General:

Title Description
b2 administration USBR and FWS oversight of program

Authority:

· ·	
Provision	Percentage Comments
b2	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	9/30/2015

No Benefits Listed

Deliverable(s):

Date	itle			
4/16/2014	Annual accomplishment report			
4/16/2014	nnual Narrative Summary			
4/16/2014	Annual Operations and Accounting presentation			

Program Priority:

Rank	Comment
1	Priority 1 (admin) and priority 2(operations) are intertwined.

	<u> </u>	,	
Letimated	Coct/		١.
Estimated	-COSH	5	١.
			, -

Fiscal Year	Fund	lotal
2015	CVPRF	\$92,156
2016	CVPRF	\$94,921

Final Total
\$187,077

No Partners Listed	Related Programs:
	Program Name
	b9
	b19
	b3
	ΔFRP

Narrative Description

This charter is the base funding for administration of the (b)(2) program. It includes both FWS and USBR staff time for program oversight and management, budget and annual work plan development, litigation support, public outreach efforts, and preparation and presentation of annual summary documents.

			_	_		
N	_	Di	~ 1	\sim 1	io.	ted
I١	()	ΓI	5 K	5 L	_15	ıeo

Data Management:

Description

The (b)(2) Program generates both monthly and annual data products. On a monthly basis, Reclamation produces 12-month operational forecasts that include estimates of water year (b)(2) fishery actions and daily accounting of both (b)(2) and non-(b)(2) fishery actions. At the end of each water year, the Program also produces summary documents that include (b)(2) daily accounting, a narrative summary, and annual accounting summary tables. All of these data products are posted on the Reclamation Central Valley Office (CVO) website at the appropriate time of year:

http://www.usbr.gov/mp/cvo/

Year	Activity			Activity Descr	iption
2015	Environm	ental Compliance	and Permitting	Legal Review	and Preparation
Resource	Agency	Resource Type	FTE	Total Fund	Description
Program staff	FWS	Staff Position	0.06	CVPRF	Coordinate with DOI Solicitor's Office on legal review of documentation and litigation preparation
Year	Activity			Activity Descr	iption
2015	Managem	nent			manage annually 800,000 acre-feet of r fish, wildlife, and habitat restoration
Resource	Agency	Resource Type	FTE	Total Fund	Description
Co-Lead	BOR	Staff Position	0.15	CVPRF	Program Co-Lead Dedicate and manage annually 800,000 acre-feet of CVP water for fish, wildlife, and habitat restoration purposes.
Lead	FWS	Staff Position	0.14	CVPRF	Program Lead Dedicate and manage annually 800,000 acre-feet of CVP water for fish, wildlife, and habitat restoration purposes.
Year	Activity			Activity Descr	iotion
2015	Outreach			The second secon	ork Group Participation
Resource	Agency		FTE	Total Fund	Description
Biologist	FWS	Staff Position	0.03	CVPRF	Participate in various interagency technical and modeling work groups (which may include public participation). Conduct 2 or more public presentations per year.
Hydrologist	FWS	Staff Position	0.03	CVPRF	Participate in various interagency technical and modeling work groups (which may include public participation). Conduct 2 or more public presentations per year.
V	0 - 12 - 24			Aut 'I Day	****
Year	Activity		- I Danielli	Activity Descr	•
2016		ental Compliance			and Preparation
Resource	Agency		FTE	Total Fund	Description
Program staff	FWS	Staff Position	0.06	CVPRF	Coordinate with DOI Solicitor's Office on legal review of documentation and litigation preparation
Year	Activity			Activity Descr	iption
2016	Managem	nent		Dedicate and	manage annually 800,000 acre-feet of r fish, wildlife, and habitat restoration
Resource	Agency	Resource Type	FTE	Total Fund	Description
Lead	FWS	Staff Position	0.14	CVPRF	Program Lead Dedicate and manage annually 800,000 acre-feet of CVP water for fish, wildlife, and habitat restoration purposes.
Co-Lead	BOR	Staff Position	0.15	CVPRF	Program Co-Lead Dedicate and manage annually 800,000 acre-feet of CVP water for fish. wildlife. and habitat

General:	
Title	Description
b2 operations	Develop operational products used to make b2 management decisions

	Authority:		
h2 100	Provision	Percentage	Comments
100	b2	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 9/30/2015

No Benefits Listed

Deliverable(s):					
Date	Title				
10/1/2015	Annual Accomplishment Report				
10/1/2015	Annual Narrative Summary				
10/1/2015	Annual Operations and Accounting Presentation				

Program Priority:	
Rank	Comment
2	Priority 1 (admin) and priority 2(operations) are intertwined.

