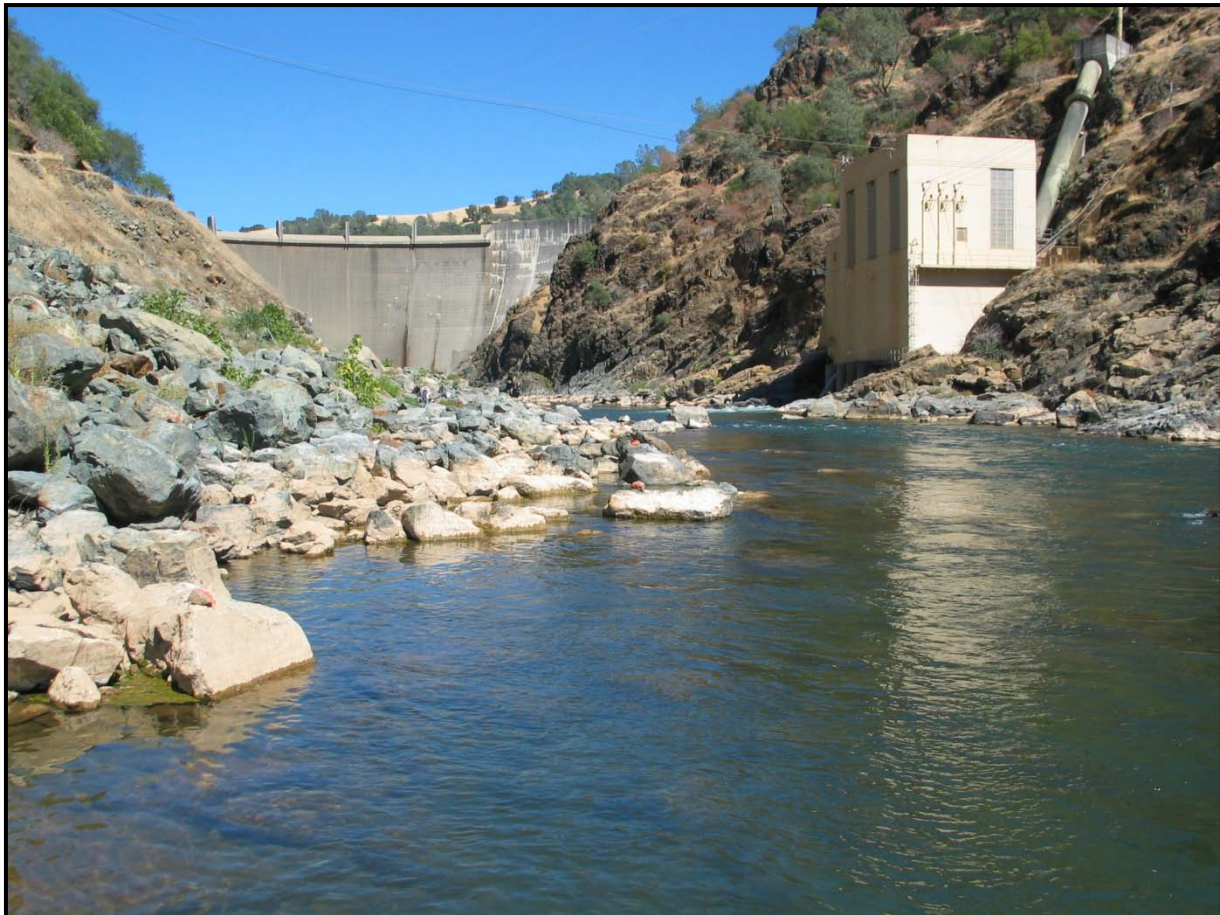


LOWER YUBA RIVER GRAVEL AUGMENTATION PROJECT YUBA AND NEVADA COUNTIES, CALIFORNIA

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

June 2012



**US Army Corps
of Engineers** ®
Sacramento District

Approved for public release; distribution is unlimited



REPLY TO
ATTENTION OF

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

JUL 09 2012

Environmental Resources Branch

FINDING OF NO SIGNIFICANT IMPACT
Lower Yuba River Gravel Augmentation Project
Yuba and Nevada Counties, California

The U.S. Army Corps of Engineers, Sacramento District, has determined that implementing the proposed gravel augmentation project on the Lower Yuba River, immediately below Harry L. Englebright Dam and Reservoir, would have no significant effects on the quality of the human environment. The project area is located in the steep Lower Yuba River canyon off Highway 20, about 23 miles east of Marysville, California. Project activities would include placing 5,000 short tons of a heterogeneous mix of gravel and cobble directly into the Lower Yuba River channel below Englebright Dam using a gravel sluicing method.

