HAUSRATH
ECONOMICS
GROUP

MEMORANDUM

Date: January 7, 2011

To: Loren Clark, Placer County Planning Department

From: Sally Nielsen

Subject: **Status of Placer County Conservation Plan Cost Model**

The model for estimating one-time and on-going costs of the Placer County Conservation Plan has been a work in progress. Preliminary draft estimates developed in 2008 are included in this appendix.

The PCCP Cost Model has been developed for economic analysis of the PCCP, including fiscal analysis and financial analysis of plan costs, potential revenues, and financing strategies. The model uses estimates of land to be acquired, restored, and managed prepared by Thomas Reid Associates (TRA). The PCCP Cost Model generates aggregate one-time and on-going costs based on these acreage estimates and cost factors, generally expressed per acre of land or per time period. The appraisal firm of Bender Rosenthal, Inc. (BRI) conducted an analysis of property values within the Phase 1 PCCP area in June 2004. The land cost factors used in the PCCP cost model are derived from the Bender-Rosenthal analysis as updated most recently in 2006 based on analysis of Placer County Assessor's data.[1] Jones & Stokes (J&S) provided cost factors for most of the other cost categories: land surveys, restoration, preserve system administration, land management, monitoring, research, adaptive management, and remedial measures. J&S based their cost analysis on review of the First Administrative Draft of the PCCP, (dated July 19, 2004). In August and September 2004, the cost factors received one round of review by Placer County staff and other members of the PCCP team. Cost factors were subsequently review again in 2006. HEG assembled the PCCP Cost Model from these various elements and directed the review of assumptions and analysis of model results.

A full-blown update of The Cost Model input assumptions is underway, including updated land value analysis and full review of restoration, land management, monitoring, and program administration costs based on the updated draft conservation strategy. The organization of the model may also change to adapt to needs for model output in other elements of the PCCP evaluation.

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[1] Bender-Rosenthal, Inc., *Report on Property Value Ranges as of June 2004—Placer County Conservation Plan*.

Placer County Conservation Plan
Preliminary Draft Implementation Budget Data and Assumptions

Jan-2011

Subject to Revision

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

This cost model calculates one-time and on-going annual costs through 2060 for the Phase 1 PCCP. Costs are calculated separately for mitigation of growth ("Local Mitigation") and for public conservation efforts ("State and Federal Conservation"), beyond the PCCP requirements to mitigate for take associated with covered activities.

The model takes input from TRA, in the form of land requirements by PCCP area, ecosystem type, and time period. This input is linked in two sheets: **Acquisition Schedule** and **PCCP Land by Time Period.** All other input is internal to this cost model.

The model uses cost factors developed based on input from Bender Rosenthal, Inc. (land value analysis) and Jones & Stokes Associates (site improvements; restoration; program administration; land management; and monitoring, and adaptive management). Placer County staff and other members of the PCCP team have reviewed the cost factors in the PCCP Cost Model. **Cost factor variables are highlighted in the model and can be changed by the user.**

Cost factor variables are found on annotated sheets labeled 1 - 7. **Changing the cells with turquoise highlight and bold red text will change the cost calculations.**

The model output appears in two sheets: **One-time costs** and **On-going costs**. These sheets detail costs by time period and by cost category, for both Local Mitigation and for the State/Federal conservation component of the PCCP. One additional variable on the **On-going Costs** output sheet enables the user to vary the assumption about the share of on-going costs covered by state and federal contributions.

Summary sheets present summary tables and charts.

cost variable	Changing these cells will change the cost model output.
	Indicates link to or input from TRA CPEM workbook.
Ad Hoc Reserve Map	Enter new case here to indicate scenario being analyzed.
6/23/06	Enter date for TRA output
8/15/08	Enter date for HEG land conversion scenario here
No Escalation	Enter land cost escalation assumption
2008 dollars	Enter year for constant dollar values
No Dedication	Enter "Y" for dedication scenario and"N" for no dedication scenario

Consumer Price Index -- All Urban Consumers data extracted August 27, 2008
U. S. Department of Labor, Bureau of Labor Statistics http://data.bls.gov/cgi-bin/surveymost?cu

Series Id: CUURA422SA0
Not Seasonally Adjusted
Area: San Francisco-Oakland-San Jose, CA
Item: All items
Base Period: 1982-84=100

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1998		163.2		164.6		165.5		166.6		167.2		167.4	165.5
1999		169.4		172.2		171.8		173.5		175.2		174.5	172.5
2000		176.5		178.7		179.1		181.7		183.4		184.1	180.2
2001		187.9		189.1		190.9		191		191.7		190.6	189.9
2002		191.3		193		193.2		193.5		194.3		193.2	193
2003		197.7		197.3		196.3		196.3		196.3		195.3	196.4
2004		198.1		198.3		199		198.7		200.3		199.5	198.8
2005		201.2		202.5		201.2		203		205.9		203.4	202.7
2006		207.1		208.9		209.1		210.7		211		210.4	209.2
2007		213.69		215.84		216.12		216.24		217.95		218.49	216.05
2008		219.61		222.07		225.18							

original costs derived in August 2004
conversion to June 2008 **1.130**

Cost update in August 2006
conversion to June 2008 **1.070**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

ESTIMATES OF PCCP ACREAGE THROUGH 2060
Ad Hoc Reserve Map

	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Acres Acquired/Under Management	50,529	-	**50,529**
Percent of Total	100%	0%	100%
Acres Restored/Created	11,320	-	**11,320**
Percent of Total	100%	0%	100%

NOTE: Acres restored/created are included in acres acquired and under management. Restoration or creation results in a change in ecosystem type, such that acres of one type are acquired and, after restoration/creation, those acres are eventually under management as another type.

PCCP ACREAGE BY MEANS OF ACQUISITION: TOTALS THROUGH 2060
Ad Hoc Reserve Map

	Fee Title	Easement	PCCP TOTAL
Acres Acquired by Ecosystem Type			
Oak Woodland	5,473	3,649	9,122
Aquatic and Wetland	1,070	56	1,126
Valley-Foothill Riparian	687	36	723
Vernal Pool Grassland	9,098	479	9,577
Non VP Valley Grassland	19,135	1,007	20,142
Rice	3,279	173	3,451
Other Agriculture	3,832	2,555	6,387
Total All Ecosystem Types	**42,574**	**7,955**	**50,529**
Percent of total acquisitions	**84%**	**16%**	**100%**
Percent Distribution by Ecosystem Type			
Oak Woodland	13%	46%	18%
Aquatic and Wetland	3%	1%	2%
Valley-Foothill Riparian	2%	0%	1%
Vernal Pool Grassland	21%	6%	19%
Non VP Valley Grassland	45%	13%	40%
Rice	21%	6%	19%
Other Agriculture	9%	32%	13%
Total All Ecosystem Types	**100%**	**100%**	**100%**

NOTE: Based on assumptions about means of acquisition by ecosystem type. The same assumptions are made for both local mitigation acquisitions and state/federal conservation acquisitions.

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

TABLE 1
Ad Hoc Reserve Map
Estimates of Land Requirements for Placer County Conservation Plan Phase 1 Area through 2060

	Number of Acres by Ecosystem Type			Percent Distribution by Ecosystem Type		
Ecosystem Type	**Land Acquisition**	**Restoration**	**Management (cumulative total acres)**	**Land Acquisition**	**Restoration**	**Management (cumulative total acres)**
Local Mitigation						
Oak Woodland	9,122	1,639	9,222	18%	14%	22%
Aquatic and Wetland	1,126		1,735	2%		4%
From Grassland		781			7%	
From Rice		95			1%	
Valley-Foothill Riparian	723	198	820	1%	2%	2%
Vernal Pool Grassland	9,577		14,036	19%		34%
From Grassland		6,918			61%	
From Rice		1,689			15%	
Non Vernal Pool Grassland	20,142		11,537	40%		28%
Rice	3,451		1,250	7%		3%
Other Agriculture	6,387	-	2,414	13%	0%	6%
Total All Ecosystem Types	**50,529**	**11,320**	**41,014**	**100%**	**100%**	**100%**
State/Federal Conservation						
Oak Woodland	-	-	-	0%	0%	0%
Aquatic and Wetland	-	-	-	0%	0%	0%
Valley-Foothill Riparian	-	-	-	0%	0%	0%
Valley Grassland/Vernal Pool	-	-	-	0%	0%	0%
Other Grassland/Agriculture	-	-	-	0%	0%	0%
Total All Ecosystem Types	**-**	**-**	**-**	**0%**	**0%**	**0%**
GRAND TOTAL	**50,529**	**11,320**	**41,014**			

TABLE 2
Ad Hoc Reserve Map
On-going Costs for Placer County Conservation Plan
(annual cost at each year in 2008 dollars)

	2010	2030	2060
Local Mitigation			
Program Administration			
Administrative Personnel Cost	522,060	466,125	466,125
Program Administration Contractors	26,103	23,306	23,306
Administrative Overhead	231,453	137,060	140,874
Total Administration	**$ 779,616**	**$ 626,491**	**$ 630,306**
Land Management			
Administration (staff and overhead)	384,105	631,718	675,610
Waterway Maintenance and Protection	36,608	199,674	270,495
Roadway Maintenance and Wildlife Protection	12,430	11,684	10,566
Management and Maintenance	347,565	1,960,266	3,419,882
Remedial Measures	78,071	280,334	437,655
Total Land Management	**$ 858,779**	**$ 3,083,677**	**$ 4,814,208**
Restoration Management			
Administration (staff and overhead)	**$ 384,105**	**$ 631,718**	**$ 675,610**
Monitoring, Research, and Adaptive Mngmt.			
Administration (staff and overhead)	384,105	631,718	675,610
Performance Monitoring	1,532	9,191	24,158
Other Monitoring Labor and Expenses	111,724	670,343	1,256,590
Research and Adaptive Management	84,750	84,750	84,750
Total Monitoring, Research, and Adaptive Mngmt.	**$ 582,111**	**$ 1,396,002**	**$ 2,041,109**
Contingency (3%)	**$ 78,138**	**$ 172,137**	**$ 244,837**
Total On-going Costs for Local Mitigation	**$2,682,749**	**$5,910,025**	**$8,406,070**
State/Federal Conservation			
Program Administration			
Administrative Personnel Cost	-	-	-
Program Administration Contractors	-	-	-
Administrative Overhead	-	-	-
Total Administration	**$ -**	**$ -**	**$ -**
Land Management			
Administration (staff and overhead)	-	-	-
Waterway Maintenance and Protection	-	-	-
Roadway Maintenance and Wildlife Protection	-	-	-
Management and Maintenance	-	-	-
Remedial Measures	-	-	-
Total Land Management	**$ -**	**$ -**	**$ -**
Restoration Management			
Administration (staff and overhead)	**$ -**	**$ -**	**$ -**
Monitoring, Research, and Adaptive Mngmt.			
Administration (staff and overhead)	-	-	-
Performance Monitoring	-	-	-
Other Monitoring Labor and Expenses	-	-	-
Research and Adaptive Management	-	-	-
Total Monitoring, Research, and Adaptive Mngmt.	**$ -**	**$ -**	**$ -**
Contingency (3%)	**$ -**	**$ -**	**$ -**
Total On-going Costs for State/Federal Conservation	**$0**	**$0**	**$0**
	$2,682,749	**$5,910,025**	**$8,406,070**

