General:	
Title	Description
b13 Administration	Spawning and Rearing Habitat Restoration Program Admin

Authority:		
Provision	Percentage	Comments
b13	100	
No Location IDs Listed		

No Watershed Listed

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
10/1/2014	10/1/2014	9/30/2016

No Benefits Listed

Deliverable(s):		
Date	Title	
12/31/2014	Aerial photography completed on the American and Sacramento Rivers	
7/1/2015	2015 Permits completed for projects on Sacramento, American, and Stanislaus Rivers	
9/30/2015	2015 Projects completed on the Sacramento, American, and Stanislaus Rivers	
7/1/2016	2016 Permits completed for projects on Sacramento, American, and Stanislaus Rivers	
9/30/2016	2016 Projects completed on the Sacramento, American, and Stanislaus Rivers	

Program Priority:	
Rank	Comment
1	Program Priority Comments:

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$285,000
2015	WRR	\$100,000
2016	CVPRF	\$300,000

Final Total
\$685,000

Partners:	Related Programs:
Partner Name	Program Name
CDFW	AFRP
CDWR	CAMP
NMFS	

Narrative:

Narrative Description

This is the administration of the b13 Spawning and Rearing Habitat Restoration Program. This includes the salaries of the Reclamation and USFWS coleads and activity managers and other technical specialists who assist in environmental compliance, engineering, and construction oversight tasks.

Risk Management:		
Risk Description	Likelihood	Risk Impact
Program funding in light of drought conditions	1	1
Office priorities in light of flood and drought conditions	1	1

Data Management:

Description

Information generated from the charter is archived at Reclamation's Bay-Delta Office, regional office and Northern California Area Office, as well as USFWS's Bay-Delta Office.

Year	Activity			Activity Desc	ription
2015	Administration Program management		·		
Resource	Agency	Resource Type	FTE	Total Fund	Description
FWS co-lead	FWS	Staff Position	1	CVPRF	funds this position at 0.44 FTE capacity
BOR Lead and activity manage	BOR	Staff Position	1	CVPRF	Staff position from Bay Delta Office and Northern California Area Office
Year	Activity			Activity Desc	ription
2015	Ţ	ental Compliance a	nd Permitting	, , , , , , , , , , , , , , , , , , , ,	
Resource	Agency	Resource Type	FTE	Total Fund	Description
NEPA compliance	BOR	Staff Position		WRR	funds Mid Pacific and Bay-Delta Office environmental specialists and archaeologists
Year	Activity			Activity Desc	rintion
2015	Ţ	Reconnaissance		Aerial Photog	
Resource	Agency		FTE	Total Fund	Description
Riparian photo contract	BOR	Contracts and Agreements Contract	112	CVPRF	American and Sacramento Rivers
Year	Activity			Activity Desc	ription
2015	Managem	ent		Technical sur	pport for engineering, construction and
Resource	Agency	Resource Type	FTE	Total Fund	Description
Engineering technician	BOR	Staff Position		WRR	funds technical support at 0.35 FTE
Year	Activity			Activity Desc	ription
2016	Administra	ation		Program mar	
Resource	Agency	Resource Type	FTE	Total Fund	Description
FWS co-lead	FWS	Staff Position	1	CVPRF	funds this position at 0.40 FTE capacity
BOR Lead and activity manage	BOR	Staff Position	1	CVPRF	
Year	Activity			Activity Desc	ription
2016	Environm	ental Compliance a	ind Permitting	•	
Resource	Agency	Resource Type	FTE	Total Fund	Description
NEPA compliance	BOR	Staff Position		CVPRF	funds Mid Pacific and Bay-Delta Office environmental specialists and archaeologists
Year	Activity			Activity Desc	ription
2016	Ţ	Reconnaissance		Aerial Photog	•
Resource	Agency	Resource Type	FTE	Total Fund	Description
Riparian photo contract, monitoring support	BOR	Contracts and Agreements Contract		CVPRF	

General:	
Title	Description
American River Spawning and Rearing Habitat	Restoration and enhancement of spawning and rearing habitat for anadromous fish in the Lower American River downstream of Nimbus Dam, primarily
	through gravel addition and/or floodplain or side channel excavation.

