

Draft CVPIA Fiscal Year 2010 Annual Work Plan

October 1, 2009

Program Title:

Refuge Water Conveyance (Wheeling) Program
CVPIA Section 3406(d)(1), (2) and (5)

Responsible Entities

Staff Name	Agency	Role
Sonya Nechanicky	Reclamation	Lead, Refuge Water Conveyance Program Manager
Dale Garrison	U.S. Fish and Wildlife Service	Co-Lead, Refuge Water Supply Coordinator

Program Goals and Objectives for FY 2010

The Refuge Water Conveyance Program (Program) endeavors to meet the mandate of Section 3406(d)(1), (2), and (5) of the Central Valley Project Improvement Act (CVPIA), to provide long-term, firm and reliable water deliveries to 19 certain Federal, State, and private wetlands and wildlife habitat areas (hereinafter referred as refuges) located in the Central Valley of California.

This program has two primary performance goals, specifically, starting with Water Year 2002 forward:

- Annually provide/deliver Level 2 water supplies by specified amounts to the refuges totaling 422,251 acre-feet;
- Annually deliver Incremental Level 4 acquired water supplies by specified amounts to the refuges totaling 133,264 acre-feet.

1.1 Program Management

1.1.1 – RECLAMATION – Program Manager. Provide oversight, administration, and planning for all aspects of the Refuge Water Conveyance Program (Program). Identify and initiate projects and develop strategies to achieve Program goals and meet long-term and short-term refuge water supply needs, exploring options and incorporating prioritization processes. Maintain and continue to build on good cooperative working relationships, cohesive partnerships, and collaboration efforts with refuge managers, conveyance contractors, other agencies, and stakeholders. Represent the Program at internal and external meetings, and provide presentations. Maintain strong coordination with Area Offices (A.O.) staff, Regional Office (R.O.) technical staff, delivering entities, local and regional refuge managers, and agency refuge coordinators. Provide oversight and guidance to the technical support personnel on related Program projects and tasks. Maintain strong Program accountability, assuring compliance with Federal and State laws, including National Environmental Policy Act (NEPA) compliance, monitoring program progress,

maintaining records, utilizing audit tools, and providing information to interested parties. Provide oversight and review of annual Program budget processes and contract activities. Develop annual work plans and activity plans. Expand Program information resources.

Interagency Coordination: Organize and chair the Interagency Refuge Water Management Team (IRWMT) meetings. IRWMT membership includes all three refuge managing agencies being the U.S. Fish and Wildlife Service (FWS), Grassland Water District (GWD) and the California Department of Fish and Game (CDFG), and representation from the Central Valley Joint Venture (CVJV) partnership. The IRWMT coordinates the annual refuge water delivery schedules, manages allocation of available Incremental Level 4 water, and reviews and deliberates ongoing water management issues.

Provide oversight and review for existing long-term and interim conveyance agreements, long-term water supply contracts, and reimbursement agreements. Contract administration includes coordinating with Central Valley Operations (CVO) office, Water Acquisition Program (WAP) and the refuge managers on water needs and delivery schedules to ensure the contract obligations are met. Negotiate new long-term and interim conveyance agreements. Coordinate and assist on conveyance facilities improvement (construction) agreements with the contracting officer's representatives, cooperating entities, and managing agencies of those affected refuges.

Negotiate a new long-term reimbursement agreement between Reclamation and CDFG for groundwater pumping at the Gray Lodge Wildlife Area (Gray Lodge WA).

Negotiate a long-term reimbursement agreement between Reclamation and CDFG for pumping plant power costs at the China Island Unit.

Pursue CVP power to support refuge groundwater pumping, refuge-boundary lift pumping, and two pumping plants at China Island Unit and East Bear Creek Unit.

PROGRAM FUNDING: Program funding is organized in two major categories - program management and conveyance cooperative agreements. Approximately 90 percent of the \$7,500,000 total Program budget will be used for agreements/contracts for the delivery of water. In FY2010, the Program expects to convey approximately 100 percent of Level 2 to those refuges having full delivery capacity, and convey the quantity of Incremental Level 4 water currently anticipated to be acquired for WY2010 through the WAP.

