model that utilizes a sophisticated trip distribution function to derive trip lengths based on demographic data and mathematical functions that consider the amount of trips generated on a zone-by-zone basis, the type of trips generated, and the geographic relationship between these trips and the remainder of trips generated in the modeled area.

The SCVCTM trip distribution calculations are based on the trip distribution functions used by the Southern California Association of Governments (SCAG) for regional traffic modeling efforts. SCAG generally is recognized as the primary source for the trip distribution functions used for traffic modeling in the Southern California region as it maintains its own traffic models and is responsible for the

[25] See 40 C.F.R. § 93.158(a)(5)(i)(B).

preparation of various transportation planning documents, including the "Regional Transportation Plan." As such, the average trip lengths reported in the Draft EIS/EIR, **Section 8.0**, Global Climate Change, were derived by a systematic methodology consistent with other traffic studies that have been prepared using the SCVCTM, such as the joint County of Los Angeles/City of Santa Clarita One Valley One Vision Area Plan/General Plan update currently underway. Please see **Topical Response 10: Vehicle Trip Distribution Methodology**, for a detailed explanation of the SCVCTM trip distribution methodology and related average trip lengths.

With respect to comparative VMT amounts, the 2003 SCAG travel demand model validation report identifies an average home-based-work trip length of 13.67 miles for the SCAG modeling region, and an average home-based-work trip length of 12.48 miles for the Los Angeles region. ("SCAG 2003 Model Validation and Summary: Regional Transportation Model," Table 5-7. A copy of Table 5-7 is included in the Final EIS/EIR, **Appendix F4.8**. The full SCAG report is available for review at http://www.scag.ca.gov/modeling/index.htm.) In comparison, the SCVCTM travel demand model utilized for the Draft EIS/EIR traffic study estimates an average home-based-work trip length of 10.7 miles for the Project area, and 16.6 miles for the portion of the Santa Clarita Valley outside of the Project area. Thus, the trip length estimates derived by the SCVCTM are consistent with the SCAG regional model since the SCAG model estimates an average home-based-work trip length of 12.48 miles for the Los Angeles region, and the SCVCTM model estimates average home-based-work trip lengths of 10.7 to 16.6 miles for the Santa Clarita Valley.

With regard to the South Coast Air Quality Management District (SCAQMD) trip length estimate referenced in the comment, it is important to note that the estimate is for the Los Angeles region generally and is not specific to the proposed Project. As noted in **Topical Response 10: Vehicle Trip Distribution Methodology**, the shorter trip length derived by the SCVCTM for the Project area is a direct result of the Alternative 2 land use plans, which include 9.4 million square feet of non-residential uses that will provide employment, retail, and entertainment opportunities for the approximately 22,000 residential units that would be built. (Draft EIS/EIR, p. 4.8-29.) As a result, approximately 47 percent of the Project tripends will be for internal trips (trips starting and ending on-site), which has the effect of lowering the average VMT for the Project area. Thus, a higher average trip length for the Los Angeles region, generally, is not inconsistent with a lower trip length specific to the proposed Project.

Response 81

Mitigation Measures TR-10 through TR-18 require that the proposed Project and each alternative, as applicable, contribute its fair-share towards improvements to the I-5 that presently are being implemented by Caltrans. Specifically, Caltrans currently is implementing the I-5 HOV & Truck Lanes - SR-14 to Parker Road project (I-5 Improvement Project). The selected Project alternative, and other cumulative development, would be required to contribute its fair-share towards the I-5 Improvement Project, which will add: (1) one HOV lane in each direction on I-5 from the SR-14 interchange north to Parker Road; (2) truck climbing lanes in each direction from the SR-14 interchange to Calgrove Boulevard (northbound) and Pico Canyon Road/Lyons Avenue (southbound); and (3) full auxiliary lanes within portions of the Project study area. A copy of the 2007 traffic study prepared for the I-5 Improvement Project, which describes the improvements in greater detail, was provided in the Draft EIS/EIR, **Appendix 4.8**. (See I-5 PA&ED HOV & Truck Lanes - SR-14 to Parker Road Traffic Study (October 30, 2007); see also Draft EIS/EIR, **Figure 4.8-40**, Long-Range Freeway System for the Los Angeles County Area.) Additional details regarding the I-5 Improvement Project are provided in the "I-5 HOV/Truck Lanes Project SR-14 to

Parker Road Final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact" (SCH No. 2007051028) (September 2009) (I-5 HOV/Truck Lanes Project Final EIR.) Excerpts of the I-5 HOV Truck Lanes Project FEIR, with associated Notice of Determination, are included in Final EIS/EIR, **Appendix F4.8**.

As to the status of the I-5 Improvement Project, Caltrans prepared and certified the Final EIR for the I-5 HOV/Truck Lanes Project in September 2009, which analyzed the HOV lanes, along with all other aspects of the Project, and approved the Project. The environmental studies and preliminary engineering work for the project have been completed, the project is included in the 2008 Regional Transportation Plan and is fully funded, and construction is anticipated to begin in 2011, with completion scheduled for 2015. ("I-5 HOV/Truck Lanes Project Final EIR," pages 1-2, 1-22.) With implementation of the I-5 Improvement Project, the impacted segments of I-5 would operate at acceptable levels of service. (See Draft EIS/EIR, **Table 4.8-28** and **Table 4.8-29**.) A project's contribution to a cumulative impact is deemed less than significant if the project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact. (*E.g.*, State CEQA Guidelines, § 15130, subd. (a)(3).)

