LOWER YUBA RIVER GRAVEL AUGMENTATION PROJECT

YUBA AND NEVADA COUNTIES, CALIFORNIA

DRAFT SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

June 2013

US Army Corps of Engineers ®
Sacramento District

Approved for public release; distribution is unlimited

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A. Section 401 Water Quality Certification Application – May 2013

1.0 Purpose and Need for Action

Englebright Dam plays a crucial role in protecting the downstream region from being overwhelmed by sedimentary mining waste debris still being eroded off hillsides and stored in long sections of the channel network upstream. Most of the active Lower Yuba River also still has tens of millions of cubic yards of sedimentary mining waste debris in it that pre-date Englebright Dam and are still being re-worked as part of a highly dynamic, meandering gravel-bed river. However, the reach between Englebright Dam and the confluence with Deer Creek is now almost devoid of river-rounded gravel and cobble necessary for salmon spawning. In particular, spring-run Chinook salmon that historically went far upstream would substantially benefit from a gravel augmentation program below Englebright Dam. However, the critical reach is in a narrow canyon that is difficult to access and manage, let alone place thousands of tons of coarse sediment into (Pasternack 2010).

The purpose of the proposed gravel augmentation project is to place suitable-sized spawning gravel within Englebright Dam Reach (EDR) of the Lower Yuba River. The proposed action would satisfy the Reasonable and Prudent Alternative 4 Gravel Augmentation Program, GAP1 included in the February 29, 2012 Biological Opinion (BO) prepared by National Marine Fisheries Service (NMFS) pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.C. 1531 et seq.). Additionally, the U.S. Army Corps of Engineers (Corps) proposed gravel augmentation as a conservation measure in the January 2012 Biological Assessment.

1.1 Background

The Lower Yuba River downstream of Harry L. Englebright Dam and Reservoir (Englebright) has experienced extensive sediment deposition as a result of the hydraulic gold mining that occurred in the watershed during the mid- to late 1800s. An estimated 685 million cubic yards of mining debris was washed out of the mountains and into the Yuba River (Hagwood 1981). As the sediment migrated downstream, the river bed rose, causing extensive flooding in the Marysville area. To control this sediment movement, the California Debris Commission constructed Daguerre Point Dam in 1906 and Englebright in 1941.

Since its construction, Englebright has continued to fulfill its primary purpose of debris control with containment of 17,750 acre-feet of sediment (Chiles 2003). The elimination of the upstream supply of sediment, however, has lead to progressive degradation of the downstream channel below Englebright, at least as far downstream as Parks Bar, where the Highway 20 (Plates 1 – 2) bridge footings have been exposed (Musseter Engineering, Inc. 2000). Lack of sediment input and gravel loss within this reach of the Lower Yuba River have greatly reduced the availability of quality spawning gravel for the Central Valley steelhead (*Oncorhynchus mykiss*) and spring-run Chinook salmon (*Oncorhynchus tshawytscha*).

Below Parks Barr, sediment sources from tributary input; gravel entrained from bars, training walls, and hill slopes; and gravel existing in the channel bed continue to provide large

areas of suitable spawning habitat (Moir 2006). However, without additional gravel delivery, the existing gravel supply in the bed and usable gravel stored in bars will decrease as it is gradually transported downstream, leading to a net deficit of spawning-caliber sediment.

In 2007, 500 short tons of gravel was injected into the river as a pilot study to determine how frequently the gravel is mobilized in the reach. The results of the study contributed to the development of the current gravel augmentation injection plan (GAIP) for the project. In 2011, the Corps placed an additional 5,000 short tons of gravel into the river, however the augmentation was not sufficient to achieve the specific conditions required for the spawning riffle determined by the GAIP. Eventually the gravel moved downstream and created high quality spawning habitat outside of the project area. Monitoring results from 2011-2012 recommended an additional injection of 5,000 short tons of gravel. This second injection of 5000 short tons was completed during the summer of 2012. To date, a total of 10,500 short tons of gravel have been placed into the river reach with associated monitoring. The monitoring results have again shown that placement of additional gravel is still needed to achieve the target conditions of the pilot project.

1.2 Proposed Action

The Corps is proposing to implement a gravel augmentation project in the summer of 2013, by placing 5,000 short tons of a heterogeneous mix of gravel and cobble (0.25 to 5.0 inches in diameter) directly into the Lower Yuba River channel below Englebright Dam. The material would be monitored after the placement, adding to the understanding of the Lower Yuba River geomorphic processes. The information gathered from the monitoring of the placed gravel will allow the Corps to determine the quantity of additional gravel to be placed within the Lower Yuba River channel below Englebright Dam in future years. The action described herein is identical to that described in the environmental assessment (EA) prepared in 2010 and a Supplemental EA prepared in 2012 with the exception of the dates of implementation, and the gravel mix specifications, which were changed slightly in the 2012 Supplemental EA. The Corps intends to develop a multi-year gravel placement plan for enhancing spawning riffle habitat for implementation beginning in 2014, and will prepare a separate EA later this year.