1.2 Program Support

1.2.1 – RECLAMATION – Program Support Specialist. Develop initial annual Program budget and track through final execution. Initiate and monitor fund obligations and expenditures. Assist with development of annual work plans and activity plans. Provide functional support for R.O. Program-related agreements and associated financial processes. Provide support for various projects and functions, maintain records, assist with information requests, maintain Program website, and coordinate continuing development of the CVPIA Refuge Water Supply Program Database.

1.2.2 – RECLAMATION – Wildlife and Fish Specialist. Provide program support in

technical areas related to WAP activities.

1.2.3 – FWS – Refuge Water Supply Coordinator. As CVPIA Refuge Water Supply Program partner and co-lead, provide Federal refuge coordination and representation at internal and external meetings, and provide presentations. Develop annual FWS Refuge Conveyance Program budget needs and submit to Reclamation for incorporation into the overall Program budget. Initiate FWS portion of budget and track through final execution. Monitor fund obligations and expenditures, and contract payments.

Participate in IRWMT meetings as Program partner with Reclamation and with cooperating entities, GWD, CDFG, and CVJV. Working with the IRWMT, develop the annual refuge water delivery schedules and coordinate with IRWMT partners in ongoing water management issues.

Manage a conveyance cooperative agreement with the San Luis Canal Company (SLCC), aka Henry Miller Reclamation District. Monitor conveyance cooperative agreement obligations in coordination with FWS R.O. contracting staff, delivering entity, refuge managers and IRWMT.

1.2.4 – FWS – CVPIA Implementation Division Chief. Provide coordination support for CVPIA reporting requirements between CVPIA programs and program managers.

1.3 Technical Support (Reclamation)

1.3.1 – Perform water quality monitoring at Gray Lodge WA pursuant to the terms of the Reimbursement Agreement. Project tasks include surface and groundwater sampling, data collection from installed water loggers, and development of annual report summarizing data analysis. This data will also contribute toward some of the data required of CDFG as a member of the coalition covered by the agricultural waiver issued under the State Water Resources Control Board related to agricultural water discharge.

1.3.2 – Information Technology (IT) staff support and maintenance for the CVPIA Refuge Water Supply Program Database and website data transmission.

1.3.3 – Acquisition/Contracting Division staff support of conveyance agreements and Program-related acquisitions, including invoice tracking, payment processing, agreement modifications, and obligation of agreement funds.

1.3.4 – South Central California Area Office (SCCAO) (both Fresno and Tracy offices) administration of conveyance cooperative agreements for California Department of Water Resources (DWR), Buena Vista Water Service District (BVWSD), SLCC, GWD, Central California Irrigation District (CCID), and San Luis Delta-Mendota Water Authority (SLDMWA).

1.3.5 – Enter CVPIA refuges water delivery data into BOR WORKS database, coordinating with CVO, R.O., and A.O. staffs.

1.3.6 – Northern California Area Office (NCAO) administration of conveyance cooperative

agreements for Glen-Colusa Irrigation District (GCID) and BWGWD

1.3.7 – Coordinate monthly water delivery data from flow meters located on the Gray Lodge WA per conveyance cooperative agreement between Reclamation and BWGWD. Periodically perform flow meter calibrations; maintain and repair flow meters; and groundwater well pump meters at Gray Lodge WA.

1.3.8 – Continue administration of conservation easement for giant garter snake habitat site in Glenn County. (Refer to 1.14.5.)

1.5 Evaluations, Studies, Investigations, Research

1.5.1 – North Grasslands Water Conservation and Water Quality Control Project – Phase I. The primary purpose of this project is to capture return flows from certain lands served by the Grassland Water District and deliver this water as Incremental Level 4 water supplies. Phase I covers those services and tasks required to determine the feasibility of the project including assessment of the water supply augmentation potential and water quality impacts; environmental documentation; permitting requirements; field surveys and mapping; and project design.

