

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT/
AND FINDING OF NO SIGNIFICANT IMPACT**

**CVPIA GRAVEL REPLENISHMENT PROGRAM
STANISLAUS RIVER AT RIVER MILE 58.2**

**U.S. Bureau of Reclamation
Mid-Pacific Region
Sacramento, California**

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U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

**MID-PACIFIC REGION
SACRAMENTO, CALIFORNIA**

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**CVPIA GRAVEL REPLENISHMENT PROGRAM
STANISLAUS RIVER AT RIVER MILE 58.2**

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for Chief, Division of
Environmental Affairs

FONSI No. 04-03-MP.

BACKGROUND

The Bureau of Reclamation (Reclamation) proposes to replenish spawning gravel at an existing restoration site in the Lower Stanislaus River to increase and improve chinook salmon, steelhead, and native rainbow trout spawning habitat. The need of the action derives from the declines of salmonid stocks due in part to loss of spawning habitat through curtailment of gravel recruitment due to blockage of the river channel by dams. Time and budget restraints limit the action to an existing restoration site.

PROPOSED ACTION

Initially (in the first year), up to 1,400 cubic yards (about 2,100 tons) will be added at this site and distributed across the active channel at the tail of a pool and across the riffle crest, see map. This is the second macro pool downstream of Goodwin Dam. Gravel will be placed at depths ranging from 2.5 to 7.0 feet deep and distributed across an area of pool tail/riffle crest covering about 1,000 square yards. As gravel is distributed downstream by flows, additional gravel, up to 5,000 additional cubic yards, will be added to this site in subsequent years. The water washed downstream will be utilized for many years for spawning until it reaches a deep bedrock pool about ¼ mile downstream. Gravel will be placed at intervals of one to a few years apart as the need is determined by ongoing monitoring of gravel conditions and fish use of the gravel. New gravel will be needed to replenish spawning gravel that washes downstream and is not replaced by upstream sources. Because access to the river for equipment is limited, gravel will be added using a “habitat builder”, which is a gravel pump.

Gravel was added at this site in 1997 and 1999 by helicopter and has been used by spawning salmonids each year since. The cost of using a helicopter is very high, so Reclamation will use a proprietary method termed the “Habitat Builder” in an effort to decrease costs. Costs during the initial project precluded adding the desired amount of gravel. Spawning gravel has been added nearly every year since about 1997 a few hundred yards downstream from this project site. Spawning gravel has been added at numerous locations in the Stanislaus River from two to about 15 miles downstream over the past several years.

Additional gravel would be added in any of the subsequent years up to 2008 if high river flows force gravel downstream. Within the next five years, funds are available to place additional spawning gravel each year at additional locations as mitigation for habitat loss. Reclamation would do additional environmental analysis and documents and apply for additional permits or amended permits for these other locations.

FINDINGS

Reclamation prepared an supplemental environmental assessment on the project in April 2004 which is incorporated by reference. The 1997 EA is also incorporated by reference. The Mid-Pacific Region of Reclamation has found that the proposed action is not a major Federal action that would significantly affect the quality of the human environment. Therefore, an environmental impact statement is not required for carrying out the proposed action.

Following are the reasons why the impacts of the proposed action are not significant:

1. Equipment access, maintenance, refueling, parking and staging areas will be identified in

consultation with U. S. Corps of Engineers (COE) personnel prior to project construction. Construction specifications will prohibit any equipment in or near the river which might affect water quality. Project construction will be regularly monitored by DFG personnel to help insure environmental compliance.