As to the impacted arterials, Mitigation Measure TR-1 provides that Newhall is fully responsible to design and construct the subject improvement; no third party funding is required. The improvements subject to Mitigation Measures TR-2 through TR-7 either will be included in a Westside Bridge & Thoroughfare (B&T) District, if formed, or will be fully constructed by Newhall, subject to reimbursement from other development, to mitigate the significant impacts of the proposed Project and other Newhall projects in the vicinity. (See Draft EIS/EIR, pp. 4.8-25, 4.8-103.) The improvements addressed by mitigation measures TR-8 and TR-9 are included within the Eastside and Valencia B&T districts, respectively. These B&T districts are full-improvement districts, which means the collected B&T fees, combined with other funding sources, have been calculated to cover all improvements necessary to construct the improvements. (See Draft EIS/EIR, p. 4.8-25.)

With respect to the comment that there is no assurance that the I-5 mitigation improvements would be funded by third parties or even Newhall, upon project approval, CDFG would adopt a mitigation monitoring or reporting program, pursuant to Public Resources Code section 21081.6, to ensure that the mitigation measures and project revisions it has adopted to mitigate or avoid significant impacts of the project are implemented, consistent with CDFG's regulatory jurisdiction under CESA and California Fish & Game Code section 1600 *et seq*. CDFG will also make all findings required by Public Resources Code section 21081 prior to making a final decision on the proposed Project. Similarly, the Corps would adopt a monitoring program, pursuant to 33 C.F.R. Part 325, Appendix B, paragraph 21, to ensure that any mitigation measures it has adopted in the Record of Decision to avoid or mitigate significant impacts are implemented, consistent with the Corps' regulatory authority under section 404 of the CWA.

Response 82

As explained above in **Response 81**, the environmental studies and preliminary engineering work for the I-5 Improvement Project have been completed, and project construction is scheduled to begin in 2012.

Response 83

Please see **Response 81**, above. With respect to the legal cases cited in the comment, the circumstances in each case were such that there was substantially less assurance that the mitigation improvements at issue actually would be implemented and reduce the identified impacts than is the case here. For example, here, the Draft EIS/EIR provides substantial details regarding the proposed mitigation roadway improvements (*i.e.*, the I-5 Improvement Project), and evidence that with implementation of the I-5 Improvements Project, the identified significant impacts would be reduced to below significant (see Draft EIS/EIR, **Table 4.8-28** and **Table 4.8-29**). This is unlike the Environmental Assessment at issue in *O'Reilly v. U.S. Army Corps of Eng'rs*, 477 F.3d 225, 234 (5th Cir. 2007), which the court found to be inadequate for providing only "cursory detail" as to what the mitigation measures were and how they would reduce the impacts to a less than significant level. Additionally, unlike the mitigation measures at issue in *NRDC v. U.S. Army Corps of Eng'rs*, 457 F.Supp.2d 198, 220, 226 (S.D.N.Y. 2006), the Draft EIS/EIR mitigation measures provide "some level of assurance as to their efficacy" - the likely effectiveness of the measures has been considered, and an MMRP will be adopted ensuring the Project applicant's compliance with the mitigation. Additionally, unlike the mitigation at issue in *Ohio Valley Envt'l Coalition v. Hurst*, 604 F.Supp.2d 860, 889 (S.D.W.Va. 2009), in which the Corps did not rely on any specific mitigation measures tailored to the impacts, but instead relied on a review process that would identify necessary and appropriate mitigation measures at a later time, the Draft EIS/EIR in this case identifies specific mitigation measure roadway improvements that are in the process of presently being implemented. Thus, like the mitigation measures upheld in *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F.3d 1105, 1121 (9th Cir. 2000), the mitigation measures in this case are "developed to a reasonable degree" and are adequate under both NEPA and CEQA.

Further, although the Corps is not subject to CEQA, it is relevant to note that the State CEQA Guidelines specifically recognize that requiring a project to fund its fair share of a measure designed to mitigate cumulative impacts is an effective way to address the project's contribution to the impact. (See State CEQA Guidelines, § 15130, subd. (a)(3).) So long as fair-share mitigation is "part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing," it is adequate under CEQA. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173.) As noted in **Response 81**, above, Caltrans is currently implementing the I-5 HOV & Truck Lanes - SR-14 to Parker Road project, with project construction scheduled to begin in 2012. Therefore, Mitigation Measures TR-10 to TR-18 meet CEQA's requirements for fair-share mitigation.

Response 84

The comment recommends that the Final EIS include assurances of mitigation measures that reduce traffic are feasible and within the control of Newhall to fund and implement within a timeframe that would effectively offset traffic impact. As explained in **Responses 81 through 83**, above, the Draft EIS/EIR provides a rational basis to conclude that Mitigation Measures TR-10 through TR-18 are feasible and that the subject road improvements will be implemented within a timeframe that would effectively offset the identified traffic impacts. CDFG would adopt a mitigation monitoring or reporting program, pursuant to Public Resources Code section 21081.6, to ensure that the mitigation measures and project revisions it has adopted to mitigate or avoid significant impacts of the project are implemented, consistent with CDFG's regulatory jurisdiction under CESA and California Fish & Game Code section 1600 *et seq*. CDFG will also make all findings required by Public Resources Code section 21081 prior to making a final decision on the proposed Project. Similarly, the Corps would adopt a monitoring program, pursuant

to 33 C.F.R. Part 325, Appendix B, paragraph 21, to ensure that any mitigation measures it has adopted in the Record of Decision to avoid or mitigate significant impacts are implemented, consistent with the Corps' regulatory authority under section 404 of the CWA.

