

Annual Charter Report

General:

Title	Description
b1 AFRP Program Administration and Management	FY15 AFRP Program Administration, Management and Delivery. Includes all aspects of FY15 AFRP program except State (CDFW) HRC agreement and specific projects.

Authority:

Provision	Percentage	Comments
b1	100	

No Location IDs Listed

Watershed(s):

Watershed Name
Central Valley-Wide

Schedule:

Funding Begins	Benefits Begin	Funding Complete
10/1/2014	10/1/2014	12/31/2015

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	0	N/A	Work completed by FWS and BOR staff related to the management and delivery of the Anadromous Fish Restoration Program significantly contributes to advancing and completing priority actions.

Deliverable(s):

Date	Title
5/5/2014	Submissions for FY15 projects, ongoing project updated needs and non-AFRP FWS staff time requests
12/31/2014	Contributions to FY14 CVPIA annual accomplishment report

Program Priority:

Rank	Comment
1	Program Priority Comments: This is the highest priority for AFRP as it includes all aspects of program staffing, administration, management and delivery for FY2015

Estimated Cost(s):

Fiscal Year	Fund	Total
2015	CVPRF	\$422,203
2015		\$2,406,857

Final Total
\$2,829,060

No Partners Listed

No Related Programs Listed

Narrative:

Narrative Description
 Cost includes USFWS Program Lead, Assistant Program Manager, Habitat Restoration Coordinators and Assistant Habitat Restoration Coordinators stationed at the Stockton Fish and Wildlife Office (7.55 FTE); USFWS Habitat Restoration Coordinators stationed at the Red Bluff Fish and Wildlife Office (2 FTE); USBR Program Lead stationed at the Northern California Area Office (0.11 FTE); USFWS CVPIA Program Lead (0.20 FTE) stationed at the Pacific Southwest Regional Office; and full time three senior level or equivalent biologists with CDFW. For additional specific details related to the duties and efforts of these staff please see the AFRP general program narrative.

Risk Management:

Risk Description	Likelihood	Risk Impact
USFWS/USBR staffing limitations	2	2

Data Management:

Description
 All relevant data/information related to AFRP annual contributions to FY2014 program accomplishments, FY2015 projects and activities and FY2016 annual work plan development will be submitted to CVPIA when annual calls for these data are issued. The AFRP program manager and assistant program manager will also keep secure backups of all correspondence, data and additional information provided to the CVPIA program whenever possible.

Year	Activity	Activity Description
2015	Administration	This includes the USFWS and USBR Program Leads, USFWS Assistant Program Manager and USFWS CVPIA Program Manager.

Resource	Agency	Resource Type	FTE	Total Fund	Description
USFWS AFRP Administration staff	FWS	Staff Position	2		Based on Stockton Fish and Wildlife predicted FY15 FTE rate
USBR Program Lead	BOR	Staff Position	0.11		Used FY14 FTE rate plus 1%

Year	Activity	Activity Description
2015	Planning and Analysis	Stockton Fish and Wildlife Office HRCs and Assistant HRCs

Resource	Agency	Resource Type	FTE	Total Fund	Description
Red Bluff FWO HRCs	FWS	Staff Position	2		Red Bluff FWO HRCs, based on FY14 FTE plus 1%
3 CDFW biologists (State HRCs)	DFW	Staff Position	1	CVPRF	Managed as a cooperative agreement between USFWS and CDFW. These positions are staffed out of CDFW Regions 1, 3, and 4.
STFWO HRCs and Assistant HRCs	FWS	Staff Position	5.75		STFWO HRCs and Assistant HRCs, based on STFWO FY15 FTE estimated rate.

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General:	
Title	Description
b1 Yuba River Daguerre Alley Floodplain Restoration Project	Yuba River Daguerre Alley Floodplain Restoration Project

Authority:		
Provision	Percentage	Comments
b1	100	\$1.6M in FY2015; No other FWS, BOR, or State funding.

Location ID(s):		
	Latitude	Longitude
	39.20280	-121.4587

Watershed(s):	
Watershed Name	
Yuba River	

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
8/1/2013	12/31/2014	12/31/2018

Benefit(s):			
Metric	Value	Units	Comment
b1: # Fall-run Chinook		1miles	Miles of Habitat Restored.
b1: # Fall-run Chinook		1miles	Miles of Riparian Habitat Enhanced.

Deliverable(s):	
Date	Title
12/31/2016	Annual Report

Program Priority:	
Rank	Comment
2	Program Priority Comments:

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$1,600,000
2016	CVPRF	\$200,000

Final Total
\$1,800,000

Partners:	
Partner Name	

No Related Programs Listed

cbec, inc.
PG&E
South Yuba River Citizens League
Cramer Fish Sciences
Teichert Aggregates

Narrative:

Narrative Description

"Daguerre Alley" is a large (2.5-mile long x 0.1 mile wide) remnant Yuba River channel located downstream of Daguerre Point Dam, on lands which are part of the Teichert Hallwood Facility gravel operation. Fish habitat enhancement will be achieved through increased frequency of surface water connectivity between the main Yuba River channel and the existing small, intermittent channel and extensive floodplain of Daguerre Alley. Also, improved habitat features will be constructed and floodplain revegetation will be implemented to provide high quality, off-channel rearing habitat for juvenile Chinook salmon and steelhead which currently is very limited in the lower Yuba River. Initial site visits and baseline mapping and modeling were conducted by the Yuba River Management Team. A small (\$25,000) FY2012 grant from PG&E to cbec funded initial meetings with the landowner, hydrologic modeling, and habitat restoration concept designs. Funding from AFRP (\$150K in FY2013 and \$150K in FY2014) is being used to complete an alternatives analysis and initial project design, continue discussions with the landowner, conduct pre-project fish and habitat monitoring (before-after-control-impact (BACI) design), and complete permitting. Implementation is expected to begin in FY2015. cbec is the AFRP grantee, but Cramer Fish Sciences and SYRCL will assist with fish monitoring and riparian planting, respectively.

Due to the size of the site, the project has the potential to be quite large, depending on funding; up to 150 acres of floodplain habitat and approximately 2.5 miles of side channel habitat could be restored. Work in FY2015 is expected to include extensive grading/floodplain lowering and riparian planting of approximately 40-50 acres of floodplain habitat, and modifying and extending the existing side channel by approximately 0.3 miles. We are requesting implementation funding of \$1.6M for FY2015. Cost estimates are based on experience with habitat restoration in the lower American River, and riparian planting completed at Hammon Bar in the lower Yuba River (SYRCL 2013). The landowner is Teichert Aggregates, and the Teichert Hallwood Plant manager has enthusiastically provided access to the property for riparian and fish monitoring by various agencies and groups. Teichert does not have permits to mine in Daguerre Alley itself, but has expressed interest in participating in the project so as to gain access to the substrate removed from floodplain grading. Teichert's participation likely would reduce the cost of the project, but there is some uncertainty due to the need to coordinate with their anticipated mining activities. Fall- and spring-run Chinook salmon and steelhead will benefit from this project. The project directly addresses AFRP Final Restoration Plan/CPAR non-structural action E4, Evaluate the benefits of restoring stream channel and riparian habitats of the Yuba River, including the creation of side channels for spawning and rearing habitats for salmonids. The Yuba River was identified as a CVPIA priority stream in the USFWS Fish Focus Group (FFG) process circa 2008, although it was not designated as a watershed priority in the Final Restoration Plan. Similarly, juvenile rearing habitat in the Yuba River was not identified as a primary or secondary limiting factor in the Final Restoration Plan, but was identified as the primary limiting factor by the FFG.