1.3 Location

The project area is located on the Lower Yuba River, starting at Englebright Dam (Yuba River mile 23.9) downstream to Daguerre Point Dam (Yuba River mile 11.4), in Yuba and Nevada Counties, California (Plate 1). The proposed gravel placement site is located 115 feet downstream of the Narrows II Powerhouse. This site is less than one-acre and would be confined to the river channel within the EDR, a 0.89-mile long bedrock reach starting at Englebright Dam and ending at the junction with Deer Creek, located in the steep Narrows Canyon off Highway 20, approximately 23 miles east of Marysville, California (Plates 2, 3, and 4).

1.4 Purpose and Scope of the Supplemental Environmental Assessment

The purpose of this Supplemental EA is to determine whether the proposed action would result in adverse effects on the environment that were not identified and disclosed in the 2010 or the 2012 Supplemental EA (2010, 2012 EA). The project as described in this EA is identical to that described in the 2010 and 2012 EA with the exception of the dates of implementation and the gravel mix specifications, which changed slightly in the 2012 EA.

1.5 Decision Needed

The District Engineer, the Commander of the Sacramento District of the Corps, must decide whether the proposed action described in this Supplemental EA qualifies for a Finding of No Significant Effect or whether an Environmental Impact Statement must be prepared to comply with the National Environmental Policy Act.

1.6 Project Authority

Harry L. Englebright Dam and Lake were authorized by the River and Harbor Act of 1935 (49 Stat. 1028) as a unit of the Sacramento River Debris Control Project. Construction of recreation facilities at Englebright Lake and provision of services to the public by concessionaire is in accordance with Section 4 of the Flood Control Act of 1944 (58 Stat. 887) and subsequent amendments.

2.0 Alternatives

A GAIP for the EDR of the Lower Yuba River, CA was developed to thoroughly assess the results of the 2007 pilot gravel injection project (Corps 2007), analyze the monitoring data collected post-pilot project, and to assess methods and measures that could be utilized in the proposed gravel augmentation project. A GAIP has been drafted, which thoroughly documents a plan for implementing a gravel/cobble augmentation program below Englebright Dam. This plan addresses the biogeomorphic impact of the proposed project on the Lower Yuba River. With the exception of the date of implementation, and the gravel mix specifications, which changed slightly in the 2012 EA, the preferred alternative in this Supplemental EA is the same alternative from the 2010 and 2012 EAs.

2.1 No Action

The No-Action alternative serves as the environmental baseline against which the proposed action is compared. Under this alternative, the Corps would not implement the gravel augmentation project on the Lower Yuba River immediately downstream of Englebright. If no

action is taken, the existing gravel supply in the stream bed and usable gravel stored in current bars would gradually decrease as it is transported downstream, leading to a net deficit of spawning caliber sediment.

There are currently several projects and programs, either in the planning stages or underway on the Lower Yuba River, that involve various efforts to improve conditions for anadromous fisheries. However, the existing geomorphic processes related to recruitment and transport of suitable spawning gravels below Englebright would essentially remain the same. The Corps may be required to reinitiate consultation with NMFS to determine the appropriate actions to be taken in the absence of a gravel augmentation project, to compensate for the interruption of recruitment gravel caused by the presence of Englebright Dam.

2.2 Gravel Sluicing (Preferred Alternative)

The preferred alternative consists of placing 5,000 short tons (18,518.52 cubic yards) of gravel and cobble directly into the Lower Yuba River channel near the Narrows I Powerhouse via gravel sluicing, which involves drawing water up from a source and into a flexible pipe, where gravel and cobble is added from the top to produce a water, sediment slurry that is then piped down to a site for directed placement by one to two operators. Details of staging, gravel sizes, placement, and monitoring for the alternative are provided below. Project features are provided in Plate 4.

The gravel/cobble mixture would be monitored after placement within the EDR. The information gathered from the monitoring of the placed material will allow the Corps to determine if it will be necessary to place additional quantities of gravel within the Lower Yuba River channel below Englebright (Pasternack 2010).

2.2.1 Gravel Placement Process

The sluicing process involves drawing water up from a source (the reservoir) and into an 8-inch diameter “Yelomine” flexible pipe, where gravel and cobble is added from the top to produce a water, sediment slurry that is then piped down to a site for directed placement by one to two operators. The amount of water used to do the sluicing depends on the pipe and pump configurations, and is typically 1,000 to 1,500 gallons per minute, which is 2.23 to 2.34 cubic feet per second (cfs) (Pasternack 2010). The water pump would be located at the reservoir water’s edge, to push the water uphill in a 6 to 8 inch pipe. The pump inlet would be screened to prevent aquatic fauna from being taken up into the pumping system.

This process is normally a five-person operation: one person would operate the water pump at the source, one, in a loader, would bring gravel to the feeder, one person would operate the feeder in order to prevent clogs and coordinate communications, and two at the end nozzle, directing gravel placement and to add pipe as needed to periodically move downstream. This approach would have a minimal construction footprint; Plates 4 and 5 illustrate the project design and layout.