Estimated Cost(s):				
Fiscal Year	Fund	Total		
2015	CVPRF	\$353,018		
2016	CVPRF	\$363,609		

Final Total \$716,627

7/18/2014 4:03:22 PM 1

No Partners Listed	Related Programs:
	Program Name
	AFRP
	b9
	b19
	h2

Narrative Description

This charter is the base funding for implementation of the (b)(2) program. It includes both FWS and USBR staff time for interagency coordination and collaboration, technical workgroup participation, operational forecast development, hydrologic modeling support, and daily accounting procedures.

ΝΙ.	D'ala	1.25 () 1
NΩ	KISKS	Listed

Data Management:

Description

The (b)(2) Program generates both monthly and annual data products. On a monthly basis, Reclamation produces 12-month operational forecasts that include estimates of water year (b)(2) fishery actions and daily accounting of both (b)(2) and non-(b)(2) fishery actions. At the end of each water year, the Program also produces summary documents that include (b)(2) daily accounting, a narrative summary, and annual accounting summary tables. All of these data products are posted on the Reclamation Central Valley Office (CVO) website at the appropriate time of year:

http://www.usbr.gov/mp/cvo/

7/18/2014 4:03:22 PM 2

Year	Activity		Activity Descr	Activity Description			
2015	Implementation			Forecast/Acc	Forecast/Accounting/Modeling		
Resource	Agency	Resource Type	FTE	Total Fund	Description		
USBR Forecast/Accou ting	BOR n	Staff Position	0.48	CVPRF	Develop CVP monthly forecasts, daily accounting		
FWS Forecast/Accou ting	FWS n	Staff Position	0.68	CVPRF	Develop CVP monthly forecasts, daily accounting		
Operations Modeling	FWS	Staff Position	0.27	CVPRF	Hydrologic computer model simulations will be conducted on a monthly basis (CVP forecast model) to assess various (b)(2) implementation scenarios, and CALSIM II and ECOSYM modeling will be done on an as needed basis.		

Year	Activity		Acti	Activity Description		
2015	Planning and Analysis		Inte	Interagency Collaboration		
Resource	Agency	Resource Type	FTE	Total	Fund	Description
program staff	FWS	Staff Position	0.14		CVPRF	b2 Interagency Team meetings. Confer with project operators and biologists to determine when and where b2 water should be used.

Year	Activity			Activity Descr	iption
2016	Implemen	tation		Forecast/Acco	ounting/Modeling
Resource	Agency	Resource Type	FTE	Total Fund	Description
USBR Forecast/Accounting	BOR n	Staff Position	0.48	CVPRF	Develop CVP monthly forecasts, daily accounting
Operations modeling	FWS	Staff Position	0.27	CVPRF	Hydrologic computer model simulations will be conducted on a monthly basis (CVP forecast model) to assess various (b)(2) implementation scenarios, and CALSIM II and ECOSYM modeling will be done on an as needed basis
FWS Forecast/Accounting	FWS n	Staff Position	0.68	CVPRF	Develop CVP monthly forecasts, daily accounting

Year	Activity			Acti	Activity Description	
2016	Planning and Analysis		Inte	Interagency Collaboration		
Resource	Agency	Resource Type	FTE	Total	Fund	Description
program staff	FWS	Staff Position	0.14		CVPRF	b2 Interagency Team meetings. Confer with project operators and biologists to determine when and where b2 water should be used.

7/18/2014 4:03:22 PM 3

General:

Gerician	
Title	Description
Lower American River Redd Dewatering	Estimate redd dewatering impacts

Authority:

· ·	
Provision	Percentage Comments
b2	100

Location ID(s):

\ /	
Latitude	Longitude
38.6341	121.2297

Watershed(s):

Watershed Name

American River

Schedule:

Funding Begins	Benefits Begin	Funding Complete
10/1/2014	10/1/2014	9/30/2015

No Benefits Listed

Deliverable(s):

Date	Title
4/25/2014	WSE grids
4/25/2014	Bathymetric/topographic survey data
4/25/2014	As needed - real-time model output
4/25/2014	Technical memorandum

Program Priority:

Rank	Comment
3	Other than base administration and operations costs, this is the only other b2 charter.