Reference:

South Yuba River Citizens League. 2013. Hammon Bar Riparian Enhancement Project Report. Prepared for the U.S. Fish and

Risk Management:

Risk Description	Likelihood	Risk Impact
Additional coordination with the landowner regarding their mining schedule, etc. is required.	2	1

Data Management:

Description

All reports and monitoring data files including pre-and post- project monitoring which includes but not limited to topographic surveys, biological and physical environmental data, HEC-RAS model, ArcView GIS shapefiles and coverages, geodatabase, Computer Aided Design (CAD) drawing files, and all supporting information used for project design and permitting will be saved on computers located at the cbec, inc. office in West Sacramento and backed up on an offsite server. Electronic copies will be provided to USFWS-AFRP.

Year	Activity	Activity Description				
2015	Construction	40-50 acres of floodplain grading and riparian planting, 0.3 miles of side-channel restoration.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Daguerre Alley Floodplain Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Work may extend into out years depending on the landowner's mining schedule.

Year	Activity	Activity Description				
2015	Monitoring	Pre- and post-project fish and habitat monitoring.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Daguerre Alley Floodplain Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Monitoring will extend into out years and may include cage studies to examine fish growth.

Year	Activity	Activity Description				
2016	Construction	40-50 acres of floodplain grading and riparian planting, 0.3 miles of side-channel restoration.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Daguerre Alley Floodplain Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Work may extend into out years depending on the landowner's mining schedule.

Year	Activity	Activity Description				
2016	Monitoring	Pre- and post-project fish and habitat monitoring.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Daguerre Alley Floodplain Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Monitoring will extend into out years and may include cage studies to examine fish growth.

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General:

Title	Description
b1 Yuba River Narrows Restoration Project	Yuba River Narrows Restoration Project

Authority:

Provision	Percentage	Comments
b1	100	\$1M in FY2015; \$1M in FY2016 plus \$10K for FWS staff hydrologic assistance; no other FWS, BOR, or State funding.

Location ID(s):

Latitude	Longitude
39.23022	-121.2788

Watershed(s):

Watershed Name
Yuba River

Schedule:

Funding Begins	Benefits Begin	Funding Complete
8/1/2012	12/31/2014	9/30/2017

Benefit(s):

Metric	Value	Units	Comment
b1: # Fall-run Chinook	1	miles	Miles of Habitat Restored.

Deliverable(s):

Date	Title
12/31/2016	Annual Report

Program Priority:

Rank	Comment
3	High priority for 2015 implementation. Total cost for FY2015 may be reduced by shifting some funding to FY2016 for 2nd year of implementation.

Estimated Cost(s):

Fiscal Year	Fund	Total
2015	CVPRF	\$1,000,000
2016	CVPRF	\$1,010,000
2017	CVPRF	\$70,000

Final Total
\$2,080,000

Partners:
Partner Name
UC-Davis
USACE
Cramer Fish Sciences
Yuba River Management Team
ESA

No Related Programs Listed

Narrative:

Narrative Description

The 2-mile reach of the lower Yuba River just downstream of Englebright Dam (the Englebright Dam/Narrows reach) comprises a canyon, and the substrate primarily is bedrock; consequently it is very different from the rest of the lower Yuba River, much of which has extensive gravel substrate due to legacy gold mining. Extensive mapping and hydrologic modeling of the reach has occurred both as part of this award and by the Yuba River Management Team and USACE (e.g., Brown and Pasternack 2014; both Brown (ESA/UC-Davis) and Pasternack (UC-Davis) are involved in this project). Also, a draft habitat restoration planning document for the Englebright Dam/Narrows reach already has been developed as part of this award, and will be finalized in FY2014, as will designs and permits for an initial project. ESA is the grantee, but Cramer Fish Sciences has been assisting with fisheries analyses and monitoring, and Greg Pasternack of UC-Davis has an advisory role. The project has the potential to be quite large, depending on funding, although all 2 miles cannot be accessed by heavy equipment. As indicated by the planning document analysis, habitat restoration will primarily target restoration of spawning habitat for spring-run Chinook salmon, and likely involve some combination of gravel augmentation and channel contouring, gravel stockpiling (for free distribution at high flows), and the removal of "shotrock," a remnant of dam construction. In the past, spring-run Chinook salmon have been observed attempting to spawn on the bedrock, and small gravel augmentation efforts by USACE (about 4000 cubic yards in 2010-11, 2012, and 2013) have quickly attracted spawners.

Cost estimate for implementation in FY2015 is \$1M, with an additional \$1M in FY2016 depending on the size and actions selected. Cost estimates are based on experience with habitat restoration in the lower American River, but transportation costs (e.g., for gravel or shotrock) are expected to be high for this project due to the canyon location. As an additional reference, the Final Habitat Expansion Plan for Central Valley spring-run Chinook salmon and California Central Valley steelhead (CDWR and PG&E 2010) estimates the cost of removing the majority of the shotrock from a key location (Sinoro Bar) in the Englebright Dam/Narrows Reach at approximately \$5.9M and a second project primarily involving gravel augmentation and grading at \$1.8M. For our project, shotrock will be removed on a trial basis. Spring-run Chinook salmon and steelhead will benefit from this project. The Yuba River was identified as a CVPIA priority stream in the USFWS Fish Focus Group (FFG) process circa 2008, although it was not designated as a watershed priority in the Final Restoration Plan. The project addresses AFRP Final Restoration Plan/CPAR non-structural action E4, Evaluate the benefits of restoring stream channel and riparian habitats of the Yuba River, including the creation of side channels for spawning and rearing habitats for salmonids. Spawning habitat in the Yuba River was not identified as a primary or secondary limiting factor in the Final Restoration Plan, but was identified as the secondary limiting factor by the FFG.

References

Brown, R.A., and G.B. Pasternack. 2014. Hydrologic and topographic variability modulate channel change in mountain rivers. *Journal of Hydrology* 510:551-564.

California Department of Water Resources and Pacific Gas and Electric Company. 2010. Habitat Expansion Agreement for Central Valley spring-run Chinook salmon and California Central Valley steelhead – Final Habitat Expansion Plan. November 2010. ICF J&S 00854.08. Sacramento, CA. November 2010.

Risk Management:

Risk Description	Likelihood	Risk Impact
Landowner access is not 100% assured for this intensive project but has been provided in the past for fish habitat restoration and monitoring projects.	1	2

Data Management:

Description

All reports and monitoring data files including pre-and post- project monitoring which includes but not limited to topographic surveys, biological and physical environmental data, HEC-RAS model, ArcView GIS shapefiles and coverages, geodatabase, Computer Aided Design (CAD) drawing files, and all supporting information used for project design and permitting will be saved on local ESA computers, and backed up on a server. Electronic copies of data files and electronic and hard copies of reports will be provided to USFWS-AFRP.

Year	Activity	Activity Description				
2015	Construction	Gravel augmentation, channel grading, gravel stockpiling, and shotrock removal.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Narrows Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Transportation costs are likely to be high due to canyon location.

Year	Activity	Activity Description				
2015	Monitoring	Pre- and post-construction fish and habitat monitoring. Includes as-built surveys by FWS Instream Flow Branch in FY2016 and FY2017.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Narrows Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Substrate mapping, redd surveys, etc.

Year	Activity	Activity Description				
2016	Construction	Gravel augmentation, channel grading, gravel stockpiling, and shotrock removal.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Narrows Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Transportation costs are likely to be high due to canyon location.

Year	Activity	Activity Description				
2016	Monitoring	Pre- and post-construction fish and habitat monitoring. Includes as-built surveys by FWS Instream Flow Branch in FY2016 and FY2017.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Narrows Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Substrate mapping, redd surveys, etc. Includes as-built surveys by FWS Instream Flow Branch.

