



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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FEB 16 2016

Tori White
Acting Chief, Regulatory Division
U.S. Army Corps of Engineers, San Francisco District
1455 Market Street, 16th Floor
San Francisco, CA 94103-1398

Subject: Draft Environmental Impact Statement for the Upper Llagas Creek Project, Santa Clara County, California [CEQ# 20150367]

Dear Ms. White:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (Draft EIS) for the Upper Llagas Creek Project. Our review and comments are pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The Draft EIS evaluates alternatives to provide flood risk management to the cities of Morgan Hill, San Martin, and Gilroy in in the Upper Llagas Creek Watershed. EPA understands that, due to lack of funding, flood protection for Upper Llagas Creek was not completed as part of the previous Llagas Creek Flood Watershed Protection Plan, which was concluded in 1994. We recognize the need for reliable flood protection for these communities, and understand that the project alternatives are constrained by previous development in the project area. According to the Draft EIS, the proposed project is designed to contain the 1-percent flood exceedance for the urban center of Morgan Hill; not induce flooding in downstream reaches; and provide a 10-percent flood exceedance protection for the rural area around East Little Llagas Creek, Reach 14.

EPA has rated the Action Alternatives and the Draft EIS as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed “Summary of EPA Rating Definitions.” Our rating is based primarily on our concern about potential impacts to aquatic resources in West Little Llagas Creek and on the need for additional information about the project’s impacts to waters of the U.S. and about proposed mitigation measures. EPA recommends that the Final EIS address these issues and include a discussion of the impacts of climate change on the project and an analysis of whether or not additional mitigation is warranted in light of such impacts. Please see the attached detailed comments for additional information about our concerns and recommendations for the Final EIS.

We appreciate the opportunity to review and comment on this Draft EIS, and are available to discuss the recommendations provided. When the Final EIS is released for public review, please send one hard copy and one CD to the address above (Mail Code: ENF 4-2). Should you have any questions, please contact

me at (415) 972-3521, or contact Jean Prijatel, the lead reviewer for the project. Jean can be reached at (415) 947-4167 or prijatel.jean@epa.gov.

Sincerely,



Kathleen Martyn Goforth, Manager
Environmental Review Section

Enclosures: Summary of EPA Rating Definitions
Detailed Comments

cc: Jon Rorhbough, Central Coast Regional Water Quality Control Board

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) 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 Environmental Impact Statement (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 Council on Environmental Quality (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.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR UPPER LLAGAS CREEK PROJECT, SANTA CLARA COUNTY, CA FEBRUARY 16, 2016

Clean Water Act, Section 404

Least Environmentally Damaging Alternative

According to the Draft EIS, the Upper Llagas Creek project would require a permit from the U.S. Army Corps of Engineers for discharge of dredged material or fill into waters of the United States. The Draft EIS does not make a determination of which Alternative would be the Least Environmentally Damaging Practicable Alternative (LEDPA), but states that the Draft EIS has followed the Clean Water Act 404(b)(1) Guidelines and “has captured all of the alternatives and components necessary to determine whether the Applicant’s Proposed Action is the LEDPA” (page 2-2). To help determine the LEDPA, the purpose and need and scope of alternatives discussions in the Draft EIS would benefit from a more thorough description of the other flood protection and stormwater pollution prevention measures in the project area, including the Butterfield Detention Basin and the Regional Stormwater Management Plan for the City of Gilroy, City of Morgan Hill, and the County of Santa Clara.

Recommendations: In the Regional Studies, Reports, and Other Documents section of the Purpose and Need chapter in the Final EIS, provide a summary of other stormwater pollution prevention and flood protection elements in the project area. Include the Regional Stormwater Management Plan’s focus on low impact development, protection of riparian and wetland areas, and best management practices for promoting recharge and preventing stormwater pollution from runoff. Identify the LEDPA and the environmentally preferred alternative in the Final EIS.

Temporary vs Permanent Impacts

The Draft EIS accounts for both temporary and permanent impacts to waters of the U.S. and indicates that most impacts would be temporary. Construction of the project would disturb in-stream, riparian, and wetland vegetation. There are inconsistent statements in the document regarding where and how this disturbed vegetation would re-establish, e.g., through natural recruitment or manual replanting, and how these re-establishment measures may determine whether an impact is temporary or permanent.

Table 4.4-2 summarizes temporary and permanent acreage impacts to waters of the U.S. for the Applicant’s Preferred Alternative, and the text of this chapter provides a narrative comparison of the alternatives’ impacts to waters of the U.S. There is a table summarizing the different impacts between the alternatives in the Executive Summary, but it is not duplicated in the text of the Affected Environment chapter, which would be helpful in a thorough review of the document and in making a determination of the LEDPA. EPA also notes that the number of acres impacted presented in the Draft EIS differs from the acres presented in the CWA 404 Public Notice for this project.

