

## MEMORANDUM

---

To: John Roberts, *Natomas Basin Conservancy*

From: Georgette Lorenzen and Allison Shaffer

Subject: NBHCP Fee Update -- 2002; EPS #12461

Date: April 25, 2002

---

EPS has updated the cash flow model used to estimate the Natomas Basin Habitat Conservation Plan (NBHCP) mitigation fee (the "fee") based on a number of factors that are detailed in this correspondence. The fee is composed of two components – the Base Fee and the Settlement Land Acquisition Premium (the "Settlement Premium"). The proposed 2002 fee maintains the Settlement Premium adopted in 2001, which is due to stay in effect until October of 2002. This memorandum details the updated assumptions used to derive Base Fee amount.

Figure 1 summarizes the cost per acre of habitat and the mitigation fee for both the Base Fee and the Settlement Premium. The proposed fee level continues to assume the current HCP mitigation requirement of one half acre of mitigation land for each gross acre of developed land. Therefore, the fee shown reflects 50 percent of the cost per acre of habitat mitigation as shown in Figure 1.

The Base Fee is comprised of fee components for five funds as follows:

- Land Acquisition (LA)
- Restoration & Enhancement (RE)
- Administration/Operation & Maintenance (Admin/O&M)
- O&M Endowment
- Supplemental Endowment (for Land Acquisition)

The updated Base Fee amount was estimated based on a revised cash flow analysis prepared by EPS for each of the funds listed below. The updated assumptions are as follows:

**SACRAMENTO**

1750 Creekside Oaks Drive, Suite 290  
Sacramento, CA 95833-3647  
www.eppsys.com

phone: 916-649-8010  
fax: 916-649-2070

**BERKELEY**

phone: 510-841-9190  
fax: 510-841-9208

**DENVER**

phone: 303-623-3557  
fax: 303-623-9049

1. **Fund Balance Adjustments:** The cash flows for each fund were updated such that the beginning balances in 2002 match actual fund balances of the NBHCP as of December 31, 2001.
2. **Land Acquisition Costs:** Land costs were increased from \$4,750 per acre to \$6,000 per acre (or \$11,000 per acre to \$12,250 per acre including the Settlement Premium). The increase in costs reflects increasing price pressure in the Natomas Basin for habitat preservation as witnessed by the Natomas Basin Conservancy (NBC).
3. **Restoration & Enhancement Costs:** In 2001 the NBC completed the first conversion of acquired acres into managed marsh (Betts/Kismat/Silva property totaling 192.5 acres). The cost to convert the acres was approximately \$1,000,000, or \$5,200 per acre. The estimated cost assumed in the 2001 update was \$2,482 per acre. Therefore, actual costs were nearly double estimated costs.

According to the NBC, estimated future costs of restoration and enhancement will be reduced somewhat from the Betts/Kismat/Silva property conversion costs. The 2002 cash flow analysis assumes a cost per acre of approximately \$5,000 per acre. In addition a contingency amount of 12% or \$164 per acre was added to the cost to cover the shortfall in revenues due to the difference in actual costs vs. budgeted costs and provide some cushion against future cost increases. As a result the total cost per acre for Restoration & Enhancement increased from \$736 per acre to \$1,565 per acre (actual cost weighted by 25% allocation of managed marsh to total acres).

In addition, the cost estimate (on a per acre basis) for completing site specific management plans for acquired mitigation land was increased from \$116 per acre to \$127 per acre. The cost increase reflects the most current cost estimate for the next site specific management plan to be completed by the NBC.

4. **Revised Administrative/O&M Cost Estimates:** Administrative costs were revised based on the current budget estimates of the NBC. Projected expenditures for property taxes were also increased. Assessed values of acquired mitigation land have increased resulting in an average value of \$5,100 per acre as compared to \$2,400 per acre assumed in 2001. Therefore the cost per acre for property taxes increased from \$24 per acre to \$51 per acre in Sutter County and \$25.60 to \$54.42 in Sacramento County.
5. **Hunting Revenues:** Projected hunting revenues are based on two primary assumptions as follows:
  - Net income will be \$12 per hunting acre
  - The percentage of mitigation land used for hunting increases from 30% in 2003 to 50% in 2009, and is maintained at 50% thereafter.

