

Lower Owens River Project
Work Plan, Budget, and Schedule
2013-2014 Fiscal Year

Prepared by
Inyo County Water Department
& Los Angeles Department of Water and Power

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The Inyo County Water Department and the Los Angeles Department of Water and Power jointly prepared this 2013-2014 Fiscal Year Lower Owens River Project Work plan. The Inyo County/Los Angeles Technical Group adopted this work plan on January 31, 2013. The Technical Group recommends that the Inyo County Board of Supervisors and the City of Los Angeles Board of Water and Power Commissioners or their designee approve the 2013-2014 Fiscal Year Lower Owens River Project Work Plan.

Introduction

The Final Environmental Impact Report for the Lower Owens River Project (LORP) Section 2.2.1 provides that in December of each year, the Long-Term Water Agreement (LTWA) Technical Group will develop and adopt an annual work program for the LORP, which describes LORP work to be performed in the following fiscal year. This work program identifies who will perform or oversee tasks, a schedule, and a budget. This work plan and budget was prepared according to the Agreement between the County of Inyo and City of Los Angeles Department of Water and Power Concerning Funding of the Lower Owens River Project (Funding Agreement) sections D, E, and F. Following adoption by the Technical Group, the work program will be submitted to the County and LADWP governing board for approval. Each governing board must approve the plan before this work plan and budget can be implemented it. This document is the work plan for fiscal year July 1, 2013 – June 30, 2014.

The objectives of this work plan are to maintain compliance with the July 11, 2007 Superior Court Stipulation and Order in case no. S1CVCV01-29768, conduct monitoring necessary to achieve the LORP goals described in the 1997 Memorandum of Understanding, maintain infrastructure necessary to the operation of the LORP, and implement adaptive management measures. The following priorities are observed in this work plan:

1. Work and activities required to maintain required flows in the river and required water supplies to other LORP components.
2. Maintenance associated with flow compliance monitoring and reporting associated with the above referenced Stipulation and Order.
3. Habitat and water quality monitoring described in the LORP Monitoring and Adaptive Management Plan, or required to comply with the requirements of the Lahontan Regional Water Quality Control Board.
4. The preparation of the LORP Annual Report as required by Section 2.10.4 of the LORP Final EIR and by Section L of the above referenced Stipulation and Order.
5. Other work or activities including the implementation of adaptive management measures.

Section 1 of this work plan covers the budget and schedule for operations and maintenance, monitoring, mosquito abatement, noxious species control, salt cedar control, and reporting activities. Saltcedar control activities are identified but are funded under separate agreements and not budgeted under in this work plan. Section 2 of this work plan addresses adaptive management measures.

The budget amount reflects the additional costs above equal sharing of work by the parties and does not include the costs of Inyo and LA staff times where they offset.

Section 1. Maintenance and Monitoring Tasks

LORP Tasks

The maintenance and monitoring portion of this work plan consists of seven categories of tasks: operations and maintenance, hydrologic monitoring, biological/water quality monitoring, range monitoring, mosquito abatement, noxious species control, and salt cedar control.

Operations and Maintenance

Maintenance activities consist of cleaning sediment accumulations and other obstructions from water measurement facilities, cleaning sediment and aquatic vegetation from ditches, mowing ditch margins, fence repair, and adjustments to flow control structures. Operation activities consist of setting and checking flows. Estimates of the level of effort necessary for maintenance were based on the level of effort that was required during 2013-2014, with adjustments as required by section II.D of the Funding Agreement which allows that costs for maintenance of ditches, spillgates, and control structures that are above the baseline costs for facilities in the river corridor and Blackrock Waterfowl Management Area (BWMA) shall be shared. The estimated 2013-2014 costs for River corridor and BWMA facilities were \$116,956 and \$162,780 respectively, for an overall 2013-2014 operations and maintenance expenditure of \$279,736. This figure reduced by the combined CPI-adjusted baseline costs for the river corridor and BWMA facilities is \$135,762 (Table 1).

Hydrologic Monitoring

Hydrologic monitoring consists of monitoring, analyzing, and reporting river baseflows and seasonal habitat flows, the flooded extent of the Blackrock Waterfowl Management Area (BWMA), the levels of the Off-River Lakes and Ponds, and baseflows, pulse flows, and seasonal habitat flows to the Delta. Estimates of the level of effort required for hydrologic monitoring were based on the level of effort required during 2011-2012. Hydrologic monitoring costs are \$120,040 (Table 2). This budget is based on a 200 cfs seasonal habitat flow. The parties recognize that this item will require a work plan and budget amendment in the event that a less-than 200 cfs reduces the required level of effort.