			1/ \	
⊢c†ı	matac	1 / 00	T/C1	
LSU	mated		$\mathbf{u} = \mathbf{u}$	a

Fiscal Year	Fund	Total
2015	CVPRF	\$35,000

Final Total \$35,000

7/18/2014 4:01:14 PM 1

No Partners Listed	No Related Programs Listed

Narrative Description

During the late-fall and winter seasons, flow reductions from Folsom Dam decrease the water level in the Lower American River (LAR) from the levels occurring when fall-run Chinook salmon and Central Valley steelhead redds were initially formed. If the water level drops below a certain level, it can be considered dewatered, thereby potentially reducing egg survival and overall in-river production. With sufficiently detailed topography, a two-dimensional (2D) hydraulic model is an accurate tool for predicting water surface elevation (WSE) at a given discharge.

This project is a continuation of work conducted over the last 2 years to further refine and enhance a suite of 1D and 2D hydraulic models developed for the LAR. Utilizing annual redd survey data, WSE estimates generated by the suite of models can be used to assess potential impacts to salmonid redds under a range of flow conditions, including release reductions and fluctuations out of Nimbus Dam. Planned activities include bathymetry and WSE data collections at high use spawning sites, refining and further developing the hydraulic models, simulating river-wide WSEs, and analyzing potential impacts to salmonid redds under a set of proposed operations.

		ks		

Data Management:

Description

Information developed by this project will be permanently stored at the USFWS Bay-Delta Fish and Wildlife Office. Prior to archival, the information will be used at the b2IT, ARG, and other technical workgroups to inform management decisons with regards to potential redd dewatering to to flow reductions and fluctuations on the LAR.

Year	Activity			Activ	vity Desc	ription
	Monitoring			annı saln egg	ual redd nonid red survival.	of hydraulic models in combination with surveys to generate estimates of LAR ld dewatering and potential impacts to
Resource	Agency	Resource Type	FTE	Total	Fund	Description
CBEC Eco-engineering	FWS	Contracts and Agreements Contract			CVPRF	

7/18/2014 4:01:14 PM 2

General:

deneral.			
Title	Description		
b1 Sacramento River Redd & Life History Monitoring	Sacramento River Redd & Early Life History Monitoring		

Authority:

Provision	Percentage	Comments
b 1	50	
b 2	50	

Location ID(s):

	(-)	
	Latitude	Longitude
40).612094	-122. 44 556

Watershed(s):

Watershed Name

Sacramento River Upper Mainstem

Schedule:

Funding Begins	Benefits Begin	Funding Complete
10/1/2012	10/1/2014	9/30/2017

Benefit(s):

Metric	Value Units Value Units	Comment
b1: # Fall-run Chinook	0N/A	Unit = stream miles monitored, Value = 70
		miles

Deliverable(s):

Date	Title	
9/30/2016	2016 Annual Report	
9/30/2017	2017 Annual Report	
9/30/2015	2015 Annual Report	

Program Priority:

Rank	Comment
	The 4 northern Habitat Restoration Coordinators feel this project is of utmost importance to
	protect naturally spawning salmon.

Estimated Cost(s):

Fiscal Year	Fund	Total		
2015	CVPRF	\$129,000		
2016	CVPRF	\$129,000		
2017	CVPRF	\$129,000		

7/18/2014 5:04:51 PM 1

Final Tota
\$387,000

Partners:	Related Programs:
Partner Name	Program Name
FWS	AFRP
CDFW	NMFS-RP
Pacific States Marine Fisheries Commission	EWP

Narrative Description

The purpose of this study is to better determine the present day impacts to flow reductions on seventy miles of the mainstem Sacramento River downstream of Keswick Dam. The data is relayed to managers on a relatively real time basis (weekly, or seasonal). Real time monitoring of redd dewatering and stranding due to flow reduction is beneficial to managers to assist decision making based on actual conditions on the river. The timing of flow reductions can often be critical to the survival of large numbers of eggs or juveniles. Up-to-date information can provide fishery managers with the assurances they need to make decisions to mitigate flow changes, if the data shows that the biological consequences will be significant.