The second assumption reflects a change from the prior analysis. In 2001 it was assumed that the percentage of mitigation land used for hunting would increase from 30% in 2002 to 60% in 2010, and was maintained at 60% thereafter. The reduction in

acres hunted in the 2002 Update results in less hunting revenue generated. As a result, the Admin/O&M fee component was increased.

### CASH FLOW ANALYSIS

The cash flows for each fund are summarized in **Figure 2**. The assumption tables for the cash flow analysis are presented in **Figure 3** through **Figure 5**

### SUPPLEMENTAL ENDOWMENT FUND

The Supplemental Endowment fund was created in 2001 to provide additional revenue to allow the NBC to either purchase mitigation land in advance of requirements (such as establishing a 200 reserve land surplus) or to provide a cushion for land acquisition in the case that land prices spike in any given year before the fee can be adjusted accordingly. The fee revenues generated from the supplemental endowment fund are approximately \$160,000 annually through 2015. To the extent the supplemental endowment is not drawn down, interest earnings will accrue. **Figure 2** shows what the ending balance would be in the case the Supplemental Endowment fund is never drawn down. Once all land acquisition is completed, if a positive fund balance remains in the Supplemental Endowment, these monies could be transferred to the Admin/O&M fund for operations or the O&M Endowment fund at the discretion of the NBC Board of Directors.

**Figure 1**  
**Natomas Basin HCP**  
**Estimation of Mitigation Fee**

**Assumes:**  
 17,500 acres of development  
 1/2 acre of mitigation land per gross acre of developed land  
 25% marsh

<i>Estimation of Mitigation Fee</i>					Notes:
<b>Mitigation Requirement</b>	<b>1/2 Acre of Mitigation Land for Each Gross Acre of Developed Land</b>				
<b>Habitat Mitigation Fee</b>	<u>Cost per Acre of Habitat</u>	<u>Mitigation Fee per Acre of Development</u>	<u>Percent of Base Fee</u>	<u>Percent of Total Fee</u>	
	<i>a</i>	<i>b=a x .5</i>	<i>(w/ Settlement Premium)</i>		
<b>BASE FEE</b>					
<b>Land Acquisition Cost (LA)</b>					
Land Cost	\$6,000 [1]	\$3,000			
Transaction Costs & Contingency	\$1,500 [1]	\$750			
<b>Total Land Acquisition Cost (LA)</b>	<b>\$7,500</b>	<b>\$3,750</b>	47%	31%	
<b>Restoration/Enhancement (RE)</b>					
RE Cost	\$1,401	\$700			
RE Contingency	\$164	\$82			
<b>Total Restoration/Enhancement (RE)</b>	<b>\$1,565</b>	<b>\$782</b>	10%	7%	
Administration/O & M	\$3,110 [2]	\$1,555	20%	13%	
O & M Endowment Fund	\$3,000 [2]	\$1,500	19%	13%	
Supplemental Endowment Fund	\$375	\$188	2%	2%	5% of land acquisition fee
<b>Subtotal Mitigation Fee</b>	<b>\$15,550</b>	<b>\$7,775</b>			
<b>Fee Collection Administration</b>		\$159	2%	1%	2% of fee for collection
<b>Total Base Fee</b>		<b>\$7,934</b>	<b>100%</b>	<b>66%</b>	
<hr/>					
<b>SETTLEMENT PREMIUM</b> (based on 2001 assumptions)					
Land Acquisition Cost (LA)					
Land Cost	\$6,250	\$3,125			
Transaction Costs & Contingency	1,645	\$822			
<b>Total Land Acquisition Cost (LA)</b>	<b>7,895</b>	<b>\$3,947</b>		33%	
Fee Collection Administration		\$81		1%	2% of fee for collection
<b>Total Settlement Premium</b>		<b>\$4,028</b>		<b>34%</b>	
<b>TOTAL FEE</b>		<b>\$11,962</b>		<b>100%</b>	

"assumptions3"

- [1] Based on information provided by the Natomas Basin Conservancy  
 [2] Administration/O&M and Endowment Fund costs set based on cash flow analysis, ensuring that fund balances are positive in year 50 and that annual interest earnings in endowment fund exceed drawdown by Admin/O&M fund.