The rate of gravel placement via sluicing is approximately 100 to 300 short tons per day, all dependent upon how frequently the system clogs. This is slow relative to gravel placement by truck-mounted conveyor belt (approximately 500 short tons per day) or truck/front loaders (approximately 1,000 short tons per day) (Pasternack 2010). At an average rate of 150 short tons per day, it would take 33 days to place 5,000 short tons of gravel.

The approach that would be used with gravel sluicing is to start at the water's edge, build across the river, and then work downstream. At the outlet of the system, gravel would go into a rigid pipe supported by floating, air-filled barrels. The outlet would be manually directed to the placement point with the aid of ropes as needed. Using this approach, it is possible to place gravel according to a sophisticated design with few constraints.

The water intake pump system, which includes fish screening, would be positioned right on the water's edge, along the gravel road on the north side of the reservoir that runs close to the dam. From there, the water would be pumped in one or two 6 to 8-inch diameter pipes approximately 1,070-feet up the side of the road to the crest (Plate 4).

The pipes would go over the crest of the hill, and down the side of the paved road, approximately 300-feet towards the Narrows II powerhouse, until a point at which there is a noticeable slope break favorable to beginning the gravel addition to the pipe. At that location, a screened hopper on the north side of the road would receive sediment from a front loader, transferring the material the short distance from the stockpile. The loader operator would gently bounce the bucket to trickle the sediment into the hopper as the primary control on the flow rate; a hopper operator would be stationed there to ensure no blockages, clean out finger rocks as needed, and communicate conditions with other operation participants by radio.

Under the hopper, the gravel and water would join in a metal pipe that would then connect to the beginning of the 8-inch diameter, semi-flexible "Yelomine" pipe. This pipe would then run approximately 1,270-feet down the ditch on the north side of the road to the switchback. From that point, the pipe would go 264-feet straight down the grassy hillside to a terrace level, where an old roadbed and foot-trail are located. From that point, the pipe would make a straight line, 130 feet down to the water's edge near the upstream end of the gravel placement area (Plate 4).

2.2.2 Gravel and Cobble

The Anadromous Fish Restoration Program, a U.S. Fish and Wildlife Service (USFWS) program that is tasked by the Central Valley Project Improvement Act to make "all reasonable efforts to at least double natural production of anadromous fish in California's Central Valley streams on a long-term, sustainable basis" (USFWS 2010) has recommended gravel specifications to ensure that the placed gravel provide some usable spawning habitat and optimal egg survival rates for the salmonids within the Lower Yuba River. These specifications are showing in Table 1 (Pasternack 2012). This gravel would be obtained from a commercial aggregate source located near the project site, within the Lower Yuba River watershed, and would arrive screened and pre-washed to the placement site.

The composition of the gravel mix was changed slightly in 2012 based on the results of the 2011 monitoring program (discussed in Section 2.2.6). Results from the 2012 monitoring program indicated the gravel mix for this year should remain the same as the mix from 2012. The mix will be monitored during the sluicing process to ensure that it meets the specifications described below.

TABLE 1. Gravel and Cobble Specifications for Salmonid Spawning and Egg Incubation.

Gravel Size (inches)	Percent Retained	Target % of Total Mix
3.5 to 5	30	30
1.25 to 3.5	80	50
3/4 to 1.25	88	8
1/2 to 3/4	96	8
1/4 to 1/2	100	4

2.2.3 Gravel and Cobble Placement Location

The selection of the specific location for focusing gravel and cobble location has been guided by constraints in powerhouse operations, potential benefits to the river, and feasible delivery methods. Powerhouse operations presently preclude gravel augmentation between Englebright Dam and the Narrows powerhouse. To get the most benefit and longevity from adding gravel to the river, the further upstream it is introduced, the better. To avoid having to fill the scour pool adjacent to the Narrows I facility, and yield riffle habitat for immediate spawning use with the least amount of initial gravel placement during a gravel sluicing operation, the placement should begin approximately 115-feet downstream of the end of the Narrows I powerhouse, where the maximum depth of the pool is under five-feet at 855 cfs of flow (Pasternack 2010).

2.2.4 Staging and Stockpiling

There would be one staging area for the project, located at the gravel turnouts along the paved access road to Narrows II. This area would be used primarily for vehicle parking and temporary storage of truck trailers loaded with gravel. The same turnouts would be used to stock pile the gravel; prior to the start of sluicing operations, the gravel would be stockpiled in the three parking/turnout areas at the overlook on the north side of the dam. This location is behind a locked gate and inaccessible to the public.

The likely truck haul route that would be used to deliver gravel from the commercial source to the project site would begin at the intersection of State Route 20 and Peoria Road, and end on the Narrows II access road, at a bench downstream of, and level with, the top of Narrows II (Plate 2).