1.7 Outreach and Public Involvement

1.7.1 – The Program coordinates and chairs the IRWMT meetings (see 1.1 above). Program participates on the CVJV Water and Power Committee on a purview of refuge water supply topics including activities updates, water acquisition issues and opportunities, constraints, and concerns. Program meets annually, at minimum, with CVPIA stakeholders at public meeting forums to review and discuss annual work plans and provide additional Program information. Program leads the cost share development process for the Refuge Water Supply Program with representatives from CDFG, FWS, and DWR. This process is covered by the multi-agency Sharing of Costs for Mitigation Projects and Improvements Agreement (SCAMPI). Program coordinates and facilitates cost share development for all four components of the Refuge Water Supply Program (RWCP, WAP, Refuge Facilities Construction Program, and San Joaquin Basin Action Plan Construction Program).

1.12 Monitoring

1.12.1 – Costs for water sampling analysis performed by contract laboratories. Water sampling analysis is part of the water quality monitoring and groundwater data collection at Gray Lodge WA pursuant to the Reimbursement Agreement (see 1.3.1 under Technical Support).

1.14 Other – Describe

1.14.1 – Reclamation Conveyance Agreements (8 agreements) – Agreement costs for conveyance of refuge water supplies.

1.14.2 – FWS Conveyance Agreement (1 agreement) – Agreement costs for conveyance of refuge water supplies.

1.14.3 – CVPIA Refuge Water Supply Program Database - Phase II. Contract for Oracle Database developer to write computer program based on Reclamation Phase II

enhancements design (refer to 1.3.2). This is an integrated database designed for refuge water supply accounting, delivery scheduling, tracking and invoicing.

1.14.4 – Gray Lodge/Pixley Well Construction Project (ARRA approved project) –

a. Construct three new groundwater wells on the Gray Lodge WA, to be strategically located within the revised design of the improved internal distribution system for maximum water delivery optimization. This project relates to the Reimbursement Agreement (see 1.1.1). Reclamation relies on the use of CDFG groundwater wells at Gray Lodge WA to meet part of its obligation under CVPIA in delivering Level 2 water supplies. The majority of existing wells are between 40-50 years old. Production rates and efficiency of these wells continue to decrease, while repair costs increase. CDFG has invested \$6.8M for internal conveyance distribution system improvements and upgrades as of August 2007, resulting in a much more efficient distribution system.

b. Construct two groundwater wells on the Pixley National Wildlife Refuge (Pixley NWR), one for backup and a second to supplement to full L-2 water. Currently, there is only one groundwater well on the Pixley NWR, and it is the sole source of all water supplies until a construction project is implemented to develop external water conveyance facilities for delivery to the refuge boundary. This well provides only a portion of Level 2 water supplies, with average annual groundwater supplies providing less than 15% of total Level 4 water allocation to the Pixley NWR. During Water Year 2007, mechanical problems with this single well pump resulted in no water availability for five months during the fall and winter, which are prime seasons for sandhill crane use.

1.14.5 – Reclamation - Groundwater pumping and pumping plant power costs:

a. Provide groundwater supplies to Gray Lodge Wildlife Area through onsite groundwater pumping. Use groundwater to supplement surface water deliveries, conveyed by BWGWD, up to full Level 4 amounts at Gray Lodge WA.

b. Reimburse DFG conveyance costs for winter maintenance flows at Mendota Wildlife Area.

c. Deliver water to internal distribution system of the China Island Unit through pumping plant located on the J-Lateral.

1.14.6 – FWS - Groundwater pumping and pumping plant power costs, and lift pumping costs:

a. Provide groundwater supplies for giant garter snake habitat on privately-owned site. Habitat was restored and is maintained annually to satisfy the mitigation requirements made necessary by refuge conveyance construction activities in the Sacramento Valley. Water is provided through groundwater pumping at the site, and this project provides funding for Pacific Gas & Electric (PG&E) power costs to run one well pump. (Refer to 1.3.8)

b. Lift-pump water from Colusa National Wildlife Refuge (Colusa NWR) boundary, conveyed by GCID, to internal refuge distribution system for habitat units at higher elevations.

c. Provide groundwater to Merced National Wildlife Refuge (Merced NWR) through onsite groundwater pumping during the three-month maintenance outage period of Merced Irrigation District (MID).

d. Deliver water to internal distribution system of the East Bear Creek Unit through

pumping plant located on Bear Creek.