Response 85

The comment commends the applicant for committing to preservation of the 4,205-acre High Country Special Management Area (SMA), and restates information contained in the Draft EIS/EIR related to the terms under which the High Country would be dedicated for preservation. The comment also states that the reason for the phased dedication of the High Country is unclear from the description provided in **Section 2.0** of the Draft EIS/EIR. Dedication of the High Country SMA to a Joint Powers Authority (JPA) for preservation in perpetuity was required as a condition of approval for the Specific Plan at the time the County approved that Project in 2003. Because the proposed Project would be implemented over a period of approximately 20 years or more, many of the proposed Project's impacts would not occur up-front, and would be delayed due to the prolonged construction timeline. Therefore, offering a phased dedication of mitigation land would be consistent with the timing of the impacts that would occur. Further, revised Mitigation Measure BIO-2 would ensure that any temporal losses are mitigated, by requiring mitigation ratios based upon the time elapsed between the time habitats are impacted and the time mitigation sites are established.

Response 86

The comment states USEPA's concern that the phased dedication of the High Country SMA for preservation would prevent full realization of the High Country until a certain number of building permits are granted. As stated in **Response 85**, above, the proposed Project would be implemented over a period of years. The phased dedication of the High Country, as required by the County as a condition of Specific Plan approval, would provide for the preservation of mitigation land as development occurs, thereby mirroring the long-term nature of the proposed Project.

Response 87

The comment summarizes **Comments 85** and **86**, and recommends that the Final EIS/EIR should describe the rationale for phasing dedication of the High Country as building permits are issued, and explain the how the High Country SMA will be managed prior to issuance of the specified building permits.

As stated previously, phased dedication of the High Country was a condition of approval required by the County for the Specific Plan. For information regarding the phasing process and rationale, please refer to the Newhall Ranch Specific Plan Program EIR, incorporated by reference in the Draft EIS/EIR.

Response 88

The comment requests that additional information explaining the phasing of High Country SMA dedication will occur as building permits are issued, and how the High Country would be managed in the interim.

For clarification, prior to the issuance of building permits, the following actions would occur: a conservation and public access easement would be offered to the County of Los Angeles and a

conservation and management easement would be offered to the Center for Natural Lands Management. The High Country SMA conservation and public access easement would prohibit grazing (except for grazing associated with long-term resource management), and restrict recreation to established trails. The High Country SMA would also be offered for dedication to a JPA and a service or assessment district would be formed to fund recreation, maintenance, construction, conservation and related activities within the High Country SMA. Assessment revenue would be distributed to the JPA to fund activities associated with open space management. These actions would be implemented pursuant to Specific Plan Mitigation Measures (SP 4.6-37, SP 4.6-38, SP 4.6-39, SP 4.6-40, SP 4.6-41, and SP 4.6-42).

Response 89

The comment refers to a large permanent impact zone along the Santa Clara River north of Potrero Canyon (as depicted in **Figure 2.0-25** in the Draft EIS/EIR), describes the importance of this area as part of the contiguous riparian corridor along the river, with mature riparian vegetation that provides habitat for special-status plant and animal species, and states that impacts to this area should be avoided.

The Draft EIS/EIR evaluated a range of alternatives to the proposed RMDP, including several alternatives (*i.e.*, Alternatives 3, 4, and 7) that would substantially lessen the proposed Project's impacts in this area. Further, the Corps' draft 404(b)(1) alternatives analysis, found in **Appendix F1.0** to the Final EIS/EIR, provides a detailed evaluation of the practicability of avoiding impacts in this area. The Draft LEDPA presented in the Final EIS/EIR and draft 404(b)(1) alternatives analysis would include substantial additional avoidance in this area, due to elimination of the bridge across the river at Potrero Canyon Road and associated adjustments to proposed land uses. **Figure 2.0-25** depicts impacts areas in the Santa Clara River. Although CDFG streambed jurisdiction includes riparian areas adjacent to the river, not all of this riparian area is within the Corps' jurisdiction. Permanent impacts to the area identified in this comment would be reduced from 9.7 acres under the proposed Project to 1.7 acres under the Draft LEDPA, an 82.5 percent reduction. Please see **Response 90** regarding mitigation for impacts to riparian habitat.

Response 90

The comment states that even with mitigation, mature riparian vegetation can take several years to replace temporal losses to a variety of species.

Temporal losses of habitat function were addressed in the Draft EIS/EIR in **Sections 4.5** and **4.6**. To address temporal impacts and to increase the level of certainty associated with any required compensatory mitigation, the Corps would require up-front compensatory mitigation at a minimum 1:1 ratio of functional units lost prior to any permanent impacts to waters of the United States as well as concurrent mitigation throughout construction activities in jurisdictional areas associated with the proposed Project and alternatives. In addition, these impacts were mitigated through a suite of proposed measures, including revised Mitigation Measure BIO-2, which would require higher mitigation ratios depending on the type of habitat lost and the time elapsed between the impact and establishment of a mitigation site.