**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

<b>Assumes:</b>	0.0% Inflation
	3.0% Interest Rate

	Total 1996-2045	1 1996	2 1997	3 1998	4 1999	5 2000	6 2001	7 2002	8 2003
<b>LAND ACQUISITION</b>		[1]	[1]	[1]	[2]				
<b>Beginning Balance</b>		\$0	\$55,641	\$248,442	\$2,777,379	\$587,176	\$563,113	\$2,225,278	\$3,998,244
Total Revenues	\$64,875,701	\$55,641	\$192,801	\$2,528,936	\$2,734,795	\$1,287,471	\$3,198,070	\$3,928,346	\$6,602,502
Total Expenditures	(\$54,888,436)	\$0	\$0	\$0	(\$4,924,998)	(\$1,642,100)	(\$1,535,905)	(\$3,491,041)	(\$6,596,587)
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,335,661	(\$1,335,661)
Balance Adjustments	\$330,566	\$0	\$0	\$0	\$0	\$330,566	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$10,317,832</b>	<b>\$55,641</b>	<b>\$248,442</b>	<b>\$2,777,379</b>	<b>\$587,176</b>	<b>\$563,113</b>	<b>\$2,225,278</b>	<b>\$3,998,244</b>	<b>\$2,668,497</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>									
<b>Beginning Balance</b>		\$0	\$4,257	\$19,032	\$292,743	\$589,200	\$582,058	\$268,280	\$330,451
Total Revenues	\$12,308,413	\$4,257	\$14,775	\$273,711	\$296,457	\$145,324	\$746,644	\$396,759	\$1,365,844
Total Expenditures	(\$12,144,663)	\$0	\$0	\$0	\$0	\$0	(\$1,060,422)	(\$334,587)	(\$517,586)
Balance Adjustments	(\$152,466)	\$0	\$0	\$0	\$0	(\$152,466)	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$11,284</b>	<b>\$4,257</b>	<b>\$19,032</b>	<b>\$292,743</b>	<b>\$589,200</b>	<b>\$582,058</b>	<b>\$268,280</b>	<b>\$330,451</b>	<b>\$1,178,709</b>
<b>ADMINISTRATION/O&amp;M</b>									
<b>Beginning Balance</b>		\$0	\$4,561	\$70,261	\$621,109	\$1,167,750	\$1,549,539	\$1,154,659	(\$111,024)
Total Revenues	\$57,086,691	\$4,561	\$65,700	\$657,778	\$878,604	\$686,626	\$816,275	\$956,100	\$2,951,730
Drawdown on Endowment Fund	\$16,318,765	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	(\$73,048,066)	\$0	\$0	(\$106,930)	(\$331,964)	(\$547,446)	(\$611,155)	(\$886,122)	(\$1,001,443)
Balance Adjustments (Inc. Transfers)	(\$357,391)	\$0	\$0	\$0	\$0	\$242,609	(\$600,000)	(\$1,335,661)	\$1,335,661
<b>Ending Balance</b>	<b>\$0</b>	<b>\$4,561</b>	<b>\$70,261</b>	<b>\$621,109</b>	<b>\$1,167,750</b>	<b>\$1,549,539</b>	<b>\$1,154,659</b>	<b>(\$111,024)</b>	<b>\$3,174,923</b>
<b>O&amp;M ENDOWMENT</b>									
<b>Beginning Balance</b>		\$0	\$3,041	\$13,622	\$152,066	\$323,846	\$463,981	\$1,003,066	\$1,788,158
Total Revenues	\$61,554,999	\$3,041	\$10,581	\$138,445	\$157,704	\$140,135	\$539,085	\$785,092	\$2,664,606
Drawdown on Endowment Fund	(\$16,318,765)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$14,076	\$0	\$0	\$0	\$14,076	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$45,250,310</b>	<b>\$3,041</b>	<b>\$13,622</b>	<b>\$152,066</b>	<b>\$323,846</b>	<b>\$463,981</b>	<b>\$1,003,066</b>	<b>\$1,788,158</b>	<b>\$4,452,764</b>
<b>SUPPLEMENTAL ENDOWMENT</b>									
<b>Beginning Balance</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$73,498	\$169,453
Total Revenues	\$7,888,598	\$0	\$0	\$0	\$0	\$0	\$73,498	\$95,955	\$330,804
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$7,888,598</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$73,498</b>	<b>\$169,453</b>	<b>\$500,257</b>