Fieldwork is being jointly conducted by LADWP and Inyo County staffs, with analysis and reporting being conducted by hydrography staff. The flooded acreage of the BWMA is being measured eight times per year by walking the perimeter of the flooded area on foot with portable GPS units.

Biological/Water Quality Monitoring

Monitoring, analysis, reporting, and report preparation will be jointly conducted by Inyo and LA with the hours allocated by each agency given in the attached budget table (Table 3).

Biological and water quality monitoring is related to the tasks indicated in the Table 4.01 of the LORP Monitoring and Adaptive Management Plan (MAMP). Three monitoring efforts that are specified to occur during this fiscal year, Landscape Vegetation Mapping, Site Scale Vegetation Monitoring, and Riparian Habitat Development will not be conducted. An analysis of data collected as part of the Range Monitoring Program indicate that while vegetation changes are occurring, especially in the formerly dry reaches of the river, they are not great enough that these monitoring efforts need to be conducted at this time. The next time these efforts are scheduled to occur is the 2014-2015 monitoring year.

The MOU Consultant will be involved with the seasonal habitat flow recommendation, seasonal habitat flooding extent, rapid assessment evaluation, Delta and Blackrock Waterfowl Management Area assessment, data analysis and reporting, and annual report preparation, including adaptive management recommendations (Table 4).

Range Monitoring

Range monitoring is related to the tasks described in section 4.6 of the MAMP. Two types of monitoring will take place that are directly related to the management of livestock grazing: irrigated pasture condition scoring and utilization trend. Irrigated pasture condition scoring is a tool used by managers to systematically track the condition of irrigated pastures. Utilization monitoring tracks the amount of biomass removed from non-irrigated fields. Woody species recruitment monitoring was added in September 2010 in order to assess potential livestock influences on regeneration of desirable woody species. Range monitoring will be conducted by LADWP and is not a shared cost, and therefore not budgeted for in this work plan (Table 5).

Mosquito Abatement

For the fiscal year 2012–2013, the Owens Valley Mosquito Abatement Program (OVMAP) will continue a comprehensive Integrated Mosquito Management Plan (IMMP) when addressing the new and developing sources within the LORP in accordance with its mission of protecting public health. This IMMP consists of an expansion of currently used materials and methods for the surveillance and control of mosquitoes across the OVMAP boundary as well as contingency planning for late season flushing flows. The \$60,000 budget anticipates field surveillance of potential larval habitat for mosquito production, larviciding, pupaciding, adult mosquito surveillance with light traps, mosquito borne disease surveillance, and treatment for adult mosquitoes.

Noxious Species Control

The Inyo/Mono Counties Agricultural Commissioner's Office has received funding from LADWP to control and eradicate several different invasive weed species within the LORP boundaries, and in areas within the watershed that may serve as a seed source that could impact the LORP area. These invasive weed species include *Lepidium latifolium*, *Acroptilon repens*, *Cirsium arvense*, *Centaurea solstitialis*, *Centaurea maculosa*, and *Cardaria draba*. These populations are managed using integrated pest management methods, including mechanical, chemical, and biological controls. Currently, there are 32 separate sites totaling 304 gross acres that Agricultural Commissioner's Office manages within the LORP boundaries.

For fiscal year 2013-2014 Inyo County will be responsible for treating weeds in the LORP. The budget for noxious weed control will be \$50,000.

Saltcedar Control.

The County Water Department's saltcedar control program will concentrate on cutting tamarisk in the tributaries to the Lower Owens River channel and adjacent spreading basins. The purpose of working on the LORP is to reduce the likelihood of spreading saltcedar throughout the Owens River re-watered channel. A top priority for the salt cedar program will be to locate all river sites where tamarisk seedlings and resprouts were identified in the 2010 and the 2011 Rapid Assessment Surveys. Accessible tamarisk will be removed by hand or by cutting and treating with herbicide (where allowed). Additionally, work will begin to remove slash, created by years of cutting in the LORP area.

Salt Cedar Control staff includes one permanent employee, one shared employee, and six seasonal field assistants that work on the salt cedar control program during the treatment season, October through April. California Department of Forestry (CDF) work crews, if available, will assist in efforts to treat slash. Monitoring and follow-up treatments by the Saltcedar Project Coordinator will occur during the balance of the year.