2.2.5 Work Schedule

The proposed work would be conducted from July 2013 through the end of September 2013. Work hours would be limited to normal workdays, from 8:00 a.m. to 5:00 p.m. Any work conducted past September 2013 will also conform to the same time frames, or as approved by the resource agencies.

2.2.6 Monitoring Program

Outflow release from the Narrows II powerhouse and spill flows over the top of Englebright would aid in transporting the gravel placed downstream within the upper Narrows reach of the Lower Yuba River. Gravel placed within the river would be monitored through the fall of 2013 and winter of 2014 by the Lower Yuba River Accord River Management Team for salmonid use, via protocol-level redds surveys.

Data from the monitoring program would be compared with hypothetical quantitative predictions based on the ecologic, geomorphic, and hydrodynamic conditions present at the placement site. Confirmation of predictions would relate to how much the channel would be affected and how long the effect would persist, coupled with the potential beneficial qualities of the changes induced, would allow optimization of a the long-term gravel augmentation program design with a more accurate cost/benefit analysis.

3.0 Affected Environment and Environmental Consequences.

3.1 Environmental Resources Not Considered in Detail

Initial evaluation of the potential effects of the alternatives indicated that there would not be any adverse direct, indirect, or cumulative effects on several resources due to the scale, scope, and schedule of the proposed action. Resources not discussed in detail include climate, geology and seismicity, land use, agriculture and prime and unique farm land, socioeconomics and environmental justice, esthetics, and vegetation and wildlife.

3.2 Soils, Topography, and Geomorphology

3.2.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.3 Hydrology and Water Quality

3.3.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

An updated 401 water quality certification application was posted on May 24, 2013 for a 21 day public review by the Regional Water Quality Control Board (CRWQCB).

3.4 Traffic

3.4.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required

3.5 Hazardous, Toxic, and Radiological Waste

3.5.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required

3.6 Aquatic Fauna

3.6.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.7 Special Status Species

3.7.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.8 Air Quality

3.8.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.9 Recreation

3.9.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.10 Noise

3.10.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

3.11 Cultural Resources

3.11.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 and 2012 EA. The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects. No additional mitigation would be required.

4.0 Growth-Inducing Effects

The change in the project implementation date proposed in this Supplemental EA would have no effect on population growth or densities.

5.0 Cumulative Effects

As discussed in the two previous EA's, the proposed gravel augmentation, in combination with past, present, and potential future actions, would likely contribute to the overall health and vigor of the watershed.

6.0 Compliance with Environmental Laws and Regulations

As disclosed in the 2010 EA, the proposed gravel augmentation would be compliant with the following environmental laws and regulations.

Bald Eagle Protection Act of 1940, as amended, 16 U.S.C. 668-668d, 54 Stat. 250.

Clean Air Act of 1972, as amended, 42 U.S.C. 7401, et seq.

Clean Water Act of 1972, as amended, 33 U.S.C. 1251, et seq.

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531, et seq.

Executive Order 12989, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Executive Order 13112, Invasive Species.

Farmland Protection Policy Act, 7 U.S.C. 4201 et seq.

Fish and Wildlife Coordination Act of 1958, as amended, 16 U.S.C. 661, et seq.

Magnuson-Stevens Fishery Conservation and Management Act.

Migratory Bird Treaty Act of 1936, as amended, 16 U.S.C. 703 et seq

National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321, et seq.

National Historic Preservation Act of 1966, as amended.

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

7.0 Agencies Consulted

The EA was prepared in consultation with the following USFWS and NMFS contacts.

Amber Aguilera
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825

Gary Sprague
National Marine Fisheries Service
650 Capital Mall, Suite 8-300
Sacramento, Ca 95814-4706

8.0 Public Notice

The 2013 Supplemental EA will be circulated for 15 days to concerned agencies, organizations, and the public, as identified in Appendix E of the 2010 EA (40 CFR 1501.4(e)(1); 33 CFR 230.11). All comments received will be considered and incorporated into the final Supplemental EA, as appropriate.

9.0 Conclusions

The change in the project implementation date proposed in this Supplemental EA would not result in any new adverse effects or requirements for new mitigation from those disclosed in the 2010 and 2012 EA. Based on the findings presented in the two prior EA's and reconsidered in this Supplemental EA, the proposed gravel placement project will not result in a significant adverse effect on the environmental resources in the project area, including threatened and endangered species, and other wildlife and vegetation.

10.0 List of Preparers

Natalie Houghton, Environmental Manager
U.S. Army Corps of Engineers

Brian Luke, Biologist
U.S. Army Corps of Engineers

Brian Mulvey, Fisheries Biologist
U.S. Army Corps of Engineers

Brad Johnson, Environmental Manager
U.S. Army Corps of Engineers

11.0 References

Chiles, J.R., Snyder, N.P., Hampton, M.A. 2003. Bathymetric and geophysical surveys of Englebright Lake, Yuba-Nevada Counties, California. U.S. Geological Survey Open-File Report 03-383.