**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

	9 2004	10 2005	11 2006	12 2007	13 2008	14 2009	15 2010	16 2011	17 2012
<b>LAND ACQUISITION</b>									
<b>Beginning Balance</b>	\$2,668,497	\$3,674,828	\$4,261,960	\$4,809,041	\$5,364,328	\$5,927,945	\$6,500,015	\$7,080,667	\$7,670,029
Total Revenues	\$6,652,147	\$3,410,040	\$3,369,989	\$3,378,195	\$3,386,525	\$3,394,979	\$3,403,560	\$3,412,270	\$3,421,110
Total Expenditures	(\$5,645,816)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$3,674,828</b>	<b>\$4,261,960</b>	<b>\$4,809,041</b>	<b>\$5,364,328</b>	<b>\$5,927,945</b>	<b>\$6,500,015</b>	<b>\$7,080,667</b>	<b>\$7,670,029</b>	<b>\$8,268,231</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>									
<b>Beginning Balance</b>	\$1,178,709	\$1,838,887	\$1,000,201	\$330,218	\$408,268	\$487,957	\$569,320	\$652,391	\$737,207
Total Revenues	\$1,383,657	\$718,069	\$700,456	\$686,387	\$688,026	\$689,699	\$691,408	\$693,152	\$694,934
Total Expenditures	(\$723,479)	(\$1,556,755)	(\$1,370,440)	(\$608,337)	(\$608,337)	(\$608,337)	(\$608,337)	(\$608,337)	(\$608,337)
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$1,838,887</b>	<b>\$1,000,201</b>	<b>\$330,218</b>	<b>\$408,268</b>	<b>\$487,957</b>	<b>\$569,320</b>	<b>\$652,391</b>	<b>\$737,207</b>	<b>\$823,804</b>
<b>ADMINISTRATION/O&amp;M</b>									
<b>Beginning Balance</b>	\$3,174,923	\$5,258,877	\$5,971,849	\$6,622,939	\$7,272,693	\$7,924,093	\$8,578,761	\$9,234,419	\$9,883,703
Total Revenues	\$3,131,104	\$1,867,931	\$1,902,327	\$1,956,666	\$2,012,938	\$2,069,781	\$2,123,296	\$2,176,840	\$2,230,194
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	(\$1,047,150)	(\$1,154,959)	(\$1,251,236)	(\$1,306,912)	(\$1,361,538)	(\$1,415,113)	(\$1,467,638)	(\$1,527,556)	(\$1,587,475)
Balance Adjustments (Inc. Transfers)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$5,258,877</b>	<b>\$5,971,849</b>	<b>\$6,622,939</b>	<b>\$7,272,693</b>	<b>\$7,924,093</b>	<b>\$8,578,761</b>	<b>\$9,234,419</b>	<b>\$9,883,703</b>	<b>\$10,526,422</b>
<b>O&amp;M ENDOWMENT</b>									
<b>Beginning Balance</b>	\$4,452,764	\$7,197,516	\$8,721,947	\$10,292,335	\$11,910,069	\$13,576,578	\$15,293,336	\$17,061,859	\$18,883,712
Total Revenues	\$2,744,752	\$1,524,430	\$1,570,388	\$1,617,734	\$1,666,509	\$1,716,758	\$1,768,524	\$1,821,853	\$1,876,793
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$7,197,516</b>	<b>\$8,721,947</b>	<b>\$10,292,335</b>	<b>\$11,910,069</b>	<b>\$13,576,578</b>	<b>\$15,293,336</b>	<b>\$17,061,859</b>	<b>\$18,883,712</b>	<b>\$20,760,506</b>
<b>SUPPLEMENTAL ENDOWMENT</b>									
<b>Beginning Balance</b>	\$500,257	\$840,985	\$1,029,074	\$1,222,807	\$1,422,351	\$1,627,881	\$1,839,578	\$2,057,625	\$2,282,214
Total Revenues	\$340,728	\$188,090	\$193,732	\$199,544	\$205,531	\$211,697	\$218,047	\$224,589	\$231,327
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$840,985</b>	<b>\$1,029,074</b>	<b>\$1,222,807</b>	<b>\$1,422,351</b>	<b>\$1,627,881</b>	<b>\$1,839,578</b>	<b>\$2,057,625</b>	<b>\$2,282,214</b>	<b>\$2,513,541</b>