The proposed action would partially compensate for the operation of the Englebright Dam, which has greatly altered geomorphic processes and aquatic habitat conditions in the Lower Yuba River channel downstream of the dam. Implementation of a gravel augmentation plan would improve the overall function of the habitat of the Lower Yuba River by providing spawning gravel to key areas that have been designated as critical habitat for the Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*) and the Central Valley steelhead (*O. mykiss*).

A Supplemental Environmental Assessment (Supplemental EA) was prepared to evaluate the potential effects to natural and cultural resources in the proposed project area. Based on the evaluation of potential effects described in the Supplemental EA, I have determined that the proposed pilot gravel injection project would have no significant adverse effects on existing resources including special status species, fish and wildlife, vegetation, air and water quality, and cultural resources. No additional environmental documentation is required, and the project activities may proceed as proposed.

6 July 2012

Date

William J. Leady, P.E.
Colonel, U.S. Army
District Engineer

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APPENDIX

- A. June 2012 Amendment Request Letter November and 2010 401 Water Quality Certification.

1.0 Purpose and Need for Action

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 led 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.

1.2 Proposed Action

The U.S. Army Corps of Engineers (Corps) is proposing to implement a gravel augmentation project in the summer of 2012, 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 prepared in 2010 with the exception of the date of implementation.

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 Englebright Dam Reach (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 Need for the 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 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 Corps proposed gravel augmentation as a conservation measure in the January 2012 Biological Assessment.

1.5 Purpose and Scope of the Supplemental Environmental Assessment

The purpose of this Supplemental Environmental Assessment (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 Environmental Assessment (2010 EA). The project as described in this EA is identical to that described in the 2010 EA with the exception of the date of implementation.

1.6 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.

1.7 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 Gravel/Cobble Augmentation Implementation Plan (GAIP) for the Englebright Dam Reach 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, the preferred alternative in this Supplemental EA is the same alternative from the 2010 EA.

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 reinstate 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 down 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 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.

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 is 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 over a six week period from July 2012 through the end of September 2012. Work hours would be limited to normal workdays, from 8:00 a.m. to 5:00 p.m. Any work conducted past September 2012 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 and fall of 2012 and winter of 2013 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 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 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.

The proposed action and implementation schedule was discussed with the California Regional Water Quality Control Board (CRWQCB) on June 11, 2012. The Board recommended preparing an amendment request letter to the existing Water Quality Certification approved in November 2010. At the June 11, 2012 meeting, the Board indicated that approval for an amendment was highly likely. Refer to Appendix A for the ne 2012 Amendment Request Letter November and 2010 401 Water Quality Certification.

3.4 Traffic

3.4.1 Existing Conditions, Effects, and Mitigation

The existing conditions would be the same as described in the 2010 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 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 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 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 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 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 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 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 2010 EA, 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 USFWS and NMFS.

8.0 Public Notice

In accordance with NEPA regulations and the Corp's procedures for implementing NEPA, a notice of availability of the FONSI will be sent 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).

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 EA. Based on the findings presented in the 2010 EA 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

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

Doug Edwards, PHD, AICP, Senior Environmental Manager
U.S. Army Corps of Engineers

11.0 References

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

Sparks, Genevieve 2012. California Environmental Protection Agency, Regional Water Quality Control Board, 401 Water Quality Certification Program. Meeting with Doug Edwards, Senior Environmental Manager, U.S. Corps of Engineers, June 11 2012. 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)*.