Hagwood, Joseph J. 1981. The California Debris Commission: A History. U.S. Army Corps of Engineers, Sacramento District. Sacramento, CA.

Moir, H. J., Pasternack, G. B. 2006. Implications of a Dynamic Hydromorphic Regime for Environmental Management on a Disturbed Large Gravel-bed River. EOS, Transactions of the American Geophysical Union 87(52), Fall Meet. Suppl., Abstract H41C-0425.

Mussetter Engineering, Inc. 2000. Letter report regarding geomorphological issues for the Daguerre Point Dam Fish Passage Study. Prepared for the U.S. Army Corps of Engineers.

Pasternack, G. B. 2010. Gravel/cobble Augmentation Implementation Plan for the Englebright Dam Reach of the Lower Yuba River. University of California, Davis. August 30, 2010.

U.S. Army Corps of Engineers (Corps). 2007. Lower Yuba River Pilot Gravel Injection Project, Yuba and Nevada Counties: Final Environmental Assessment. Sacramento District, Sacramento, CA.

U.S. Army Corps of Engineers (Corps). 2012. Lower Yuba River Gravel Augmentation Project, Yuba and Nevada Counties: Supplemental Environmental Assessment. Sacramento District, Sacramento, CA.

U.S. Fish and Wildlife Service (USFWS). 2010. Species Lists for Smartville and Browns Valley U.S. Geological Survey 7.5 Minute Quads. Available at: www.fws.gov/sacramento/es/ssp_lists.

Personal Communications

Pasternack, G. B. 2012. University of California, Davis. Email to Doug Grothe , Park Manager, U.S. Corps of Engineers. Subject: 2012 gravel mix concept. June 25, 2012.

Lee, Elizabeth 2013. California Environmental Protection Agency, Regional Water Quality Control Board, 401 Water Quality Certification Program. Phone and email correspondence with Brian Luke, Environmental Manager, U.S. Corps of Engineers, May 23, 2013. Subject: Amendment to the Approved November 2010, *Clean Water Act §401 Technically Conditioned Water Quality Certification for Discharge of Dredged and/or Fill Materials for the Englebright Dam Reach Gravel Injection Project (WDID#5A58CR00081).*

APPENDIX A

SECTION 401 - WATER QUALITY CERTIFICATION

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

Environmental Planning Section

Elizabeth M. Lee, PE
Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

MAY 23 2013

Dear Ms. Lee:

The purpose of this letter is to request a second amendment to the *Clean Water Act §401 Technically Conditioned Water Quality Certification for Discharge of Dredged and/or Fill Materials for the Englebright Dam Reach Gravel Injection Project (WDID#5A58CR00081)*, which was issued on November 10, 2010. The first amendment *(WDID#5A8CR00081A1)* was issued on July 19, 2012.

The amendment would allow the U.S. Army Corps of Engineers (Corps) to implement a third season of gravel injection in order to comply with a 2012 National Marine Fisheries Service (NMFS) biological opinion related to the operation of Englebright Dam. The third injection would be identical to the first and second, with the placement of 5,000 tons of a heterogeneous mix of gravel and cobble (0.25 to 5.0 inches in diameter) directly into the Lower Yuba River Channel downstream of the Pacific Gas and Electric Company's Narrows I powerhouse. The third injection is scheduled for the summer of 2013.

A 2013 supplemental Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) are currently being prepared to comply with the National Environmental Policy Act. The documents will not identify any impacts not covered under the EA submitted with the initial application for water quality certification.

The Corps requests that your agency amend the initial certification to allow for the timely implementation of the proposed project in order to meet the requirement of the NMFS biological opinion. If you have any questions or require additional information, please contact Natalie Houghton, Environmental Planning Section, at Natalie.N.Houghton@usace.army.mil. or (916) 557-7449. Thank you for your cooperation and time on this important project.

Sincerely,

E. Scott Clair

Alicia E. Kirchner
Chief, Planning Division

Enclosures:
2013 Section 401 Water Quality Application

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

SECTION 401 WATER QUALITY CERTIFICATION
APPLICATION FORM

A minimum of $944.00 processing fee is required; however, additional fees in accordance with Title 23 CCR § 2200 (a)(2) may also be required. Please use the fee calculator at http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillfeecalculator.xls to determine the total fee. Please include a check payable to the **State Water Resources Control Board.** Attach additional sheets as necessary. If any information is not applicable to the proposed project please indicate that as N/A. Submit the complete form to the appropriate Regional Board office.

1. APPLICANT INFORMATION	2. AGENT INFORMATION*
Applicant: U.S. Army Corps of Engineers	Agent*
Contact Name: Natalie Houghton	Contact Name:
Address:1325 J Street	Address:
Sacramento, CA 95814	
Phone No: 916-557-7449	Phone No:
Fax No: 916-557-7856	Fax No:
E-mail Address: Natalie.N.Houghton@usace.army.mil	E-mail Address:

*Complete only if applicable

3. PROJECT DESCRIPTION

a) Project Title: Englebright Dam Reach Gravel Injection Project, Yuba and Nevada Counties, CA.

b) Project Location: The project area is located on the Lower Yuba River starting at Englebright Dam (Yuba River mile 23.9) downstream to Daguerre Point Dam (Yuba River mile 11.4). The proposed gravel injection site is less than 1 acre and confined to the river channel approximately 100 feet downstream of the Pacific Gas and Electric Company's Narrows I hydroelectric power facility located in the steep Narrows canyon off Highway 20, about 23 miles east of Marysville, California (Plate 1).