Stable and continous river flows are important to the early life history (egg incubation to emergence from the gravel) of salmonids. If redds are dewatered or exposed to warm, deoxygenated water, incubating eggs/larval fish may not survive. After emergence from their redd, juvenile salmon can become stranded in shallow isolated water and be exposed to the same poor environmental conditions as well as increased predation. For the eggs and juveniles to survive they need water, of a suitable temperature, velocity and water quality, at all times.

Data on redd dewatering and juvenile stranding is being collected to aid management of flow releases from Keswick Dam. Real time monitoring of redd dewatering and stranding due to flow reductions is beneficial to managers to assist daily decision making based on actual conditions in the river. The timing of flow reductions can often be critical to the survival of large numbers of naturally spawned eggs or juveniles. Up-to-date information can provide fishery managers with the assurances they need to make desisions to mitigate flow changes, if the data shows that the biological consequences will be significant.

The AFRP program originally funded this project for three years of pilot level monitoring. In FY12, a full scale project was funded under a five-year Cooperative Agreement with Pacific States Marine Fish Commission (PSMFC). The full scale project is funded with a combination of b (1) and b (2) funding due to the amounts available in each program's overall budget and the need to continue collection of this valuable information. Future funding could potentially come from other CVPIA programs if those are deemed a better option (i.e. after FY 17). Additionally, results of this monitoring may be used to develop b(1) appropriate projects related to juvenile habitat restoration.

This study meets the intent of Action 2 for the Upper Mainstem Sacramento River as identified in the AFRP Final Restoration Plan.

Risk Management:		
Risk Description	Likelihood	Risk Impact
Monitoring in a stream that fluctuates on an annual basis based on the	1	1
type of water year		

Data Management:

Description

The final reports for this project will be available at:

http://www.calfish.org/Programs/ProgramIndex/CDFGUpperSacRiverBasinSalmonidMonitoring/tabid/222/Default.aspx

7/18/2014 5:04:51 PM 2

Year	Activity			Activity Description
2015	Monitoring	J		2015 Monitoring of naturally produced salmon redds and early life history in the upper 70 miles of the Sacramento River.
Resource	Agency	Resource Type	FTE	Total Fund Description
Cooperative Agreement	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF
Voor	A otivity			Activity December
Year	Activity			Activity Description
2016	Monitoring)		2016 Monitoring of naturally produced salmon redds and early life history in the upper 70 miles of the Sacramento River.
Resource	Agency	Resource Type	FTE	Total Fund Description
Cooperative Agreement	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF
Vaar	A adir side s			A stirite - Description
Year	Activity			Activity Description
2017	Monitoring)		2017 Monitoring of naturally produced salmon redds and early life history in the upper 70 miles of the Sacramento River.
Resource	Agency	Resource Type	FTE	Total Fund Description
Cooperative Agreement	FWS	Contracts and Agreements Cooperative Agreement	1	CVPRF