Authority:		
Provision	Percentage	Comments
b1	35	AFRP will likely fund ~\$150,000
b13	65	\$400,000

Location ID(s):					
Latitude	Longitude				
38.6217	-121.2853				

Watershed(s):	
Watershed Name	
American River	

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
10/1/2014	9/30/2015	9/28/2018

Benefit(s):				
Metric	Value	Units	Comment	
b13: American R: percentage of spawning CHINOOK using placed gravel	25	percentage of fish		
b13: American R; Spawning gravel placed annually(tons)	7000	tons		
b13: American R: percentage of egg retention in females	0	percentage of fish		
b13: American R: percentage of spawning STEELHEAD using placed gravel		percentage of fish		

Deliverable(s):			
Date	Title		
9/30/2015	2015 Biological monitoring results		
9/30/2015	2015 Physical monitoring results		
9/30/2015	2015 Engineering design and as-built data and report		
9/30/2015	SDM model for Lower American River		
9/30/2016	2016 Site design, monitoring and as-builts		

Program Priority:	
Rank	Comment
1	

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Estimated Cost(s):			
Fiscal Year	Fund	Total	
2015	CVPRF	\$550,000	
2016	CVPRF	\$550,000	

Final Total \$1,100,000

Partners:
Partner Name
CDFW
NMFS
CSUS
Sacramento County
Cramer Fish Sciences
Sacramento Water Forum
cbec, inc.

Related Programs:	
Program Name	
AFRP	
CVPIA b13	

Narrative:

Narrative Description

In a free flowing river rocks, gravel, dirt, and other materials are continually moving downstream providing diverse habitats for successful salmonid spawning and juvenile rearing. The construction of dams has had a dramatic effect on streams by impeding this process. Below the dams coursecoarse sediment continues to be transported downstream by the flowing water without it being replaced by upstream sources. Section 3406(b)(13) was included in the CVPIA to provide for a continuing program for replacing, as needed, this material blocked by the dams along with the associated habitat values. Sediment deficits have been estimated for the project rivers. This program seeks to replace a portion of the gravel deficits with a focus on sites where the greatest habitat values can be achieved. Spawning gravel is most limited and adult fish are usually most abundant in upstream reaches below the dams so the program has focused on those areas first. The program is now implementing projects that incorporate both spawning and rearing habitat features to address the freshwater lifestages of salmonids. The major program performance goals as stated in CPAR and other documents are to (1) increase the availability of spawning and rearing habitat for American River Basin Chinook salmon and steelhead trout by placing 7,000 tons of gravel; (2) Support at least 25% of riverwide spawning salmonids on gravel placement projects; (3) Less than 10% egg retention in Chinook salmon.

Gravel in the American River has been placed to create habitat features anticipated to be immediately usable by salmonids. Gravel has been placed at eight sites in the American River in 1999 and 2008 - 2013: three locations at Sailor Bar, two locations at upper Sunrise, downstream of Lower Sunrise Bridge, at Sacramento Bar, and at Riverbend Park/William Pond Park. The substrate at the sites was manipulated prior to gravel placement in order to improve water quality conditions within the gravel (the area where eggs develop) after the gravel was in place. The conditions in the regions where gravel was placed has been monitored and compared with pre-project conditions and to conditions in adjacent areas. A five year series of projects began implementation in 2008 and a series of five new sites (projects) will be selected using a Structured Decision Making process and permitted in FY15. Reclamation contracted with the Water Forum (City of Sacramento) for assistance in the permitting, placement, and monitoring of projects. Placements through 2013 totaled 91,880 tons. Work has occurred at eight of the nine sites (six main channel and three side channel sites) identified in the initial planning document. The program is continuing work on a planning framework using a Structured Decision Making process to help guide American River project selection, design, and monitoring. A data repository is being developed to house documents and data relevant to the projects.

Risk Management:		
Risk Description	Likelihood	Risk Impact
landowner agreements	2	2

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Data Management:

Description

A data repository is being developed to house documents and data relevant to the projects. In addition, monitoring data will be incorporated into the Lower American River SDM (Structured Decision Making) model as it becomes available, so that knowledge gained through implementation and monitoring is accessible and used to influence future decisions in an adaptive management framework.