LORP saltcedar control activities are funded through agreements outside of the LORP Annual Work Plan, and are therefore not included in the budget presented here.

Maintenance and Monitoring Budget

Table 6 summarizes the costs of operation, maintenance and monitoring for the fiscal year July 1, 2012 through June 30, 2013 and specifies the costs incurred by Inyo County, Los Angeles, and the cost of the MOU consultant.

LADWP and Inyo County will balance staff time and efforts on biologic and water quality monitoring tasks, so that no cost offset is required. For 2013-2014, both agencies will divide the total of 252 people days required to complete these tasks.

Maintenance, Operations, and Hydrologic monitoring are tasks solely performed by LADWP, and are without offsetting costs.

LADWP has allocated 218 people days for Range Monitoring, which is a LADWP cost.

Based on this budget, Inyo County's Post Implementation Credit would be increased by \$26,979. This figure is calculated by subtracting the dollars LADWP will spend during the fiscal year from the amount spent by Inyo County, and dividing this figure by two.

Table 1. Operations and Maintenance Budget

Labor type	Hours	Labor Rate	Total Labor	Equipment Type	Hours	Rate	Total Equipment
River							
Measuring S	Power Shovel Operator	80	\$ 46.50	\$ 3,720.00	Excavator	80	\$ 47.50 \$ 3,800.00
	Truck Driver	80	\$ 37.65	\$ 3,012.00	3 axel dump truck	80	\$ 18.30 \$ 1,464.00
	Operator	80	\$ 44.09	\$ 3,527.20	ASV Mower	40	\$ 43.74 \$ 1,749.60
	Building Repair Man	20	\$ 40.64	\$ 812.80	3/4 ton 4x4 pick- up	75	\$ 6.04 \$ 453.00
	Operator	80	\$ 44.09	\$ 3,527.20	Backhoe and trailer	25	\$ 19.95 \$ 498.75
	MCH	80	\$ 35.86	\$ 2,868.80	3/4 ton 4x4 pick- up	80	\$ 6.04 \$ 483.20
Subtotal							
Spillgates and Ditches							
Intake Spillgate Maintenance (3 days per year)							
	Building Repair Man	27	\$ 40.64	\$ 1,097.28	3/4 ton 4x4 pick- up	27	\$ 6.04 \$ 163.08
	2 - MCH	54	\$ 35.86	\$ 1,936.44	3/4 ton 4x4 pick- up	54	\$ 6.04 \$ 326.16
Intake							
Mowing (3 Operator							
	2 - Truck Driver	27	\$ 44.09	\$ 1,190.43	Mower	225	\$ 43.74 \$ 9,841.50
	2 - Truck Driver	36	\$ 37.65	\$ 1,355.40	1 - 3 axel dump trucks	72	\$ 18.30 \$ 1,317.60
Cleaning (:							
	Power Shovel Operator	27	\$ 46.50	\$ 1,255.50	Excavator	27	\$ 47.50 \$ 1,282.50
	2 - Truck Driver	54	\$ 37.65	\$ 2,033.10	2 - 3 axel dump trucks	72	\$ 18.30 \$ 1,317.60
Thibaut Spillgate and Ditch							
Cleaning (:							
	Power Shovel Operator	36	\$ 46.50	\$ 1,674.00	Excavator	36	\$ 47.50 \$ 1,710.00
	2 - Truck Driver	72	\$ 37.65	\$ 2,710.80	2 - 3 axel dump trucks	72	\$ 18.30 \$ 1,317.60
Independence Spillgate and Ditch							
Cleaning (:							
	Operator	135	\$ 44.09	\$ 5,952.15	Backhoe and trailer	135	\$ 19.95 \$ 2,693.25
	2 - Truck Driver	270	\$ 37.65	\$ 10,165.50	2 - 3 axel dump trucks	270	\$ 18.30 \$ 4,941.00
Locust Spillgate and Ditch							
Cleaning (:							
	Power Shovel Operator	45	\$ 46.50	\$ 2,092.50	Excavator	45	\$ 47.50 \$ 2,137.50
	Operator	45	\$ 44.09	\$ 1,984.05	Backhoe and trailer	45	\$ 19.95 \$ 897.75
	1 - Truck Driver	45	\$ 37.65	\$ 1,694.25	1 - 3 axel dump trucks	45	\$ 18.30 \$ 823.50
Georges Ditch							
Cleaning (:							
	Power Shovel Operator	45	\$ 46.50	\$ 2,092.50	Excavator	45	\$ 47.50 \$ 2,137.50
	Operator	45	\$ 44.09	\$ 1,984.05	Backhoe and trailer	45	\$ 19.95 \$ 897.75
	1 - Truck Driver	45	\$ 37.65	\$ 1,694.25	1 - 3 axel dump trucks	45	\$ 18.30 \$ 823.50
Alabama Spillgate							
Cleaning (:							
	Power Shovel Operator	54	\$ 46.50	\$ 2,511.00	Excavator	54	\$ 47.50 \$ 2,565.00
	3 - Truck Driver	162	\$ 37.65	\$ 6,099.30	3 - 3 axel dump trucks	162	\$ 18.30 \$ 2,964.60
Delta							
Delta Spillgate Maintenance (3 days per year)							
	Building Repair Man	27	\$ 40.64	\$ 1,097.28	3/4 ton 4x4 pick- up	27	\$ 6.04 \$ 163.08
	2 - MCH	54	\$ 35.86	\$ 1,936.44	3/4 ton 4x4 pick- up	54	\$ 6.04 \$ 326.16
Sub-Total			\$70,024.22			\$46,932.10	
Blackrock Waterfowl Management Area							
Blackrock Ditch							
Mowing (2 Operator							
	2 - MCH	225	\$ 44.09	\$ 9,920.25	Mower	225	\$ 11.67 \$ 2,625.75
	2 - MCH	450	\$ 35.86	\$ 16,137.00	2 - 3 axel dump trucks	450	\$ 18.30 \$ 8,235.00
Cleaning (:							
	Power Shovel Operator	90	\$ 46.50	\$ 4,185.00	Excavator	90	\$ 47.50 \$ 4,275.00
	2 - Truck Driver	270	\$ 37.65	\$ 10,165.50	2 - 3 axel dump trucks	270	\$ 18.30 \$ 4,941.00
Goose Lake to River Ditch							
Cleaning (:							
	Operator	45	\$ 44.09	\$ 1,984.05	Backhoe and trailer	45	\$ 19.95 \$ 897.75
	1 - Truck Driver	45	\$ 37.65	\$ 1,694.25	1 - 3 axel dump trucks	45	\$ 18.30 \$ 823.50
Patrol and Aqueduct and Reservoir Keeper							
Maintenance							
	Fence (10 Building Repair Man	2080	\$ 35.16	\$ 73,132.80	3/4 ton 4x4 pick- up	2080	\$ 6.04 \$ 12,563.20
	2 - MCH	90	\$ 40.64	\$ 3,657.60	3/4 ton 4x4 pick- up	90	\$ 6.04 \$ 543.60
	2 - MCH	180	\$ 35.86	\$ 6,454.80	3/4 ton 4x4 pick- up	90	\$ 6.04 \$ 543.60
Sub-Total			\$127,331.25			\$35,448.40	
Sub-Total			\$254,663			\$35,448	
River Total		\$116,956.32					
BWMA Total		\$162,779.65					
Total O and M		\$279,736		CPI Adjusted O and M		\$143,974.34	