Response 91

The comment states that the Final EIS/EIR should assess an alternative, such as Alternative 7, that avoids impacts to riparian areas along the Santa Clara River.

The Corps' draft 404(b)(1) alternatives analysis, presented in **Appendix F1.0** to this Final EIS/EIR, evaluated several alternatives, including Alternative 7, to determine the Draft LEDPA. The results of this draft analysis indicated that Alternative 7 would be impracticable because it would fail to meet the overall project purpose, would be unreasonably costly, and would pose unacceptable public safety risks. However, the Draft LEDPA identified in the analysis includes substantial additional avoidance of riparian habitats adjacent to the river.

Response 92

The comment states that the Final EIS/EIR should commit to avoiding the large riparian area north of the proposed Potrero Canyon Road bridge.

The Draft LEDPA, as identified in the Final EIS/EIR draft 404(b)(1) alternatives analysis, removes the Potrero Canyon Road bridge from the proposed Project design and would avoid the large riparian area as suggested by the USEPA. However, the Corps and CDFG have not yet made a final determination regarding the proposed Project. The USEPA's comment will be made available to Corps and CDFG decision makers prior to making a decision on the proposed Project.

Response 93

The comment restates information contained in the Draft EIS/EIR related to impacts on sensitive species that would be lessened by implementation of Alternative 7 rather than the proposed Project. The comment serves to introduce **Comment 94**, but does not address the adequacy of the Draft EIS/EIR; no further response is provided.

Response 94

The comment indicates USEPA's concurrence with the conclusion in the Draft EIS/EIR that Alternative 7 would result in substantially less impact on sensitive species compared to the proposed Project, and recommends that the Corps and CDFG adopt Alternative 7. Alternative 7 was evaluated in detail in the Corps' draft 404(b)(1) alternatives analysis, and is understood to be impracticable because it would fail to meet the overall project purpose, would be unreasonably costly, and would present unacceptable public safety risks. The USEPA's suggestion will be made available to Corps and CDFG decision makers prior to making a decision on the proposed Project.

Response 95

The Corps and CDFG acknowledge your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 96

The comment states that the Final EIS/EIR's global climate change analysis should clarify that the air quality-related mitigation measures recommended in **Section 4.7**, Air Quality, of the Draft EIS/EIR also would result in reductions in greenhouse gas emissions.

In response, to preface, the comment is correct in noting that the global climate change analysis presented in **Section 8.0** of the Draft EIS/EIR did not take quantitative credit for reductions in greenhouse gas

emissions attributable to the recommended air quality mitigation measures. In that regard, the greenhouse gas emissions inventory and subsequent analysis are conservative.

Based on a review of the mitigation measures set forth on pages 4.7-113 through 4.7-127 of the Draft EIS/EIR, the following air quality mitigation measures would result in greenhouse gas emission reductions during the construction phase (a brief explanation of the basis for the anticipated emission reductions also is provided in *italics* following each measure):

SP-4.10-6 The applicant of future subdivisions shall implement all rules and regulations adopted by the Governing Board of the SCAQMD which are applicable to the development of the subdivision (such as Rule 402 - Nuisance, Rule 403 - Fugitive Dust, Rule 1113 - Architectural Coatings) and which are in effect at the time of development.

The purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of man-made fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust such as the mass and remedial grading associated with the project as well as weed abatement and stockpiling of construction materials (*i.e.*, rock, earth, gravel). Rule 403 requires that grading operations either (1) take actions specified in Tables 1 and 2 of the Rule for each applicable source of fugitive dust and take certain notification and record keeping actions; or (2) obtain an approved Fugitive Dust Control Plan. A complete copy of the SCAQMD's Rule 403 Implementation Handbook, which has been included in Appendix 4.10, provides guideline tables to demonstrate the typical mitigation program and record keeping required for grading operations (Tables 1 and 2 and sample record keeping chart). The record keeping is accomplished by on-site construction personnel, typically the construction superintendent. Each future subdivision proposed in association with the Newhall Ranch Specific Plan shall implement the following if found applicable and feasible for that subdivision:

Grading

. . .

Paved Roads

. . .

Unpaved Roads

. . .

l. Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, 150 total daily trips for all vehicles.

m. Pave all construction access roads at least 100 feet on to the site from the main road.

n. Pave construction roads that have a daily traffic volume of less than 50 vehicular trips.

[Fuel efficiency is improved on paved roads, thereby leading to a reduction in the operating emissions associated with mobile construction equipment.]

SP-4.10-7 Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's CEQA Air Quality Handbook, as amended) shall be implemented if found applicable and feasible for that subdivision. Tables of currently applicable measures are provided for reference in EIR Appendix 4.10.

On-Road Mobile Source Construction Emissions:

a. Configure construction parking to minimize traffic interference.

b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (*e.g.*, signage, flag person, detours).

c. Schedule construction activities that affect traffic flow to off-peak hours (*e.g.*, between 7:00 P.M. and 6:00 A.M. and between 10:00 A.M. and 3:00 P.M.).

d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees.

e. Implement a shuttle service to and from retail services and food establishments during lunch hours.

f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets:

- Rerouting construction traffic off congested streets;

- Consolidating truck deliveries; and

- Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.

g. Prohibit truck idling in excess of two minutes.