2. Turbidity downstream from the project site will be kept to a minimum during construction. Only a slight, temporary increase in turbidity is expected. River flows at the time of construction will be low enough (200 to 500 cfs.) to allow disturbed fine sediment to quickly settle out of the water column.
3. The project will not affect the valley elderberry longhorn beetle. Prior to laying the pipe from the staging area to the river, Reclamation will conduct a site survey to identify and flag any elderberry bushes. The pipe will be placed to avoid damage to any elderberry bushes by laying and removal of the pipe. If circumstances change and the project may affect the valley elderberry longhorn beetle, Reclamation will consult with the Fish and Wildlife Service.
4. The proposed action is not likely to affect the central valley steelhead or the essential fish habitat of fall-run chinook salmon. The placement of gravel will occur during a 2-week period from June 30 to September 1, before the spawning season and after the incubation period for steelhead trout and salmon. The National Marine Fisheries Service has concurred with this finding.
5. All appropriate permits and access agreements will be obtained prior to construction. COE park officials will be consulted on all activities within park boundaries or involving riparian vegetation. Oakdale Irrigation District officials will be consulted on all activities influencing their facilities.
6. Trucks delivering gravel will temporarily increase noise levels, but levels will be within the levels of existing activities.
7. There are no archeological or historical resources within the project area.
8. The proposed action will not affect any Indian Trust Assets.
9. The proposed action will not disproportionately affect minority and low-income populations and communities.

SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

Introduction

The purpose of this supplemental environmental assessment (SEA) is to provide additional environmental analysis for continuing the gravel addition project begun in 1997 in the Stanislaus River at Goodwin Canyon. The supporting documents for this SEA are the Bureau of Reclamation's Finding of No Significant Impact/Environmental Assessment (EA) on *Goodwin Canyon Gravel Addition Project* (July 1997) and the Department of Fish and Game's (DFG) Negative Declaration/Initial Study (IS) on *Stanislaus River Salmonid Habitat Improvement Goodwin Canyon Gravel Addition Project* (June 1997). These environmental documents analyzed the impacts of adding gravel to several sites on the Stanislaus River below Goodwin Dam to increase and improve chinook salmon, steelhead and native rainbow trout spawning habitat by restoring, at minimal cost, spawning gravels to an otherwise suitable spawning area in the Lower Stanislaus River. Figure 1 shows the general project vicinity.

The addition of 2,000 tons of spawning size gravel, to two sites ("Phase I") in the Goodwin Canyon reach of the Stanislaus River, was completed in October 1997. A front-end loader was used. In August 1998, 1,000 tons of spawning size gravel were added by helicopter to a third site ("Phase II") in this Goodwin Canyon reach. DFG biologists inspected this site in November 1998 and documented an increase from recent past years in chinook salmon redds. They also observed that gravel movement due to river flows occurred as expected with no adverse effects. From 2000 to 2003, additional spawning gravel were added to these sites.

This SEA describes additional gravel replenishment for the years 2004 to 2008 at the site at mile 58.2 of the Stanislaus River (Figure 2), which is the Phase II site described above. All other aspects of the 1997 EA and 1997 IS are still valid.

Purpose of Action

The purpose of the action is to replenish spawning gravel at an existing restoration site in the Lower Stanislaus River to increase and improve chinook salmon, steelhead, and native rainbow trout spawning habitat. The need of the action derives from the declines of salmonid stocks due in part to loss of spawning habitat through curtailment of gravel recruitment due to blockage of the river channel by dams. Time and budget restraints in 2004 limit this action to an existing restoration site.

Supplemental Proposed Action

Initially (in the first year), up to 1,400 cubic yards (about 2,100 tons) would be added at this site and distributed across the active channel at the tail of a pool and across the riffle crest, as shown in Figure 2. This is the second macro pool downstream of Goodwin Dam. Gravel would be placed at depths ranging from 2.5 to 7.0 feet deep and distributed across an area of pool tail/riffle crest covering about 1,000 square yards. As gravel is distributed downstream by flows, additional gravel, up to 5,000 additional cubic yards, would be added to this site in subsequent years. Figure 3 is an engineering drawing of the project site. The water washed downstream would be utilized for many years for spawning until it reaches a deep bedrock pool about ¼ mile

downstream. Gravel would be placed at intervals of one to a few years apart as the need is determined by ongoing monitoring of gravel conditions and fish use of the gravel. New gravel would be needed to replenish spawning gravel that washes downstream and is not replaced by upstream sources. Because access to the river for equipment is limited, gravel would be added using a “habitat builder”, which is a gravel pump as described below.