Year	Activity	Activity Description				
2017	Monitoring	Pre- and post-construction fish and habitat monitoring. Includes as-built surveys by FWS Instream Flow Branch in FY2016 and FY2017.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Yuba River Narrows Restoration Project	FWS	Contracts and Agreements Grant	1		CVPRF	Substrate mapping, redd surveys, etc. Includes as-built surveys by FWS Instream Flow Branch.

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General:	
Title	Description
b1 Henderson Park Channel & Floodplain Restoration	Snelling Channel and Floodplain Restoration Project at Henderson Park

Authority:		
Provision	Percentage	Comments
B1	100	

Location ID(s):	
Latitude	Longitude
37.518510	-120.41671

Watershed(s):	
Watershed Name	
Merced River	

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
6/30/2015	8/15/2015	9/30/2020

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	1	miles	Actual Unit is Stream Channel restored (miles) Value = 1
b1: Contribute towards Priority Actions	1	miles	Actual Unit is Riparian Corridor Improvement (miles) Value = 1

Deliverable(s):	
Date	Title
7/31/2015	Monthly progress reports
8/30/2016	Construction summary report

Program Priority:	
Rank	Comment
4	

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$848,000
2016	CVPRF	\$230,800
2017	CVPRF	\$225,000

Final Total
\$1,303,800

No Partners Listed

No Related Programs Listed

Narrative:

Narrative Description

Habitat restoration for the proposed project consists of re-grading and rehabilitating ~8 acres of dredger tailing on the historic floodplain and ~2900 linear feet of salmonid spawning habitat on the Merced River. Over a 2 year period the floodplain will be graded and material from the floodplain will be screened to appropriate sizes of round river rock. The project area will be monitored per the EA/IS and the monitoring plan. This project addresses action 3 and evaluation 2 for the Merced River. This project works with the local community groups and MAC regarding project designs and implementation.

Risk Management:

Risk Description	Likelihood	Risk Impact
Flood Releases during construction	1	2

Data Management:

Description

Project monitoring data will be stored electronically at the Stockton Fish and Wildlife Office.

Year	Activity	Activity Description				
2015	Construction	Includes grading of dredger tailings, cleaned gravel will be redistributed in the channel for salmonid spawning habitat				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Construction	FWS	Supplies/Services Estimate	1		CVPRF	Includes grading of dredger tailings, cleaned gravel will be redistributed in the channel for salmonid spawning habitat

Year	Activity	Activity Description				
2015	Management	Management of all project activities				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Project Management	FWS	Supplies/Services Estimate	1		CVPRF	Management of all project activities

Year	Activity	Activity Description				
2016	Construction	Includes grading of dredger tailings, cleaned gravel will be redistributed in the channel for salmonid spawning habitat				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Construction	FWS	Supplies/Services Estimate	1		CVPRF	Includes grading of dredger tailings, cleaned gravel will be redistributed in the channel for salmonid spawning habitat

Year	Activity	Activity Description				
2016	Management	Management of all project activities				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Project Management	FWS	Supplies/Services Estimate	1		CVPRF	Management of all project activities

Year	Activity	Activity Description				
2017	Monitoring	Includes fisheries monitoring to demonstrate project success				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Project Monitoring	FWS	Supplies/Services Estimate	1		CVPRF	Includes fisheries monitoring to demonstrate project success

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General:

Title	Description
b1 Mill Creek Fish Passage Project	Mill Creek Fish Passage Project - assess 3 potential fish passage barriers, complete designs and environmental compliance, and implement designs.

Authority:

Provision	Percentage	Comments
b(1)	100	Ongoing AFRP grant

Location ID(s):

	Latitude	Longitude
	40.048729	-122.08809
	40.053111	-122.07641
	40.054873	-122.0321

Watershed(s):

Watershed Name
Mill Creek

Schedule:

Funding Begins	Benefits Begin	Funding Complete
7/7/2011	9/30/2016	9/30/2016

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	41	miles	This project will minimize delay and increase passage at three sites in lower Mill Creek for spring- and fall-run Chinook salmon and steelhead.

Deliverable(s):

Date	Title
4/30/2015	Environmental Compliance documents and permits
12/31/2014	Engineered designs
9/30/2016	Completed construction of passage improvement structures

Program Priority:

Rank	Comment
5	top priority for Mill Creek

Estimated Cost(s):

Fiscal Year	Fund	Total
2015	CVPRF	\$556,500

Final Total
\$556,500

Partners:	
Partner Name	
NMFS	
Los Molinos Mutual Water Company	
CDFW	

Related Programs:	
Program Name	
AFRP	

Narrative:

Narrative Description

The need to restore and maintain salmonid passage in Mill Creek is identified in AFRP and CALFED Ecosystem Restoration Program (ERP) goals, objectives, and targets. The goal of this project is to assess and design any required remediation to improve fish passage for juvenile and adult salmonids at the two diversion dams and exposed siphon in the lower Mill Creek watershed. An improvement in passage would allow for uninterrupted migration and a corresponding increase in production of Central Valley spring-run Chinook salmon and steelhead, both federally listed as Threatened under the Endangered Species Act. After designs are completed, environmental compliance documents and permits will be required prior to design implementation. Funds are secured for implementation at the lower dam, the funds requested for FY15 will go toward implementation at the upper dam. Construction at the lower dam is to begin in July of 2015. Construction at the upper dam is to begin July 2016 and be completed by September 30, 2016. No FY 16 funds needed at this time. Los Molinos Mutual Water Company is an active member of the Technical Advisory Committee and is very supportive of improving fish passage over/through their facilities. Although these specific passage projects were not originally identified in the AFRP Final Restoration Plan, subsequent work and analysis in the watershed have shown that they are significant in limiting escapement of adult salmonids.

Risk Management:

Risk Description	Likelihood	Risk Impact
difficulty in obtaining landowner permission	1	2
LMMWC decides to withdraw from the project	1	3

Data Management:

Description

The designs and environmental compliance documents will be stored at the RBFWO.

Year	Activity	Activity Description
2015	Construction	Construction will begin in 2015 and be completed in 2016. Two sites are immediate concerns, the third is of less priority. Funding has been obligated for one site (lower dam), funding for the second site (upper dam) is still needed and is requested (\$556,500). Construction for the upper dam is to begin July 2016.

Resource	Agency	Resource Type	FTE	Total Fund	Description
Mill Creek Fish Passage Assessment and Restoration Project	FWS	Contracts and Agreements Grant	1	CVPRF	Upper dam site design construction to be started July 2016 and be completed by September 30, 2016. No FY16 funds needed, grant expires September 30, 2016.

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General:

Title	Description
b1 Lower Deer Creek Falls Fish Passage, Phase 2	Lower Deer Creek Falls Fish Passage Improvement Project, construction of new ladder

Authority:

Provision	Percentage	Comments
b(1)	100	ongoing AFRP grant

Location ID(s):

Latitude	Longitude
40.168103	-121.58132

Watershed(s):

Watershed Name
Deer Creek

Schedule:

Funding Begins	Benefits Begin	Funding Complete
9/9/2012	9/30/2017	9/30/2017

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	6	miles	Will reopen 6 miles of stream for spring-run Chinook salmon in Deer Creek. When this ladder was working, approximately 25% of the spring-run would hold and spawn above the falls.

Deliverable(s):

Date	Title
9/30/2017	Final Report and new/rebuilt fish ladder

Program Priority:

Rank	Comment
6	Priority in Deer Creek for Spring-run Chinook salmon and steelhead. Passage into the cold water habitat above the falls. Improvement/rebuild of ladder built in the 1940's in response to Shasta Dam.