TABLE 3
Ad Hoc Reserve Map
On-going Cost Summary (Local Mitigation and State/Federal Conservation)
(annual cost at each year in 2008 dollars)

	2010	2035	2060
Cost Category			
Program Administration	$ 780,000	$ 626,000	$ 630,000
Land Management	859,000	3,084,000	4,814,000
Restoration Management	384,000	632,000	676,000
Monitoring, Research, and Adaptive Mngmt.	582,000	1,396,000	2,041,000
Contingency (3%)	78,000	172,000	245,000
TOTAL	**$ 2,683,000**	**$ 5,910,000**	**$ 8,406,000**
Acres Managed (cumulative total)	**4,457**	**26,741**	**50,529**
Acres Restored (cumulative total)	**718**	**4,307**	**11,320**

On-going Cost per Acre Managed

Cost Category	2010	2035	2060
Program Administration	$ 175	$ 23	$ 12
Land Management	$ 193	$ 115	$ 95
Restoration Management (per acre restored)	$ 535	$ 147	$ 60
Monitoring, Research, and Adaptive Mngmt.	$ 131	$ 52	$ 40
Contingency (3%)	$ 18	$ 6	$ 5
TOTAL	**$ 600**	**$ 200**	**$ 170**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

TABLE 4
Ad Hoc Reserve Map

On-going Costs for Placer County Conservation Plan (annual cost at each year in 2008 dollars)				Acres			
	2010	2035	2060	2010	2035	2060	Comment
Local Mitigation							
Program Administration							
Total Program Administration	**$ 779,616**	**$ 626,491**	**$ 630,306**	4,457	26,741	50,529	All acres managed
Land Management							
Administration (staff and overhead)	384,105	631,718	675,610	4,457	26,741	50,529	All acres managed
Waterway Maintenance and Protection	36,608	199,674	270,495	222	1,334	2,002	Aquatic and wetland acres managed
Roadway Maintenance and Wildlife Protection	12,430	11,684	10,566	4,457	26,741	50,529	All acres managed
Management and Maintenance							
Oak Woodland	64,063	361,318	508,521	1,152	6,914	10,761	Oak woodland acres managed
Aquatic and Wetland	22,667	127,842	173,580	222	1,334	2,002	Aquatic and wetland acres managed
Valley-Foothill Riparian	11,954	67,418	84,039	111	668	921	Valley-Foothill riparian acres managed
Vernal Pool Grassland	107,649	607,142	1,277,631	1,302	7,814	18,184	Valley grassland/vernal pool acres managed
Non VP Grassland	108,066	609,492	983,536	1,307	7,844	13,998	Other Valley grassland acres managed
Rice	18,367	103,588	244,684	106	636	1,660	Rice acres managed
Other Agriculture	14,799	83,466	147,892	255	1,532	3,001	Other agriculture managed
Remedial Measures	78,071	280,334	437,655	4,457	26,741	50,529	All acres managed
Total Land Management	**$ 858,779**	**$ 3,083,677**	**$ 4,814,208**				
Restoration Management							
Administration (staff and overhead)	**$ 384,105**	**$ 631,718**	**$ 675,610**	718	4,307	11,320	All acres restored
Monitoring, Research, and Adaptive Mngmt.							
Administration (staff and overhead)	384,105	631,718	675,610	4,457	26,741	50,529	All acres managed
Performance Monitoring							
Oak Woodland	316	1,893	3,497	148	887	1,639	Oak woodland acres restored
Aquatic and Wetland from Grassland	195	1,167	1,667	91	547	781	Aquatic and wetland acres restored from grass
Aquatic and Wetland from Rice	13	80	203	6	37	95	Aquatic and wetland acres restored from rice
Valley-Foothill Riparian	76	455	422	36	213	198	Valley-Foothill riparian acres restored
Vernal Pool from Grassland	780	4,678	14,763	365	2,192	6,918	Vernal pool acres restored from grassland
Vernal Pool from Rice	153	918	3,605	72	430	1,689	Vernal pool acres restored from rice
Other Grassland/Agriculture	-	-	-	-	-	-	Other grassland/agriculture acres restored
Other Monitoring Labor and Expenses							
Oak Woodland	17,213	103,279	160,745	1,152	6,914	10,761	Oak woodland acres managed
Aquatic and Wetland	8,300	49,803	74,780	222	1,334	2,002	Aquatic and wetland acres managed
Valley-Foothill Riparian	1,663	9,980	13,758	111	668	921	Valley-Foothill riparian acres managed
Valley Grassland/Vernal Pool	22,233	133,400	310,440	1,302	7,814	18,184	Valley grassland/vernal pool acres managed
Non Vernal Pool Grassland	48,823	292,941	522,770	1,307	7,844	13,998	Other Valley grassland acres managed
Rice	3,956	23,738	62,008	106	636	1,660	Rice acres managed
Other Grassland/Agriculture	9,534	57,203	112,089	255	1,532	3,001	Other grassland/agriculture managed
Research and Adaptive Management	84,750	84,750	84,750	4,457	26,741	50,529	All acres managed
Total Monitoring, Research, and Adaptive Mngm	**$ 582,111**	**$ 1,396,002**	**$ 2,041,109**				
Contingency (3%)	**$ 78,138**	**$ 172,137**	**$ 244,837**				
Total On-going Costs for Local Mitigation	**$ 2,682,749**	**$ 5,910,025**	**$ 8,406,070**				

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

On-going Costs for Placer County Conservation Plan Phase 1 Area through 2060 (annual cost at each year in 2008 dollars) | **Ad Hoc Reserve Map** | **2008 dollars** | does not sum to total cumulative because of lumpiness

Years per period	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*
Annual total in year	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	**2055**	**2060**
Local Mitigation											
Program Administration											
Administrative Personnel Cost	522,060	522,060	522,060	522,060	522,060	466,125	466,125	466,125	466,125	466,125	466,125
Program Administration Contractors	26,103	26,103	26,103	26,103	26,103	23,306	23,306	23,306	23,306	23,306	23,306
Administrative Overhead	231,453	179,426	177,643	147,496	159,750	137,060	154,131	138,473	153,134	122,961	140,874
Total Administration	**$ 779,616**	**$ 727,589**	**$ 725,806**	**$ 695,659**	**$ 707,913**	**$ 626,491**	**$ 643,563**	**$ 627,904**	**$ 642,566**	**$ 612,393**	**$ 630,306**
Land Management											
Administration (staff and overhead)	384,105	440,578	472,422	589,576	627,169	631,718	646,979	630,910	675,610	652,390	675,610
Waterway Maintenance and Protection	36,608	71,771	106,933	142,095	171,939	199,674	212,559	224,174	234,519	252,507	270,495
Roadway Maintenance and Wildlife Protection	12,430	12,430	12,430	12,430	12,057	11,684	11,311	10,938	10,566	10,566	10,566
Management and Maintenance	347,565	695,130	1,042,695	1,390,260	1,685,690	1,960,266	2,250,421	2,517,319	2,760,962	3,090,422	3,419,882
Remedial Measures	78,071	121,991	163,448	213,436	249,686	280,334	312,127	338,334	368,166	400,588	437,655
Total Land Management	**$ 858,779**	**$ 1,341,900**	**$ 1,797,927**	**$ 2,347,797**	**$ 2,746,541**	**$ 3,083,677**	**$ 3,433,396**	**$ 3,721,675**	**$ 4,049,823**	**$ 4,406,473**	**$ 4,814,208**
Restoration Management											
Administration (staff and overhead)	**$ 384,105**	**$ 440,578**	**$ 472,422**	**$ 589,576**	**$ 627,169**	**$ 631,718**	**$ 646,979**	**$ 630,910**	**$ 675,610**	**$ 652,390**	**$ 675,610**
Monitoring, Research, and Adaptive Mngmt.											
Administration (staff and overhead)	384,105	440,578	472,422	589,576	627,169	631,718	646,979	630,910	675,610	652,390	675,610
Performance Monitoring	1,532	3,064	4,595	6,127	7,659	9,191	12,184	15,178	18,171	21,164	24,158
Other Monitoring Labor and Expenses	111,724	223,448	335,171	446,895	558,619	670,343	787,592	904,842	1,022,091	1,139,341	1,256,590
Research and Adaptive Management	84,750	84,750	84,750	84,750	84,750	84,750	84,750	84,750	84,750	84,750	84,750
Total Monitoring, Research, and Adaptive Mngmt.	**$ 582,111**	**$ 751,839**	**$ 896,938**	**$ 1,127,348**	**$ 1,278,197**	**$ 1,396,002**	**$ 1,531,505**	**$ 1,635,679**	**$ 1,800,623**	**$ 1,897,645**	**$ 2,041,109**
Contingency	**$ 78,138**	**$ 97,857**	**$ 116,793**	**$ 142,811**	**$ 160,795**	**$ 172,137**	**$ 187,663**	**$ 198,485**	**$ 215,059**	**$ 227,067**	**$ 244,837**
Total On-going Costs for Growth Mitigation	**$2,682,749**	**$3,359,763**	**$4,009,886**	**$4,903,191**	**$5,520,615**	**$5,910,025**	**$6,443,106**	**$6,814,653**	**$7,383,680**	**$7,795,967**	**$8,406,070**
State/Federal Conservation											
Program Administration											
Administrative Personnel Cost	-	-	-	-	-	-	-	-	-	-	-
Program Administration Contractors	-	-	-	-	-	-	-	-	-	-	-
Administrative Overhead	-	-	-	-	-	-	-	-	-	-	-
Total Administration	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Land Management											
Administration (staff and overhead)	-	-	-	-	-	-	-	-	-	-	-
Waterway Maintenance and Protection	-	-	-	-	-	-	-	-	-	-	-
Roadway Maintenance and Wildlife Protection	-	-	-	-	-	-	-	-	-	-	-
Management and Maintenance	-	-	-	-	-	-	-	-	-	-	-
Remedial Measures	-	-	-	-	-	-	-	-	-	-	-
Total Land Management	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Restoration Management											
Administration (staff and overhead)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Monitoring, Research, and Adaptive Mngmt.											
Administration (staff and overhead)	-	-	-	-	-	-	-	-	-	-	-
Performance Monitoring	-	-	-	-	-	-	-	-	-	-	-
Other Monitoring Labor and Expenses	-	-	-	-	-	-	-	-	-	-	-
Research and Adaptive Management	-	-	-	-	-	-	-	-	-	-	-
Total Monitoring, Research, and Adaptive Mngmt.	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Contingency	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Total On-going Costs for State/Federal Conservation	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
GRAND TOTAL ON-GOING PCCP COSTS	**$ 2,682,749**	**$ 3,359,763**	**$ 4,009,886**	**$ 4,903,191**	**$ 5,520,615**	**$ 5,910,025**	**$ 6,443,106**	**$ 6,814,653**	**$ 7,383,680**	**$ 7,795,967**	**$ 8,406,070**
Percent State/Federal Conservation	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
State/Federal at X% of total on-going cost	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
0%											
Local share of total on-going PCCP Cost	**$ 2,682,749**	**$ 3,359,763**	**$ 4,009,886**	**$ 4,903,191**	**$ 5,520,615**	**$ 5,910,025**	**$ 6,443,106**	**$ 6,814,653**	**$ 7,383,680**	**$ 7,795,967**	**$ 8,406,070**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