*[These measures would improve fuel efficiency and limit idling by providing for uninterrupted means of travel. In addition, with respect to paragraph (d), above, the emissions inventory presented in **Section 8.0** of the Draft EIS/EIR assumed that each construction worker would travel in his/her own car. By achieving a 1.5 average vehicle ridership level, worker commuting emissions may decrease by up to 33 percent.]*

Off-Road Mobile Source Construction Emissions:

h. Use methanol-fueled pile drivers.

. . .

j. Prevent trucks from idling longer than two minutes.

k. Use electricity from power poles rather than temporary diesel-powered generators.

l. Use electricity from power poles rather than temporary gasoline-powered generators.

m. Use methanol- or natural gas-powered mobile equipment instead of diesel.

n. Use propane- or butane-powered on-site mobile equipment instead of gasoline.

[These measures would result in the use of less greenhouse gas emitting fuels and energy sources, and limit idling-related emissions.]

AQ-2 Develop a Construction Traffic Emission Management Plan to minimize emissions from vehicles including, but not limited to, scheduling truck deliveries to avoid peak hour traffic conditions, consolidating truck deliveries, and prohibiting truck idling in excess of 5 minutes.

[This measure would improve overall efficiency levels, by consolidating the number of deliveries, limit idling, and schedule deliveries so as to avoid congested travel times, all of which would reduce greenhouse gas emissions.]

AQ-4 Use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment, to the extent feasible.

[This measure would result in the use of electricity instead of on-site fuels. Per unit of output power, electricity emits less greenhouse gases than diesel.]

AQ-5 Maintain construction equipment by conducting regular tune-ups according to the manufacturers' recommendations.

[This measure would improve overall fuel efficiency levels, and reduce greenhouse gas emissions, by ensuring that the construction equipment is properly maintained and serviced.]

AQ-6 Use electric welders to avoid emissions from gas or diesel welders, to the extent feasible.

[This measure would result in the use of electricity instead of on-site fuels. Per unit of output power, electricity emits less greenhouse gases than diesel.]

AQ-7 Use on-site electricity or alternative fuels rather than diesel-powered or gasoline-powered generators, to the extent feasible.

[This measure would result in the use of electricity instead of on-site fuels. Per unit of output power, electricity emits less greenhouse gases than diesel.]

AQ-11 Schedule construction activities that affect traffic flow to off-peak hours (*e.g.*, between 7:00 PM and 6:00 AM, and between 10:00 AM and 3:00 PM).

[This measure would improve overall efficiency levels by scheduling deliveries so as to avoid congested travel times, which would reduce greenhouse gas emissions.]

Response 97

The comment recommends that the Final EIS/EIR clarify that mitigation measures designed to reduce air quality impacts from construction also would reduce greenhouse gas emissions. The comment further recommends that the lead agencies consider quantifying the reductions associated with such measures.

First, please see **Response 96**, above, for related information and a list of the **Section 4.7** air quality mitigation measures that also would reduce construction-related greenhouse gas emissions. Second, while the Corps and CDFG acknowledge the comment's suggestion that the emission reductions anticipated from the referenced air quality mitigation measures be quantified, the environmental consultant, ENVIRON International Corporation (ENVIRON), retained to study the potential impacts of the proposed Project on global climate change has determined that the quantification of such reductions would be difficult and, in some instances, could lead to speculation.

With that said, the emissions inventory presented in the Draft EIS/EIR is conservative in that it does not take credit for emission reductions that would result from implementation of the identified air quality mitigation measures. Further, because the proposed Project would not result in a significant impact to global climate change, based on the current emissions inventory, inclusion of the reductions expected from the identified measures in the emissions inventory would further confirm that the proposed Project's impacts are not significant by reducing the emissions inventory quantity.

Response 98

The comment states that the discussion of the existing regulatory setting in the Final EIS/EIR should be updated to account for the USEPA's issuance, on April 17, 2009, of the "Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act" (Proposed Finding).

To preface, the regulatory setting for global climate change is evolving on a continual basis, making it challenging for environmental documents to stay entirely current. With that said, the lead agencies readily acknowledge the import of the USEPA's advances in the regulation of greenhouse gas emissions, including the referenced Proposed Finding, which was adopted on December 7, 2009. In an effort to identify and disclose relevant regulatory developments since circulation of the Draft EIS/EIR for public review, **Section 8.0** of the Final EIS/EIR includes an updated discussion of the regulatory setting, and addresses the Proposed Finding, as well as other statewide, regional, and local regulatory items of interest. Please also see **Topical Response 13: Global Climate Change Update**, which briefly summarizes the most important regulatory developments.

Response 99

The comment states that the Final EIS/EIR should include a commitment to place individual photovoltaic systems on all residential and non-residential buildings that would be enabled by approval of the EIS/EIR and proposed Project. Specifically, the comment encourages the Project applicant to maximize the use of photovoltaic systems not only on single-family residential homes and every 1,600 square feet of non-residential roof area (as provided for in Mitigation Measures GCC-3 and GCC-4), but also to provide systems on multi-family residential units and non-residential roof area less than 1,600 square feet.