CPI Adjusted Operations and Maintenance

Baseline Costs (described in Post -Imp)		River	BWMA
	CPI adjustment	\$56,683.00	\$62,798.00
	2006-2007 4.5%	\$59,233.74	\$65,623.91
	2007-2008 3.1%	\$61,069.98	\$67,658.25
	2008-2009 -1.3%	\$60,276.07	\$66,778.69
	2009-2010 0.9%	\$60,818.56	\$67,379.70
	2010-2011 0.7%	\$61,244.73	\$67,851.66
	2011-2012 3.0%	\$63,082.07	\$69,887.21
	2012-2013 2.1%	\$64,406.79	\$71,354.84

Table 2. Hydrologic Monitoring Budget				
	Person days	Costs	Equipment Cost	Predicted
<u>HYDRO OPERATIONS</u>				
River Stations	50	\$21,500	\$2,000	\$23,500
Seasonal Habitat	20	\$8,600	\$800	\$9,400
Off River Lakes & Ponds	20	\$8,600	\$800	\$9,400
Flow to Delta	1	\$430	\$40	\$470
Blackrock Waterfowl	0	\$0	\$0	\$0
Reporting Compliance	46	\$19,780	\$1,840	\$21,620
<u>HYDRO MAINTENANCE</u>				
River Stations	12	\$5,160	\$480	\$5,640
Off River Lakes & Ponds	1	\$430	\$40	\$470
Flow to Delta	1	\$430	\$40	\$470
Blackrock Waterfowl	1	\$430	\$40	\$470
<u>ENGINEERING HYDRO SUPPORT</u>				
Reporting Compliance	108	\$48,600	\$0	\$48,600
Total Hydro Budget				\$120,040

Table 3. Biologic and Water Quality Monitoring Budget.