TABLE 5
Ad Hoc Reserve Map
Estimates of PCCP One-time Costs through 2060 (2008 dollars)

	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Land Acquisition	$ 1,283,000,000	$ -	$ 1,283,000,000
Restoration	151,000,000	-	151,000,000
Contingency (10%)	143,000,000	-	143,000,000
Total One Time Costs	**$ 1,577,000,000**	**$ -**	**$ 1,577,000,000**
Percent of Total Costs	**100%**	**0%**	**100%**

Assumptions for fee title land value:	**Valley**	**Foothills**	**Sutter County**
Vernal pool grassland	$65,000		
Rice	$9,000		$5,000
All other ecosystems (large parcels)	$15,000	$10,000	
All other ecosystems (small parcels)	$25,000	$25,000	
Weighted average land acquisition cost, assuming 16 % of acres acquired by easement:			**$25,400**

NOTE: Land acquisition includes the following: acquiring land in fee title, acquiring easements, conducting pre-acquisition surveys, and undertaking one-time site maintenance activities.

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

One Time Costs for Placer County Conservation Plan Phase 1 Area through 2060 (2008 dollars by time period)					Ad Hoc Reserve Map		No Escalation	2008 dollars	No Dedication				
Years per period	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*53*	
	2007-2010	**2010-2015**	**2015-2020**	**2020-2025**	**2025-2030**	**2030-2035**	**2035-2040**	**2040-2045**	**2045-2050**	**2050-2055**	**2055-2060**	**CUMULATIVE TOTAL**	**cost per acre**
Local Mitigation													
Land Acquisition													
Acquiring Land	115,110,215	115,110,215	115,110,215	115,110,215	115,110,215	115,110,215	118,130,224	118,130,224	118,130,224	118,130,224	118,130,224	$ 1,281,312,406	$ 25,400
Pre-acquisition Surveys	118,886	118,886	118,886	118,886	118,886	118,886	126,907	126,907	126,907	126,907	126,907	$ 1,347,852	
Total	$ 115,229,101	$ 115,229,101	$ 115,229,101	$ 115,229,101	$ 115,229,101	$ 115,229,101	$ 118,257,131	$ 118,257,131	$ 118,257,131	$ 118,257,131	$ 118,257,131	$ 1,282,660,258	$ 25,400
One-time Site Improvements	$ 72,317	$ 72,317	$ 72,317	$ 55,367	$ 55,367	$ 55,367	$ 58,340	$ 52,690	$ 52,690	$ 47,040	$ 47,040	$ 640,852	
Restoration													
Restoration Surveys	118,487	118,487	118,487	118,487	118,487	118,487	229,755	229,755	229,755	229,755	229,755	$ 1,859,697	
Ecosystem Restoration/Creation	13,428,272	13,428,272	13,428,272	13,428,272	13,428,272	13,428,272	13,809,826	13,809,826	13,809,826	13,809,826	13,809,826	$ 149,618,761	
Total	$ 13,546,758	$ 13,546,758	$ 13,546,758	$ 13,546,758	$ 13,546,758	$ 13,546,758	$ 14,039,581	$ 14,039,581	$ 14,039,581	$ 14,039,581	$ 14,039,581	$ 151,478,457	$ 13,400
Contingency	$ 12,884,818	$ 12,884,818	$ 12,884,818	$ 12,883,123	$ 12,883,123	$ 12,883,123	$ 13,235,505	$ 13,234,940	$ 13,234,940	$ 13,234,375	$ 13,234,375	$ 143,477,957	
Total One-time Costs for Growth Mitigation	$ 141,732,994	$ 141,732,994	$ 141,732,994	$ 141,714,349	$ 141,714,349	$ 141,714,349	$ 145,590,558	$ 145,584,343	$ 145,584,343	$ 145,578,128	$ 145,578,128	$ 1,578,257,525	
State/Federal Conservation													
Land Acquisition													
Acquiring Land	-	-	-	-	-	-	-	-	-	-	-	$ -	#DIV/0!
Pre-acquisition Surveys	-	-	-	-	-	-	-	-	-	-	-	$ -	
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	#DIV/0!
One-time Site Improvements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Restoration													
Restoration Surveys	-	-	-	-	-	-	-	-	-	-	-	$ -	
Ecosystem Restoration/Creation	-	-	-	-	-	-	-	-	-	-	-	$ -	
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	#DIV/0!
Contingency	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Total One-time Costs for Public Conservation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
GRAND TOTAL ONE TIME PCCP COSTS	$ 141,732,994	$ 141,732,994	$ 141,732,994	$ 141,714,349	$ 141,714,349	$ 141,714,349	$ 145,590,558	$ 145,584,343	$ 145,584,343	$ 145,578,128	$ 145,578,128	$ 1,578,257,525	$ 31,200
Percent State/Federal Conservation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

Total Restoration Cost by Ecosystem Type, Placer County Conservation Plan Phase 1 Area through 2060 (2008 dollars)

Ad Hoc Reserve Map

ACRES BY ECOSYSTEM TYPE

Ecosystem Type	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Oak Woodland	1,639	-	1,639
Aquatic and Wetland from grassland	781	-	781
Aquatic and Wetland from rice	95	-	95
Valley-Foothill Riparian	198	-	198
Valley Grassland/Vernal Pool from grass	6,918	-	6,918
Valley Grassland/Vernal Pool from rice	1,689	-	1,689
Other Grassland/Agriculture	-	-	-
Total All Ecosystem Types	**11,320**	**-**	**11,320**
Percent Distribution by Ecosystem Type			
Oak Woodland	14%	0%	14%
Aquatic and Wetland from grassland	7%	0%	7%
Aquatic and Wetland from rice	1%	0%	1%
Valley-Foothill Riparian	2%	0%	2%
Valley Grassland/Vernal Pool from grass	61%	0%	61%
Valley Grassland/Vernal Pool from rice	15%	0%	15%
Other Grassland/Agriculture	0%	0%	0%
Total All Ecosystem Types	**100%**	**0%**	**100%**

COST BY ECOSYSTEM TYPE

Ecosystem Type	Local Mitigation	State/Federal Conservation	PCCP TOTAL
Oak Woodland	$ 58,230,911	$ -	$ 58,230,911
Aquatic and Wetland from grassland	37,319,867	-	37,319,867
Aquatic and Wetland from rice	4,545,995	-	4,545,995
Valley-Foothill Riparian	8,106,554	-	8,106,554
Valley Grassland/Vernal Pool from grass	33,614,135	-	33,614,135
Valley Grassland/Vernal Pool from rice	9,660,996	-	9,660,996
Other Grassland/Agriculture	-	-	-
Total All Ecosystem Types	**$ 151,478,457**	**$ -**	**$ 151,478,457**
Percent Distribution by Ecosystem Type			
Oak Woodland	38%	0%	38%
Aquatic and Wetland from grassland	25%	0%	25%
Aquatic and Wetland from rice	3%	0%	3%
Valley-Foothill Riparian	5%	0%	5%
Valley Grassland/Vernal Pool from grass	22%	0%	22%
Valley Grassland/Vernal Pool from rice	6%	0%	6%
Other Grassland/Agriculture	0%	0%	0%
Total All Ecosystem Types	**100%**	**0%**	**100%**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

LAND ACQUISITION COST BY PERIOD (2008 dollars)

Ad Hoc Reserve Map
No Dedication
No Escalation
2008 dollars

	LOCAL MITIGATION			
	All Valley	**All Foothill**	**Sutter County**	**PCCP Total**
Cumulative Cost by Ecosystem Type				
Oak Woodland	4,499,846	137,297,153	-	141,796,999
Aquatic and Wetland	15,564,381	3,976,849	-	19,541,230
Valley-Foothill Riparian	2,548,544	10,440,033	-	12,988,577
Vernal Pool Grassland	628,244,412	30,558	-	628,274,970
Non VP Valley Grassland	223,600,029	129,218,482	-	352,818,511
Rice	31,351,613	-	-	31,351,613
Other Agriculture	83,841,912	10,698,593	-	94,540,506
Total All Ecosystem Types	**$ 989,650,738**	**$ 291,661,668**	**$ -**	**$ 1,281,312,406**
Percent Distribution by Ecosystem Type				
Oak Woodland	0%	47%	0%	11%
Aquatic and Wetland	2%	1%	0%	2%
Valley-Foothill Riparian	0%	4%	0%	1%
Vernal Pool Grassland	63%	0%	0%	49%
Non VP Valley Grassland	23%	44%	0%	28%
Rice	3%	0%	0%	2%
Other Agriculture	8%	4%	0%	7%
Total All Ecosystem Types	**100%**	**100%**	**0%**	**100%**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