Estimated Cost(s):

Fiscal Year	Fund	Total
2015	CVPRF	\$95,400
2016	CVPRF	\$318,000

Final Total
\$413,400

Partners:	
Partner Name	
CDFW	
NMFS	

Related Programs:	
Program Name	
AFRP	

Narrative:

Narrative Description

This project will provide improved access of spring-run Chinook salmon to upper Deer Creek holding and spawning habitat. A range of alternatives is being developed under the current funding level in the ongoing agreement and will produce final designs (Phase 1). Additional dollars are needed to complete environmental documentation (Phase 2) as well as construction of the final design (Phase 3). California Department of Fish and Wildlife, National Marine Fisheries Service, U.S. Forest Service, and Northern California Regional Land Trust (NCRLT) are active members of the Technical Advisory Committee. The NCRLT currently owns the land where the fish ladder is located. Although this site was not directly called out as an action in the AFRP Final Restoration Plan, subsequent work has shown that it is a significant limiting factor to escapement of adult salmonids.

Risk Management:

Risk Description	Likelihood	Risk Impact
lack of funding to implement designs	2	3

Data Management:

Description

The designs, environmental documents, and reports will be stored at the RBFWO.

Year	Activity	Activity Description
2015	Environmental Compliance and Permitting	Complete environmental compliance and permitting for final design.

Resource	Agency	Resource Type	FTE	Total Fund	Description
Lower Deer Creek Falls Fish Passage Project	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF	Complete environmental compliance and permitting with ongoing grant, Phase 2 of the project.

Year	Activity	Activity Description
2016	Implementation	Implement final design which may be construction of new ladder.

Resource	Agency	Resource Type	FTE	Total Fund	Description
Lower Deer Creek Falls Fish Passage Project	FWS	Contracts and Agreements Grant	1	CVPRF	This is the best estimate until a final design is completed. This is a very remote site. Construction window is expected to be in 2016 but based on site location and logistics of getting materials to the site, the window may stretch in 2017 as well. Phase 3, implementation.

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General:	
Title	Description
b1 Bullock Bend Floodplain Restoration Project	Bullock Bend Floodplain Restoration Project

Authority:		
Provision	Percentage	Comments
b(1)	100	

Location ID(s):	
Latitude	Longitude
38.2436	-121.4185

Watershed(s):
Watershed Name
Sacramento River Basin

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
10/1/2014	9/30/2015	12/31/2016

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	117	acres	AFRP will partner to complete monitoring, design and research on approximately 117 acre floodplain restoration.

Deliverable(s):	
Date	Title
9/30/2015	Bullock Bend pre-project monitoring report
12/31/2019	Bullock Bend implementation and post-project report

Program Priority:	
Rank	Comment
7	

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$261,269

Final Total
\$261,269

Partners:
Partner Name

No Related Programs Listed

USACE
Westervelt Ecological Services

Narrative:

Narrative Description

This project will fund the monitoring component of an approximately 117-acre floodplain restoration project on the Sacramento River. Pre-project monitoring data that will be collected to characterize the pre-project habitat conditions including existing and anticipated future water depths and velocities, substrate size distribution, and various biological data (i.e. riparian vegetation surveys, terrestrial species surveys, etc.) to be used for project permitting, design, and evaluation of project benefits. Implementation monitoring will be completed to ensure that the project is built as designed and post-project monitoring will occur for at least 3 years following implementation to document use of the site by salmonids and other aquatic species, riparian vegetation and habitat condition and response and general site conditions over time. This project is planned to be implemented in 2015/16 and b(1) funding is an important part of that implementation (implementation monitoring). The project is being funded by b(1) rather than b(13) because of the wide ranging implications of the results to b(1) projects throughout the Central Valley - even those in non-CVP streams. This project meets the intent of Evaluation 5 in the AFRP Final Restoration Plan related to identifying and restoring areas of riparian forests on the mainstem Sacramento River. In addition to the CVPIA funding this project is being funded by USACE, CDWR and Westervelt Ecological Services.

Risk Management:

Risk Description	Likelihood	Risk Impact
Permitting delays	1	3
Funding limitations	1	2

Data Management:

Description

Westervelt Ecological Services will manage all data from all monitoring aspects of this project and provide copies of the data electronically to AFRP staff. The data will be securely stored and managed at the Stockton Fish and Wildlife Office by AFRP staff.

Year	Activity	Activity Description
2015	Monitoring	Pre-project, implementation and post-project (3 years) monitoring component of an approximately 117-acre floodplain restoration project on the Sacramento River. Although work will continue into future years, no additional funding is needed beyond the FY15 request.

Resource	Agency	Resource Type	FTE	Total Fund	Description
AFRP Bullock Bend Floodplain Restoration Project Grant	FWS	Contracts and Agreements Grant	1	CVPRF	Funds will be provided in FY15 and monitoring will occur in FY15 and FY16

Annual Charter Report

General:	
Title	Description
b1 Wild Chinook Juvenile Acoustic Tagging	Wild Chinook Juvenile Acoustic Tagging

Authority:		
Provision	Percentage	Comments
b1	100	AFRP

Location ID(s):	
Latitude	Longitude
40.054873	-122.0321

Watershed(s):
Watershed Name
Battle Creek
Antelope Creek
Mill Creek
Deer Creek
Sacramento River Upper Mainstem
Clear Creek

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
8/20/2012	8/20/2012	9/30/2017

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions		0/N/A	Actual Unit will be number of juvenile fish tagged and results of tag monitoring. Exact value is unknown at this time.

Deliverable(s):	
Date	Title
9/29/2017	Final Report Survival and migratory patterns of wild juvenile spring- and fall-run Chinook salmon
9/29/2017	Final Report Survival and migratory patterns of wild juvenile winter-run Chinook salmon

Program Priority:	
Rank	Comment
13	High priority, ongoing agreement

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$174,900
2016	CVPRF	\$125,000

Final Total
\$299,900

Partners:
Partner Name
CDFW
NMFS

Related Programs:
Program Name
AFRP

Narrative:
Narrative Description
<p>Recent advances in acoustic telemetry technology have resulted in acoustic transmitters which are small enough to be implanted in previously untaggable critical life stages of juvenile Chinook salmon from the fall, winter, and spring races. This technology will be used to release acoustically-tagged wild fall, spring, and winter-run Chinook salmon smolts over a period of five years (three with AFRP funds. Creeks the juvenile Chinook may be captured and released in are Deer, Mill, Antelope, Battle, and Clear, as well as the Sacramento River. This will enable the National Marine Fisheries Service (NMFS) to evaluate the effect of natural and anthropogenic changes in flow and related water project operations on their survival and movement patterns within the Sacramento River and Delta. This will provide resource managers in California with a more comprehensive understanding of the response of juvenile salmon outmigration under a wide variety of flow conditions and Delta water management practices from which to make water management decisions.</p> <p>FY15 funds would be the third year of funding for this project (if FY14 funds are received). If no funds are received in FY14, then FY16 funds will be needed.</p> <p>Hypotheses:</p> <ol style="list-style-type: none"> 1) Fall, spring, and winter-run Chinook salmon juveniles will experience significant mortality during downstream migration from source location through the Delta to the entrance to San Francisco Bay and the mortality rates are likely to be higher than previously observed for larger late-fall Chinook salmon and steelhead (<i>O. mykiss</i>). 2) Mortality rates will vary between the groups as a function of fish size, environmental conditions, and source location. <p>Although this specific evaluation is not called out in the AFRP Final Restoration Plan, it takes advantage of a larger ongoing ERP/NMFS study evaluating the use of the relatively new JSAT tagging technology for juvenile salmonids.</p> <p>Project partners include ERP (which has funded the larger tagging effort and receiver array that is being used for this project) and NMFS (which is conducting the tagging and assisting with receiver downloads/maintenance).</p> <p>Based on the results of this initial study, specific b(1) projects to benefit anadromous fish may be developed. Additionally, the long-term need for this monitoring and the appropriate CVPIA authority or other potential funding entities will be explored.</p>

Risk Management:		
Risk Description	Likelihood	Risk Impact
no juvenile fish emigrate in any one year	1	2

Data Management:
Description
The data for this project will be stored at the Red Bluff Fish and Wildlife Office as well as the Santa Cruz National Marine Fisheries Office.