Recommendations: In the Final EIS:

- Clearly define the difference between temporary and permanent impacts to waters of the U.S. Finalize and clarify the number of acres that would be impacted temporarily versus permanently. To facilitate the comparison of alternatives, we suggest including in the Affected Environment chapter a table that compares the acreages of impacted waters of the U.S. across the alternatives.
- Include in the Monitoring and Mitigation Plan a guideline for monitoring impacts to determine whether re-establishment of vegetation is effective and when additional mitigation or revegetation efforts would be warranted.

West Little Llagas Creek

EPA is concerned about long-term impacts to West Little Llagas Creek (WLLC), particularly during periods of drought. The Draft EIS proposes to develop a monitoring plan for WLLC to monitor for vegetative impacts from flow diversion that would also include “contingencies should mature trees or existing vegetation be adversely affected” (page 4-25). The potential adaptive management actions that could be triggered by the monitoring plan are not described in the Draft EIS; therefore, it is unclear whether or not measures will be in place to ensure long term preservation of habitat value.

Recommendation: In the Final EIS, include a monitoring plan for West Little Llagas Creek that includes adaptive management actions that would be triggered by observed loss of vegetative health and habitat value. The Draft EIS proposes to use the California Rapid Assessment Method (CRAM) for mitigation activity at Lake Silveira; EPA recommends the use of CRAM for before and after construction in the WLLC segment of the project to assess habitat conditions over time.

Mitigation

The Draft EIS proposes local mitigation for impacts to waters of the U.S. and aquatic resources primarily through the restoration of approximately 2,000 linear feet of Llagas Creek and 8 acres of restoration of Lake Silveira. Additional mitigation would entail in-stream habitat enhancements on Reaches 4, 5, 6, and 7A that include the placement of large woody debris, boulders, root wads, wing log deflectors, and divider logs. The Draft EIS notes that a Mitigation and Monitoring Plan (MMP) will be developed to provide further details about this mitigation. In the absence of the MMP, it is difficult to ascertain whether or not the proposed measures would be adequate to fully mitigate the predicted loss of waters of the U.S. and aquatic resources -- specifically, the undergrounding of approximately 1.5 miles of intermittent stream habitat in Reach 8, diversion of water from West Little Llagas Creek, and splitting flows between the restored channel and Lake Silveira. EPA agrees that Lake Silveira and Llagas Creek provide appropriate opportunities to mitigate for project impacts and these locations have enough capacity for the required mitigation ratios; however, the Draft EIS lacks necessary details to determine compliance with the 2008 Mitigation Rule.¹

The text of the Mitigation chapter has not carried forward the agreement with the National Marine Fisheries Service recommendation to provide flow to the historic channel in drought conditions (Resource Agency Coordination, Appendix D). Page 5-4 states that, in drought conditions when flows are less than 3 cubic feet per second, most of the flow will be directed to the restored wetlands in Lake Silveira.

Recommendations: In the Final EIS:

- Include an MMP that is specific with regard to restoration objectives, restoration action locations and rationale, adaptive management triggers, performance standards, funding for monitoring, and a commitment to provide long-term monitoring. Ensure that the MMP provides appropriate mitigation ratios to comply with the 2008 Mitigation Rule.
- Clarify the planned diversions between Lake Silveira and the historic channel during drought conditions.

Water Quality

The Draft EIS acknowledges that a Clean Water Act 401 Water Quality Certification will be required from the Central Coast Regional Water Quality Control Board (CCRWQB), and Appendix D includes a

¹ http://www.epa.gov/sites/production/files/2015-03/documents/2008_04_10_wetlands_wetlands_mitigation_final_rule_4_10_08.pdf

summary of correspondence between the Corps and CCRWQB. We note that CCRWQB recommends optimizing vegetative roughness within the channels to restore natural creek features and minimize water quality impacts. EPA supports this recommendation.

Recommendations: Include a copy of the 401 Certification in the Final EIS. To minimize impacts to water quality and aquatic resources and to provide mitigation for unavoidable impacts, EPA encourages the Corps to ensure that the final design for the project maximizes the use of habitat enhancements, such as allowances for in-channel plantings or other elements that would establish appropriate vegetative roughness in-channel, based on geomorphic considerations.

The Draft EIS states several times that the impacts to water quality from construction activities will be avoided and mitigated through Best Management Practices, which are listed in the document, and a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP is not included in the Draft EIS.

Recommendation: In an appendix to the Final EIS, provide a draft SWPPP.

Air Quality

EPA's General Conformity Rule, established under Section 176(c)(4) of the Clean Air Act, provides a specific process for ensuring federal actions will conform with State Implementation Plans to achieve National Ambient Air Quality Standards. The air quality analysis in the Draft EIS compares project emissions to the Bay Area Air Quality Management District's (BAAQMD) 2010 Clean Air Plan² to determine the significance level of impacts (page 4-129), but does not discuss the applicability of federal conformity requirements. We believe that the emissions estimates in the Draft EIS indicate that the project's emissions will not exceed the general conformity *de minimis* levels, which would indicate that the project does not need a general conformity determination.

