

*Greenhouse Gas Emissions Addendum to
the Environmental Impact Statement for the*

**U.S. Army Corps of Engineers San
Juan Creek and Western San Mateo
Watershed Special Area Management
Plan (SAMP)**

*to Comply with CEQA
and*

*Support Issuance of the 401 Water Quality
Certification*

for

Regional General Permit 74

Prepared for
State Water Resources Control Board

1001 I Street
P.O. Box 100
Sacramento, CA 95812-0100

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Prepared by

**U.S. Army Corps of Engineers
Los Angeles District**

Regulatory Division
915 Wilshire Boulevard
Los Angeles, California 90017

CESPL-RG-S

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MEMORANDUM FOR RECORD

SUBJECT: REGIONAL GENERAL PERMIT 76 GREENHOUSE GAS ANALYSIS TO SUPPLEMENT ENVIRONMENTAL IMPACT STATEMENT PREPARED FOR THE SAN JUAN CREEK/WESTERN SAN MATEO CREEK WATERSHEDS SPECIAL AREA MANAGEMENT PLAN (SAMP)

1. The Corps of Engineers, Los Angeles District Regulatory Division, (CESPL-RG-S) submitted a request to the State Water Resources Control Board issue a 401 certification pursuant to Section 401 of the Clean Water Act for the Los Angeles District, U.S. Army Corps of Engineers' new Regional General Permit (RGP 74) for Maintenance Activities in the San Diego Creek Watershed and the San Juan Creek/western San Mateo Creek Watersheds, respectively, to provide pre-certification for future maintenance activities authorized under the terms and conditions of RGP 74. RGP 74 would be established in accordance with the permitting framework proposed by the CESPL-RG-S as part of the two Special Area Management Plans (SAMPs) in Orange County.
2. CESPL-RG-S prepared a Program Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the San Diego Creek Watershed Special Area Management Plan/Watershed Streambed Alteration Agreement (SAMP/WSAA) Process (February 2009; Volumes I, II- Technical Appendices, and III-Evaluation of and Response to Comments/Errata), along with the SAMP document. The Corps in conjunction with the State lead agency California Department of Fish and Game, Habitat Conservation Branch, South Coast Region (Department), prepared the documents.
3. CESPL-RG-S prepared an EIS for the San Juan Creek Watershed/ Upper San Mateo Creek Watershed SAMP (Volumes I, II, III, and IV-Final EIS Evaluation of Comments/ Errata). A joint or separate EIR for the SAMP demonstrating compliance with California Environmental Quality Act (CEQA) was not prepared.
4. For the State Water Board to take an action on the Corps' pending request for 401 certification of RGP 74, the Corps must demonstrate that the activities authorized by RGP 74 would comply with the provisions of CEQA, including those provisions that are above and beyond the requirements of the National Environmental Policy Act (NEPA). The CEQA Guidelines (Section 15221) describe the process by which the State Water Board as a State agency could use a federal agency's EIS when the EIS is prepared before the EIR and complies with the provisions of the CEQA Guidelines.
5. In electronic correspondence of December 22, 2009, the Water Board staff indicated that to assure CEQA compliance for the RGP 74, the EIS for the San Juan Creek/western San Mateo Creek SAMP, together with any additional information to be provided needed to include an analysis of global greenhouse gas emissions, growth-inducing impacts, and cumulative impacts.

The SAMP Final EIS included analyses of cumulative effects on the aquatic ecosystem (Section 8.8) and growth-inducing impacts (Section 9) for the federal actions associated with the entirety of the SAMP, not just RGP 74. Yet, an analysis of greenhouse gas emissions was not included in the EIS.

6. Provided below is a greenhouse gas emissions analysis (CEQA Section 21097) for RGP 74, which taken together with the Final EIS and Record of Decision for the San Juan Creek/western San Mateo Creek Watersheds SAMP, would satisfy the Water Board's requirements to demonstrate compliance with the CEQA before taking an action on the pending request for 401 certification.