Year	Activity	Activity Description
2015	Research	Release acoustically-tagged wild fall, spring, and winter-run Chinook salmon smolts over a period of three years to evaluate the effect of natural and anthropogenic changes in flow and related water project operations on their survival and movement patterns within the Sacramento River and Delta.

Resource	Agency	Resource Type	FTE	Total Fund	Description
Wild Juvenile Chinook Acoustic Tagging	FWS	Contracts and Agreements Grant	1	CVPRF	Ongoing Interagency Agreement with the National Marine Fisheries Service. Last year of three year study for wild spring-run, fall-run, and winter-run chinook salmon.

Year	Activity	Activity Description
2016	Research	Release acoustically-tagged wild fall, spring, and winter-run Chinook salmon smolts over a period of three years to evaluate the effect of natural and anthropogenic changes in flow and related water project operations on their survival and movement patterns within the Sacramento River and Delta.

Resource	Agency	Resource Type	FTE	Total Fund	Description
Wild Juvenile Chinook Acoustic Tagging	FWS	Contracts and Agreements Grant	1	CVPRF	Funds needed only if FY14 funds not received. Ongoing Interagency Agreement with the National Marine Fisheries Service. Last year of three-year study for wild spring-run, fall-run, and winter-run Chinook salmon.

Annual Charter Report

General:	
Title	Description
b1 Green Sturgeon Juvenile Investigation	Green Sturgeon Juvenile Overwintering Migration Investigation

Authority:		
Provision	Percentage	Comments
b 1	100	

Location ID(s):	
Latitude	Longitude
40.721403	-122.92719

Watershed(s):
Watershed Name
Sacramento River Upper Mainstem

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
10/1/2014	10/1/2014	9/30/2019

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions		0N/A	Actual unit is number of studies completed, Value = 1. Study will increase understanding of juvenile green sturgeon life-history

Deliverable(s):	
Date	Title
9/30/2016	Annual Report
9/30/2017	Annual Report
9/30/2018	Annual Report
9/30/2019	Final Report
9/30/2015	Annual Report

Program Priority:	
Rank	Comment
14	This project is a high priority because very little is known about the early life history of green sturgeon. Collecting data will help to protect and recover this Threatened species.

Estimated Cost(s):		
Fiscal Year	Fund	Total
2014	CVPRF	\$111,000
2015	CVPRF	\$111,000
2016	CVPRF	\$111,000
2017	CVPRF	\$111,000
2018	CVPRF	\$111,000

Final Total
\$555,000

Partners:
Partner Name
USACE

No Related Programs Listed

Narrative:

Narrative Description

The primary objective would be to determine if Sacramento River Green Sturgeon juvenile fish exhibit a secondary migration pattern during the fall to overwintering habitat lower in the river or in the delta. RBFWO staff would determine when and where "age 0" larvae migrate out of the upper Sacramento River and at what size. Data would result in the acquisition of critical life history information for population recovery planning and provide data to make better informed decisions on the effects of flow management and diversions on a Threatened species.

This pilot project will utilize the skills of 6 biologists/technicians working on this at a very small FTE each (i.e. 6 biologists/techs at two hours eachday that sampling occurs). The staff will also be working on several other collateral monitoring efforts.

This project is considered a (b)(1) appropriate for project development and meets Evaluation 10 for the Upper Sacramento River in the AFRP Final Restoration Plan. It is not a (b)(16) long-term research action. This pilot project would acquire gear and begin sampling in mid-August 2014. In early FY15, a gear-type comparison would be performed to evaluate the feasibility of capturing juvenile Green Sturgeon for future acoustic tagging efforts. Throughout FY 15 to FY18, sampling of 'age 0' fish would occur. The Army Corps of Engineers may also become a supporter and collaborator. In the future, as a follow-up to this pilot project, additional funding sources may be sought.

Risk Management:

Risk Description	Likelihood	Risk Impact
Attaining research permits	1	1

Data Management:

Description

Information developed by this charter would be stored at the USFWS Red Bluff Fish & Wildlife Office website:
<http://www.fws.gov/redbluff/>

Year	Activity	Activity Description				
2014	Research	Collecting data to learn more about the life history patterns of green sturgeon.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Biologists or technicians	FWS	Staff Position	1		CVPRF	

Year	Activity	Activity Description				
2015	Research	Collecting data to learn more about the life history patterns of green sturgeon.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
biologists or technicians	FWS	Staff Position	1		CVPRF	

Year	Activity	Activity Description				
2016	Research	Collecting data to learn more about the life history patterns of green sturgeon.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Biologist or Technicians	FWS	Staff Position	1		CVPRF	

Year	Activity	Activity Description				
2017	Research	Collecting data to learn more about the life history patterns of green sturgeon.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Biologists or Technicians	FWS	Staff Position	1		CVPRF	

Year	Activity	Activity Description				
2018	Research	Collecting data to learn more about the life history patterns of green sturgeon.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
biologists or technicians	FWS	Staff Position	1		CVPRF	

Annual Charter Report

General:

Title	Description
b1 Merced Ranch Floodplain/Side-Channel Project	Merced River Ranch Floodplain and Side-Channel Restoration Project

Authority:

Provision	Percentage	Comments
B1	100	

Location ID(s):

Latitude	Longitude
37.517074	-120.39372

Watershed(s):

Watershed Name
Merced River

Schedule:

Funding Begins	Benefits Begin	Funding Complete
6/30/2015	10/1/2015	9/30/2017

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	0	acres	Complete collection of post-construction biological and physical data associated with a 4.3 acre floodplain needed to complete restoration effectiveness report.
b1: Contribute towards Priority Actions	0	miles	Complete collection of post-construction biological and physical data associated with a .25 mile long side-channel needed to complete restoration effectiveness report.
b1: Contribute towards Priority Actions	0	miles	Complete collection of post-construction biological and physical data associated with a 1.23 mile long spawning gravel augmentation site needed to complete restoration effectiveness report.

Deliverable(s):

Date	Title
12/31/2016	2015 Annual Monitoring Report

Program Priority:

Rank	Comment
15	High priority monitoring at recently completed large-scale AFRP project. FY15 funding need might be reduced by spreading to future years, if needed.

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$144,000
2016	CVPRF	\$114,000

Final Total
\$258,000

Partners:
Partner Name
CDFW

No Related Programs Listed

Narrative:

Narrative Description

The primary question to be answered by the implementation monitoring is: was the project installed as designed?
 The primary question to be answered by the effectiveness monitoring is: was the project effective at meeting restoration objectives?
 The primary question to be answered by the validation monitoring is: are the basic assumptions behind the project's conceptual model valid (i.e., does the project contribute to increased productivity for juvenile salmonid populations in the Merced River)?