Year	Activity		Activity Desc	Activity Description		
2015	Implemen	tation		Permit, desig	Permit, design, implement, and monitor the project.	
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Sacramento Water Forum	BOR	Contracts and Agreements Cooperative Agreement		CVPRF	b13 will fund \$400,000 and b1 will likely fund ~\$150,000 in FY15. New project sites and types will be selected through American River SDM process.	
Sacramento Water Forum	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF	AFRP will likely fund ~\$150,000	

Year	Activity		Activity Descr	Activity Description	
2016	Implemen	tation		Permit, desig	n, implement, and monitor the project.
Resource	Agency	Resource Type	FTE	Total Fund	Description
Sacramento Water Forum	BOR	Contracts and Agreements Cooperative Agreement		CVPRF	b13 will fund \$400,000 and b1 will likely fund ~\$150,000 in FY16. New project sites and types will be selected through American River SDM process.
Sacramento Water Forum	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF	AFRP will likely fund ~\$150,000 in FY16.

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General:	
Title	Description
Sacramento River Salmonid Spawning and Rearing	Implements a series of salmonid spawning and rearing habitat improvement
Habitat Restoration	projects in a 14 mile reach below Keswick Dam.

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Alithority	7"
Authority	٧.

Provision	Percentage	Comments
b13	100	

Location ID(s):	
Latitude	Longitude
40.59088	-122.36701

Watershed(s):

Watershed Name

Sacramento River Upper Mainstem

Schedule:

Funding Begins	Benefits Begin	Funding Complete
10/1/2014	10/1/2015	10/1/2021

Benefit(s):

Metric	Value	Units	Comment
b13: Sacramento R: percentage of spawning salmonids using placed	0	redds/sq. meter	Units should be percent of total redds.
gravel			

Deliverable(s):

\ <i>J</i>	
Date	Title
11/30/2014	NEPA document done
9/30/2015	First year project site completed
9/30/2016	Second year project site completed

Program Priority:

Rank	Comment
1	

Estimated Co	ost(s):	
Fiscal Year	Fund	Total
2015	CVPRF	\$1,600,000
2016	CVPRF	\$600,000

Final Total
\$2,200,000

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Partners:
Partner Name
NMFS
USACE
Glenn Colusa Irrigation District
Golden Gate Salmon Association
Western Shasta Resource Conservation District
CDFW
CDWR

Related Programs:
Program Name
AFRP

Narrative:

Narrative Description

Implements the annual salmonid spawning and rearing habitat restoration project on the Sacramento River in the 14 mile reach below Keswick Dam. Activities include gravel placement, side channel creation and enhancement, floodplain enhancement, woody material and boulder additions, permitting, and effectiveness monitoring. Monitoring includes riverwide monitoring and site specific monitoring before, during, and after implementation at treatment and control sites.

Risk Management:				
Risk Description	Likelihood	Risk Impact		
Cost Share agreement	2	2		
Flows and fish timing windows do not allow for instream work to occur.	2	2		
Permitting red tape	2	2		

Data Management:

Activity

Implementation

Description

Year

2015

Data maintained by USBR and USFWS project managers and will be disseminated in annual reports.

Contacts: Tom Kisanuki at the Reclamation Shasta Office, John Hannon at the Reclamation Bay Delta Office, and Julie Zimmerman at the USFWS Bay Delta Office.

Activity Description

Implement annual salmonid spawning and rearing

	·			compliance a	vement project to include design, env. nd permitting and pre- and post-project determine effectiveness.
Resource	Agency	Resource Type	FTE	Total Fund	Description
Western Shasta Resource Conservation District	BOR	Contracts and Agreements Cooperative Agreement		CVPRF	Implements an in-river project including side channel habitat and gravel.
Year	Activity			Activity Descr	ription

rear	Activity			ACU	vity Descr	iption
2016	Implement	ation		habi com	tat improv pliance a	nual salmonid spawning and rearing vement project to include design, env. nd permitting and pre- and post-project determine effectiveness.
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Western Shasta Resource Conservation District	BOR	Contracts and Agreements Cooperative Agreement			CVPRF	Implements an in-river project including side channel habitat and gravel.