6/23/06 **TRA**
8/15/08 **HEG Case**
Ad Hoc Reserve Map
TRA input

ACQUISITION BY PERIOD

	LOCAL MITIGATION				STATE/FEDERAL CONSERVATION			PCCP PROGRAM			
	All Valley	All Foothill	Sutter County	PCCP Total	All Valley	All Foothill	PCCP Total	All Valley	All Foothill	Sutter County	PCCP Total
3 **2007-2010**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2010-2015**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2015-2020**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2020-2025**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2025-2030**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2030-2035**											
Acres Acquired by Ecosystem Type											
Oak Woodland	57	947	-	1,004	-	-	-	57	947	-	1,004
Aquatic and Wetland	87	38	-	125	-	-	-	87	38	-	125
Valley-Foothill Riparian	15	61	-	76	-	-	-	15	61	-	76
Vernal Pool Grassland	865	0	-	865	-	-	-	865	0	-	865
Non VP Valley Grassland	957	782	-	1,738	-	-	-	957	782	-	1,738
Rice	184	-	-	184	-	-	-	184	-	-	184
Other Agriculture	339	125	-	464	-	-	-	339	125	-	464
Total All Ecosystem Types	**2,504**	**1,953**	**-**	**4,457**	**-**	**-**	**-**	**2,504**	**1,953**	**-**	**4,457**
5 **2035-2040**											
Acres Acquired by Ecosystem Type											
Oak Woodland	(7)	626	-	619	-	-	-	(7)	626	-	619
Aquatic and Wetland	77	(2)	-	75	-	-	-	77	(2)	-	75
Valley-Foothill Riparian	12	42	-	54	-	-	-	12	42	-	54
Vernal Pool Grassland	877	(0)	-	877	-	-	-	877	(0)	-	877
Non VP Valley Grassland	1,458	485	-	1,943	-	-	-	1,458	485	-	1,943
Rice	469	-	-	469	-	-	-	469	-	-	469
Other Agriculture	733	(12)	-	720	-	-	-	733	(12)	-	720
Total All Ecosystem Types	**3,619**	**1,138**	**-**	**4,758**	**-**	**-**	**-**	**3,619**	**1,138**	**-**	**4,758**
5 **2040-2045**											
Acres Acquired by Ecosystem Type											
Oak Woodland	(7)	626	-	619	-	-	-	(7)	626	-	619
Aquatic and Wetland	77	(2)	-	75	-	-	-	77	(2)	-	75
Valley-Foothill Riparian	12	42	-	54	-	-	-	12	42	-	54
Vernal Pool Grassland	877	(0)	-	877	-	-	-	877	(0)	-	877
Non VP Valley Grassland	1,458	485	-	1,943	-	-	-	1,458	485	-	1,943
Rice	469	-	-	469	-	-	-	469	-	-	469
Other Agriculture	733	(12)	-	720	-	-	-	733	(12)	-	720
Total All Ecosystem Types	**3,619**	**1,138**	**-**	**4,758**	**-**	**-**	**-**	**3,619**	**1,138**	**-**	**4,758**
5 **2045-2050**											
Acres Acquired by Ecosystem Type											
Oak Woodland	(7)	626	-	619	-	-	-	(7)	626	-	619
Aquatic and Wetland	77	(2)	-	75	-	-	-	77	(2)	-	75
Valley-Foothill Riparian	12	42	-	54	-	-	-	12	42	-	54
Vernal Pool Grassland	877	(0)	-	877	-	-	-	877	(0)	-	877
Non VP Valley Grassland	1,458	485	-	1,943	-	-	-	1,458	485	-	1,943
Rice	469	-	-	469	-	-	-	469	-	-	469
Other Agriculture	733	(12)	-	720	-	-	-	733	(12)	-	720
Total All Ecosystem Types	**3,619**	**1,138**	**-**	**4,758**	**-**	**-**	**-**	**3,619**	**1,138**	**-**	**4,758**
5 **2050-2055**											
Acres Acquired by Ecosystem Type											
Oak Woodland	(7)	626	-	619	-	-	-	(7)	626	-	619
Aquatic and Wetland	77	(2)	-	75	-	-	-	77	(2)	-	75
Valley-Foothill Riparian	12	42	-	54	-	-	-	12	42	-	54
Vernal Pool Grassland	877	(0)	-	877	-	-	-	877	(0)	-	877
Non VP Valley Grassland	1,458	485	-	1,943	-	-	-	1,458	485	-	1,943
Rice	469	-	-	469	-	-	-	469	-	-	469
Other Agriculture	733	(12)	-	720	-	-	-	733	(12)	-	720
Total All Ecosystem Types	**3,619**	**1,138**	**-**	**4,758**	**-**	**-**	**-**	**3,619**	**1,138**	**-**	**4,758**
5 **2055-2060**											
Acres Acquired by Ecosystem Type											
Oak Woodland	(7)	626	-	619	-	-	-	(7)	626	-	619
Aquatic and Wetland	77	(2)	-	75	-	-	-	77	(2)	-	75
Valley-Foothill Riparian	12	42	-	54	-	-	-	12	42	-	54
Vernal Pool Grassland	877	(0)	-	877	-	-	-	877	(0)	-	877
Non VP Valley Grassland	1,458	485	-	1,943	-	-	-	1,458	485	-	1,943
Rice	469	-	-	469	-	-	-	469	-	-	469
Other Agriculture	733	(12)	-	720	-	-	-	733	(12)	-	720
Total All Ecosystem Types	**3,619**	**1,138**	**-**	**4,758**	**-**	**-**	**-**	**3,619**	**1,138**	**-**	**4,758**
Total All Ecosystem Types	**33,119**	**17,410**	**-**	**50,529**	**-**	**-**	**-**	**33,119**	**17,410**	**-**	**50,529**

PRELIMINARY DRAFT ESTIMATED
Prepared in August 2008

6/23/06 TRA
8/15/08 HEG Case

Ad Hoc Reserve Map
TRA input

Estimates of Land Requirements for Placer County Conservation Plan Phase 1 Area through 2060 (acres by time period)

Years per period	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	***53***
	2007-2010	**2010-2015**	**2015-2020**	**2020-2025**	**2025-2030**	**2030-2035**	**2035-2040**	**2040-2045**	**2045-2050**	**2050-2055**	**2055-2060**	**TOTAL**
Land Acquisition												
Local Mitigation												
Oak Woodland	1,004	1,004	1,004	1,004	1,004	1,004	619	619	619	619	619	9,122
Aquatic and Wetland	125	125	125	125	125	125	75	75	75	75	75	1,126
Valley-Foothill Riparian	76	76	76	76	76	76	54	54	54	54	54	723
Vernal Pool Grassland	865	865	865	865	865	865	877	877	877	877	877	9,577
Non VP Valley Grassland	1,738	1,738	1,738	1,738	1,738	1,738	1,943	1,943	1,943	1,943	1,943	20,142
Rice	184	184	184	184	184	184	469	469	469	469	469	3,451
Other Agriculture	464	464	464	464	464	464	720	720	720	720	720	6,387
Total All Ecosystem Types	**4,457**	**4,457**	**4,457**	**4,457**	**4,457**	**4,457**	**4,758**	**4,758**	**4,758**	**4,758**	**4,758**	**50,529**
State/Federal Conservation												
Oak Woodland	-	-	-	-	-	-	-	-	-	-	-	-
Aquatic and Wetland	-	-	-	-	-	-	-	-	-	-	-	-
Valley-Foothill Riparian	-	-	-	-	-	-	-	-	-	-	-	-
Vernal Pool Grassland	-	-	-	-	-	-	-	-	-	-	-	-
Non VP Valley Grassland	-	-	-	-	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-	-	-	-	-
Other Agriculture	-	-	-	-	-	-	-	-	-	-	-	-
Total All Ecosystem Types	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Land Acquisition by Location												
Local Mitigation												
Valley	2,504	2,504	2,504	2,504	2,504	2,504	3,619	3,619	3,619	3,619	3,619	33,119
Foothills	1,953	1,953	1,953	1,953	1,953	1,953	1,138	1,138	1,138	1,138	1,138	17,410
Sutter County	-	-	-	-	-	-	-	-	-	-	-	-
Total All Locations	**4,457**	**4,457**	**4,457**	**4,457**	**4,457**	**4,457**	**4,758**	**4,758**	**4,758**	**4,758**	**4,758**	**50,529**
State/Federal Conservation												
Valley	-	-	-	-	-	-	-	-	-	-	-	-
Foothills	-	-	-	-	-	-	-	-	-	-	-	-
Total All Locations	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Restoration												
Local Mitigation												
Oak Woodland	148	148	148	148	148	148	150	150	150	150	150	**1,639**
Aquatic and Wetland from grassland	91	91	91	91	91	91	47	47	47	47	47	**781**
Aquatic and Wetland from rice	6	6	6	6	6	6	12	12	12	12	12	**95**
Valley-Foothill Riparian	36	36	36	36	36	36	(3)	(3)	(3)	(3)	(3)	**198**
Valley Grassland/Vernal Pool from grass	365	365	365	365	365	365	945	945	945	945	945	**6,918**
Valley Grassland/Vernal Pool from rice	72	72	72	72	72	72	252	252	252	252	252	**1,689**
Other Grassland/Agriculture	-	-	-	-	-	-	-	-	-	-	-	**-**
Total All Ecosystem Types	**718**	**718**	**718**	**718**	**718**	**718**	**1,403**	**1,403**	**1,403**	**1,403**	**1,403**	**11,320**
State/Federal Conservation												
Oak Woodland	-	-	-	-	-	-	-	-	-	-	-	**-**
Aquatic and Wetland from grassland	-	-	-	-	-	-	-	-	-	-	-	**-**
Aquatic and Wetland from rice	-	-	-	-	-	-	-	-	-	-	-	**-**
Valley-Foothill Riparian	-	-	-	-	-	-	-	-	-	-	-	**-**
Valley Grassland/Vernal Pool from grass	-	-	-	-	-	-	-	-	-	-	-	**-**
Valley Grassland/Vernal Pool from rice	-	-	-	-	-	-	-	-	-	-	-	**-**
Other Grassland/Agriculture	-	-	-	-	-	-	-	-	-	-	-	**-**
Total All Ecosystem Types	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Cumulative total restored acres	**718**	**1,436**	**2,153**	**2,871**	**3,589**	**4,307**	**5,710**	**7,112**	**8,515**	**9,918**	**11,320**	**11,320**
Under Management (cumulative total acres)	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**	**2045**	**2050**	**2055**	**2060**	**2060**
Local Mitigation												
Oak Woodland	1,152	2,305	3,457	4,609	5,762	6,914	7,683	8,453	9,222	9,991	10,761	**10,761**
Aquatic and Wetland	222	445	667	889	1,111	1,334	1,467	1,601	1,735	1,869	2,002	**2,002**
Valley-Foothill Riparian	111	223	334	445	557	668	719	769	820	870	921	**921**
Vernal Pool Grassland	1,302	2,605	3,907	5,209	6,512	7,814	9,888	11,962	14,036	16,110	18,184	**18,184**
Non VP Valley Grassland	1,307	2,615	3,922	5,229	6,537	7,844	9,075	10,306	11,537	12,768	13,998	**13,998**
Rice	106	212	318	424	530	636	841	1,046	1,250	1,455	1,660	**1,660**
Other Agriculture	255	511	766	1,021	1,276	1,532	1,826	2,120	2,414	2,707	3,001	**3,001**
Total All Ecosystem Types	**4,457**	**8,914**	**13,371**	**17,827**	**22,284**	**26,741**	**31,499**	**36,256**	**41,014**	**45,771**	**50,529**	**50,529**
State/Federal Conservation												
Oak Woodland	-	-	-	-	-	-	-	-	-	-	-	**-**
Aquatic and Wetland	-	-	-	-	-	-	-	-	-	-	-	**-**
Valley-Foothill Riparian	-	-	-	-	-	-	-	-	-	-	-	**-**
Vernal Pool Grassland	-	-	-	-	-	-	-	-	-	-	-	**-**
Non VP Valley Grassland	-	-	-	-	-	-	-	-	-	-	-	**-**
Rice	-	-	-	-	-	-	-	-	-	-	-	**-**
Other Agriculture	-	-	-	-	-	-	-	-	-	-	-	**-**
Total All Ecosystem Types	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008