**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

	18 2013	19 2014	20 2015	21 2016	22 2017	23 2018	24 2019	25 2020
<b>LAND ACQUISITION</b>								
<b>Beginning Balance</b>	\$8,268,231	\$8,875,406	\$9,491,688	\$10,117,215	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832
Total Revenues	\$3,430,083	\$3,439,191	\$3,448,435	\$200,616	\$0	\$0	\$0	\$0
Total Expenditures	(\$2,822,908)	(\$2,822,908)	(\$2,822,908)	\$0	\$0	\$0	\$0	\$0
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$8,875,406</b>	<b>\$9,491,688</b>	<b>\$10,117,215</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>								
<b>Beginning Balance</b>	\$823,804	\$912,219	\$1,002,491	\$1,094,659	\$564,466	\$11,284	\$11,284	\$11,284
Total Revenues	\$696,752	\$698,609	\$700,505	\$22,988	\$0	\$0	\$0	\$0
Total Expenditures	(\$608,337)	(\$608,337)	(\$608,337)	(\$553,181)	(\$553,181)	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$912,219</b>	<b>\$1,002,491</b>	<b>\$1,094,659</b>	<b>\$564,466</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>
<b>ADMINISTRATION/O&amp;M</b>								
<b>Beginning Balance</b>	\$10,526,422	\$11,162,378	\$11,791,369	\$12,411,461	\$11,751,733	\$11,041,704	\$10,310,374	\$9,557,105
Total Revenues	\$2,283,350	\$2,336,304	\$2,386,894	\$1,054,844	\$1,035,052	\$1,013,751	\$991,811	\$969,213
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	(\$1,647,394)	(\$1,707,313)	(\$1,766,802)	(\$1,714,572)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)
Balance Adjustments (Inc. Transfers)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$11,162,378</b>	<b>\$11,791,369</b>	<b>\$12,411,461</b>	<b>\$11,751,733</b>	<b>\$11,041,704</b>	<b>\$10,310,374</b>	<b>\$9,557,105</b>	<b>\$8,781,237</b>
<b>O&amp;M ENDOWMENT</b>								
<b>Beginning Balance</b>	\$20,760,506	\$22,693,899	\$24,685,601	\$26,737,375	\$27,548,155	\$28,383,604	\$29,244,477	\$30,131,551
Total Revenues	\$1,933,393	\$1,991,703	\$2,051,774	\$810,780	\$835,449	\$860,873	\$887,074	\$914,076
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$22,693,899</b>	<b>\$24,685,601</b>	<b>\$26,737,375</b>	<b>\$27,548,155</b>	<b>\$28,383,604</b>	<b>\$29,244,477</b>	<b>\$30,131,551</b>	<b>\$31,045,627</b>
<b>SUPPLEMENTAL ENDOWMENT</b>								
<b>Beginning Balance</b>	\$2,513,541	\$2,751,807	\$2,997,221	\$3,249,998	\$3,347,498	\$3,447,923	\$3,551,361	\$3,657,901
Total Revenues	\$238,266	\$245,414	\$252,777	\$97,500	\$100,425	\$103,438	\$106,541	\$109,737
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$2,751,807</b>	<b>\$2,997,221</b>	<b>\$3,249,998</b>	<b>\$3,347,498</b>	<b>\$3,447,923</b>	<b>\$3,551,361</b>	<b>\$3,657,901</b>	<b>\$3,767,639</b>