The comment references Mitigation Measures GCC-3 and GCC-4, which provide:

GCC-3 The Project applicant or designee shall produce or purchase renewable electricity, equivalent to the installation of one 2.0 kilowatt photovoltaic (*i.e.*, solar) power system, when undertaking the design and construction of each single-family detached residential unit on its land holdings that is facilitated by approval of the proposed Project; or, at the applicant's option, prior to commencing construction of any new phase of any individual subdivision, the applicant shall secure offsets or credits for carbon dioxide equivalents from either the Climate Action Reserve of the California Climate Action Registry, the Chicago Climate Exchange, or similar reserve/exchange; or, alternatively, at the applicant's option, the applicant may pay to the South Coast Air Quality Management District (District) the equivalent amount of funds that would be due to buy credits from the Climate Action Reserve, Chicago Climate Exchange, or similar reserve/exchange for greenhouse gas emission mitigation purposes. In any case, installation of individual photovoltaic systems shall be considered when undertaking the design and construction of residential buildings on the Project site.

GCC-4 The Project applicant or designee shall produce or purchase renewable electricity equivalent to the installation of one 2.0 kilowatt photovoltaic system on each 1,600 square feet of nonresidential roof area provided on the Project site; or, at the applicant's option, prior to commencing construction of any new phase of any individual subdivision, the applicant shall secure offsets or credits for carbon dioxide equivalents from either the Climate Action Reserve of the California Climate Action Registry, the Chicago Climate Exchange, or similar reserve/exchange; or, alternatively, at the applicant's option, the applicant may pay to the South Coast Air Quality Management District (District) the equivalent amount of funds that would be due to buy credits from the Climate Action Reserve, Chicago Climate Exchange, or similar reserve/exchange for greenhouse gas emission mitigation purposes. In any case, installation of individual photovoltaic systems shall be considered when undertaking the design and construction of nonresidential buildings on the Project site.

(Draft EIS/EIR, **Subsection 8.6.2**, Additional Project-Specific Mitigation Measures Proposed by this EIS/EIR, p. 8.0-110.)

As provided in the mitigation measures, the Project applicant (or designee) has some flexibility when ultimately deciding whether to install photovoltaic equivalent systems *or* secure offsets/carbon credits (either directly or via the South Coast Air Quality Management District). This flexibility is provided for, in part, because renewable power, such as small solar systems, may not be the most cost-effective greenhouse gas saving measure or the most cost-effective means of generating renewable power. (See, *e.g.*, U.S. Greenhouse Gas Abatement Mapping Initiative, *Reducing U.S. Greenhouse Gas Emissions:*

How Much at What Cost? (December 2007), Exhibit B, p. xiii, available at: http://www.mckinsey.com/clientservice/ccsi/pdf/US_ghg_final_report.pdf, which is incorporated by reference.)

Moreover, solar energy technology and the associated costs are evolving due to the rapidly changing exploration of renewable energy resources and their relative efficiencies; therefore, the above flexibility is desirable.

In summary, in lieu of providing an absolute commitment to install photovoltaic equivalent systems, the lead agencies believe the better approach is to retain some inherent flexibility in the referenced mitigation measures, while firmly committing to obtaining the emission reductions associated with the renewable energy resources.

Response 100

The comment suggests that a solar option be provided to buyers for all homes, including those on land for which an application for a tentative subdivision map has been deemed complete *before* January 1, 2011.

To preface, the Draft EIS/EIR currently recommends adoption of the following mitigation measure:

GCC-5 Consistent with the Governor's Million Solar Roofs Plan, the Project applicant or designee, acting as the seller of any single-family residence constructed as part of the development of at least 50 homes that are intended or offered for sale, shall offer a solar energy system option to all customers that enter negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011. The seller shall disclose the total installed cost of the solar energy system option, and the estimated cost savings.

(Draft EIS/EIR, **Subsection 8.6.2**, Additional Project-Specific Mitigation Measures Proposed by this EIS/EIR, p. 8.0-110.)

As indicated, this measure is intended to be consistent with the Governor's Million Solar Roofs Plan. (For further information on the Governor's Plan, please see http://gov.ca.gov/index.php?/press-release/3588/, which is incorporated by reference.) Senate Bill 1 furthered the applicability of the Governor's Plan and resulted in the enactment of Public Resources Code section 25405.5, subdivision (b), which provides:

> "A seller of production homes shall offer a solar energy system option to all customers that enter into negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete on or after January 1, 2011, and disclose the following:
>
> (1) The total installed cost of the solar energy system option.
>
> (2) The estimated cost savings associated with the solar energy system option . . ."

(Pub. Resources Code, § 25405.5, subd. (b).) Mitigation measure GCC-5 is based on the referenced section of the Public Resources Code.

While existing law does not require the Project applicant to provide a solar energy system option prior to January 1, 2011, the Project applicant is committed to offering a solar energy system option irrespective of the tentative map completion date, as recommended in the comment. Mitigation measure GCC-5 has been revised accordingly below, with deletions shown in ~~strikeout~~:

GCC-5 Consistent with the Governor's Million Solar Roofs Plan, the Project applicant or designee, acting as the seller of any single-family residence constructed as part of the development of at least 50 homes that are intended or offered for sale, shall offer a solar energy system option to all customers that enter negotiations to purchase a new production home constructed on land for which an application for a tentative subdivision map has been deemed complete ~~on or after January 1, 2011~~. The seller shall disclose the total installed cost of the solar energy system option, and the estimated cost savings.