County: Yuba and Nevada Section: 14 Township: 16N Range: 6E

Quadrangle Name: Smartville Latitude: 39°14' 20.72" N Longitude: 121°16' 10.44"W

*Attach site map with "waters" clearly indicated (e.g. USGS 7 ½ quadrangle map)

c) Project Description: The U.S. Army Corps of Engineers (Corps) is proposing to implement a gravel augmentation project with the placement of up to 5,000 tons of a heterogeneous mix of gravel and cobble (0.25 – 5.0 inches in diameter) injected directly into the lower Yuba River channel. No ground-breaking activities are associated with this project. No mechanized equipment would be entering the channel or operating within the 100-year floodplain.

The proposed action would satisfy the Terms and Conditions of the incidental take statement included in the November 21, 2007, Biological Opinion (BO) prepared by National Marine Fisheries Service pursuant to Section 7 of the Endangered Species Act of 1973, as amended. This long-term program would serve to improve the overall function of the habitat by providing spawning gravel to key areas on the Lower Yuba River.

d) Proposed Schedule (start date, and completion date): The proposed work would be conducted over a six week period from July 2013 through the end of September 2013.

e) Total Project Size (clearing, grading, other construction activities):
Gravel injection site < 1 acres 66,000 linear feet (if appropriate)

4. IMPACTED WATER BODIES

a) Name(s) of Receiving Water Body(ies): Lower Yuba River

b) Anticipated potential stream flow during project activity: Approximately 850 cfs (fall flows).

c) Describe potential impacts to water quality: The placement of gravel within the channel would temporarily increase the amount of suspended sediment and thus turbidity in the immediate vicinity of the injection site and for an unknown distance downstream. All gravel would be pre-washed to reduce the amount of turbidity. Turbidity associated with the proposed project activities would not exceed the CRWQCB objectives for turbidity in the Sacramento River Basin. Turbidity would not increase more than 20 percent above naturally occurring background levels.

d) **Waters of the United States:** Indicate in ACRES and LINEAR FEET (where appropriate) the proposed waters of the United States to be impacted by any discharge other than dredging, and identify the impacts(s) as permanent and/or temporary for each water body type listed below:

Water Body Type	Permanent Impacts		Temporary Impacts	
	(acres)	(linear feet)	(acres)	(linear feet)
Jurisdictional Wetland	N/A	N/A		
Riparian	N/A	N/A		
Streambed un-vegetated	N/A	N/A	< 1	66,000
Lake/Reservoir	N/A	N/A		

e) **Non-Federal Waters**: This section is **only** for waters that the U.S. Army Corps of Engineers does **not** consider federally jurisdictional. Indicate in ACRES and LINEAR FEET (where appropriate) the proposed **waters of the State** to be impacted by any discharge other than dredging, and identify the impacts(s) as permanent and/or temporary for each water body type listed below:

Water Body Type	Permanent Impacts		Temporary Impacts	
	(acres)	(linear feet)	(acres)	(linear feet)
Isolated Wetland	N/A			
Ditch/Canal	N/A			
Other	N/A			

Fill: Indicate the amount (cubic yards) and type of fill material to be discharged/installed in waters of the State/United States: No dredging would occur as part of the proposed project. Up to 5,000 tons (18,518.52 cubic yards) of a heterogeneous mix of gravel and cobble (0.25 to 5.0 inches in diameter) would be injected directly into the Lower Yuba River channel at the proposed injection site (less than 1 acre). Uncrushed "natural river rock" from local aggregate producers within the local watershed

that meet the gradations as follows:

Gravel Size (inches)	Percent Retained	Target % of Total Mix
3.5 to 5	30	30
1.25 to 3.5	80	50
3/4 to 1.25	88	8
1/2 to 3/4	96	8
1/4 to 1/2	100	4

f)

Type of Material (Soil, concrete, steel, rock.....)	**Amount** (cubic yards)	**What type of water body?** (Wetland, riparian, streambed, lake.....)	**Indicate if fill is in federal or non-federal waters**
Natural river rock	18,518.52	River	Federal

g) **Dredge/Removal:** Indicate the amount (cubic yards) and type of material to be dredged and/or removed from waters of the State/United States:

Type of Material (Soil, concrete, steel, rock.....)	**Amount** (cubic yards)	**What type of water body?** (Wetland, riparian, streambed, lake.....)	**Indicate if dredge or removal is in federal or non-federal waters**
N/A			

5. COMPENSATORY MITIGATION

a) Indicate in ACRES and LINEAR FEET (where appropriate) the total quantity of **waters of the United States** proposed to be Created, Restored and/or Enhanced for purposes of providing Compensatory Mitigation If mitigating for state waters that were not considered federally jurisdictional then attach a description of the proposed mitigation: The proposed project would be self-mitigating as it is beneficial to the river system.