PLATE 1
PROJECT AREA VICINITY MAP

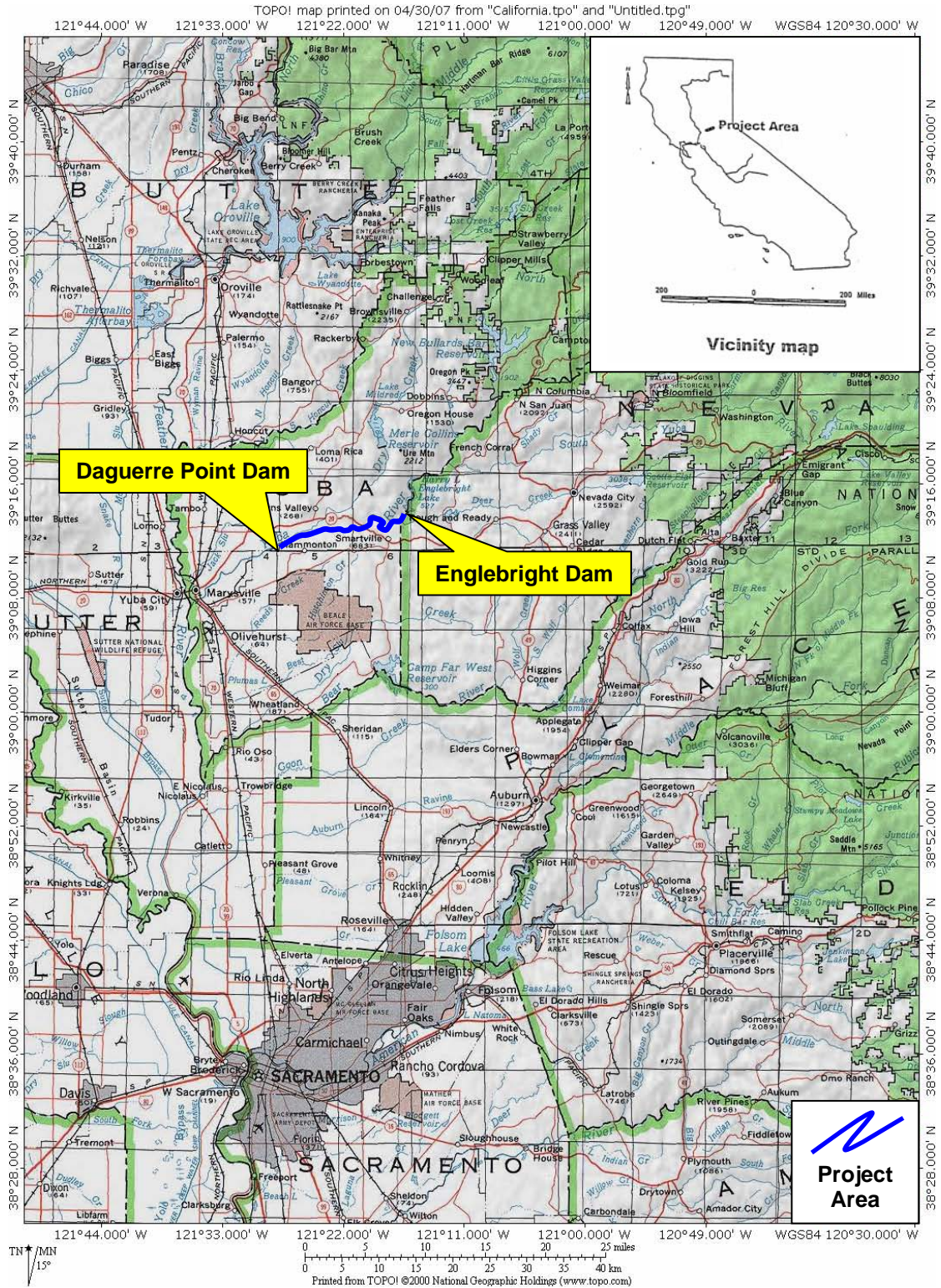


Plate 1. Project Area Vicinity Map

PLATE 2
PROJECT AREA MAP

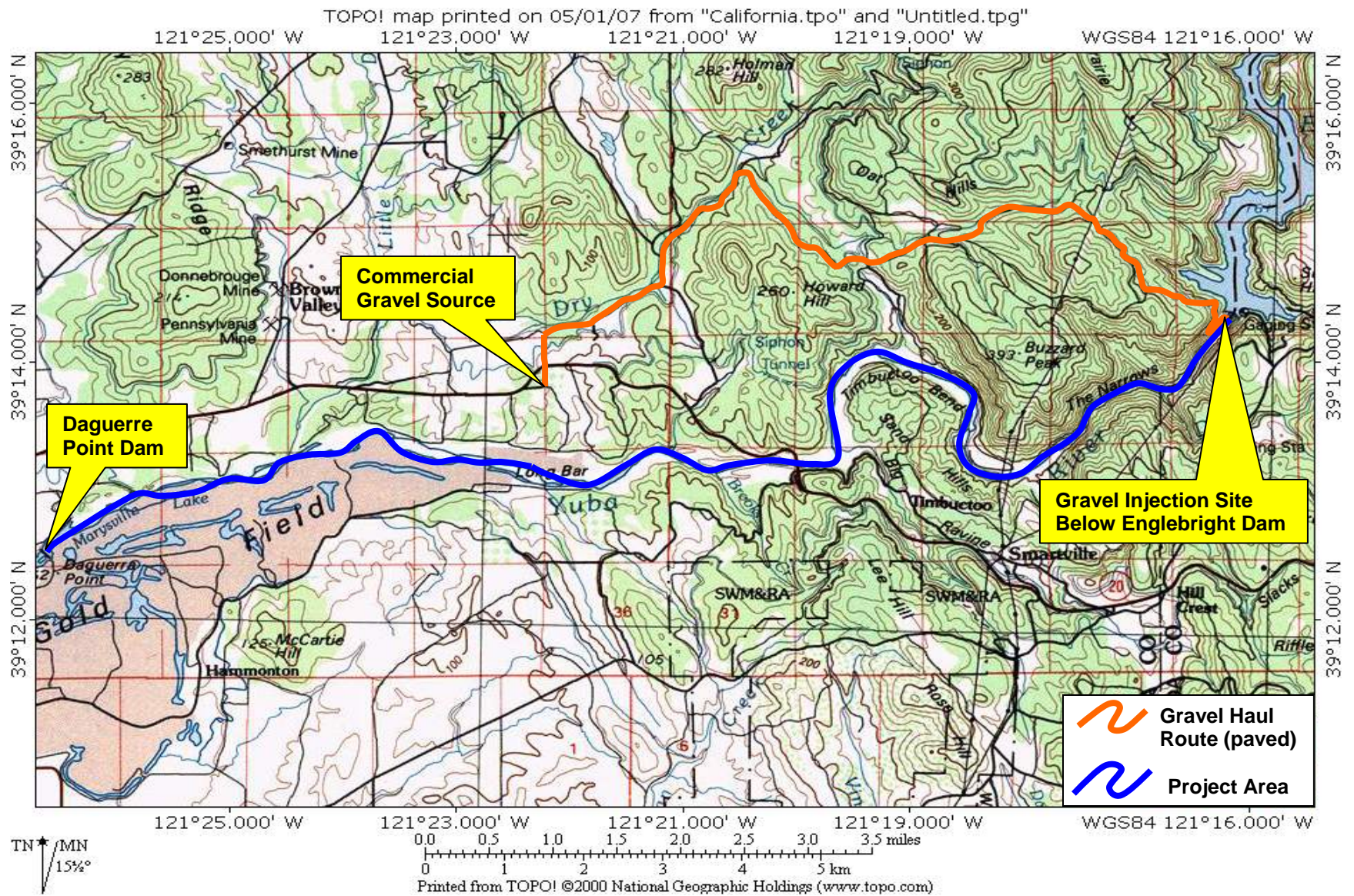


Plate 2. Project Area Map

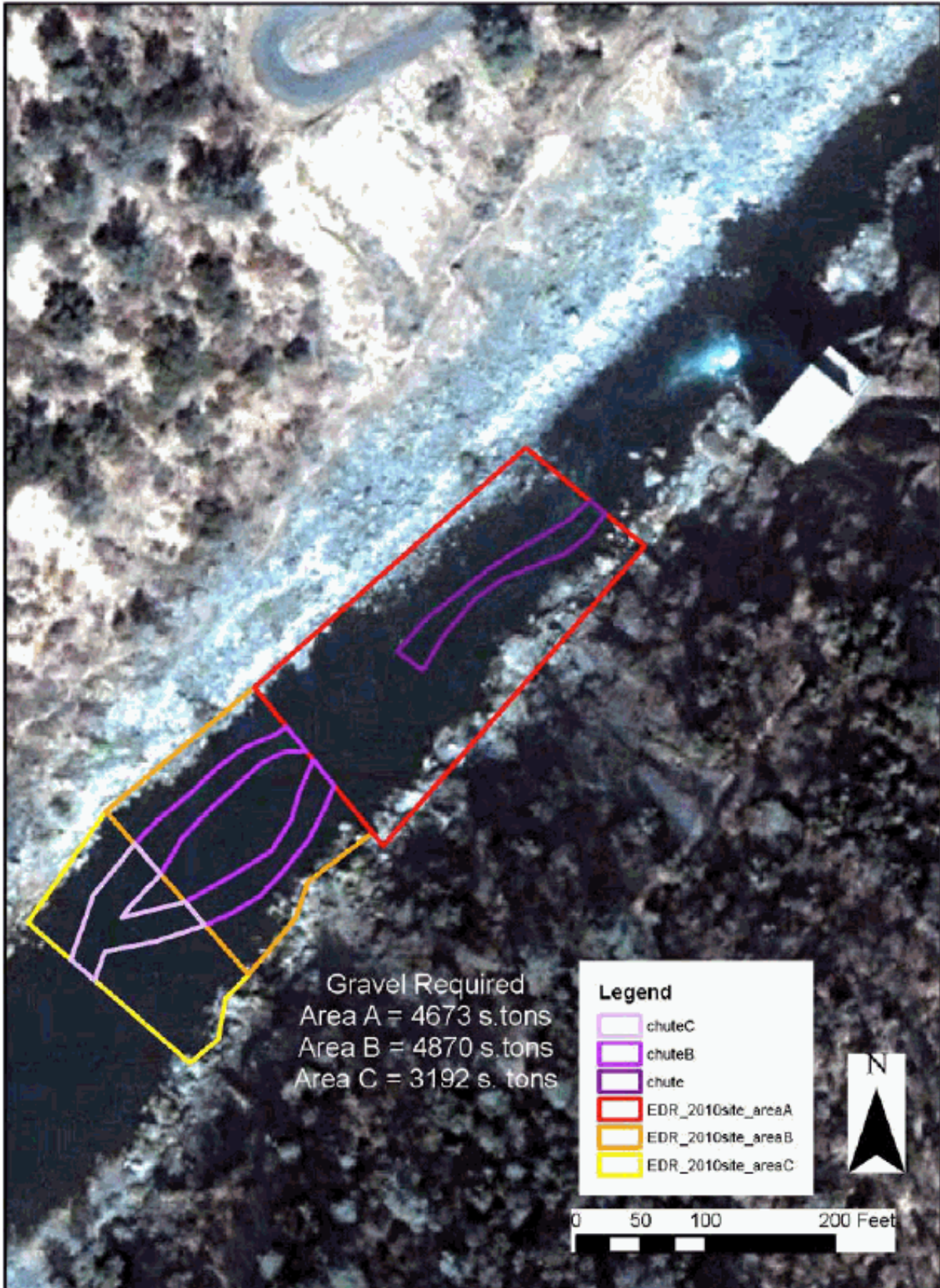
PLATE 3
LOWER YUBA RIVER



PLATE 4
LOCATION OF PROJECT FEATURES AND SCHEMATIC OF THE GRAVEL/COBBLE DELIVERY
SYSTEM



PLATE 5.
DESIGN CONCEPT FOR USING GRAVEL AUGMENTATION IN THE ENGLEBRIGHT DAM REACH,
TO POSSIBLY OBTAIN A SALMON-SPAWNING RIFFLE WITH DIVERSE MICROHABITAT FEATURES
(Pasternack 2010).



APPENDIX A

**JUNE 2012 AMENDMENT REQUEST LETTER NOVEMBER
&
NOVEMBER 2010 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

Dear Ms. Lee:

The purpose of this letter is to request an 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. A copy of the initial certification is enclosed for your consideration.

The amendment would allow the U.S. Army Corps (Corps) to implement a second 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 second injection would be identical to the first, 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 second injection is scheduled for the summer of 2012.

A 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 Dr. Doug Edwards, Environmental Planning Section, at Douglas.M.Edwards@usace.army.mil or (916) 557-7026. Thank you for your cooperation and time on this important project.

Sincerely,

Alicia E. Kirchner
Chief, Planning Division

Enclosures:
2010 Water Quality Certification



California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Arnold
Schwarzenegger
Governor

Linda S. Adams
Secretary for
Environmental
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

10 November 2010

Mitch Stewart
U.S. Army Corps of Engineers
1325 J Street
Sacramento, CA 95814

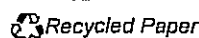
**CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY
CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE
ENGLEBRIGHT DAM REACH GRAVEL INJECTION PROJECT (WDID#5A58CR00081),
YUBA COUNTY**

This Order responds to your 13 October 2010 application submittal for the Water Quality Certification of a gravel augmentation project impacting approximately 0.90 acre of waters of the United States.