Gravel was added at this site in 1997, 1999, and 2000 by helicopter and has been used by spawning salmonids each year since. The cost of using a helicopter is very high, so Reclamation would use a proprietary method termed the “Habitat Builder” in an effort to decrease costs. Costs during the initial project precluded adding the desired amount of gravel. Spawning gravel has been added nearly every year since about 1997 a few hundred yards downstream from this project site. Spawning gravel has been added at numerous locations in the Stanislaus River from two to about 15 miles downstream over the past several years.

Additional gravel would be added in any of the subsequent years up to 2008 if high river flows force gravel downstream. Within the next five years, funds are available to place additional spawning gravel each year at additional locations as mitigation for habitat loss. Reclamation would do additional environmental analysis and documents and apply for additional permits or amended permits for these other locations.

Gravel Pump Description

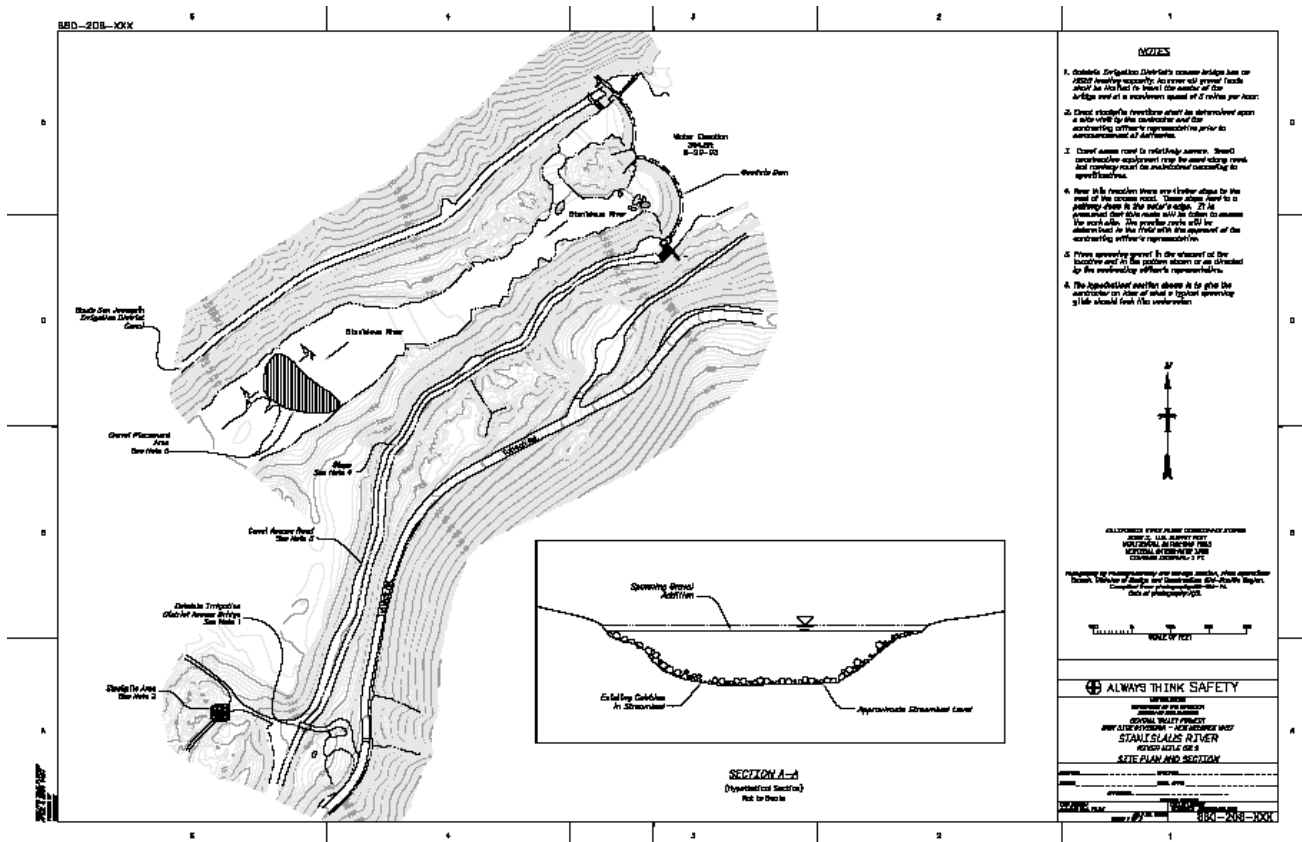
The “Habitat Builder”, as it is termed, is basically a gravel pump system. There are two six-inch water pumps which “y” into an eight-inch line. Gravel is screened and fed into a hopper. The gravel is then forced by water via a pump into the eight-inch line and is directed to wherever it is to be placed. Barrels are used to support the discharge pipe on the water’s surface, and help with the placement of the material.