Source Documents to CVPIA Refuge Conveyance Program:

- Report on Refuge Water Supply Investigations, Central Valley Hydrologic Basin, California (3/1989)
- San Joaquin Basin Action Plan/Kesterson Mitigation Plan, Merced County, California (12/1989)
- San Joaquin Basin Action Plan and North Grasslands Area – Conveyance Facilities – Final EA/IS (12/1997)
- Conveyance of Refuge Water Supply Project, East Sacramento Valley Study Area – Final EA/IS and Proposed FONSI/Negative Declaration (12/1997)
- Conveyance of Refuge Water Supply Project, West Sacramento Valley Study Area – Final EA/IS and Proposed FONSI/Negative Declaration (12/1997)
- Conveyance of Refuge Water Supply, South San Joaquin Valley Study Area (Kern and Pixley National Wildlife Refuges) – Final EA/IS (10/2003)
- Conveyance of Refuge Water Supplies to the East Bear Creek Unit of the San Luis National Wildlife Refuge – Final E.A. (2/2006)
- Refuge Water Supply Conveyance Alternatives Refinement Memorandum (East and West Sacramento Valley) (5/1995)
- Refuge Water Supply Long-Term Water Supply Agreements – Sacramento River Basin – Final EA/IS (1/2001)
- Refuge Water Supply Long-Term Water Supply Agreements – Tulare Lake Basin – Final EA (1/2001)
- Refuge Water Supply Long-Term Water Supply Agreements, San Joaquin River Basin – Final EA/IS (1/2001)
- Report of Recommended Alternatives – Refuge Water Supply and San Joaquin Basin Action Plan Lands (4/1995)

Status of the Program

The Refuge Water Conveyance Program is one of four components of the Refuge Water Supply Program. The remaining three components are the WAP, the Refuge Facilities Construction Program, and the San Joaquin Basin Action Plan Construction Program; the latter two construction programs are subsets to the Program, supporting the Refuge Water Conveyance Program by acquiring needed external conveyance capacity for delivery of full Level 4 water supplies to the refuges. The Program conveys water supplies to the refuges using cooperative agreements with water delivery entities using Project and acquired water. Established refuge allocations for Level 2 and Incremental Level 4 water supplies serve as the Program's goals for water conveyance quantities. Each year in February and March, Reclamation, CVO and WAP announce the available Level 2 refuge water allocation percentage for the contract year or water year that begins in March. At this time, annual water delivery schedules are developed by each refuge and coordinated through the IRWMT. The IRWMT is chaired by Reclamation, and includes refuge managing agencies FWS (also Program co-lead), GWD and the CDFG, and representation from CVJV.

Reclamation entered into five long-term water supply contracts with GWD, FWS, and CDFG

which established Reclamation's commitment to the CVPIA delivery mandates. There contracts are: two with CDFG covering Gray Lodge, Los Banos, Volta, Mendota and North Grasslands Wildlife Areas; two with the FWS covering Sacramento, Delevan, Colusa, Sutter, San Luis, Merced, Kern and Pixley Wildlife Refuges; and one with GWD for the GRCD (GRCD is comprised of privately-owned and managed wetlands).

Reclamation currently has eight long-term (7-50 years) conveyance agreements that are administered by the Program, along with one FWS 40-year conveyance agreement, also administered under the Program. The Program utilizes cooperative agreements to reimburse delivering entities for costs of conveying Level 2 and Incremental Level 4 water supplies through Federal, State, and private water distribution systems to the refuges. These long-term agreements are with SLCC (two agreements), CCID, GWD, SLDMWA, BVWSD, DWR, BWGWD, and GCID. SCCAO and NCAO manage a significant portion of the conveyance agreement administration for all but one agreement. The FWS California-Nevada Office (CNO) administers one of the two SLCC conveyance agreements.

Numerous biological benefits have resulted from a reliable year-round water supply through CVPIA that adequately meets the delivery schedule for wetland management on CVPIA wildlife refuges. Habitat is now available during the months of August and early September which benefits early migrant waterfowl and shorebirds, and also provides habitat for resident wildlife and their young during a critical time of the year when wetland habitat can be particularly limited due by hydrology.