7/18/2014 5:04:51 PM 3

Title Description Study to assess the survival of juvenile Chinook salmon through the Delta Salmon Survival Study Authority: Trovision Percentage Comments 6 14 Comprehensive Assessment and Monitoring Program 86 Dedicated Project Yield Program Cocation ID(s): Latitude Longitude 38.1484 121.1931 Watershed(s): Watershed Name acramento River Basin Schedule: Funding Begins Benefits Begin Funding Complete 9/130/2015 Senefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Coliverable(s): Watershed(s): Watershed Name Comment Opercentage of fish Comment Program Priority: Stank Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total			
Study to assess the survival of juvenile Chinook salmon through the Delta Authority: Trovision Percentage Comments 6 14(Comprehensive Assessment and Monitoring Program 86 Dedicated Project Yield Program Occation ID(s): Latitude Longitude 38.1484 121.1931 Watershed(s): Watershed Name acramento River Basin Schedule: funding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Senefit(s): Watershed Rame acramento River Basin Schedule: Unding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Senefit(s): Watershed Rame acramento River Basin Schedule: Unding Begins Comment Opercentage of fish Deliverable(s): Watershed Rame acramento River Basin Comment Opercentage of fish Comment Opercentage of fish Program Priority: Value Units Comment Opercentage of fish Comment Opercentage of fish Opercentage of fis	General:		
Authority: Percentage Comments 14 Comprehensive Assessment and Monitoring Program 86 Dedicated Project Yield Program Cocation ID(s): Latitude Longitude 38.1484 121.1931 Watershed(s): Watershed Mame acramento River Basin Cochedule: Lunding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Comment 16: Annual Report 0 percentage of fish Comment 1730/2016 Delta Survival Study Report Program Priority: Lank Comment Program Priority Comments: Estimated Cost(s): Intel Total 173,960 Final Total 173,960 Final Total 173,960	Title		Description
rovision Percentage Comments 6	Delta Salmon Survival	Study	Study to assess the survival of juvenile Chinook salmon through the Delta
rovision Percentage Comments 6	Authority:		
Schedule: Sche	Provision	Percen	ntage Comments
Cocation ID(s): Latitude 38.1484 121.1931 Watershed(s): Watershed Name acramento River Basin Schedule: Junding Begins Joly (2015) Senefit(s): Senefit(s): Selectic Value Units Selectic Junding Report Opercentage of fish Comment Opercentage of fish Program Priority: Lank Comment Program Priority Comments: Estimated Cost(s): Junding Begins Joly (2015)	16		
Latitude 38.1484 121.1931 Watershed(s): Watershed Name acramento River Basin Schedule: Junding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Benefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Junding Begins Benefits Begin Funding Complete 1/30/2016 Poliverable(s): Junding Begins Benefits Begin Funding Complete 1/30/2016 Poliverable(s): Junding Begins Comment Opercentage of fish Deliverable(s): Junding Complete 1/30/2015 Program Priority Setting Comment Program Priority: Setimated Cost(s): Setimated Cost(s): Setimated Cost(s): Setimated Cost(s): Setimated Fund Total 015 CVPRF \$173,960	2		86 Dedicated Project Yield Program
Latitude 38.1484 121.1931 Watershed(s): Watershed Name acramento River Basin Schedule: Junding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Benefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Junding Begins Benefits Begin Funding Complete 1/30/2016 Poliverable(s): Junding Begins Benefits Begin Funding Complete 1/30/2016 Poliverable(s): Junding Begins Comment Opercentage of fish Deliverable(s): Junding Complete 1/30/2015 Program Priority Setting Comment Program Priority: Setimated Cost(s): Setimated Cost(s): Setimated Cost(s): Setimated Cost(s): Setimated Fund Total 015 CVPRF \$173,960	Location ID(s)		
Watershed(s): Watershed Name acramento River Basin Schedule: unding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Senefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Deliverable(s): Materic Title 1/30/2016 Delta Survival Study Report Program Priority: Lank Comment Program Priority Comments: Estimated Cost(s): iscal Year O15 CVPRF Final Total \$173,960	• • •		
Vatershed (s): Vatershed Name acramento River Basin Schedule: unding Begins			
Vatershed Name acramento River Basin Schedule: Junding Begins Benefits Begin Jol/2014 Jol/2014 Jol/2015 Senefit(s): Metric Value Units Comment Jole Comment Opercentage of fish Comment Com	30	121.	.1931
Vatershed Name acramento River Basin Schedule: Junding Begins Benefits Begin Jol/2014 Jol/2014 Jol/2015 Senefit(s): Metric Value Units Comment Jole Comment Opercentage of fish Comment Com	Watershed(s):		