Water Body Type	**Created**		**Restored**		**Enhanced**	
	(acres)	(linear ft)	(acres)	(linear ft)	(acres)	(linear ft)
Jurisdictional Wetland	N/A	N/A	N/A	N/A	N/A	N/A
Riparian	N/A	N/A	N/A	N/A	N/A	N/A
Streambed	N/A	N/A	N/A	N/A	< 1	66,000
Lake/Reservoir	N/A	N/A	N/A	N/A	N/A	N/A

b) If contributing to a Mitigation or Conservation Bank, indicate the agency, dollar amount, acreage, and water body type (if applicable):
Mitigation Bank or Conservation Agency_____N/A_____
$_____ for_____ acres of _____ (water body type)
How many acres of this mitigation area qualify as waters of the United States?_____

c) Other Mitigation (omit if not applicable): N/A

How many acres of this mitigation area qualify as waters of the United States?_____

d) Location of Compensatory Mitigation Site(s) (attach map of suitable quality and detail): N/A

City of Area _____ County _____

Longitude/Latitude _____ Township/Range _____

6. OTHER ACTIONS/BEST MANAGEMENT PRACTICES (BMPs)

Briefly describe other actions/BMPs to be implemented to Avoid and/or Minimize impacts to waters of the United States, including preservations of habitats, erosion control measures, project scheduling, flow diversions, etc.: The findings of the Section 404(b)(1) analysis determined compliance with the requirements of the guidelines specified under CFR 40, Part 230, Section 404(b)(1) of the Clean Water Act, with the inclusion of appropriate and practicable discharge conditions to minimize pollution or adverse effects to the affected aquatic ecosystem. Given the limited duration and timing of the activity, as well as minimal area of effects, the appropriate and practicable conditions include the requirement that the gravel arrive screened and pre-washed to the injection site from the commercial aggregate source. Standard pollution prevention measures including erosion and sediment control measures, proper control of non-storm water discharges, and hazardous spill prevention and response measures would be implemented, as necessary, by the contractor during the gravel placement.

7. OTHER PERMITS/AGREEMENTS/ETC

a) U.S. Army Corps of Engineers Permit: Indicate the type of ACOE permit *(check one)*

Nationwide Permit No(s)_____ Individual Permit No(s):_____ Regional Permit No(s):____

Letter(s) of Permission_____ ACOE Permit Reference Number_____

Have you notified ACOE of project? _____Corps Project_____

Have you reviewed the General Conditions for your ACOE permit? _____Corps Project_____

Have you attached a copy of the application/notification to ACOE? _____Corps Project___

b) California Department of Fish and Game Lake or Streambed Alteration Agreement: N/A – Federal project on Federal lands.

Date of Application:_____

Have you attached a copy of the application?

Has the Agreement been issued? _____ if so, list Agreement number:_____

c) Water Rights: N/A

If the project is directly related to any diversion, obstruction, extraction, or impoundment of the natural flow of a river, stream, lake or underground source then provide the Water Right Application ID Number_____ or Permit ID Number_____

8. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

a) Indicate the type of CEQA Document required for this project: N/A

Categorical Exemption ___ Negative Declaration ___ Environmental Impact Report ___

Has the document been certified/approved, or has a Notice of Exemption been filed? _____

If yes date of approval/filing _____ If no, expected approval/filing date:_____

Lead Agency Federal project by the Corps; NEPA document (Environmental Assessment) was provided

Have you attached a copy of the draft/final CEQA documentation*? _____

* A final copy of valid CEQA documentation must be provided before a project can be certified

b) List State and Federal Threatened/Endangered Species that could potentially be impacted by this project: The proposed project may affect, but not likely adversely affect, the following Federally listed and candidate species: Central Valley fall/late fall-run Chinook salmon, Central Valley spring-run Chinook salmon, and Central Valley steelhead. The proposed action is also not likely to adversely affect designated critical habitat of spring-run Chinook salmon and steelhead.

9. PAST/FUTURE PROPOSALS BY THE APPLICANT

Briefly list/describe any projects carried out in the last 5 years or planned for implementation in the next 5 years that are in any way related to the proposed activity or may impact the same receiving body of water. Include the estimated adverse impacts from the past or future projects. A pilot study (the Lower Yuba River Pilot Gravel Injection Project) was carried out for this project in November 2007 (ref. WDID#5A58CR00047). Lower Yuba River Gravel Augmentation Project, 2010 (WDID#5A58CR00081). Lower Yuba River Gravel Augmentation Project, 2012 (WDID#5A8CR00081A1). A long-term gravel augmentation program would likely be established.