Recommendation: In the FEIS, clarify the applicability of the General Conformity Rule to the project and include a discussion of the pertinent State Implementation Plans along with the existing discussion of the region's Clean Air Plan.

The Draft EIS indicates that diesel engine exhaust from off-road equipment, portable equipment, and large trucks will be the primary source of criteria pollutant emissions – volatile organic compounds, carbon monoxide, nitrogen oxides (NOx), sulfur dioxide, respirable particulate matter, and fine particulate matter – and greenhouse gas emissions (page 3-154). The project includes Best Management Practices for reducing fugitive dust and mitigation measures to reduce construction-related exhaust emissions. Mitigation Measure AQ-2 specifies idling, maintenance, and compliance requirements to mitigate emissions impacts. The Draft EIS concludes that NOx emissions will remain significant after mitigation, as mitigation measures will not reduce peak daily NOx emissions to below 54 pounds per day, the BAAQMD threshold for significance (page 4-134).

Recommendation: Include additional mitigation measures in the Final EIS to reduce exhaust emissions during construction of the project; for example, EPA recommends the following measures to further reduce reactive organic gases and NOx emissions during construction; further recommendations are available on our Clean Diesel website:³

² The Clean Air Plan itself states that it is not a State Implementation Plan (SIP) and does not respond to federal requirements for fine particulate matter (PM2.5) or ozone planning.

³ <http://www.epa.gov/cleandiesel/clean-diesel-construction-documents>

Mobile Source Controls:

- Minimize use, trips, and unnecessary idling of heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
- Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- In general, commit to the best available emissions control technologies for project equipment:
 - *On-Highway Vehicles* - On-highway vehicles should meet or exceed the US EPA exhaust emissions standards for model year 2010 and newer heavy-duty on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, etc.).⁴
 - *Nonroad Vehicles & Equipment* - Nonroad vehicles & equipment used for all covered activities should meet or exceed the US EPA Tier 4 exhaust emissions standards for heavy-duty nonroad compression-ignition engines (e.g., construction equipment, nonroad trucks, etc.).⁵
 - *Advanced Technology Demonstration & Deployment* – demonstrate and deploy heavy-duty technologies that exceed the latest US EPA emission performance standards for the equipment categories that are relevant for the project activities (e.g., plug-in hybrid-electric vehicles - PHEVs, battery-electric vehicles - BEVs, fuel cell electric vehicles - FCEVs, etc.).

Administrative controls:

- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction, and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. Where appropriate, use alternative fuels.
- Develop a construction, traffic and parking management plan that minimizes traffic interference and maintains traffic flow.

Climate Change

While the Draft EIS includes an estimate of greenhouse gas emissions from the project, it does not include a discussion of reasonably foreseeable climate change impacts in the project area. Changing climate conditions can exacerbate the environmental impacts of a project as well as affect the proposed project's ability to meet the purpose and need presented in the Draft EIS. For example, potential changes in precipitation and frequency of drought would alter the anticipated flow rates modeled in the Draft EIS and could lead to changes in the project's ability to meet its flood protection objectives while also altering sediment transport, water quality, and wetland boundaries, among other potential impacts.

Recommendations: In the Affected Environment chapter of the Final EIS, include a summary discussion of climate change and ongoing and reasonably foreseeable climate change impacts

⁴ <http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm>

⁵ <http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm>

relevant to the project, based on U.S. Global Change Research Program⁶ assessments. We recommend that the Final EIS include in the Affected Environment section a consideration of future climate scenarios to determine whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts would likely be exacerbated by climate change, identify and consider incorporating additional measures that could mitigate those impacts.

In addition, we recommend that the Final EIS address the appropriateness of considering changes to the design of the proposal to incorporate resilience to foreseeable climate change. The Final EIS should make clear whether commitments have been made to ensure implementation of design features or other measures to adapt to climate change impacts.

Mitigation

Chapter 5 of the Draft EIS describes each mitigation measure for the project alternatives and includes a table of impacts and mitigation measures. Neither the table nor the text of this chapter include an indication of the significance of the impact after mitigation.

Recommendation: In the Final EIS, revise Table 5.4-1 to include significance after mitigation for each mitigated impact.

Flood Protection (Executive Order 13690)

The Draft EIS briefly describes Executive Order 11988 – Floodplain Management in the Compliance with Environmental Regulations chapter. On January 30, 2015 President Obama issued Executive Order 13690 – Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, which amends Executive Order 11988 – Floodplain Management. Section 2(i) of E.O. 13690 establishes a new definition of the term “floodplain.”

Recommendation: EPA recommends that the Final EIS explain how each alternative would be consistent with the directives in Executive Order 13690, and discuss any changes to the project necessary to meet those directives. For more information, go to: <https://www.fema.gov/federal-flood-risk-management-standard-ffrms>.

⁶ www.globalchange.gov/