The implementation monitoring will determine if the project was installed according to the design standards. Hydrology, topography/bathymetry, sediment budget and vegetation will be assessed. The effectiveness monitoring will determine if the project was effective in recovering habitat conditions suitable to target species. A range of physical and biological traits will be tracked before and after restoration to assess ecosystem function. The final part of the monitoring program will determine if floodplain restoration projects, like the one at MRR, recover productive habitat for salmonids and riparian vegetation. This validation monitoring includes experiments to assess ecosystem function for salmonids and test hypotheses regarding floodplain benefits.

This information will help prioritize habitat needs and guide future floodplain restoration efforts.

This restoration project and related monitoring is occurring on CDFW property.

This project relates to AFRP FRP Merced River Action 3 (improve watershed management to restore and protect instream and riparian habitat, including consideration of restoring and replenishing spawning gravel) and Evaluation 2 (evaluate and implement actions to reduce predation on juvenile chinook salmon, including actions to isolate ponded sections of the river) by restoring and protecting instream and riparian habitat through replenishment of spawning gravel and filling ponded sections of the river to reduce predation on juvenile chinook salmon.

Risk Management:

Risk Description	Likelihood	Risk Impact
Late arrival of funds	2	1

Data Management:

Description

Data recorded electronically in a database or spreadsheet. Data will be archived at Stockton Fish and Wildlife Office and associated with electronic grant files.

Year	Activity	Activity Description				
2015	Monitoring	Ongoing data collections activities				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Monitoring crew	FWS	Supplies/Services Estimate	0.40		CVPRF	Cramer Fish Sciences staff conducting ongoing monitoring activities.

Year	Activity	Activity Description				
2015	Reporting	Development of annual monitoring reports				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Report generation	FWS	Supplies/Services Estimate	0.20		CVPRF	Data entry, analysis, and summarization in annual report format.

Year	Activity	Activity Description				
2016	Monitoring	Ongoing data collections activities				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Monitoring crew	FWS	Supplies/Services Estimate	0.40		CVPRF	Cramer Fish Sciences staff conducting ongoing monitoring activities.

Year	Activity	Activity Description				
2016	Reporting	Development of annual monitoring reports				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Report generation	FWS	Supplies/Services Estimate	0.20		CVPRF	Data entry, analysis, and summarization in annual report format.

Annual Charter Report

General:	
Title	Description
b1 Bay-Delta Sturgeon Age, Growth, and Microchemistry	Age, Growth and Fin Ray Microchemistry of Sturgeon in the Sacramento and San Joaquin River Delta

Authority:		
Provision	Percentage	Comments
B1	100	

Location ID(s):	
Latitude	Longitude
38.039626	-121.96114

Watershed(s):
Watershed Name
Sacramento-San Joaquin Delta

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
6/30/2015	10/1/2015	9/30/2017

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions		0N/A	Actual Unit is number of reports/analyses, value =1. Project will help characterize incidence and potential impacts of contaminants and identify areas for restoration/remediation.

Deliverable(s):	
Date	Title
7/31/2016	Final Data Report and Management Recommendations

Program Priority:	
Rank	Comment
16	Total cost could be reduced for FY15, but that would require pushing microchemistry work back another year (which was already done once) and agreement ends in FY16. Delaying any portions of the work would make completing the project on time very challenging before agreement expires.

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$330,000
2016	CVPRF	\$333,300

Final Total
\$663,300

Partners:
Partner Name
Cramer Fish Sciences
Foundation Sportsman's Club
CDFW

No Related Programs Listed

Narrative:

Narrative Description

AFRP FRP Central Valley-Wide Evaluation 6 (High Priority) – evaluate effects of trace elements and organic contaminants, especially selenium and PCBs, on the health of adult white sturgeon and green sturgeon, the viability of their gametes, and development of their offspring.

AFRP FRP Central Valley-Wide Evaluation 8 (High Priority) – evaluate the direct and indirect effects of contaminants on production of andromous fish.

The magnitude and effect of contaminants on acipenserid species is poorly understood. Endocrine disrupters and carcinogens (e.g., chlorinated pesticides, PCBs) have been detected in sturgeon sampled throughout the Columbia River and have been linked to reduced growth and reproduction. Other studies throughout the Pacific Northwest have illustrated the need for concern and greater understanding about the effects of a variety of natural (e.g., selenium, heavy metals) and unnatural compounds (e.g., triclopyr, fluridone) occurring in the Central Valley of California.

Collecting accurate age-and-growth information is a high priority for fisheries scientists because this information is critical to almost every aspect of fisheries management. Growth information is important because it provides an integrated evaluation of environmental conditions and has direct and indirect effects on recruitment, trophic interactions, and mortality through its effects on age at maturity, size structure of populations, and the susceptibility of fish to environmental alterations and harvest. Age-structure data can be used to estimate mortality rates or evaluate changes in population demographics caused by harvest or habitat alteration. If multiple years of age-structure data are available, changes in abundances can be used to assess the effects of management actions or environmental change on recruitment dynamics. Techniques even exist to characterize recruitment variability and estimate relative year-class strengths from a single sample of age data.

Integrating age and growth information with microchemistry analyses of hard structures provides additional information from each sample collection. Microchemical characteristics of the hard structure can be linked with temporal patterns, providing a potential way to link age, growth, and habitat use during a fish's life history. Though countless questions remain, this is a rapidly developing and important area of research, particularly relative to fish early life history.

Project objectives:

1. Evaluate the effects of trace elements and organic contaminants, especially selenium and PCBs, on the health of adult white sturgeon, the viability of their gametes, and development of their offspring to inform whether AFRP should focus on: a) contaminants remediation and working with CDFW to explore harvest reductions; or b) habitat restoration.
2. Investigate movement patterns in white sturgeon via fin ray microchemistry to determine basin of origin, identify common juvenile rearing areas, and characterize age at first spawning migration, spawning periodicity, and common migratory patterns. This information will be used to inform areas to focus habitat restoration actions and whether those actions should be physical construction projects or water management.
3. Describe current age and growth characteristics and investigate relationships between contaminants and effects on population age structure in order to focus potential future restoration, remediation, and management actions.

Partners on this project include the Foundation Sportsman's Club (which provides access to angler-caught specimens during their annual sturgeon derby), CDFW and Cramer Fish Sciences (who assist with specimen collection).

Risk Management:

Risk Description	Likelihood	Risk Impact
Late funding	1	1

Data Management:

Description

Data generated from this project will be stored in databases at the Stockton Fish and Wildlife Office and reports will be available on the office website.

Year	Activity	Activity Description				
2015	Administration	Project management and administration				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Project management	FWS	Supplies/Services Estimate	0.05	CVPRF	Grant recipients overhead and management	

Year	Activity	Activity Description				
2015	Monitoring	Sample collection at local fishing tournaments				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Field crews	FWS	Supplies/Services Estimate	0.35	CVPRF	Sample collections and processing	

Year	Activity	Activity Description				
2015	Reporting	Quarterly and annual report generation of activities and data summaries.				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Report preparation	FWS	Supplies/Services Estimate	0.25	CVPRF	Data analyses and report generation	

Year	Activity	Activity Description				
2015	Research	Sample analyses				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Sample analyses	FWS	Supplies/Services Estimate	0.35	CVPRF	Tissue and water sample analyses	

Year	Activity	Activity Description				
2016	Administration	Project management and administration				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Project management	FWS	Supplies/Services Estimate	0.05	CVPRF	Grant recipients overhead and management	

Year	Activity	Activity Description				
2016	Monitoring	Sample collection at local fishing tournaments				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Field crews	FWS	Supplies/Services Estimate	0.35	CVPRF	Sample collections and processing	

Year	Activity	Activity Description				
2016	Reporting	Quarterly and annual report generation of activities and data summaries.				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Report preparation	FWS	Supplies/Services Estimate	0.25	CVPRF	Data analyses and report generation	

Year	Activity	Activity Description				
2016	Research	Sample analyses				
Resource	Agency	Resource Type	FTE	Total Fund	Description	
Sample analyses	FWS	Supplies/Services Estimate	0.35	CVPRF	Tissue and water sample analyses	

Annual Charter Report

General:

Title	Description
b1 Buttonbush Floodplain Restoration Project	Restore functional seasonally inundated floodplain and side channel habitat at the USACE Buttonbush Recreation Area to increase juvenile rearing habitat.