SIGNATORY REQUIREMENTS

All reports, notices, or other documents required by the Water Quality Certification or requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) shall be signed by a person described below or by a duly authorized representative of that person.

a. For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
b. For a partnership or sole proprietorship: by a general partner or the proprietor.

c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.

10. CERTIFICATION [Any person signing or submitting a document, e.g. an application, a monitoring report, etc., to demonstrate compliance with the Water Quality Certification regulations shall make the following certification, whether written or implied]

"I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel property gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name: Edgar S. Clark Title: Acting Chief of Planning

Signature: Edgar S Clark Date: 23 may 2013

STATEMENT OF AUTHORIZATION (if designating a specific agent)

I hereby authorize _____ to act on my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

X_____ DATE_____

APPLICANT'S SIGNATURE (not the authorized agent)

All information on this application becomes part of the public record, and as such is subject to public records requests disclosure. In addition, the application will be posted for public review on the Regional Board's web site in accordance with California Code of Regulations Title 23 Section 3858.

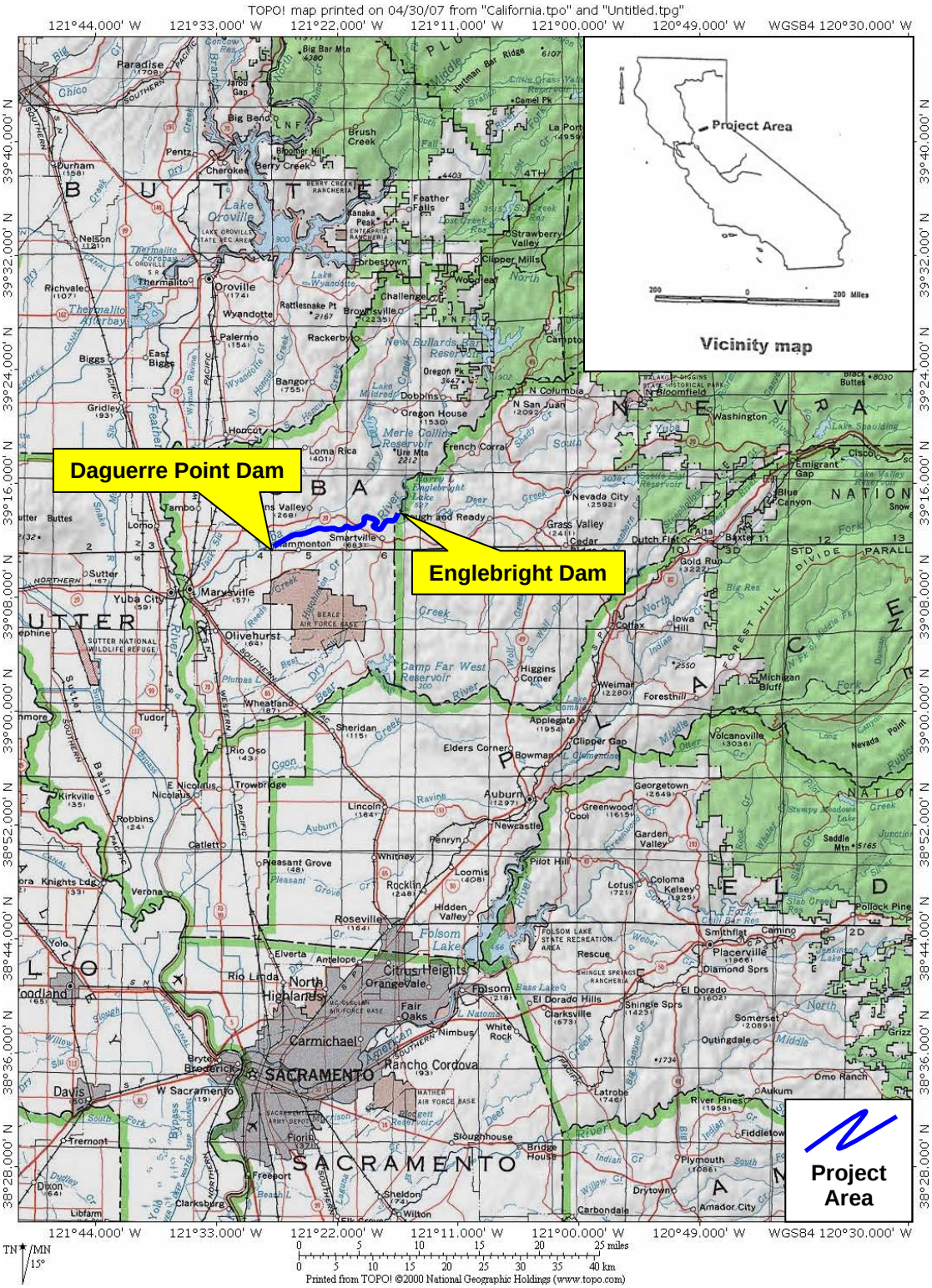

Plate 1. Project Area Vicinity Map