Applying water for semi-permanent and permanent wetland habitat in the spring and summer directly benefits the recovery of special status species such as the giant garter snake, white-faced ibis, and tricolored blackbirds. Wintering wildlife also benefit because this habitat type provides diversity in a landscape dominated by shallow wetland habitat.

Seasonal wetlands are now maintained and de-watered to coincide with peak migration times of shorebirds and waterfowl. Timely de-watering also promotes the germination and irrigation of important moist-soil food plants, such as swamp timothy grass and watergrass. These plants provide a high-energy food source through both their seeds and associated invertebrate communities. The increase in supply reliability allows wetland managers to lower water depths to make seeds and invertebrates available without the fear of having wetlands completely evaporate.

Another significant advantage is that the ability to battle avian disease outbreaks, such as botulism and cholera, is greatly assisted by applying additional water and creating a "flow through" system of water delivery and drainage. This "flow through" also helps manage wetland areas high in salinity, which are often lower in productivity and diversity. CVPIA water allows wetland managers to "flush" excess salts from wetland basins and improve soil quality.

FY 2009 Accomplishments

1. The Program strived to meet the mandates of CVPIA, specifically the two primary performance goals of providing and delivering full Level 2 and Incremental Level 4 amounts to the refuges.

In Water Year 2008 (March 1, 2008, thru February 29, 2009), approximately 398,010 acre-

feet of Level 2 water and approximately 37,066 acre-feet of Incremental Level 4 water were delivered to the refuges through the refuge water supply contracts according to the delivery schedules provided by GWD, FWS, and CDFG. The Level 2 amount of 398,010 includes an estimated 65,718 acre-feet of water provided from diverse sources other than Project yield, including State water rights water, groundwater, accretion water, and water through an existing mitigation agreement under Federal Energy Regulatory Commission license with Merced Irrigation District. The Incremental Level 4 amount of 37,066 includes 1,500 acre-feet of the same mitigation water from Merced Irrigation District.

Primarily due to existing limitations of external conveyance capacity, and to a minimal extent the fact that a few refuges requested less than full Level 2, the Program did not deliver full Level 2 allocation. The Program delivered the full amount of Incremental Level 4 water acquired through the WAP. However, the WAP was restricted in its water acquisitions by both limited available water on the open market by willing sellers and insufficient funding.

2. Coordinated with the IRWMT to develop Level 2 and Incremental Level 4 water delivery schedule scenarios based on changing water availability, received timely refuge monthly water delivery schedules, and prioritized limited Incremental Level 4 water supplies.
3. Negotiated amendment to groundwater pumping reimbursement agreement with California State Department of Fish and Game for the Gray Lodge WA. This amendment provides for extending the performance period up to February 29, 2012, through 1-year term extensions, and incorporated extending current term date through February 28, 2010.
4. Coordinated with CVO, WAP, and Federal, State and private refuges on water needs and delivery schedules to ensure that contract obligations were met. CVO is responsible for providing Project water delivered for Level 2 water supplies, and the WAP is responsible for acquiring Incremental Level 4 supplies. (The majority, but not all, of Level 2 water supplies comes from Project water.)
5. Continued cost share development process to determine current cost share apportionment for the State of California related to Incremental Level 4 water supplies, including water acquisition, certain conveyance facilities construction, and water delivery costs. This process is covering the last seven Federal fiscal years, and efforts are coordinated with FWS, CDFG, and DWR. A final task order resulting from this process is anticipated to be completed by December 2009.
6. Participated in the Refuge Independent Panel process through development of presentations, providing supportive documentation, performing research, drafting responses to Panel inquiries, coordinating response efforts with RWSP staff, and participation in related public meetings.
7. Managed a conservation easement of 113 acres of giant garter snake habitat from May 1 through September 30, 2009, on a privately-owned site in Glenn County. This habitat was restored and is maintained annually to satisfy the mitigation requirements made necessary by refuge conveyance construction activities in the Sacramento Valley.
8. Design was completed for the Gray Lodge/Pixley Well Construction Project.