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. Certification is valid for the duration of the described project. This certification is no longer valid if the project (as currently described) is modified, or coverage under Section 404 of the Clean Water Act has expired.
5. All reports, notices, or other documents required by this 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.

California Environmental Protection Agency



- 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.
6. Any person signing a document under Standard Condition number 5 shall make the following certification, whether written or implied:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

ADDITIONAL TECHNICALLY CONDITIONED CERTIFICATION CONDITIONS:

In addition to the above standard conditions, U.S. Army Corps of Engineers shall satisfy the following:

1. U.S. Army Corps of Engineers shall notify the Central Valley Water Board in writing 7 days in advance of the start of any in-water activities.
2. Except for activities permitted by the U.S. Army Corps under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
3. All areas disturbed by project activities shall be protected from washout or erosion.
4. U.S. Army Corps of Engineers shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed project shall be adequately informed and trained regarding the conditions of this Certification.
5. An effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working during all phases of construction.
6. All temporarily affected areas will be restored to pre-construction contours and conditions upon completion of construction activities.

7. U.S. Army Corps of Engineers shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that project activities result in any materials reaching surface waters or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the project and 300 feet downstream of the active work area. Sampling results shall be submitted to this office within two weeks of initiation of sampling and every two weeks thereafter. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

| Parameter | Unit | Type of Sample | Frequency of Sample |
|---|--------------|---------------------|---|
| Turbidity | NTU | Grab | Every 4 hours during in water work |
| Settleable Material | ml/l | Grab | Same as above. |
| Visible construction related pollutants | Observations | Visible Inspections | Continuous throughout the construction period |

8. Activities shall not cause turbidity increases in surface water to exceed:
- (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
 - (b) where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU;
 - (c) where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - (d) where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - (e) where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be assessed by prior permission of the Central Valley Water Board.

9. Activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the project.
10. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. U.S. Army Corps of Engineers shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
11. U.S. Army Corps of Engineers shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.

12. U.S. Army Corps of Engineers shall comply with all California Department of Fish and Game 1600 requirements for the project.
13. U.S. Army Corps of Engineers must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board for any project disturbing an area of 1 acre or greater.
14. The Conditions in this water quality certification are based on the information in the attached "Project Information." If the information in the attached Project Information is modified or the project changes, this water quality certification is no longer valid until amended by the Central Valley Water Board.
15. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State law and section 401 (d) of the federal Clean Water Act. The applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Order.
 - a. If U.S. Army Corps of Engineers or a duly authorized representative of the project fails or refuses to furnish technical or monitoring reports, as required under this Order, or falsifies any information provided in the monitoring reports, the applicant is subject to civil, for each day of violation, or criminal liability.
 - b. In response to a suspected violation of any condition of this Order, the Central Valley Water Board may require U.S. Army Corps of Engineers to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
 - c. U.S. Army Corps of Engineers shall allow the staff(s) of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this certification and determining the ecological success of the project.
16. U.S. Army Corps of Engineers shall provide a Notice of Completion (NOC) no later than 30 days after the project completion. The NOC shall demonstrate that that the project has been carried out in accordance with the project's description (and any amendments approved). The NOC shall include a map of the project location(s), including final boundaries of any in situ restoration area(s), if appropriate, and representative pre and post construction photographs. Each photograph shall include a descriptive title, date taken, photographic site, and photographic orientation.
17. This project must implement all conservation measures described in the National Marine Fisheries Service's section 7 consultation response (2010/05132).

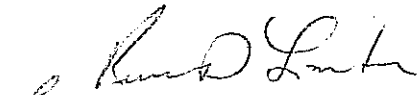
REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

Daniel Worth, Environmental Scientist
11020 Sun Center Drive #200
Rancho Cordova, California 95670-6114
dworth@waterboards.ca.gov
(916) 464-4709

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that any discharge from the U.S. Army Corps of Engineers, Englebright Dam Reach Gravel Injection Project (WDID# 5XXXCR00XXX) will comply with the applicable provisions of §301 ("Effluent Limitations"), §302 ("Water Quality Related Effluent Limitations"), §303 ("Water Quality Standards and Implementation Plans"), §306 ("National Standards of Performance"), and §307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification (General WDRs)".