Biologic and Water Quality	Organization/Class	Days	Inyo Days	LA Days
River				
Rapid Assessment Survey	LA/WRS	10		10
	IC/RESASST	52	52	
Seasonal Habitat Flow	LA/WRS	25		25
Analysis and Reporting	LA/WRS	21		21
	IC/LORP	31	31	
Total Days		139	83	56
Blackrock				
Waterfowl Area Acreage	LA/WRS	16		16
	IC/RESASST	16	16	
Rapid Assessment Survey	LA/WRS	4		4
Wetland Avian Census	LA/WRS	12		12
	IC/RESASST	6	6	
Data Analysis and Reporting	LA/WRS	6		6
Total Days		60	22	38
Delta				
Rapid Assessment Survey	LA/WRS	1		1
Wetland Avian Census	LA/WRS	6	6	
	IC/RESASST	6		6
Indicator Species Analysis	LA/WRS	6		6
Analysis and Reporting	LA/WRS	2		2
Total Days		21	6	15
Off-River Lakes and Ponds				
Rapid Assessment Survey	LA/WRS	1		1
Analysis and Reporting	LA/WRS	1		1
Total Days		2	0	2
Annual Report Preparation				
Report preparation	LA/WRS	15	15	15
	IC/LORP	15		
Total Days		30	15	15
		252	126	126

Table 4. FY 2013-2014 Ecosystem Sciences Tasks

ICWD/LADWP Joint Costs

Labor Estimate	FY 2013-2014		
Seasonal Habitat Flow/River Assessment			
Principals	60	\$139	\$8,340
Associates	80	\$93	\$7,440
Administration	10	\$69	\$690
Subtotal			\$16,470
Flood Extent Evaluation			
Principals	80	\$139	\$11,120
Associates	40	\$93	\$3,720
Administration	3	\$69	\$207
Subtotal			\$15,047
Rapid Assessment			
Principals	20	\$139	\$2,780
Associates	60	\$93	\$5,580
Administration	3	\$69	\$207
Subtotal			\$8,567
Creel Census			
Principals	64	\$139	\$8,896
Associates	10	\$93	\$930
Administration	8	\$69	\$552
Subtotal			\$10,378
Annual Report			
Principals	200	\$139	\$27,800
Associates	380	\$93	\$35,340
Administration	50	\$69	\$3,450
Subtotal			\$66,590
Adaptive Management Recommendations			
Principals	300	\$139	\$41,400
Associates	350	\$93	\$32,550
Administration	50	\$69	\$3,450
Subtotal			\$77,400
Project Management, Meetings and Preparation			
Principals	400	\$139	\$55,600
Associates	400	\$93	\$37,200
Administration	80	\$69	\$5,520
Subtotal			\$98,320
Total Labor			
Principals	1124	\$139	\$156,236
Associates	1320	\$93	\$122,760
Administration	204	\$69	\$14,076
Subtotal			\$293,072
EXPENSES			
Travel (Mileage 1500/trip @ \$0.52-\$0.56/mi)	10	\$780	\$7,800
Lodging	36	\$125	\$4,500
Per Diem	36	\$75	\$2,700
Subtotal			\$15,000
ANNUAL TOTAL			\$308,072

Table 5. Range Monitoring	
Task	People Days
Utilization	45
Irrigated Pasture Condition	1
Range Trend	110
Woody Recruitment	32
Analysis and Reporting	30
Total	218