Also, please note that California has demonstrated a firm commitment to the development and expansion of renewable energy resources. For example, the Governor's Plan has been incorporated into the California Solar Initiative (CSI), which is overseen by the California Public Utilities Commission (CPUC) and provides incentives for solar system installations to customers of the state's three investor-owned utilities: Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas and Electric. (The Project site is within Southern California Edison's service territory.) The CSI program provides upfront incentives for solar systems installed on existing residential homes, as well as existing and new commercial, industrial, government, non-profit, and agricultural properties.

The CSI program was authorized by the CPUC through a number of regulatory decisions throughout 2006. In addition, the Legislature expressly authorized the CPUC to create the California Solar Initiative in 2006 in Senate Bill 1 (Murray). When it launched in January 2007, the CSI Program built upon nearly 10 years of state support for solar. The CSI program has a budget of $2.167 billion over 10 years, and the goal is to reach 1,940 megawatts (MW) of installed solar capacity by the end of 2016. The goal includes 1,750 MW of capacity from the general market program, as well as 190 MW of capacity from the low income programs. (For further information on the Million Solar Roofs Plan/California Solar Initiative, please see http://www.cpuc.ca.gov/PUC/energy/Solar/, which is incorporated by reference.)

In addition, established in 2002 under Senate Bill 1078 and accelerated in 2006 under Senate Bill 107, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires electric corporations to increase procurement from eligible renewable energy resources by at least 1 percent of their retail sales annually, until they reach 20 percent by 2010. Further, Governor Schwarzenegger signed an Executive Order, on September 15, 2009, directing the California Air Resources Board (CARB) to adopt regulations increasing California's RPS to 33 percent by 2020. For further information on Executive Order No. S-21-09, please see http://gov.ca.gov/executive-order/13269/, which is incorporated by reference.

Response 101

The comment recommends that Mitigation Measures GCC-3, GCC-4, and GCC-5 be revised to maximize the installation of individual photovoltaic systems for all types of residential buildings and all sizes of non-residential buildings that may be facilitated by approval of the EIS/EIR and proposed Project. Please see **Response 99** and **Response 100**, above, for information responsive to this comment. The comment

will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 102

The comment, which recommends that the EIS/EIR incorporate additional commitments that target greenhouse gas emission reductions, energy conservation, water conservation, and indoor air quality, is an introduction to specific comments that follow. Please see **Response 103 through 109**, below, for responsive information. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 103

The comment refers to the USEPA's ENERGY STAR program; per the comment, a home must be at least 15 percent more energy efficient than homes built to the International Residential Code (IRC) standards and include additional energy-saving features that typically make them 20 to 30 percent more efficient than standard homes in order to receive an ENERGY STAR rating. The comment further notes that California's energy codes (Title 24 of the California Code of Regulations) are updated every three years, and states that Title 24 requires buildings to exceed code standards by 15 percent.

First, residential buildings constructed in California are subject to Title 24 of the California Code of Regulations, and not the IRC. California's building efficiency standards (along with those for energy efficient appliances) have saved more than $56 billion in electricity and natural gas costs since 1978. It is estimated the standards will save an additional $23 billion by 2013. (For further information, please see http://www.energy.ca.gov/title24/, which is incorporated by reference.)

Second, the comment incorrectly suggests that existing state law requires project applicants to exceed Title 24 standards by 15 percent; such an exceedance would be voluntary, in the absence of some regional or local regulation requiring otherwise. (For example, the County of Los Angeles has adopted a green building ordinance requiring the exceedance of 2005 Title 24 standards by 15 percent. For further information, please see http://planning.lacounty.gov/green, and http://planning.lacounty.gov/assets/upl/project/green_starter-package.pdf, which are incorporated by reference.)

Response 104

The comment states that the Final EIS/EIR should be revised to reflect that an update to Title 24 (*i.e.*, the 2008 standards) will take effect on January 1, 2010.

To preface, the lead agencies acknowledge that since circulation of the Draft EIS/EIR for public review and comment, the California Energy Commission has adopted new Title 24 standards. At the time the analysis initially was prepared, the 2005 standards were in effect; however, as indicated in the comment, the 2008 standards became effective on January 1, 2010.

As stated by the California Energy Commission, the 2008 Title 24 standards were adopted for a "number of compelling reasons:"

- "To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.

- To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020.

- To pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.

- To act on the findings of California's Integrated Energy Policy Report (IEPR) that [Building Energy Efficiency] Standards are the most cost effective means to achieve energy efficiency, expects the Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.

- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.

- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards."

(California Energy Commission website, 2008 Building Energy Efficiency Standards, http://www.energy.ca.gov/title24/2008standards/ (last visited September 14, 2009), which is incorporated by reference.) The above criteria demonstrate that the 2008 standards were adopted in direct response to mandates and goals calling for the reduction of greenhouse gas emissions from residential and nonresidential buildings throughout the State of California.