Table 1. 2010 Tasks, Costs, Schedules and Deliverables

Task or Subtask Number	Name of Activity	FTEs	Description of Activity	Completion Date	Total Cost	Anticipated Funding Source		State or Other Sources Anticipated	Total All Sources Anticipated
						RF	WRR		
1.1	Program Management								
1.1.1		1.0	Reclamation -- Refuge Water Conveyance Program Manager -- Manage, provide oversight, and administer Refuge Water Conveyance Program.	9/30/2010	183,385	183,385			183,385
	Subtotal Costs	1.0	Reclamation		183,385	183,385	0	0	183,385
1.2	Program Support								
1.2.1		0.90	Reclamation -- Refuge Water Supply Program Support Specialist -- Develop Program budget and provide support services for Refuge Water Supply Program.	9/30/2010	136,274	136,274			136,274
1.2.2		0.20	Reclamation -- Wildlife and Fish Specialist--Provide Program support in technical areas.	9/30/2010	47,130	47,130			47,130
1.2.3		0.50	FWS -- Refuge Water Supply Coordinator (Co-lead) -- Provide Federal refuge coordination.	9/30/2010	105,127	105,127			105,127
1.2.4		0.10	FWS --CVPIA Implementation Division Chief	9/30/2010	21,025	21,025			21,025
	Subtotal Costs	1.1	Reclamation		183,404	183,404	0	0	183,404
	Subtotal Costs	0.6	FWS		126,152	126,152	0	0	126,152
1.3	Technical Support								
1.3.1		0.30	Reclamation -- Continue water quality monitoring at Gray Lodge WA.	9/30/2010	40,000	40,000			40,000
1.3.2		0.06	Reclamation -- Provide IT support to Refuge Water Supply Program Databases.	9/30/2010	5,000	5,000			5,000
1.3.3		0.15	Reclamation -- Process conveyance agreement payments and modifications.	9/30/2010	17,000	17,000			17,000
1.3.4		0.15 0.10	Reclamation -- SCCAO - Administer refuge conveyance agreements.	9/30/2010	58,504	58,504			58,504
1.3.5		0.05	Reclamation -- SCCAO - Enter Refuge Water Supply Program data into BORWORKS program.	9/30/2010	7,383	7,383			7,383
1.3.6		0.25	Reclamation -- NCAO - Administer refuge conveyance agreements.	9/30/2010	43,188	43,188			43,188
1.3.7		0.40	Reclamation -- Download data from POD meters at Gray Lodge WA; maintain meters.	9/30/2010	58,299	58,299			58,299
1.3.8		0.03 0.03	FWS -- Administer Giant Garter Snake mitigation in Sacramento Valley.	9/30/2010	12,615	12,615			12,615
	Subtotal Costs	1.46	Reclamation		229,374	229,374	0	0	229,374
	Subtotal Costs	0.06	FWS		12,615	12,615	0	0	12,615
1.7	Outreach and Public Involvement								
1.7.1			Reclamation -- IRWMT, CVPIA stakeholders public meetings, SCAMPI cost share. Funding included under Program Management and Program Support.	9/30/2010					
	Subtotal Costs		Reclamation		0	0	0	0	0