**Table 6
Summary Monitoring and Adaptive Management Budget**

Inyo County	Staff Work Days	Value of Additional Staff Time, Materials, and Equipment	Payments
Hydrologic Monitoring	-	\$ -	
Biologic and Water Quality	126	\$ -	
Operations and Maintenance	-	\$ -	
Mosquito Abatement		\$ 30,000	
MOU Consultant	-	\$ 308,072	
Adaptive Management	-	\$ -	
Noxious Species Control	-	\$ 50,000	
Inyo County Totals	126	\$ 358,072	\$ 26,979 credit
LADWP	Staff Work Days	Value of Additional Staff Time, Materials, and Equipment	Payments
Hydrologic Monitoring	-	\$ 120,040	
Biologic and Water Quality	126	\$ -	
Operations and Maintenance	-	\$ 143,974	
Mosquito Abatement	-	\$ 30,000	
Rodent Control		\$ 10,100	
MOU Consultant	-	\$ -	
Adaptive Management	-	\$ -	
LADWP Totals	126	\$ 304,114	\$ -
Combined Total	242	\$ 662,186	

**Footnote to Table 6
Post Implementation Credit and Trust Account Balances**

	Adjustment	Balance of Post-Imp Credit held by LADWP
Original Post Implementation Credit	\$ 2,253,033	\$ 2,253,033
Increase Post Imp Credit by 2.9% based on the July 2007 price Index	\$ 65,338	\$ 2,318,371
County's obligation for July 11, 2007 to June 30, 2008 period	\$ 243,524	\$ 2,074,847
Increase the remaining balance of the Post Implementation Credit by 5.7% based upon the July 2008 price index	\$ 118,266	\$ 2,193,113
County's obligation for 2008-2009 fiscal year	\$ 243,524	\$ 1,949,589
Reduce the remaining balance of the Post Implementation Credit by 1.3% based upon the April 2009 price index	\$ (25,345)	\$ 1,924,244
County's share of the costs for the 2009-2010 work plan and budget, including adaptive management.	\$ 266,176	\$ 1,658,068
Increase the remaining balance of the Post Implementation Credit by 1.9% based upon the April 2010 price index effective July 10, 2010	\$ 25,465	\$ 1,683,533
County's share of the costs for the 2010-2011 work plan and budget, including adaptive management effective July 21, 2010.	\$ 317,805	\$ 1,365,728
Increase the remaining balance of the Post Implementation Credit by 3.3% based upon the April 2011 price index effective July 10, 2011.	\$ 45,069	\$ 1,410,797
County's share of the costs for the 2011-2012 work plan and budget, including adaptive management effective July 21, 2011.	\$ 48,278	\$ 1,362,519
County's share of the costs for the Amended 2011-2012 work plan and budget, effective July 21, 2011.	\$ 57,687	\$ 1,304,832
Increase the remaining balance of the Post Implementation Credit by 1.5% based upon the April 2012 price index effective July 10, 2012.	\$ 19,572	\$ 1,324,404
County's share of the costs for the 2012-2013 work plan and budget, including adaptive management effective July 23, 2012.	\$ 14,683 credit	\$ 1,339,087
Increase the remaining balance of the Post Implementation Credit by ___% based upon the April 2013 price index effective July 10, 2013.		
County's share of the costs for the 2013-2014 work plan and budget, including adaptive management effective July 23, 2013.	\$ 26,979 credit	

The County's balance in the Post Imp Credit Account held by LADWP as of July 21, 2012 is \$1,304,832. The annual CPI adjustment will take place prior to deduction of a credit for County's annual share of the LORP post-implementation costs (PIA 8.4).

The Trust Account Balance as of November, 2012 is \$3,602,567.98

B. Schedule

Table 7
Tentative schedule of monitoring, maintenance and reporting for 2011-2012 Fiscal Year