Schedule: funding Begins Benefits Begin Funding Complete 0/1/2014 9/30/2015 9/30/2015 Senefit(s): Senefit(s): Selectric Value Units Comment 16: Annual Report Opercentage of fish Colliverable(s): Selectric Value Units Comment Opercentage of fish Comment Program Priority: Stank Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total 015 CVPRF \$173,960 Final Total \$173,960	Watershed Name		
unding Begins 8enefits Begin Funding Complete 9/30/2015 8enefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Deliverable(s): Delta Survival Study Report Program Priority: Lank Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total 015 CVPRF \$173,960	Sacramento River Basi	n	
unding Begins 8enefits Begin Funding Complete 9/30/2015 8enefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Deliverable(s): Delta Survival Study Report Program Priority: Lank Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total 015 CVPRF \$173,960	Calcadadas		
O/1/2014 9/30/2015 9/30/2015 Senefit(s): Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Date Title 1/30/2016 Delta Survival Study Report Program Priority: Stank Comment Program Priority Comments: Estimated Cost(s): iscal Year Fund Total 015 CVPRF \$173,960			
Senefit(s): detric	Funding Begins		
Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Date Title 1/30/2016 Delta Survival Study Report Program Priority: tank Comment Program Priority Comments: Estimated Cost(s): iscal Year Fund Total 015 CVPRF \$173,960 Final Total \$173,960	10/1/2014	9/30/2015	9/30/2015
Metric Value Units Comment 16: Annual Report Opercentage of fish Deliverable(s): Date Title 1/30/2016 Delta Survival Study Report Program Priority: tank Comment Program Priority Comments: Estimated Cost(s): iscal Year Fund Total 015 CVPRF \$173,960 Final Total \$173,960	Benefit(s):		
Deliverable(s): Deliverable(s): Deta Survival Study Report Program Priority: Cank Comment Program Priority Comments: Estimated Cost(s): Description of the standard Study Report Final Total \$173,960	<u> </u>	Valu	Ja Units Comment
Deliverable(s): Date Title 1/30/2016 Delta Survival Study Report Program Priority: Dank Comment Program Priority Comments: Estimated Cost(s): Discal Year Fund Total Discolory Strain			
Delta Survival Study Report Program Priority: Stank Comment Program Priority Comments: Estimated Cost(s): Siscal Year O15 CVPRF Final Total \$173,960	· ·		_!'
Delta Survival Study Report Program Priority: Stank Comment Program Priority Comments: Estimated Cost(s): Siscal Year Total O15 CVPRF Final Total \$173,960	Deliverable(s):		
Program Priority: Rank Comment Program Priority Comments: Estimated Cost(s): Fiscal Year O15 CVPRF Final Total \$173,960	Date	Title	
Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total O15 CVPRF \$173,960 Final Total \$173,960	11/30/2016	Delta Survival	ll Study Report
Comment Program Priority Comments: Estimated Cost(s): Siscal Year Fund Total O15 CVPRF \$173,960 Final Total \$173,960	Program Priori	'V'	
Program Priority Comments: Estimated Cost(s): iscal Year Fund Total 015 CVPRF \$173,960 Final Total \$173,960			
Estimated Cost(s): iscal Year Fund Total 015 CVPRF \$173,960 Final Total \$173,960	2		prity Comments:
Final Total CVPRF Final Total \$173,960 Final Total \$173,960		_	,
015 CVPRF \$173,960 Final Total \$173,960	Estimated Cost	z(s):	
Final Total \$173,960	Fiscal Year		
\$173,960	2015	CVPRF	\$173,960
\$173,960			Final Total
lo Partners Listed No Related Programs Listed			
in artifers Listed INO Netated Programs Listed	No Partners Listed		No Related Programs Listed
	INO FAILIEIS LISIEU		INO IVelated Flograms Listed

7/18/2014 3:53:11 PM 1

Narrative Description

Continuation of a study to assess the survival of juvenile salmon as they pass through the Delta, and how different water management actions affect juvenile salmon passage. The data from the study can be used to manage river discharges so juvenile salmon are more successful in passing through the Delta as they migrate to the Pacific Ocean. Increased juvenile salmon passage through the Delta should, in turn, lead to greater numbers of adult salmon that return to their natal watersheds when they spawn.

Risk Management:		
Risk Description	Likelihood	Risk Impact
2	1	1

Data Management:

Description

Data is provided and tabulated in an annual report.

Year	Activity Description			iption		
2015	Research					
Resource	Agency	Resource Type	FTE	Total Fur	nd	Description
juvenile salmon	FWS	Contracts and Agreements Contract	1	CVI	PRF	Partial funding to conduct the Delta Survival Study led by Pat Brandes. The total project is expected to cost \$400,000 in FY2015. The CAMP does not currently plan to fund this project in FY2016. The b16 program will provide \$23,960 to fund the project, and the b2 program will provide \$150,000.

7/18/2014 3:53:11 PM 2