Task or Subtask Number	Name of Activity	FTEs	Description of Activity	Completion Date	Total Cost	Anticipated Funding Source		State or Other Sources Anticipated	Total All Sources Anticipated
						RF	WRR		
1.12	Monitoring								
1.12.1			Reclamation -- Laboratory water sampling analysis costs related to GLWA Deep Well Reimbursement Agreement.	9/30/2010	25,000	25,000			25,000
	Subtotal Costs		Reclamation		25,000	25,000	0	0	25,000
1.14	Other - Describe								
1.14.1	Conveyance Agrmts		Reclamation Conveyance Agreements (8) Costs. UNFUNDED NEED of \$2,710,359. Current FY2010 budget is insufficient. The budget will allow the Program to convey approximately 70 percent of Level 2 water to those refuges having full delivery capacity. This current budget will not meet the funding needs required to convey an anticipated acquisition of 30,000 ac-ft of Incremental Level 4 water.	9/30/2010	7,880,966	5,170,607			5,170,607
1.14.2	Conveyance Agrmts		FWS conveyance agreement (1) costs. UNFUNDED NEED of \$50,000. Current FY2010 budget is insufficient to meet full conveyance needs under this agreement.	9/30/2010	742,542	692,542			692,542
1.14.4	Gray Lodge/Pixley Well Construction Project		Reclamation -- Construct three wells at Gray Lodge WA, and construct two wells at Pixley NWR. Received FY09 funds in the amount of \$3.015M for this ARRA (American Recovery and Reinvestment Act) approved project.	9/30/2010	0	0			0
1.14.5	Groundwater Pumping		Reclamation -- Groundwater pumping and pumping plant power costs.	9/30/2010	464,000	464,000			464,000
1.14.6	Groundwater Pumping		FWS -- Groundwater pumping and pumping plant power costs, and lift pumping costs.	9/30/2010	412,921	412,921			412,921
	Subtotal Costs		Reclamation		8,344,966	5,634,607	0	0	5,634,607
	Subtotal Costs		FWS		1,155,463	1,105,463	0	0	1,105,463
	FWS total cost	0.66			1,294,230	1,244,230	0	0	1,244,230
	Reclamation total cost	3.56			8,966,129	6,255,770	0	0	6,255,770
	Total Costs	4.22			10,260,359	7,500,000	0	0	7,500,000
1.5.1	N. Grasslands Water Conservation & WQC Project		Reclamation -- Phase I: Determine feasibility of capturing return flows and delivering as Incremental Level 4 supplies. *		* 200,000	* 200,000			* 200,000
	Unfunded Needs								
1.14.1	Conveyance Agreements		UNFUNDED NEED of \$2,710,359.	9/30/2010	\$2,710,359				
1.14.2	Conveyance Agreements		UNFUNDED NEED of \$50,000.	9/30/2010	\$50,000				
1.14.3	Refuge Database - Phase II		Reclamation -- UNFUNDED NEED - Phase II of Refuge Water Database development.	9/30/2010	\$45,000				
	Total Unfunded Needs				\$2,805,359				

In FY10, the Refuge Conveyance Program has an immediate need of \$2,760,359 additional funds in order to meet its primary objective of conveying approximately 398,000 acre feet of L-2 water and an anticipated acquisition of 30,000 acre feet of Incremental L-4 water. A total overall program need of \$2,805,359 of additional funds is required to meet all identified objectives for this year. (\$2,805,359 includes the \$2,760,359 required for full conveyance of L-2 and Incremental L-4 water). Certain unliquidated prior-year funds have been identified that will meet a portion of the Program's FY10 unfunded needs.

*1.51. - The Program plans to use prior year funding for this project.

Table 2. Budget Breakout

Task	Agency	FTE	LABOR			CONTRACTS		USBR Only Misc. Costs	Total Costs
			Direct Salary and Benefits Costs ^{1/}	Overhead (O/H) Costs on Salary & Benefits ^{1/}	FWS Only - Overhead Burden Assess: 22% of Salary, Benefits & Labor O/H Costs ^{2/}	Contract, Grant, and Agreement Costs	FWS Only - Overhead Assess: 6% Contract Costs/ 22% Utility Costs ^{2/}		
1.1 Program Management	FWS		\$0	\$0	\$0	\$0	\$0		\$0
	USBR	1	\$100,217	\$76,940		\$0		\$6,228	\$183,385
1.2 Program Support	FWS	0.6	\$42,395	\$61,008	\$22,749	\$0	\$0		\$126,152
	USBR	1.1	\$100,228	\$76,947		\$0		\$6,229	\$183,404
1.3 Technical Support	FWS	0.06	\$4,240	\$6,101	\$2,275	\$0	\$0		\$12,616
	USBR	1.46	\$122,828	\$91,593		\$0		\$14,953	\$229,374
1.12 Monitoring	FWS		\$0	\$0	\$0	\$0	\$0		\$0
	USBR		\$0	\$0		\$25,000		\$0	\$25,000
1.14 Other	FWS - Agrmt		\$0	\$0	\$0	\$653,341	\$39,200		\$692,541
	FWS - Utility		\$0	\$0		\$338,460	\$74,461		\$412,921
	USBR		\$0	\$0		\$5,634,607		\$0	\$5,634,607
Administrative Total - FWS			\$46,635	\$67,109	\$25,024		\$113,661		\$252,429
Contracts, Grants and Agreements Total - FWS						\$991,801			\$991,801
FWS Total Costs		0.66	\$46,635	\$67,109	\$25,024	\$991,801	\$113,661		\$1,244,230
Administrative Total - USBR			\$323,273	\$245,480				\$27,410	\$596,163
Contracts, Grants and Agreements Total - USBR						\$5,659,607			\$5,659,607
USBR Total Costs		3.56	\$323,273	\$245,480		\$5,659,607		\$27,410	\$6,255,770
TOTAL ALL		4.22	\$369,908	\$312,589	\$25,024	\$6,651,408	\$113,661	\$27,410	\$7,500,000