Period	Monitoring
July 8, 2011- Jul 15, 2013	Blackrock Waterfowl Management Area (BWMA) Flooded Extent
August 1 - Aug 15, 2013	Rapid Assessment Survey (RAS)
August 15 - Aug 22, 2013	BWMA Flooded Extent
September 1 - Sept 9, 2013	RAS Consultation with MOU Parties
September 1- Sept 30, 2013	Delta Pulse Flow
September 15 - Sept 22, 2013	BWMA Flooded Extent
October 1 - Oct 28, 2013	LADWP/Inyo Prepare Draft LORP Report
October 1 - Oct 28, 2013	Fiscal Year 2010-2011 Work Plan and Budget Reconciliation
October 15 - Oct 24, 2013	BWMA Flooded Extent
October 31, 2013	Draft LORP Report transmitted to MOU Consultant
October 31, 2013	Transmittal of LORP Accounting Report to Governing Boards
November 1 - Nov 30, 2013	MOU Consultant review Draft LORP Report and Develop Recommendations
November 1 - Dec 31, 2013	Delta Pulse Flow
December 1, 2013	MOU Consultant transmit Adaptive Management Recommendations to Inyo/LA
December 3-Dec 7 2013	Meet with MOU Consultant to Develop Adaptive Management Recommendations for Management
December 6, 2013	Draft Report transmitted to MOU Parties
December 1 - Dec 30, 2013	BWMA Avian Survey
December 20, 2013	Public Meeting for Draft LORP Report
December 1, 2012 - Jan 30, 2014	Fiscal Year 2013-2014 Work Plan and Budget Development
January 15 – January 20, 2014	BWMA Flooded Extent
February 1 - Feb 3, 2014	Technical Group Meeting to Adopt LORP Annual Report and 2013-2014 Fiscal Year Work Plan and Budget
February 3 – Mar31, 2014	Transmittal of LORP Work Plan, Budget, and Schedule to governing boards for approval
March 1 - May 31, 2014	Delta Pulse Flow
April 2 - May 15, 2014	BWMA Avian Survey
April 15 - April 20, 2014	BWMA Flooded Extent
May 8 - May 13, 2014	BWMA Flooded Extent
May 31 - June 5, 2014	BWMA Flooded Extent
May 15 - June 15, 2014	Seasonal Habitat Flow
June 1 - July 31, 2014	Delta Pulse Flow
June 1 -June 29, 2014	BWMA Avian Survey

C. MOU Consultants

TASK 1

Seasonal Habitat Flow

Seasonal habitat flows are prescribed to encourage a transition to riparian vegetation on the floodplains as well as manage channel sediments. The purpose of the habitat flow is to create a dynamic equilibrium for riparian habitat, fishery, water storage, water quality, animal migration, and biodiversity, which result in resilient productive ecological systems. Management actions are designed to achieve and maintain riparian habitats in a healthy ecological condition and establish a healthy warm water recreational fishery with habitat for native species. The LORP Monitoring and Adaptive Management Plan require the MOU consultants to recommend the annual seasonal habitat flow level to the Technical Committee based on the April runoff forecast. The river is then monitored during the flow period to evaluate adverse conditions or sudden problems. This task requires evaluation of the Owens Valley runoff conditions, review of proposed flow schedule and development of independent review and recommendations. During the Seasonal Habitat flow, the MOU consultant has to prepare for field observations, travel, and attend meetings with the Scientific Team to discuss the progress towards meeting the LORP objectives.

Deliverables:

- Written recommendation for the Seasonal Habitat Flow based on the April runoff forecast.
- Written evaluation to be included in the LORP Annual Report discussing conditions encountered during the seasonal habitat flow and progress towards meeting LORP objectives and any necessary adaptive management actions.

Budget:

Monitoring of Seasonal Habitat Flow	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	60	\$139	\$8,340
Associates	80	\$93	\$7,440
Administration	10	\$69	\$690
Subtotal			\$16,470

TASK 2-----

Flooded Extent Evaluation

Monitoring of flooded extent, which is how much land area is inundated during seasonal habitat flows, is prescribed to inform managers about the effectiveness of seasonal habitat flows. Seasonal habitat flooding extent monitoring documents what habitats are being affected by the flooding. Determining the extent and duration of the flooded area enables managers to identify which vegetation communities are inundated and are being affected by the seasonal habitat flow. This assists in determining if the seasonal habitat flows are meeting the goals of the habitat and informs the adaptive management decision-making. The seasonal habitat flow is evaluated each year to estimate the extent of flooding on river landforms. The report for this work requires review and comment from the MOU consultant with assistance from the consultant’s staff to verify mapping and estimates. Flood extent results are

compared to results from other tasks to analyze effectiveness in meeting LORP goals. Fieldwork for this task is completed during the Seasonal Habitat Flow monitoring.

Deliverables:

Written evaluation to be included in the LORP Annual Report discussing conditions encountered during the seasonal habitat flow flooded extent monitoring and progress towards meeting LORP objectives and any necessary adaptive management actions.