Authority:

Provision	Percentage	Comments
b1	100	

Location ID(s):

Latitude	Longitude
37.117891	-120.0679

Watershed(s):

Watershed Name
Stanislaus River

Schedule:

Funding Begins	Benefits Begin	Funding Complete
8/22/2012	9/1/2015	9/30/2017

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	1	number of improvements	Contributes to FRP Stanislaus River A2. Will provide 3.3-11.5 acres of restored habitat and 6,000 to 32,000 cy of spawning gravel depending on the alternative selected.

Deliverable(s):

Date	Title
12/30/2017	Project Completion Report
5/23/2013	Three Design Alternatives
6/30/2015	Final Design
6/30/2015	Environmental Compliance Permits

Program Priority:

Rank	Comment
9	This is a high priority implementation project to begin in 2015. Costs at this point are based on most expensive alternative, so actual need may be reduced.

Estimated Cost(s):

Fiscal Year	Fund	Total
2015	CVPRF	\$654,888
2016	CVPRF	\$1,213,052

Final Total
\$1,867,940

Partners:
Partner Name
USACE
Cramer Fish Sciences

No Related Programs Listed

Narrative:

Narrative Description

Salmonid populations Stanislaus River appears to be limited by juvenile rearing habitat. The cause of the limitation is construction of large dams flat-lining the hydrograph, and blocking coarse sediment recruitment. Options for increasing juvenile rearing habitat include modifying both instream and adjacent riparian areas to improve seasonal inundation of shallow water habitats.

This project aims to restore functional seasonally inundated floodplain and side channel habitat at the USACE Buttonbush Recreation Area to increase juvenile rearing habitat through excavating perched floodplains and augmenting instream habitat with excavated gravel that has been screened to appropriate size.

The project implements Stanislaus River Action 2 [Improve watershed management to restore and protect instream and riparian habitat, including consideration of restoring and replenishing spawning gravel.] of the Final Restoration Plan.

The grant has been awarded to Cramer Fish Sciences and is working with the landowner USACE.

The project is not funded through (b)(13) because it is fundamentally a habitat improvement action [(b)(1)], does not have a non-federal match, and could not be accomplished with existing (b)(13) funding.

Risk Management:

Risk Description	Likelihood	Risk Impact
Landowner backs out	1	3
Project not undertaken	1	1

Data Management:

Description

Data will be stored on the Stockton FWO Server.

Year	Activity	Activity Description				
2015	Construction	Build the Project as designed.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2015	Inventory/Reconnaissance	ESA species surveys. Topographic Data. Vegetation surveys.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2016	Construction	Build the Project as designed.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2016	Management	Management of the project				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2016	Monitoring	Post-project monitoring. As-built surveys. Other physical and biological surveys as developed by the project monitoring plan. Permit required monitoring.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2016	Outreach	Pre-project outreach to neighbors and stakeholders.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
F12AP00696	FWS	Contracts and Agreements Grant	1		CVPRF	

Year	Activity	Activity Description				
2016	Reporting	Final Project Report.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description

Annual Charter Report

General:	
Title	Description
b1 Knights Ferry Floodplain Restoration Project	Restore functional seasonally inundated floodplain and side channel habitat at the USACE Knights Ferry Recreation Area to increase juvenile rearing habitat.

Authority:		
Provision	Percentage	Comments
b1	100	

Location ID(s):	
Latitude	Longitude
37.150025	-120.1514

Watershed(s):
Watershed Name
Stanislaus River

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
7/17/2013	10/1/2015	9/30/2018

Benefit(s):			
Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	1	number of improvements	The project addresses FRP Stanislaus River A2. Expected benefits are up to 2 acres of habitat restored. Spawning gravel amounts are dependent on designs which are not yet complete.

Deliverable(s):	
Date	Title
12/30/2018	Project Completion Report
2/28/2015	Three Conceptual Design Alternatives
6/1/2015	Environmental Compliance Permits
6/1/2015	Final Project Design

Program Priority:	
Rank	Comment
10	Project is high priority - if it is ready to move forward by the time FY15 funds are available. AFRP staff is working with USACE and community to ensure implementation can occur, but FY15 need may be reduced if implementation is slowed.

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$530,000
2016	CVPRF	\$577,028

Final Total
\$1,107,028

Partners:
Partner Name
USACE
Cramer Fish Sciences

No Related Programs Listed

Narrative:

Narrative Description

Salmonid populations Stanislaus River appears to be limited by juvenile rearing habitat. The cause of the limitation is construction of large dams flat-lining the hydrograph, and blocking coarse sediment recruitment. Options for increasing juvenile rearing habitat include modifying both instream and adjacent riparian areas to improve seasonal inundation of shallow water habitats.

This project aims to restore functional seasonally inundated floodplain and side channel habitat at the USACE Knights Ferry Recreation Area to increase juvenile rearing habitat through excavating perched floodplains and augmenting instream habitat with excavated gravel that has been screened to appropriate size.

The project implements Stanislaus River Action 2 [Improve watershed management to restore and protect instream and riparian habitat, including consideration of restoring and replenishing spawning gravel.] of the Final Restoration Plan.

The grant has been awarded to Cramer Fish Sciences and is working with the landowner USACE.

The project also offers a great opportunity to showcase restoration to the local community and multiple school field trips.

The project is not funded through (b)(13) because it is fundamentally a habitat improvement action [(b)(1)], does not have a non-federal match, and could not be accomplished with existing (b)(13) funding.

Risk Management:

Risk Description	Likelihood	Risk Impact
Landowner Backs Out	1	3
Project is not completed	1	2

Data Management:

Description

Data will be stored on the Stockton FWO Server.

Year	Activity	Activity Description				
2015	Construction	Build the Project as designed.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2015	Management	Project management				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2015	Outreach	Pre-project outreach to neighbors and stakeholders				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Money	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2016	Construction	Build the Project as designed.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2016	Management	Project management				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2016	Monitoring	Post-project monitoring As-built surveys Other physical and biological surveys as developed by the project monitoring plan Permit required monitoring				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Agreements Grant	1			CVPRF

Year	Activity	Activity Description				
2016	Outreach	Pre-project outreach to neighbors and stakeholders				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
13AS00062	FWS	Contracts and Aareements	1			CVPRF

Annual Charter Report

General:	
Title	Description
b1 Mokelumne Spawning Habitat Improvement	Mokelumne River Spawning Habitat Improvement

Authority:		
Provision	Percentage	Comments
b1	100	

Location ID(s):	
Latitude	Longitude
38.2267	-121.0314

Watershed(s):	
Watershed Name	
Mokelumne River	

Schedule:		
Funding Begins	Benefits Begin	Funding Complete
5/1/2014	9/30/2014	12/31/2015

Benefit(s):			
Metric	Value	Units	Comment
b1: # Fall-run Chinook	3000	tons	Approximately 3000 tons of appropriately sized spawning gravel will be placed in the spawning area below Camanche Dam.