This system is ideal in locations where leaving a minimal construction footprint is desired. The eight-inch “Yelomine” pipe is durable and fairly flexible and can be placed over the existing ground surface. Head-loss is a large concern with this system, so it needs to be placed in such a manner so that the pipe continuously maintains a downward slope. Clogging is an area of concern, although recent modifications have reduced this problem. The water pumps need to be within 30 vertical feet of a water source in order to have sufficient head to pump the water. This has been utilized by Carl Mesick Consultants on the Lower Stanislaus with positive results.

The project site has an irrigation canal immediately adjacent to where the gravel pump would be running. Water from the canal would be used to operate the gravel pump. The water taken would be metered and Reclamation would credit Oakdale Irrigation District for the water taken from the canal. The water quality in the canal is identical to that in the river. The canal water comes from Goodwin Dam, about 500 feet upstream of the project site.

The gravel would be stockpiled at the Corps of Engineers property as shown in Figure 2 and transported via a front-end loader along the canal access road to the gravel pump.





Timing for instream work

The timing window for instream work in the Stanislaus River as recommended by NOAA Fisheries is June 30 to September 1, before the spawning season and after the incubation period for steelhead trout and salmon. Work involving mobilizing gravel and equipment to the sites could occur outside of this time window, but all work in the water needs to be confined to this window.

The contractor would be allowed a maximum of 45 days from beginning to mobilize gravel and equipment through gravel placement and project completion. The actual placement of gravel would take less than two weeks.

Supplemental Environmental Analysis

During gravel placement, some turbidity would occur as the gravel is piped into the river. Turbidity would extend for approximately $\frac{1}{4}$ mile downstream to a large bedrock pool where turbidity is likely to dissipate. Past gravel placement projects have demonstrated that the turbidity at the site would end within less than one hour following completion of instream activities.

Gravel placement would occur in the late summer/early fall to avoid times when steelhead or Chinook eggs, the life stages most sensitive to such activities, could be incubating. Snorkel observations have revealed that during past gravel placement projects at this site and instream work at other sites, trout have been attracted by the activity and feed heavily just downstream of the site where food particles are often abundant. This area has a high concentration of trout year

round, but the turbidity does not appear to be substantial enough to negatively affect the fish in the river at the time as they are attracted to the sites.

Terrestrial effects would be limited to the area that the eight inch diameter pipe would be laid across the ground surface. This area is a vegetated riparian area. Grass and smaller shrubs could be flattened along the pipe path. The project would not affect the valley elderberry longhorn beetle. Prior to laying the pipe from the staging area to the river, Reclamation would conduct a site survey to identify and flag any elderberry bushes. The pipe would be placed to avoid damage to any elderberry bushes by laying and removal of the pipe. If circumstances change and the project may affect the valley elderberry longhorn beetle, Reclamation would consult with the Fish and Wildlife Service. No trees would be cut or damaged. The rest of the work area is already in a developed state.