6/23/06 TRA
8/15/08 HEG Case
Ad Hoc Reserve Map

Estimates of Land Requirements for Placer County Conservation Plan Phase 1 Area: 2007 - 2060 (acres by time period)

Years per period	*3*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	*5*	***53***	
	2007-2010	**2010-2015**	**2015-2020**	**2020-2025**	**2025-2030**	**2030-2035**	**2035-2040**	**2040-2045**	**2045-2050**	**2050-2055**	**2055-2060**	**TOTAL**	
Land Acquisition by Fee Title													
Local Mitigation													
Oak Woodland	603	603	603	603	603	603	371	371	371	371	371	5,473	
Aquatic and Wetland	119	119	119	119	119	119	72	72	72	72	72	1,070	
Valley-Foothill Riparian	72	72	72	72	72	72	51	51	51	51	51	687	
Vernal Pool Grassland	822	822	822	822	822	822	833	833	833	833	833	9,098	
Non VP Valley Grassland	1,651	1,651	1,651	1,651	1,651	1,651	1,846	1,846	1,846	1,846	1,846	19,135	
Rice	175	175	175	175	175	175	446	446	446	446	446	3,279	
Other Agriculture	279	279	279	279	279	279	432	432	432	432	432	3,832	
Total All Ecosystem Types	**3,720**	**3,720**	**3,720**	**3,720**	**3,720**	**3,720**	**4,051**	**4,051**	**4,051**	**4,051**	**4,051**	**42,574**	
State/Federal Conservation													
Oak Woodland	-	-	-	-	-	-	-	-	-	-	-	-	
Aquatic and Wetland	-	-	-	-	-	-	-	-	-	-	-	-	
Valley-Foothill Riparian	-	-	-	-	-	-	-	-	-	-	-	-	
Vernal Pool Grassland	-	-	-	-	-	-	-	-	-	-	-	-	
Non VP Valley Grassland	-	-	-	-	-	-	-	-	-	-	-	-	
Rice	-	-	-	-	-	-	-	-	-	-	-	-	
Other Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	
Total All Ecosystem Types	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
Land Acquisition by Easement													
Local Mitigation													
Oak Woodland	402	402	402	402	402	402	248	248	248	248	248	3,649	
Aquatic and Wetland	6	6	6	6	6	6	4	4	4	4	4	56	
Valley-Foothill Riparian	4	4	4	4	4	4	3	3	3	3	3	36	
Vernal Pool Grassland	43	43	43	43	43	43	44	44	44	44	44	479	
Non VP Valley Grassland	87	87	87	87	87	87	97	97	97	97	97	1,007	
Rice	9	9	9	9	9	9	23	23	23	23	23	173	
Other Agriculture	186	186	186	186	186	186	288	288	288	288	288	2,555	
Total All Ecosystem Types	**737**	**737**	**737**	**737**	**737**	**737**	**707**	**707**	**707**	**707**	**707**	**7,955**	
State/Federal Conservation													
Oak Woodland	-	-	-	-	-	-	-	-	-	-	-	-	
Aquatic and Wetland	-	-	-	-	-	-	-	-	-	-	-	-	
Valley-Foothill Riparian	-	-	-	-	-	-	-	-	-	-	-	-	
Vernal Pool Grassland	-	-	-	-	-	-	-	-	-	-	-	-	
Non VP Valley Grassland	-	-	-	-	-	-	-	-	-	-	-	-	
Rice	-	-	-	-	-	-	-	-	-	-	-	-	
Other Agriculture	-	-	-	-	-	-	-	-	-	-	-	-	
Total All Ecosystem Types	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
Total Fee Title Acquisition													
Oak Woodland	603	603	603	603	603	603	371	371	371	371	371	5,473	
Aquatic and Wetland	119	119	119	119	119	119	72	72	72	72	72	1,070	
Valley-Foothill Riparian	72	72	72	72	72	72	51	51	51	51	51	687	
Vernal Pool Grassland	822	822	822	822	822	822	833	833	833	833	833	9,098	
Non VP Valley Grassland	1,651	1,651	1,651	1,651	1,651	1,651	1,846	1,846	1,846	1,846	1,846	19,135	
Rice	175	175	175	175	175	175	446	446	446	446	446	3,279	
Other Agriculture	279	279	279	279	279	279	432	432	432	432	432	3,832	
Total All Ecosystem Types	**3,720**	**3,720**	**3,720**	**3,720**	**3,720**	**3,720**	**4,051**	**4,051**	**4,051**	**4,051**	**4,051**	**42,574**	**84%**
Total Easement Acquisition													
Oak Woodland	402	402	402	402	402	402	248	248	248	248	248	3,649	
Aquatic and Wetland	6	6	6	6	6	6	4	4	4	4	4	56	
Valley-Foothill Riparian	4	4	4	4	4	4	3	3	3	3	3	36	
Vernal Pool Grassland	43	43	43	43	43	43	44	44	44	44	44	479	
Non VP Valley Grassland	87	87	87	87	87	87	97	97	97	97	97	1,007	
Rice	9	9	9	9	9	9	23	23	23	23	23	173	
Other Agriculture	186	186	186	186	186	186	288	288	288	288	288	2,555	
Total All Ecosystem Types	**737**	**737**	**737**	**737**	**737**	**737**	**707**	**707**	**707**	**707**	**707**	**7,955**	**16%**
												50,529	**100%**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 (researched originally in 2004 with 2006 update)

Land Acquisition Costs (one-time)

	cost variable	No Escalation	No Dedication
Acquisition Assumptions			
Ecosystem Type	**Fee Title**	**Easement**	
Oak Woodland	60%	40%	100%
Aquatic and Wetland	95%	5%	100%
Valley-Foothill Riparian	95%	5%	100%
Vernal Pool Grassland	95%	5%	100%
Non VP Valley Grassland	95%	5%	100%
Rice	95%	5%	100%
Other Agriculture	60%	40%	100%
Public Conservation Grassland/Other Agriculture	100%	0%	100%
Easement Acquisition Cost			
% of fee title cost per acre		60%	

Per Acre Land Cost	**Valley**	**Foothills**	**Sutter County**
Weighted average price assuming some smaller parcels **(all other types)**	**$17,000**	**$18,000**	
Percent parcels < 100 acres	20%	50%	
Per Acre Land Cost for smaller parcels **All Other Types**	$25,000	$25,000	
Per Acre Land Cost for larger parcels **All Other Types**	$15,000	$10,000	
Per Acre Land Cost for **Vernal Pool Grassland**	$65,000		
Per Acre Land Cost for **Rice**	$9,000		$5,000
Transaction Costs (% of acquisition cost)	3%	Covers title insurance and other closing costs. Legal and other professional services are covered in program administration.	

Land Value Assumptions

RANGE OF PER ACRE PRICES BY SIZE AND SUB-MARKET (2001-2005)		
SIZE	**VALLEY**	**FOOTHILLS**
Conservation Area - 20 - 99 acre parcels	$3,000 - $35,000	$2,000 - $25,000
Conservation Area - parcels 100 acres or more	$1,000 - $14,000	$2,500 - $7,300
Rice (West Placer)	$7,000 - $10,000	
Rice (Sutter)	$3,000 - $5,000	
Speculative Land	$8,000 - $66,000+	West Placer/Lincoln
Mitigation Land	$15,000 - $40,000	Natomas (Sutter Co.)

Acquisition assumptions by parcel size based on TRA parcel size analysis indicating land suitable for mitigation by parcel size. Add premium to reflect speculative values and demand for mitigation land in these areas.

SOURCE: Hausrath Economics Group, Placer County Assessor's Office, real estate brokers, Natomas Basin Conservancy, and California Chapter of the Amercian Sociate of Farm Managers and Rural Appraisers, 2006 Trends in Agricultural Land and Lease Values.

		annual real increase
Land value appreciation (average at end of five year period)	**25.0%**	5.00%
2005-2010	12.5%	
2011-2015	**25.0%**	
2016-2020	**37.5%**	
2021-2025	**50.0%**	
2026-2030	**62.5%**	
2031-2035	**75.0%**	
2036-2040	**87.5%**	
2041-2045	**100.0%**	
2046-2050	**112.5%**	

For use in model runs where impact of real increase in land values over time is assumed.