While the California Energy Commission is striving to place California on the trajectory towards achieving its emission reduction mandates, through the adoption of more stringent building criteria, the Project applicant is committed to exceeding the Title 24 standards currently deemed appropriate and adequate by the California Energy Commission at this time. Specifically, in light of the import of building energy efficiency standards to reducing California's carbon footprint and the developing building methods that have made higher energy efficiency more technically feasible, the project design features and corresponding mitigation measures presented in the Draft EIS/EIR have been revised to express the Project applicant's commitment to exceed the Title 24 standards by 15 percent. As build-out of the development that would be facilitated by approval of the EIS/EIR would occur over an extended horizon, the Project applicant's commitment, incorporated via mitigation measures, is to exceed whatever is the currently applicable version of the Title 24 standards by 15 percent.

The specific revisions to Mitigation Measures GCC-1 and GCC-2 follow below, with additions shown in underline and deletions in ~~strikeout~~:

GCC-1 All residential buildings on the Project applicant's land holdings that are facilitated by approval of the proposed Project shall be designed to provide improved insulation and ducting, low E glass, high efficiency air conditioning units, and radiant barriers in attic spaces, as needed, or equivalent to ensure that all residential buildings operate at levels fifteen percent (15%) better than the standards ~~presently~~ required by the version of Title 24 ~~(2005)~~ applicable at the time the building permit applications are filed.

GCC-2 All commercial and public buildings on the Project applicant's land holdings that are facilitated by approval of the proposed Project shall be designed to provide improved insulation and ducting, low E glass, high efficiency HVAC equipment, and energy efficient lighting design with occupancy sensors or equivalent to ensure that all commercial and public buildings operate at levels fifteen percent (15%) better than the standards ~~presently~~ required by the version of Title 24 ~~(2005)~~ applicable at the time the building permit applications are filed.

ENVIRON's "Climate Change Technical Addendum," which is found in **Appendix F8.0** of the Final EIS/EIR, accounts for the Project applicant's commitment relative to the 2008 Title 24 standards in the updated greenhouse gas emissions inventory for the proposed Project. In addition, **Section 8.0** of the Final EIS/EIR identifies the emission estimates, as revised by adherence to and exceedance of the 2008 Title 24 standards. Finally, **Topical Response 13: Global Climate Change Update**, provides information relative to the improved building energy efficiency standards and the associated emission reductions.

It also is important to acknowledge the conservative nature of the emissions inventory. Increasingly more stringent building standards will be phased-in as the Title 24 residential and nonresidential building standards are revisited periodically by the California Energy Commission to allow for the consideration and possible incorporation of new energy efficiency technologies and methods. Because the emissions inventory assumes that all build-out that would be facilitated by the proposed Project would be subject to the 2008 standards, the estimates are conservative because various aspects of the development facilitated by the proposed Project will be subject to subsequent (and more restrictive) versions of the Title 24 standards, thereby reducing the emissions inventory.

Response 105

The comment states that the Final EIS/EIR should include a commitment to achieve ENERGY STAR status by constructing buildings that are 15 percent more efficient than the most current Title 24 standard. Please see **Response 104**, above, which states that the Project applicant's commitment, relative to Title 24, has been revised to provide that the residential and non-residential buildings enabled by approval of the EIS/EIR shall exceed whatever is the currently applicable version of the Title 24 standards by 15 percent. While not an ENERGY STAR commitment, this commitment is consistent with the comment's recommendation (*i.e.*, to construct buildings 15 percent better than Title 24 requires). The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 106

The comment states that the Project applicant should commit, via adoption of a mitigation measure, to achieving the USEPA's ENERGY STAR rating for new homes. Please see **Response 104**, above, which states that the Project applicant's commitment, relative to Title 24, has been revised to provide that the residential and non-residential buildings enabled by approval of the EIS/EIR shall exceed whatever is the currently applicable version of the Title 24 standards by 15 percent. While not an ENERGY STAR commitment, this commitment is consistent with the comment's recommendation that the Project applicant should pursue energy efficient design. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 107

The comment states that the Final EIS/EIR should include a commitment to exceed the 2008 Title 24 standards by 15 percent, and further commit to always exceed the most current Title 24 standards by 15 percent for the duration of Project build-out. Please see **Response 104**, above, which states that the Project applicant's commitment, relative to Title 24, has been revised to provide that the residential and non-residential buildings enabled by approval of the proposed Project and certification of the EIS/EIR shall exceed whatever is the currently applicable version of the Title 24 standards by 15 percent.

Response 108

The comment states that the Project applicant should consider attending the ENERGY STAR Qualified Homes training on September 11, 2009 in Irwindale, California. The comment does not raise any issue that would appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project. However, because the comment does not raise an environmental issue, no further response is provided.

Response 109

The comment identifies a number of voluntary programs and resources (*e.g.*, Indoor airPLUS, see http://epa.gov/indoorairplus/), and conservation efforts (*e.g.*, referenced water conservation program at Shappell Homes' Alamo Creek development in Danville, California) for consideration by the lead agencies and Project applicant. As the comment does not raise any issue relating to the adequacy of the environmental analysis in the Draft EIS/EIR, no further response is provided that said, the Corps and CDFG acknowledge and appreciate your input and comment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 110

The comment restates the letter submitted by the USEPA Water Division commenting on the Corps' Public Notice for the Project, dated August 24, 2009 (Letter 004), in full. The responses to the comments contained in that letter will not be restated here; please refer to the responses to letter from USEPA Water Division, dated August 24, 2009 (Letter 004).