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General:	
Title	Description
Stanislaus River Salmonid Spawning and Rearing	Implements annual spawning and rearing habitat restoration project on the
Habitat Restoration	Stanislaus River - Current locations are at Goodwin Rec area (gravel
	augmentation) and Two Mile Bar (side channel creation, floodplain
	enhancement and gravel augmentation).

Authority:	
Provision	Percentage Comments
b13	100 b1 will likely contribute and has a charter for Goodwin gravel

Location ID(s):	
Latitude	Longitude
37.8415	-120.6440

Watershed(s):	
Watershed Name	
Stanislaus River	

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
10/1/2014	9/30/2015	9/29/2017

Benefit(s):				
Metric	Value	Units	Comment	
b13: Stanislaus R: percentage of spawning salmonids using placed gravel	25	percentage of fish		
b13: Stanislaus R; Spawning gravel placed annually (tons)	3000	tons	Also, RPA action for steelhead	

Deliverable(s):	
Date	Title
9/30/2015	2015 Project Implemented
9/30/2016	2016 Project Implemented

Program Priority:		
Rank	Comment	
1		

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$300,000
2016	CVPRF	\$300,000

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Final Total \$600,000

Partners:	Related Programs:
Partner Name	Program Name
Oakdale Irrigation District	CVPIA b1
CDFW	
USACE	
South San Joaquin Irrigation District	
Mangante Livestock	

Narrative:

Narrative Description

The project implements spawning and rearing habitat improvement projects in the Stanislaus River. Current project locations are in Goodwin Canyon at the Goodwin Dam Recreation Area access and at Two mile Bar (two miles downstream of Goodwin Dam). The top priority action is creating of side channel habitat, enhanced floodplain habitat, and gravel augmentation at Two Mile Bar. The site is on private land where we have been working out the technical details for an agreement with the landowner. Work would occur here if an agreement can be put in place in time. The fallback will be gravel augmentation and existing sites in Goodwin Canyon. Draft designs have been completed for Two Mile Bar for interagency review.

The Goodwin Canyon work overlaps with a similar charter submitted under b1 for a larger long-term gravel gravel addition project.

This project includes all the permitting, design, implementation, and associated effectiveness monitoring.

Risk Management:					
Risk Description	Likelihood	Risk Impact			
Landowner agreements not worked out	2	2			
Permitting red tape	2	2			
State cost share not worked out.	2	2			

Data Management:

Description

Data maintained by USBR and USFWS project managers and will be disseminated in annual reports. Contacts: John Hannon at USBR Bay-Delta Office; Julie Zimmerman at USFWS Bay-Delta Office.

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Year	Activity			Activity	Activity Description		
2015	Implementation				Permit, design, implement, and monitor project effectiveness.		
Resource	Agency	Resource Type	FTE	Total Fu	ınd	Description	
Competitive Biofor coop agreement at Two Mile Bar or contract for Goodwin Canyon.		Contracts and Agreements Cooperative Agreement		CV	/PRF	Cost covers gravel augmentation at existing sites in Goodwin Canyon accessed through the Goodwin Recreation area. Additional funding will be sought if Two Mile Bar is able to be implemented in 2015. Goodwin gravel project overlaps with a b1 charter for expanded gravel augmentation at Goodwin Rec	

Year	Activity			Activity Descr	Activity Description		
2016	Implementation			Permit, design, implement, and monitor project effectiveness.			
Resource	Agency	Resource Type	FTE	Total Fund	Description		
Competitive Bid for coop agreement at Two Mile Bar or contract for Goodwin Canyon		Contracts and Agreements Cooperative Agreement		CVPRF	Cost covers gravel augmentation at existing sites in Goodwin Canyon accessed through the Goodwin Recreation area. Additional funding will be sought if Two Mile Bar is able to be implemented in 2016. Goodwin gravel project overlaps with a b1 charter for expanded gravel augmentation at Goodwin Rec.		

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