Land Dedication Assumptions

TO PROVIDE ROUGH ESTIMATE OF PROPORTION OF MITIGATION LAND THAT WOULD BE DEDICATED

Major Valley Development Areas	**Plan Area Acres**	**Dedication Assumption**	**Dedication Obligation**
Placer Vineyards	5,158	1.00	5,158
Regional University	1,136	1.00	1,136
Placer Ranch	2,213	-	-
Lincoln (existing city limits and GP Update area)	19,086	0.33	6,298
	27,593	**50%**	**12,592**

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Planning Surveys for Land Acquisition (one-time)	**cost variable**	**2008 dollars**

Assumptions:
Land cover type surveys include surveys for federal and state jurisdictional waters at a protocol level
Covered plant and wildlife surveys include surveys at a protocol level
Planning surveys for habitat restoration are covered under Restoration Planning and Implementation

2	Staff (wildlife biologist and botanist)
	Hours for 200 acres
200	Assumed average parcel size
10	Total hours per 200 acres for wildlife biologist
10	Total hours per 200 acres for botanist

	Hours per Acre	**Cost Per Acre**	**Cost per Acre with Due Diligence Premium**
Land cover type and habitat assessment surveys	**0.10**	$11	$13
Covered wildlife surveys	**0.05**	$5	$7
Covered plant surveys	**0.05**	$5	$7
Total per acre	**0.20**	**$21**	**$27**

$107	Hourly cost for biologist
Cost per acre	**$21**
1.25	Extra land surveyed and processed for due diligence/planning surveys that will not be acquired.
Cost per acre with due diligence premium	**$27**

Percent of Acres Requiring Surveys by Ecosystem Type	**Land Cover Type**	**Covered Wildlife**	**Covered Plants**
Oak Woodland	100%	100%	100%
Aquatic and Wetland	100%	100%	100%
Valley-Foothill Riparian	100%	100%	100%
Vernal Pool Grassland	100%	100%	100%
Non VP Grassland	100%	100%	100%
Rice	100%	100%	100%
Other Agriculture	100%	100%	100%
Weighted Average Survey Cost by Ecosystem Type			
Oak Woodland	**$27**		
Aquatic and Wetland	**$27**		
Valley-Foothill Riparian	**$27**		
Vernal Pool Grassland	**$27**		
Non VP Grassland	**$27**		
Rice	**$27**		
Other Agriculture	**$27**		

Biologist rate assumption		
Base cost per hour	$102	$ per hour
Per diem including lodging	$0	$ per day
Travel	**$51**	$ per day
assuming	100	miles
and	$0.505	$ per mile
Hours per day	10	hours per day
Total cost per hour including amortized per diem and travel (assuming 10	**$107**	$ per hour

Assumptions:
ES-II billing rate, assuming all work will be conducted from a local office (no per diem needed).

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Site Improvements(One-Time)

cost variable	2008 dollars

Assumptions:
Covers building demolition and stabilization, gate repair/replacement, signage, fence repair, and other security measures.

	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060	Total
Number of buildings to be demolished per period	5	5	5	2	2	2	2	1	1			25
Cost for demolition/stabilization of buildings	28,250	28,250	28,250	11,300	11,300	11,300	11,300	5,650	5,650	-	-	$ 141,250

$5,650	Cost per building for demolition/stabilization of buildings
25	Number of buildings requiring demolition or stabilization; 5 buildings per period for first three periods, then declining thereafter
10%	Percentage of total acquired PCCP lands will require one-time site improvements and maintenance
$99	Cost per acre for gate repair/replacement, signage, fence repair, and other security

Weighted average cost per acre for site improvement and maintenance	**$ 10**

Components of site improvement cost (200 acre parcel)

$4,520	Gate repair replacement
$2,825	Signage
$10,170	Fence repair
$2,260	Other security

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Restoration Planning & Implementation (one-time and on-going)

cost variable	2008 dollars

Note: For estimating purposes and cost allocation, total cost of Field and Technical staff (see Program Administration) split equally amongst Land Management (33%), Restoration Planning and Implementation (33%), and Monitoring, Research, and Adaptive Management (33%) . Each component allocated to Local Mitigation and Public Conservation based on share of total acres managed in each category.

Assumptions:

Program Oversight	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Field and Technical Oversight ongoing cost	$384,105	$440,578	$472,422	$589,576	$627,169	$631,718	$646,979	$630,910	$675,610	$652,390	$675,610
Per acre restored	$ 535	$ 307	$ 219	$ 205	$ 175	$ 147	$ 113	$ 89	$ 79	$ 66	$ 60

Base Surveys	**one-time cost**
Ecosystem Type	Cost per acre
Oak Woodland	
Pre-construction planning surveys	**$53**
Construction monitoring	**$85**
Total	**$139**
Aquatic and Wetland	
Pre-construction planning surveys	**$96**
Construction monitoring	**$85**
Total	**$181**
Aquatic and Wetland (Marsh) from Rice	
Pre-construction planning surveys	**$27**
Construction monitoring	**$85**
Total	**$112**
Valley-Foothill Riparian	
Pre-construction planning surveys	**$96**
Construction monitoring	**$85**
Total	**$181**
Valley Grassland/Vernal Pool from Grassland	
Pre-construction planning surveys	**$96**
Construction monitoring	**$85**
Total	**$181**
Valley Grassland/Vernal Pool from Rice	
Pre-construction planning surveys	**$27**
Construction monitoring	**$85**
Total	**$112**
Other Agriculture	
Pre-construction planning surveys	**$53**
Construction monitoring	**$85**
Total	**$139**

Assumptions:

Preconstruction planning surveys include, as needed: site selection, wetland delineation, detailed habitat mapping and species surveys, soil or geomorphological sampling and mapping. Planning surveys for restoration sites are more intensive and site-specific than plannining surveys under "Site Management".

Construction Monitoring includes, as needed: on-site biologist conducting training for construction personnel regarding avoidance and minimization measures, verification during construction of implementation of avoidance/minimization measures, identification and translocation of covered species.

$107	Biologist rate per hour
0.5	Pre-construction planning survey hours-staff time and reporting for oak woodland and agriculture
0.9	Pre-construction planning survey hours-staff time and reporting for aquatic and wetland, valley-foothill riparian, and valley grassland/vernal pool
0.3	Pre-construction planning survey hours-staff time and reporting for riceland to aquatic and wetland and to valley grassland/vernal pool
0.8	Construction monitoring hours-staff time and reporting for all habitat types
	Hours for 200 acres
200	Assumed average parcel size
100	Pre-construction planning survey hours for oak woodland and agriculture
180	Pre-construction planning survey hours for aquatic and wetland, valley-foothill riparian, and valley grassland/vernal pool
50	Pre-construction planning survey hours for riceland to aquatic and wetland and and valley grassland/vernal pool
160	Construction monitoring hours - all habitat types (assumes one month of oversight and 40 hours/week)

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Restoration Planning & Implementation (one-time and on-going)		cost variable	2008 dollars
Ecosystem Restoration/Creation	**one-time cost**		
Ecosystem Type	Cost per acre		
Oak Woodland			
Regulatory Compliance	$278		
Plans, specifications, and engineering	$3,478		
Bid assistance	$339		
Construction activity	**$13,910**		
Construction oversight	$696		
Restoration monitoring & maintenance	$16,692	$20,865	**NOTE:** model factor includes discount for land not requiring restoration monitoring
Total	**$35,392**		
Aquatic and Wetland			
Regulatory Compliance	$492		
Plans, specifications, and engineering	$6,153		
Bid assistance	$339		
Construction activity	**$24,610**		
Construction oversight	$1,231		
Restoration monitoring & maintenance	$14,766	$18,458	**NOTE:** model factor includes discount for land not requiring restoration monitoring
Total	**$47,590**		
Aquatic and Wetland (Marsh) from Rice			
Regulatory Compliance	$492		
Plans, specifications, and engineering	$6,153		
Bid assistance	$339		
Construction activity	**$24,610**		
Construction oversight	$1,231		
Restoration monitoring & maintenance	$14,766	$18,458	**NOTE:** model factor includes discount for land not requiring restoration monitoring
Total	**$47,590**		
Valley-Foothill Riparian			
Regulatory Compliance	$321		
Plans, specifications, and engineering	$4,013		
Bid assistance	$339		
Construction activity	**$16,050**		
Construction oversight	$803		
Restoration monitoring & maintenance	$19,260	$24,075	**NOTE:** model factor includes discount for land not requiring restoration monitoring
Total	**$40,785**		
Valley Grassland/Vernal Pool from Grassland			
Regulatory Compliance	$428		
Plans, specifications, and engineering	$5,350		
Bid assistance	$339		
Construction activity	**$21,400**		
Construction oversight	$1,070		
Restoration monitoring & maintenance	$18,190		
Total	**$46,777**	**NOTE:** applies only to wetted acres, per assumptions below	
Valley Grassland/Vernal Pool from Rice			
Regulatory Compliance	$514		
Plans, specifications, and engineering	$6,420		
Bid assistance	$339		
Construction activity	**$25,680**		
Construction oversight	$1,284		
Restoration monitoring & maintenance	$21,828		
Total	**$56,065**	**NOTE:** applies only to wetted acres, per assumptions below	
Other Agriculture			
Regulatory Compliance	$113		
Plans, specifications, and engineering	$1,413		
Bid assistance	$339		
Construction activity	**$5,650**		
Construction oversight	$283		
Restoration monitoring & maintenance	$1,921	$2,401	**NOTE:** model factor includes discount for land not requiring restoration monitoring
Total	**$9,718**		

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Restoration Planning & Implementation (one-time and on-going)

cost variable	2008 dollars

Assumptions:

Note: Some land cover types have high restoration costs simply because a very small area of that land cover type will be restored/created. Plan, specification, and engineering work, bid assistance, and restoration oversight will be conducted in the 5-year period in which restoration takes place. The estimate of restoration costs is a planning tool to assess the level of effort required to perform the work. Actual restoration costs may vary from the above estimates because of competitive bidding, negotiations with the client, or fluctuations in market prices.
Restoration monitoring and maintenance is a 5 year period of staff monitoring and contractor remediation (10 years for valley-foothill riparian, ???valley grassland/vernal pool, and valley grassland/vernal pool from rice), following construction, to ensure successful implementation of plan drawings, including plant replacement, irrigation maintenance, weed control, erosion control, and repair of any substandard work.

$339	Bid assistance
10%	Maximum density of wetted pool acres to total site on non-riceland
10%	Maximum density of wetted pool acres to total site on riceland
2%	Regulatory compliance cost as percentage of construction cost
25%	Plans, specifications, and engineering as percentage of constuction cost
5%	Construction oversight cost as percentage of construction cost
30%	Restoration monitoring & maintenance cost is **30%** of total construction costs for oak woodland and valley-foothill riparian
15%	Restoration monitoring & maintenance cost is **15%** of total construction costs for aquatic amd wetland and aquatic and wetland (marsh) from rice
8.5%	Restoration monitoring & maintenance cost is **8.5%** of total construction costs for valley grassland/vernal pool, valley grassland/vernal pool (rice), and agriculture
20%	Cost premium for vernal pool restoration from rice. Applies to construction cost and to monitoring and maintenance.
20%	Acreage discount for land not requiring restoration monitoring (does not apply to vernal pools)
5	Years of post-construction maintenance following installation of ecosystem restoration/creation project for oak woodland, aquatic and wetland, aquatic and wetland (marsh) from rice, valley-foothill riparian, and agriculture
10	Years of post-construction maintenance following installation of ecosystem restoration/creation project for valley grassland/vernal pool, and valley grassland/vernal pool from rice

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Program Administration: Staff & Overhead (on-going)

cost variable	2008 dollars

Assumptions:

5% **Contractors as share of total administrative staff cost**

Note: For estimating purposes and cost allocation, program administration staff and overhead costs and contractors are allocated to Local Mitigation and Public Conservation based on the share of total acres managed in each category.
Field and technical staff and overhead allocated equally to site management, restoration, and monitoring (1/3 to each cost category).