Project construction would be regularly monitored by Department of Fish and Game (DFG) personnel to help insure environmental compliance.

The placement of gravel would improve salmon and trout spawning habitat. Spawning habitat in the Stanislaus River near Goodwin Dam is limited to the areas where spawning gravel is artificially placed. This area of the river has the coolest temperatures of the anadromous section of the river and is therefore an area where spawning needs to occur to maintain the resident trout and steelhead because they rear in the river year round. Steep cascades downstream of the project site preclude access to the area by juvenile trout and salmon from the next suitable spawning area two miles downstream. The habitat in between is primarily deep bedrock pool habitat with no available spawning habitat, but quite sufficient rearing area. In addition to the spawning habitat benefits, juvenile salmon and trout heavily utilize the areas where gravel has been added because velocities are favorable and food availability is high. DFG biologists inspected adjacent gravel placement sites and observed an increase in chinook salmon redds.

The proposed action would not affect the threatened Central Valley steelhead or the threatened valley elderberry longhorn beetle, as discussed above. No other threatened or endangered species have appropriate habitat in the area to be disturbed. It would not affect the essential fish habitat of fall-run chinook salmon.

Consultation and Coordination

Reclamation has worked with the Fish and Wildlife Service, California Department of Fish and Game, Army Corps of Engineers, and Oakdale Irrigation District in developing the proposed action.

Following are the permits or approvals needed for the proposed action:

PERMIT	PERMIT OBTAINED	STATUS
Section 404, Clean Water Act, discharge permit with the Corps - General Permit	No	Requested permission to use Nationwide permits 4 and 27.

May 27, 2004

PERMIT	PERMIT OBTAINED	STATUS
Stream Alteration Permit with DFG	Yes	Received extension of previous permit.
Section 401, Clean Water Act, water quality certification, with SWRCB - waver for water quality	No	Sent application on 4/30/04.
DWR Encroachment (on flood way of dam) with State Reclamation Board	Yes	Board said that there will never be a need to re-apply for the encroachment permit. We simply need to contact DWR 10-days prior to any activities. The DWR contact numbers are either (916) 574-1213 or (916) 574-1212.
Corps Access permit (to access Corps property since it is a Corps park)	No	Requested permit.
Oakdale Irrigation District Access Permit	Yes	Received temporary access permit.
Oakdale Irrigation District Water Use Permit	No	Requested permit
State Lands Lease Agreement	Yes	Existing agreement is still valid until 2022.
Endangered Species Act - FWS	Not needed	Project would not affect any listed or proposed species.
Endangered Species Act – NMFS	Yes	Received concurrence of not likely to affect determination.

ENVIRONMENTAL COMMITMENTS

1. Equipment access, maintenance, refueling, parking and staging areas will be identified in consultation with U. S. Corps of Engineers (COE) personnel prior to project construction. Construction specifications will prohibit any equipment in or near the river which might affect water quality. Project construction will be regularly monitored by DFG personnel to help insure environmental compliance.
2. Turbidity downstream from the project site will be kept to a minimum during construction. Only a slight, temporary increase in turbidity is expected. River flows at the time of construction will be low enough (200 to 500 cfs.) to allow disturbed fine sediment to quickly settle out of the water column.
3. Prior to laying the pipe from the staging area to the river, Reclamation will conduct a site survey to identify and flag any elderberry bushes. The pipe will be placed to avoid damage to any elderberry bushes by laying and removal of the pipe. If circumstances change and the project may affect the valley elderberry longhorn beetle, Reclamation will consult with the Fish and Wildlife Service.
4. The placement of gravel will occur during a 2-week period from June 30 to September 1, before the spawning season and after the incubation period for steelhead trout and salmon.
5. All appropriate permits and access agreements will be obtained prior to construction. COE park officials will be consulted on all activities within park boundaries or involving riparian vegetation. Oakdale Irrigation District officials will be consulted on all activities influencing their facilities.