1/ For FWS only: The FWS develops a bio-rate which is the combination of both the salary/benefit and related administrative costs. The FWS simple definition reads, "It is an average \$\$ rate that is developed and used for estimating project costs. It incorporates a biologist's salary and benefits, supervisory, clerical and biologist support costs and all other office operating costs related to completing project tasks.

2/ FWS assesses an O/H Burden charge of 6% on all contracts/agreements related to budget object codes starting with 25, 41, and 32, and a charge of 22% on costs under all other budget object codes.

Year	Description of Activities	Requested RF Funding	Requested W&RR Funding
2011	1.1 Program Management 1.2 Program Support 1.3 Technical Support 1.7 Outreach and Public Involvement 1.12 Monitoring 1.14 Other: - Conveyance agreement costs for surface water deliveries - Pumping costs for groundwater, pumping plants, and lift pumping TOTAL	191 280 246 0 30 8,968 912 10,627	0
2012	1.1 Program Management 1.2 Program Support 1.3 Technical Support 1.7 Outreach and Public Involvement 1.12 Monitoring 1.14 Other: - Conveyance agreement costs for surface water deliveries - Pumping costs for groundwater, pumping plants, and lift pumping TOTAL	198 284 277 0 30 9,327 948 11,064	0
2013	1.1 Program Management 1.2 Program Support 1.3 Technical Support 1.7 Outreach and Public Involvement 1.12 Monitoring 1.14 Other: - Conveyance agreement costs for surface water deliveries - Pumping costs for groundwater, pumping plants, and lift pumping TOTAL	206 295 288 0 35 9,700 986 11,511	0

Table 4. Refuge Water Conveyance Program - FY 2010 CVPIA Monitoring Projects

Project Description:	Monitor groundwater and surface water quality at Gray Lodge Wildlife Area pursuant to provision in the Agreement for the Reimbursement of Deep Well Pumping Costs on the Gray Lodge Wildlife Area Between the United States and the State of California, #05-Wc-20-2903 (Agreement)
FY 2009 Project Complete?	On-going project through term of agreement. FY2009 samplings complete.
CVPIA annual work plan subtask number:	Monitoring 1.12.1 and Technical Support 1.3.1
Scope of the monitoring effort:	Gray Lodge Wildlife Area (GLWA)
Product/deliverable:	Annual report providing analysis of collected data.

Cost:	The annual cost for this project is \$65,000.
Questions posed:	Does the quality of groundwater supplies affect the overall quality of total water supplies provided to the GLWA?
Objectives:	Establish a baseline for water quality for use in future environmental documentation required for renewal of Agreement.
Results – expected or actual:	Establish baseline data for water quality at the GLWA.
Data collection methods:	Manual physical water sampling collection and automatic data collection for physical parameters via multi parameter sonde.
Data management:	Digital files with raw data are archived by the MP-150 Environmental Division. Annual analysis report is produced.
Assessment:	To date, collective water supplies at the GLWA meet the agricultural water quality limits and ambient water quality criteria.
Use of information in future decision making:	Water quality data will be used future environmental documentation required for renewal of Agreement.
NMFS OCAP BO RPA	No