Deliverable(s):	
Date	Title
12/31/2015	FY15 Mokelumne Spawning Gravel Project Annual Report

Program Priority:	
Rank	Comment
11	

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$106,000
2016	CVPRF	\$106,000
2017	CVPRF	\$106,000
2018	CVPRF	\$106,000

Final Total
\$424,000

Partners:	
Partner Name	
EBMUD	

Related Programs:	
Program Name	
CVPIA b13	

Narrative:

Narrative Description

The project will consist of continuing the long-term and highly successful spawning gravel introduction project with East Bay Municipal Utility District. CVPIA funds are generally put toward the location and purchase of appropriate gravel and EBMUD provides all funding required for project permitting and implementation. Due to limitations in locally available gravel, USFWS and EBMUD will be using part of the FY14 funding provided for this project to seek out and develop new local gravel sources. It is likely that some additional portion of the FY15 funding will be needed to complete these efforts. It is anticipated that the project will accomplish approximately half of the normal annual gravel introduction (3,000 tons vs. 6,000 tons) in FY14 and FY15, but it is possible that a larger amount will be used in FY15 if available after the FY14 project. Project will be proposed annually for funding through FY18 when a the current agreement will expire and a new one will need to be completed if assessment at that time shows a need for additional gravel introduction. This project is funded by b(1) as the Mokelumne River is not a CVP river. This project meets Action 2 for the Mokelumne River from the AFRP Final Restoration Plan.

Risk Management:

Risk Description	Likelihood	Risk Impact
Gravel Availability	1	2

Data Management:

Description

East Bay Municipal Utility District collects and manages all data related to this project and provides electronic copies to AFRP staff. Secure electronic data backups will be retained by EBMUD and USFWS.

Year	Activity	Activity Description				
2015	Implementation	Project will further develop local gravel sources and implement spawning gravel improvement.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
AFRP Mokelumne River Spawning Gravel Improvement Grant	FWS	Contracts and Agreements Grant	1		CVPRF	Funding will be provided to partner with EBMUD on development of a new local gravel source and implement spawning gravel improvement.

Year	Activity	Activity Description				
2016	Implementation	Project will further develop local gravel sources and implement spawning gravel improvement.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
AFRP Mokelumne River Spawning Gravel Improvement Grant	FWS	Contracts and Agreements Grant	1		CVPRF	Funding will be provided to partner with EBMUD to implement spawning gravel improvement.

Year	Activity	Activity Description				
2017	Implementation	Project will further develop local gravel sources and implement spawning gravel improvement.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
AFRP Mokelumne River Spawning Gravel Improvement Grant	FWS	Contracts and Agreements Grant	1		CVPRF	Funding will be provided to partner with EBMUD to implement spawning gravel improvement.

Year	Activity	Activity Description				
2018	Implementation	Project will further develop local gravel sources and implement spawning gravel improvement.				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
AFRP Mokelumne River Spawning Gravel Improvement Grant	FWS	Contracts and Agreements Grant	1		CVPRF	Funding will be provided to partner with EBMUD to implement spawning gravel improvement.

Annual Charter Report

General:

Title	Description
b1 Impacts of Marijuana Activity on Fish	Impacts of Marijuana Activity on Fish

Authority:

Provision	Percentage	Comments
b1	100	

Location ID(s):

Latitude	Longitude
39.921609	-122.08385

Watershed(s):

Watershed Name
Antelope Creek
Mill Creek
Deer Creek
Cottonwood Creek
Battle Creek

Schedule:

Funding Begins	Benefits Begin	Funding Complete
9/1/2013	9/30/2018	9/30/2018

Benefit(s):

Metric	Value	Units	Comment
b1: Contribute towards Priority Actions	0	number of fish	Assessment project of the risks imposed by marijuana growing on anadromous fish populations

Deliverable(s):

Date	Title
9/30/2018	GIS Map and Data of marijuana distribution
10/30/2015	Monitoring Committee Info
7/29/2016	QAPP and Monitoring Plan
9/30/2018	Final Report
7/31/2015	Bibliography on marijuana Impacts

Program Priority:

Rank	Comment
12	Very high priority as an issue CV wide. Identified as an issue in the NMFS Recovery plan. Can impact mult. watersheds.

Estimated Cost(s):		
Fiscal Year	Fund	Total
2015	CVPRF	\$81,620
2016	CVPRF	\$84,800
2017	CVPRF	\$56,180

Final Total
\$222,600

Partners:
Partner Name
CDFW
SWRCB

Related Programs:
Program Name
CALFED
BDCP
AFRP
NMFS-RP
EWP

Narrative:

Narrative Description

The purpose of this multi-year study is to determine the potential impacts, and/or the degree of impact, to northern California aquatic resources, specifically listed anadromous fish, posed by marijuana cultivation activities. This information can also be used to develop a plan to reduce and/or remove the negative effect of marijuana cultivation on natural resources and/or to allow law enforcement to be more effective in prosecuting civil and criminal cases.

This project is comprised of multiple phases, in part due to funding limitations but also due to the need to most effectively develop a robust and defensible study plan to address the multi-faceted issue created by the problem of legal and illegal marijuana cultivation. The objectives of the first phase include developing a study plan; developing a multi agency team to provide input on the study design and also to facilitate coordination amongst agencies involved with the problem; creating and maintaining information on the study area and the extent of marijuana growing on the landscape; identifying and prioritizing area(s) of study. Future phases include field data collection, analysis and interpretation. Once the threats are defined, including those threats relative to other land use practices, the next step is to provide law enforcement personnel with the tools need to better qualify and quantify the level of impact from growing marijuana in watershed with anadromy. Protocols will be developed to use in this step, for the benefit of land use managers. Additional goals are to better understand the effect of marijuana growing on anadromous fish at a range and/or population scale; identify and prioritize areas to protect or restore; and to develop a process by which this impact can be managed over a longer term.

Although this evaluation and pilot project is not directly called out in the AFRP Final Restoration Plan, it has become an extremely important topic and area of concern in the last several years. This funding is designed to investigate the problem and develop a protocol and potential immediate solutions to limit the impacts to fish and aquatic habitats when these detrimental sites are found. The results of these efforts will provide a highly valuable process for partners throughout the Central Valley to deal with this emerging issue. Partners on the existing project include several programs within CDFW.

Risk Management:

Risk Description	Likelihood	Risk Impact
Landowner access permission	1	1
Exposure to hazardous materials and/or conditions	2	2

Data Management:

Description

Information developed by this project will be housed in the Red Bluff FWO office, the Red Bluff Fisheries office of CDFW, and the GIS section of CDFW Region 1 in Redding, as appropriate. GIS products may also be shared with the State Water Resources Control Board.

Year	Activity	Activity Description				
2015	Monitoring	Monitoring in future phases				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Impacts of Marijuana Activity on Fish	FWS	Contracts and Agreements Grant	1		CVPRF	Continue ongoing agreement to refine monitoring and reporting protocols.

Year	Activity	Activity Description				
2016	Monitoring	Monitoring in future phases				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Impacts of Marijuana Activity on Fish	FWS	Contracts and Agreements Grant	1		CVPRF	Continue ongoing agreement to refine monitoring and reporting protocols.

Year	Activity	Activity Description				
2017	Monitoring	Monitoring in future phases				
Resource	Agency	Resource Type	FTE	Total	Fund	Description
Imapcat of Marijuana Activity on Fish	FWS	Contracts and Agreements Grant	1		CVPRF	Continue ongoing agreement to refine monitorig and reporting protocols. Final Report.