Overhead allocation

	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Administrative											
Office space cost	3,178	3,178	2,543	2,007	1,907	3,269	3,269	3,269	3,120	3,120	3,120
Office equipment & supplies	71,108	52,981	66,133	44,598	59,276	35,395	52,466	34,548	51,665	33,752	51,665
Vehicles	64,070	64,070	64,070	64,070	64,070	64,070	64,070	64,070	64,070	64,070	64,070
Travel	3,263	3,263	2,863	2,526	2,463	2,291	2,291	2,291	2,244	2,244	2,244
Legal and financial assistance	70,060	36,160	22,260	14,520	12,260	12,260	12,260	14,520	12,260	-	-
Program Insurance	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775
Subtotal Administrative Overhead	**$ 231,453**	**$ 179,426**	**$ 177,643**	**$ 147,496**	**$ 159,750**	**$ 137,060**	**$ 154,131**	**$ 138,473**	**$ 153,134**	**$ 122,961**	**$ 140,874**
Field and Technical											
Office space cost	4,449	5,721	5,085	5,620	5,721	11,623	11,623	11,986	12,135	12,135	12,135
Office equipment & supplies	99,551	95,365	132,267	124,874	177,827	125,850	186,547	126,675	200,918	131,257	200,918
Vehicles (including trucks and equipment)	409,565	409,565	409,565	409,565	409,565	409,565	409,565	409,565	409,565	409,565	409,565
Travel	4,820	5,620	5,220	5,557	5,620	5,677	5,677	5,791	5,838	5,838	5,838
Subtotal Field & Technical Overhead	**$ 518,385**	**$ 516,271**	**$ 552,137**	**$ 545,616**	**$ 598,732**	**$ 552,715**	**$ 613,412**	**$ 554,018**	**$ 628,456**	**$ 558,794**	**$ 628,456**

Salary and Benefits for Full Time Employees (FTE)

Administrative staff		2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Executive Director	$149,160	1	1	1	1	1	1	1	1	1	1	1
IT- Database / GIS Management	$96,954	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Budget Analyst	$82,038	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Acquisition Specialist	$111,870	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5
Grant Specialist/Conservation Planner	$104,412	1	1	1	1	1	1	1	1	1	1	1
Admin – Secretary	$67,122	1	1	1	1	1	1	1	1	1	1	1
Total FTE		**5.0**	**5.0**	**5.0**	**5.0**	**5.0**	**4.5**	**4.5**	**4.5**	**4.5**	**4.5**	**4.5**
Total annual cost		**$ 522,060**	**$ 522,060**	**$ 522,060**	**$ 522,060**	**$ 522,060**	**$ 466,125**	**$ 466,125**	**$ 466,125**	**$ 466,125**	**$ 466,125**	**$ 466,125**
Field and Technical												
Senior Scientist	$119,328	1	1	1	1	1	1	1	1	1	1	1
Preserve/project manager	$111,870	2	3	3	5	5	5	5	5	5	5	5
Wetland biologist	$96,954	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Technical Staff	$74,580	1	1	1	2	2	2	1	1	1	1	1
Laborer	$59,664	2	3	4	5	6	7	8	9	10	10	10
Total FTE		**7**	**9**	**10**	**14**	**15**	**16**	**16**	**17**	**18**	**18**	**18**
Total annual cost		**$ 633,930**	**$ 805,464**	**$ 865,128**	**$ 1,223,112**	**$ 1,282,776**	**$ 1,342,440**	**$ 1,327,524**	**$ 1,338,711**	**$ 1,398,375**	**$ 1,398,375**	**$ 1,398,375**

Assumption:
FTE salaries incorporate benefits at 32% of base salary

Office Space

		2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Lease space (square feet)	-	3,000	3,000	3,000	3,000	3,000	6,000	6,000	6,000	6,000	6,000	6,000
Total annual cost	$2.54	**$7,628**	**$7,628**	**$7,628**	**$7,628**	**$7,628**	**$15,255**	**$15,255**	**$15,255**	**$15,255**	**$15,255**	**$15,255**

Assumptions:
Covers office space for Administrative and Field and Technical staff. Allocated proportional to FTE.

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Program Administration: Staff & Overhead (on-going)

cost variable	2008 dollars

Office Equipment by Employee

	Cost per FTE	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Total FTEs		**12**	**12**	**15**	**19**	**20**	**21**	**21**	**21**	**22**	**22**	**22**
Office furniture (replace every 10 years)	$4,520	$4,520	$0	$4,520	$0	$4,520	$0	$4,520	$0	$4,520	$0	$4,520
Cubicle furniture (replace every 10 years)	$3,955	$43,505	$0	$55,370	$15,820	$75,145	$3,955	$79,100	$0	$83,055	$0	$83,055
Office supplies (replace every year)	$339	$4,068	$4,068	$5,085	$6,441	$6,780	$7,119	$7,119	$7,119	$7,458	$7,458	$7,458
Computers (replace every 5 years)	$1,695	$20,340	$20,340	$25,425	$32,205	$33,900	$35,595	$35,595	$35,595	$37,290	$37,290	$37,290
Cell phones (replace every 5 years)	$1,017	$12,204	$12,204	$15,255	$19,323	$20,340	$21,357	$21,357	$21,357	$22,374	$22,374	$22,374
Portable radios (replace every 5 years)	$735	$8,814	$8,814	$11,018	$13,956	$14,690	$15,425	$15,425	$15,425	$16,159	$16,159	$16,159
Total annual cost		**$88,931**	**$45,426**	**$116,673**	**$87,745**	**$155,375**	**$83,451**	**$163,116**	**$79,496**	**$170,856**	**$83,281**	**$170,856**

Assumptions:
Covers office equipment for Administrative and Field and Technical staff. Allocate proportional to FTE.

General Office Equipment

	Cost per period
Fax machine (2 per period)	$3,390
Digital cameras (4 per period)	$2,712
Copy machine lease (2 per period)	$8,136
Office telephone system lease (2 per period)	$13,560
Publications	$565
Printers purchased (2 per period)	$4,520
Scanners purchased (2 per period)	$1,017
GIS/CAD database servers and server software	$18,080
Digitizing tablet	$3,390
Plotters	$8,475
GIS/CAD software	$7,345
Database software	$3,108
Equipment cost per period	$74,298
Maintenance for equipment (10% total cost)	$7,430
Total cost per period	**$81,727**

Assumptions:
All equipment will be replaced every 5 years.
Major software upgrades take place every 5 years.
Covers office equipment for both Administrative and Field and Technical staff. Allocate proportional to FTE.

Vehicles

	Vehicles/equipment per period	Vehicle	Fuel	Insurance	Maintenance	**Total Vehicle Cost per period**
		(per period)	(annual cost)			
Administrative	1	$23,540	$4,040	$2,996	$1,070	
Total cost per period-administrative		**$23,540**	**$20,200**	**$14,980**	**$5,350**	**$64,070**
Field and Technical		(per period)	(annual cost)			
Vehicles	3	$70,620	$12,120	$8,988	$3,210	
Utility trucks	2	$59,920	$8,080	$5,992	$2,140	
ATVS	1	$6,420	$2,020	$2,996	$1,070	
Small tractors	1	$14,980	$2,020	$0	$1,070	
Specialty Equipment Rentals		$9,095				
Total cost per period-field and technical		**$161,035**	**$121,200**	**$89,880**	**$37,450**	**$409,565**

Assumptions:
Vehicle cost includes vehicles and utility trucks and fuel, insurance, and maintenance cost per year per vehicle
Cost of 4WD truck includes vehicle, fire pumper, chain saw, sprayer, and small tool set.

$23,540	Vehicles (Administrative)
$23,540	Vehicles (Field & Technical)
$29,960	Utility trucks
$6,420	ATVs
$14,980	Small tractors
$9,095	Specialty Equipment Rentals per period
$0.505	Fuel
8,000	Miles per year-vehicles and utility trucks (40 miles/day at 200 days travel within the 260 working days/year)
4,000	Miles per year - ATVs, dump trucks, tractors, small tractors (20 miles/day at 200 days travel within the 260 working days/year)
5	Rental days per year
$364	Cost per day

Cost of 4WD truck includes vehicle, fire pumper, chain saw, sprayer, and small tool set.

PRELIMINARY DRAFT ESTIMATES
Prepared in August 2008 based on 2006 cost update

Program Administration: Staff & Overhead (on-going)

cost variable	2008 dollars

Travel

	Miles or Days	Cost per Year	
Administrative staff (vehicle/mileage allowance)	2,500	$1,263	
Field and Technical staff (vehicle/mileage allowance)	4,000	$2,020	
Days of overnight travel	30	$4,800	allocate proportional to FTEs
Total annual cost		$8,083	

Assumptions:
Covers Administrative and Field and Technical staff

$0.505	cost per mile
$160	per diem

Legal and Financial Assistance

	Period	1	2	3	4	5	6	7	8	9
	Cost per hour/period	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050
Legal Assistance (hours per year)	$339	200	100	100	100	100	100	100	100	100
Financial Assistance (periodic cost)	$11,300	$11,300	$11,300	$11,300	$22,600	$11,300	$11,300	$11,300	$22,600	$11,300
Total annual cost		$70,060	$36,160	$22,260	$14,520	$12,260	$12,260	$12,260	$14,520	$12,260

Assumptions:
Financial analyst's review will occur once every 4 years (years 4, 8, 12, 16, 20, 24, and 28), so two reviews will occur in Periods 4 and 8.
The financial analysis assistance category covers the periodic assistance of a financial analyst to review the program's cost/revenue balance and ensure that charges are adjusted in line with changing land costs.

Program Insurance

	Cost per year
Directors and officers	$5,650
Liability	$5,650
Professional Liability	$8,475
Total annual cost	$19,775

In-Lieu Funding for Law Enforcement and Fire Fighting

	Cost per acre per year
Total annual cost per acre	$6.44

Assumptions:

Law enforcement per 1000 acres	$3.90
Fire fighting funding per 1000 acres	$2.54

PRELIMINARY DRAFT ESTIMATES
Prepared in 2008 based on 2006 cost update

Land Management Activities (on-going)

cost variable	2008 dollars

Note: For estimating purposes and cost allocation, total cost of Field and Technical staff (see Program Administration) split equally amongst Land Management (33%), Restoration Planning and Implementation (33%), and Monitoring, Research, and Adaptive Management (33%) . Each component allocated to Local Mitigation and Public Conservation based on share of total acres managed in each category.