Budget:

Flood Extent Evaluation	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	80	\$139	\$11,120
Associates	40	\$93	\$3,720
Administration	3	\$69	\$207
Subtotal			\$15,047

TASK 3 -----

Rapid Assessment Evaluation

Rapid Assessment Surveys (RAS) are conducted to document problems or potential management issues in LORP riverine-riparian area and provide qualitative project-level feedback regarding changes within the project area. Rapid Assessment Evaluation is performed on the river corridor, Blackrock Waterfowl Management Area, Off-River Lakes and Ponds and the Delta. LADWP and Inyo County staffs collect and processes field data, and perform data analysis, the results of which are captured in a draft RAS report. The LORP consultant reviews the RAS results to identify issues that require immediate action, and informs the MOU parties as required by the LORP Monitoring and Adaptive Management Plan. The MOU consultant will evaluate results for trends that influence monitoring and adaptive management recommendations for subsequent years.

Deliverables:

Written consultation with MOU Parties following completion of the RAS.
 Written evaluation to be included in the LORP Annual Report discussing conditions encountered during the RAS, progress towards meeting LORP objectives and any necessary adaptive management actions.

Budget:

Rapid Assessment	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	20	\$139	\$2,780
Associates	60	\$93	\$5,580
Administration	3	\$69	\$207
Subtotal			\$8,567

TASK 4-----

Creel Census

The creel census helps track the development and health of the warm-water or game fishery as the LORP is implemented. Creel census data help to inform decision making for the fishery and water quality adaptive management areas. Adaptive management recommendations focus on establishing a healthy warm water fishery to meet MOU goals. ES will assist in the census and evaluating the results for the annual report. To assist with the Creel Census, ES will have to prepare for field observations, travel, and attend meetings with the Scientific Team to discuss the progress towards meeting the LORP objectives.

Deliverables:

Written evaluation to be included in the LORP Annual Report discussing Creel Census evaluation and progress towards meeting LORP objectives and any necessary adaptive management actions.

Budget:

Creel Census	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	64	\$139	\$8,896
Associates	10	\$93	\$930
Administration	8	\$69	\$552
Subtotal			\$10,378

TASK 5-----

Annual Report Evaluation

At the end of October, LADWP and ICWD forward the draft annual report to the MOU consultant. The MOU consultant will evaluate the annual report for completeness and accuracy. This requires reviewing each chapter and, in some cases, reevaluating or re-estimating and verifying conclusions.

Deliverables:

Written evaluation to be included in the LORP Annual Report discussing the need for any contingency monitoring as well as discussion of progress towards meeting LORP objectives and any necessary adaptive management actions.

Budget:

Annual Report	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	200	\$139	\$27,800
Associates	380	\$93	\$35,340
Administration	50	\$69	\$3,450
Subtotal			\$66,590

TASK 6-----

Annual Adaptive Management Recommendations

Following review and evaluation of the draft annual report and consultation with LADWP and ICWD, a final chapter for adaptive management recommendations will be written for the final annual report and submission to the LORP Technical Committee. The MOU consultant will present the recommendations to the Technical Committee as required. This will require travel time and preparation time.

Deliverables:

Written evaluation of any necessary adaptive management actions as well as discussion of progress towards meeting LORP objectives.

Budget:

Adaptive Management Recommendations	FY 2012-2013		
	Hours	Rate	Cost
Labor Estimate:			
Principals	300	\$139	\$41,400
Associates	350	\$93	\$32,550
Administration	50	\$69	\$3,450
Subtotal			\$77,400

TASK 7-----

Project Management and Meetings

The MOU consultant will meet with LADWP and ICWD periodically to review progress or discuss issues. The MOU consultant will manage project assignments, schedules and budgets, provide monthly progress reports to LADWP, budget assessment and invoice each month. This task will require the MOU consultant to prepare for meetings, travel, and attend meetings with the Scientific Team and MOU Parties to discuss the progress towards meeting the LORP objectives.

Budget:

Project Management and Meetings	FY 2013-2014		
	Hours	Rate	Cost
Labor Estimate:			
Principals	400	\$139	\$55,600
Associates	400	\$93	\$37,200
Administration	80	\$69	\$5,520
Subtotal			\$98,320
	FY 2013-2014		
EXPENSES	Hours	Rate	Cost
Travel (Mileage 1500/trip @ \$0.52-\$0.56/mi)	10	\$780	\$7,800
Lodging	36	\$125	\$4,500
Per Diem	36	\$75	\$2,700
Subtotal			\$15,000
FY 2013-2014 TOTAL			\$308,072

Section 2. Adaptive Management Measures

There were no Adaptive Management Measures recommended that require additional budgetary considerations than those described above. If ongoing negotiations related to the LORP Pump Station make it feasible to implement alternative flow scenarios during the fiscal year, an amended budget will be prepared to address potential necessary costs.