7. Greenhouse Gas Emissions Analysis. The principal greenhouse gases emitted into the atmosphere as a result of human activities include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases, including hydrofluorocarbons (CFCs), perfluorocarbons (PCFCs), and sulfur hexafluoride (halons). A qualitative analysis of the affect of RGP 74 activities on greenhouse gas emissions is provided for each type of greenhouse gas below. A quantitative assessment of greenhouse gas emissions associated with the regulated activities cannot be undertaken. Project-level details are unknown at this time, and any attempt to quantify greenhouse gas emissions from future regulated activities would be speculative.

a. Carbon dioxide is released into the atmosphere by burning fossil fuels (including oil, natural gas, and coal) solid waste, trees and wood, and through certain chemical reactions such as cement manufacture. The maintenance activities to be authorized under RGP 74 would involve the operation of equipment to remove sediment or vegetation, so carbon dioxide would be generated by the operation of gas or diesel-powered equipment. The equipment would be operated on an intermittent and temporary basis to complete the maintenance activities. Carbon dioxide is sequestered or removed from the atmosphere and taken up by plants. Only minimal vegetation removal would be authorized in association with RGP 74. Consequently, some carbon dioxide could be released into the atmosphere during some maintenance events, but the amount of net change associated with vegetation removal for RGP 74 would be expected to be negligible. Mobile source emissions of carbon dioxide combined with the release of plant sequestered carbon dioxide are expected to fall within any annual *de minimis* emissions thresholds for carbon dioxide. Should any specific project or activity require a separate CEQA evaluation by a local lead agency, the applicant would demonstrate the activity conforms to the California State Implementation Plan for the South Coast Air Basin.

b. Methane is emitted during the production and transport of coal, natural gas, and oil, and from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. The activities authorized by RGP 74 are not activities associated with substantial production or release of methane into the atmosphere. Consequently, RGP 74 would have no more than a minimal effect on methane emissions.

c. Nitrous oxide is released into the atmosphere during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste. The maintenance activities to be authorized under RGP 74 would involve the operation of equipment to remove sediment or vegetation, so nitrous oxide would be generated by the operation of gas or diesel-powered equipment. The equipment would be operated on an intermittent and temporary basis to complete the maintenance activities. Mobile source emissions of nitrous oxide are expected to fall within any annual *de minimis* emissions thresholds for nitrous oxide. Should any specific project or activity require a separate CEQA evaluation by a local lead agency, the applicant would demonstrate the activity conforms to the California State Implementation Plan for the South Coast Air Basin.

d. Fluorinated hydrocarbons, CFCs, PCFCs, and halons are emitted from a variety of industrial processes and are potent greenhouse gases with “High Global Warming Potential”. The activities authorized by RGP 74 are not activities associated with the production or release of fluorinated hydrocarbons into the atmosphere. Consequently, RGP 74 would have no more than a minimal effect on fluorinated hydrocarbon emissions.

8. Regulated activities permitted under the SAMP/WSAA Process would result in potential short-term impacts on the atmosphere from greenhouse gas emissions due to construction vehicle/equipment emissions during maintenance activities. Projects permitted under the RGP would result in only *de minimus* increases in emissions. Additionally, some projects/activities would be evaluated on an individual basis through a CEQA and/or NEPA review process, independent of the Corps SAMP review process. During this separate CEQA/NEPA review process, the amount of emissions generated by a project would be determined, and if these emissions exceed the significance criteria, feasible mitigation measures would be required to reduce air quality impacts to a level considered less than significant.

9. This qualitative analysis constitutes the analysis of greenhouse gas emissions conducted by the Corps of Engineers for the purposes of providing the Water Board information in addition to that provided by the Final EIS for the San Juan Creek/western San Mateo Creek SAMP.

Corice Farrar
Senior Project Manager
South Coast Branch

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