Assumptions:

Program Oversight

	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Field and Technical Oversight	$384,105	$440,578	$472,422	$589,576	$627,169	$631,718	$646,979	$630,910	$675,610	$652,390	$675,610

Factor to reflect efficiencies and economies of scale over time

This factor applies to all of the on-going management costs that are estimated on an annual or per-acre basis, as specified below,

Reduction in management cost per period	0%	0%	0%	0%	3%	6%	9%	12%	15%	15%	15%

Remedial Measures

Note: Covers costs associated with responses to adaptive management findings as well as costs for restoration or maintenance of preserve areas in response to other changed circumstances, such as wildfire or drought. Rough estimate pending further definition.

Assumptions:

10%	Percentage of annual management costs added to cover remedial measures.

Waterway Maintenance and Protection

	Cost per acre/year
Clearing of debris	$1,130
Pond dredging (only applies to small percentage of waterways)	$2,260
Weighted average annual cost per acre	**$158**
	Cost per year
Spillway repair	$1,446
Weighted average annual cost	**$1,446**

Assumptions:

10%	Percentage of Wetland and Aquatic Ecosystem requiring waterway maintenance and protection
$1,130	Cost per acre per year for clearing debris
2%	Percentage of waterways that are ponds
$2,260	Cost per acre of pond dredging; annual cost if each pond dredged once every 5 years
$3,616	Cost per spillway repair; includes labor, equipment , and materials
0.40	2 spillway repairs required every 5 years, so .4 on annual basis. Note that most spillway repairs would be the result of failure within the first year of construction and would be covered under Restoration Planning & Implementation.

Land Management Activities (on-going) | **cost variable** | **2008 dollars**

Maintenance and Management

Ecosystem Type	**Cost per year**
All Ecosystems	
Roadway maintenance	**$11,300**
Wildlife management	**$1,130**
Weighted average annual cost	**$12,430**

Ecosystem Type	**Cost per acre/year**
Oak Woodland	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$56**
Aquatic and Wetland	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$102**
Valley-Foothill Riparian	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$107**
Valley Grassland / Vernal Pool	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$83**
Non Vernal Pool Valley Grassland	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$83**
Rice	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$107
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$173**
Other Agriculture	
Site maintenance (gates & fencing)	$73
Livestock management	$0
Vegetation management (prescribed burns)	$11
Vegetation management (herbicide application)	$57
Vegetation management (mechanical)	$57
Recreation management	$0
Weighted average annual cost per acre	**$58**

PRELIMINARY DRAFT ESTIMATES
Prepared in 2008 based on 2006 cost update

Land Management Activities (on-going)

cost variable	2008 dollars

Assumptions:
Land management costs overlap slightly with Restoration Planning & Implementation post-construction maintenance costs.
Livestock management will generally generate revenue and land generating a cost for grazing will be grazed with goats. Not all ecosystem types will be grazed.

$565	Roadway maintenance per mile of dirt/paved road
20	Miles maintained per year **(100 per period)**
$1,130	Annual cost for wildlife management (costs of traps, tags, etc.)
60%	Percentage of Oak Woodland under active land management
95%	Percentage of Aquatic and Wetland under active land management
95%	Percentage of Valley Foothill Riparian under active land management
95%	Percentage of Vernal Pool Grassland under active land management
95%	Percentage of Non Vernal Pool Grassland under active land management
95%	Percentage of Rice under active land management
60%	Percentage of Other Agriculture under active land management
$73	Cost per acre for on-going site maintenance (gate repair/replacement and fence repair)
10%	Percentage of total PCCP lands generating a cost for livestock management
$0	Cost/revenue generated from grazing
$11	Annualized cost per acre to burn, assuming burning will take place once every 5 years
$57	Cost per acre per year to apply herbicide
$107	Cost per acre per year to apply herbicide on rice only.
$57	Cost per acre per year for mechanical weed management
$0	Cost per acre per year to manage recreational uses

Fee title acquisitions only. Carried over from acquisition cost assumptions.

Assumptions for vegetation & recreation management by Ecosystem Type

Oak Woodland	
20%	Percentage of management lands will be burned
15%	Percentage of management lands will have herbicide application
15%	Percentage of management lands will have mechanical weed management
5%	Percentage of management lands will have recreational uses
Aquatic and Wetland	
0%	Percentage of management lands will be burned
30%	Percentage of management lands will have herbicide application
30%	Percentage of management lands will have mechanical weed management
5%	Percentage of management lands will have recreational uses
Valley-Foothill Riparian	
0%	Percentage of management lands will be burned
35%	Percentage of management lands will have herbicide application
35%	Percentage of management lands will have mechanical weed management
15%	Percentage of management lands will have recreational uses
Vernal Pool Grassland	
45%	Percentage of management lands will be burned
5%	Percentage of management lands will have herbicide application
10%	Percentage of management lands will have mechanical weed management
0%	Percentage of management lands will have recreational uses
Non Vernal Pool Grassland	
45%	Percentage of management lands will be burned
5%	Percentage of management lands will have herbicide application
10%	Percentage of management lands will have mechanical weed management
0%	Percentage of management lands will have recreational uses
Rice	
15%	Percentage of management lands will be burned
100%	Percentage of management lands will have herbicide application
0%	Percentage of management lands will have mechanical weed management
5%	Percentage of management lands will have recreational uses
Other Agriculture	
5%	Percentage of management lands will be burned
20%	Percentage of management lands will have herbicide application
20%	Percentage of management lands will have mechanical weed management
5%	Percentage of management lands will have recreational uses

Monitoring, Research, and Adaptive Management (on-going)

cost variable	2008 dollars

Note: For estimating purposes and cost allocation, total cost of Field and Technical staff (see Program Administration) split equally amongst Land Management (33%), Restoration Planning and Implementation (33%), and Monitoring, Research, and Adaptive Management (33%) . Each component allocated to Local Mitigation and Public Conservation based on share of total acres managed in each category.

Assumptions:

Program Oversight

	2007-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040	2040-2045	2045-2050	2050-2055	2055-2060
Field and Technical Oversight	$384,105	$440,578	$472,422	$589,576	$627,169	$631,718	$646,979	$630,910	$675,610	$652,390	$675,610

Monitoring cost represents cost of contractors hired to conduct monitoring

Directed research and adaptive management allocated to Mitigation and Public Conservation based on share of total acres managed in each category.

Monitoring contractors

Ecosystem Type	Annualized Cost per acre
Oak Woodland	
Performance monitoring on restored land	$2
Validation monitoring	$11
Status and trends monitoring	$4
Total annualized cost per acre	**$17**
Aquatic and Wetland	
Performance monitoring on restored land	$2
Validation monitoring	$21
Status and trends monitoring	$16
Total annualized cost per acre	**$39**
Aquatic and Wetland (Marsh) from Rice	
Performance monitoring on restored land	$2
Validation monitoring	$21
Status and trends monitoring	$16
Total annualized cost per acre	**$39**
Valley-Foothill Riparian	
Performance monitoring on restored land	$2
Validation monitoring	$11
Status and trends monitoring	$4
Total annualized cost per acre	**$17**
Valley Grassland/Vernal Pool	
Performance monitoring on restored land	$2
Validation monitoring	$11
Status and trends monitoring	$6
Total annualized cost per acre	**$19**
Valley Grassland/Vernal Pool from Rice	
Performance monitoring on restored land	$2
Validation monitoring	$11
Status and trends monitoring	$6
Total annualized cost per acre	**$19**
Non Vernal Pool Grassland	
Performance monitoring on restored land	$2
Validation monitoring	$21
Status and trends monitoring	$16
Total annualized cost per acre	**$39**
Rice	
Performance monitoring on restored land	$2
Validation monitoring	$21
Status and trends monitoring	$16
Total annualized cost per acre	**$39**
Other Agriculture	
Performance monitoring on restored land	$2
Validation monitoring	$21
Status and trends monitoring	$16
Total annualized cost per acre	**$39**

Monitoring, Research, and Adaptive Management (on-going)

cost variable	2008 dollars

Assumptions:
Performance monitoring is on lands restored/created. Validation and status and trends monitoring is on all reserve lands.
Compliance monitoring, included in the PCCP, will be conducted by Placer County staff and is included in Staff & Overhead

1	Years of monitoring per period (monitoring will occur once every five years)
5	Years in monitoring period
$107	Biologist rate per hour
	Hours per acre
0.10	Performance monitoring hours (10 hrs/day) per year-all habitat types
0.50	Validation monitoring hours (10 hrs/day) per year-oak woodland, valley-foothill riparian, valley grassland/vernal pool, and valley grassland/vernal pool-rice
1.00	Validation monitoring hours (10 hrs/day) per year-aquatic and wetland, aquatic and wetland-rice, non vernal pool grassland, rice, and agriculture
0.20	Status and trends monitoring hours (10 hrs/day) per year-oak woodland and valley-foothill riparian
0.30	Status and trends monitoring hours (10 hrs/day) per year-valley grassland/vernal pool and valley grassland/vernal pool-rice
0.75	Status and trends monitoring hours (10 hrs/day) per year-aquatic and wetland, aquatic and wetland-rice, non vernal pool grassland, rice, and agriculture
	Hours per 200 acres
200	Average assumed parcel size
20	Performance monitoring hours (10 hrs/day) per year-all habitat types
100	Validation monitoring hours (10 hrs/day) per year-oak woodland, valley-foothill riparian, valley grassland/vernal pool, and valley grassland/vernal pool-rice
200	Validation monitoring hours (10 hrs/day) per year-aquatic and wetland, aquatic and wetland-rice, non vernal pool grassland, rice, and agriculture
40	Status and trends monitoring hours (10 hrs/day) per year-oak woodland and valley-foothill riparian
60	Status and trends monitoring hours (10 hrs/day) per year-valley grassland/vernal pool and valley grassland/vernal pool-rice
150	Status and trends monitoring hours (10 hrs/day) per year-aquatic and wetland, aquatic and wetland-rice, non vernal pool grassland, rice, and agriculture

Directed Research

Average annual cost to fund directed research	**$56,500**

Assumptions:

$56,500	Cost per year

Adaptive Management

Average annual cost for Technical Advisory Group	**$28,250**

Assumptions:

10	Number of members
$2,825	Stipend per member per year