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with U.S. Army Corps of Engineers' project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009.


for Pamela C. Creedon
Executive Officer

Enclosure: Project Information

cc: See enclosure, page 8

PROJECT INFORMATION

Application Date: 13 October 2010

Applicant: Mitch Stewart
U.S. Army Corps of Engineers
1325 J Street
Sacramento, CA 95814

Project Name: Englebright Dam Reach Gravel Injection Project

Application Number: W DID#5A58CR00081

Type of Project: Gravel Augmentation

Project Location: Section 14, Township 16 North, Range 6 East, MDB&M. Latitude: 39°14'20.72" and Longitude: 121°16'10.44"

County: Yuba County

Receiving Water(s) (hydrologic unit): Yuba River, Sacramento Hydrologic Basin, Unit #515.30, Lower Yuba River HA

Water Body Type: Streambed

Designated Beneficial Uses: The *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 (Basin Plan) has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include, but are not limited to: Municipal and Domestic Water Supply (MUN); Agricultural Supply (AGR); Industrial Supply (IND), Hydropower Generation (POW); Groundwater Recharge, Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); and Wildlife Habitat (WILD). A comprehensive and specific list of the Beneficial Uses applicable for the project area can be found at: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

303(d) List of Water Quality Limited Segments: The project does not impact an already impaired water body. The most recent list of approved water quality limited segments can be found at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/r5_06_303d_reqtmlds.pdf

Project Description (purpose/goal): The Englebright Dam Reach Gravel Injection Project consists of the placement of gravel and cobble into the Lower Yuba River channel to provide suitable substrate for Chinook salmon reproduction. The U.S. Army Corps of Engineers proposes to place 2,000 to 5,000 short tons (7,407 to 18,518 cubic yards) of washed gravel into the Yuba River 300 feet below Englebright Dam during November and December 2010. Gravel will be placed in an area of river approximately 400 feet in length, which is currently void of suitable substrate for salmonid spawning. The gravel will be obtained from a local aggregate producer within the local watershed. To reduce water quality impacts, all gravel will be washed thoroughly before arriving at the project site. The gravel will be placed into the river through a sluice pipe. Water pumped from Englebright Reservoir will be added to the

uphill end of the pipeline to facilitate the flow of gravel through the pipe. No heavy equipment will enter the river during this project. If all 5,000 tons of gravel cannot be placed in the Yuba River during 2010, the U.S. Army Corps of Engineers intends to place the remaining amount in 2011.

Preliminary Water Quality Concerns: Construction activities may impact surface waters with increased turbidity and settleable matter.

Proposed Mitigation to Address Concerns: U.S. Army Corps of Engineers will implement Best Management Practices (BMPs) to control sedimentation and erosion. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. U.S. Army Corps of Engineers will conduct turbidity and settleable matter testing during in-water work, stopping work if the Basin Plan criteria are exceeded or are observed.

Fill/Excavation Area: Approximately 18,518 cubic yards of clean gravel and cobble will be placed into approximately 0.90 acres of waters of the United States.

Dredge Volume: None

U.S. Army Corps File Number: None

U.S. Army Corps of Engineers Permit Number: None

Department of Fish and Game Streambed Alteration Agreement: U.S. Army Corps of Engineers is not required to apply for a Fish and Game permit.

Possible Listed Species: Central Valley steelhead, Chinook salmon

Status of CEQA Compliance: The Central Valley Water Board filed a Notice of Exemption for this project on 10 November 2010 under Section 15333, which exempts small habitat restoration projects less than five acres in size.

Compensatory Mitigation: None

Application Fee Provided: U.S. Army Corps of Engineers has refused to pay fees as required by 23 CCR §3833b(3)(A) and by 23 CCR §2200(e). The State Water Resources Control Board's 4 April 2010 Fee Policies and Procedures memo, that was titled Billing Guidelines For Federal Facilities, suggests that federal dischargers have a legal basis to refuse payment of fees specifically associated with dredge and fill operations.

DISTRIBUTION LIST

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(Electronic copy only) Bill Orme
State Water Resources Control Board
401 Certification and Wetlands Unit Chief

(Electronic copy only) Dave Smith
Wetlands Section Chief (W-3)
United States Environmental Protection Agency