**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

	26 2021	27 2022	28 2023	29 2024	30 2025	31 2026	32 2027	33 2028	34 2029
<b>LAND ACQUISITION</b>									
<b>Beginning Balance</b>	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>									
<b>Beginning Balance</b>	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>
<b>ADMINISTRATION/O&amp;M</b>									
<b>Beginning Balance</b>	\$8,781,237	\$7,982,093	\$7,158,975	\$6,311,163	\$5,437,917	\$4,538,474	\$3,612,047	\$2,657,828	\$1,674,982
Total Revenues	\$945,937	\$921,963	\$897,269	\$871,835	\$845,638	\$818,654	\$790,861	\$762,235	\$732,749
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)
Balance Adjustments (Inc. Transfers)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$7,982,093</b>	<b>\$7,158,975</b>	<b>\$6,311,163</b>	<b>\$5,437,917</b>	<b>\$4,538,474</b>	<b>\$3,612,047</b>	<b>\$2,657,828</b>	<b>\$1,674,982</b>	<b>\$662,650</b>
<b>O&amp;M ENDOWMENT</b>									
<b>Beginning Balance</b>	\$31,045,627	\$31,987,530	\$32,958,111	\$33,958,249	\$34,988,846	\$36,050,835	\$37,145,176	\$38,272,861	\$39,434,909
Total Revenues	\$941,903	\$970,582	\$1,000,137	\$1,030,597	\$1,061,989	\$1,094,342	\$1,127,684	\$1,162,048	\$1,197,464
Drawdown on Endowment Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$31,987,530</b>	<b>\$32,958,111</b>	<b>\$33,958,249</b>	<b>\$34,988,846</b>	<b>\$36,050,835</b>	<b>\$37,145,176</b>	<b>\$38,272,861</b>	<b>\$39,434,909</b>	<b>\$40,632,373</b>
<b>SUPPLEMENTAL ENDOWMENT</b>									
<b>Beginning Balance</b>	\$3,767,639	\$3,880,668	\$3,997,088	\$4,117,000	\$4,240,510	\$4,367,726	\$4,498,757	\$4,633,720	\$4,772,732
Total Revenues	\$113,029	\$116,420	\$119,913	\$123,510	\$127,215	\$131,032	\$134,963	\$139,012	\$143,182
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$3,880,668</b>	<b>\$3,997,088</b>	<b>\$4,117,000</b>	<b>\$4,240,510</b>	<b>\$4,367,726</b>	<b>\$4,498,757</b>	<b>\$4,633,720</b>	<b>\$4,772,732</b>	<b>\$4,915,914</b>

8



**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

	35 2030	36 2031	37 2032	38 2033	39 2034	40 2035	41 2036	42 2037	43 2038
<b>LAND ACQUISITION</b>									
<b>Beginning Balance</b>	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>									
<b>Beginning Balance</b>	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>
<b>ADMINISTRATION/O&amp;M</b>									
<b>Beginning Balance</b>	\$662,650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenues	\$702,380	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500
Drawdown on Endowment Fund	\$380,051	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581
Total Expenditures	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)
Balance Adjustments (Inc. Transfers)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>O&amp;M ENDOWMENT</b>									
<b>Beginning Balance</b>	\$40,632,373	\$41,486,286	\$41,683,887	\$41,888,040	\$42,098,966	\$42,316,894	\$42,542,062	\$42,774,715	\$43,015,105
Total Revenues	\$1,233,965	\$1,260,182	\$1,266,734	\$1,273,507	\$1,280,509	\$1,287,749	\$1,295,233	\$1,302,972	\$1,310,973
Drawdown on Endowment Fund	(\$380,051)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$41,486,286</b>	<b>\$41,683,887</b>	<b>\$41,888,040</b>	<b>\$42,098,966</b>	<b>\$42,316,894</b>	<b>\$42,542,062</b>	<b>\$42,774,715</b>	<b>\$43,015,105</b>	<b>\$43,263,497</b>
<b>SUPPLEMENTAL ENDOWMENT</b>									
<b>Beginning Balance</b>	\$4,915,914	\$5,063,391	\$5,215,293	\$5,371,752	\$5,532,904	\$5,698,891	\$5,869,858	\$6,045,954	\$6,227,332
Total Revenues	\$147,477	\$151,902	\$156,459	\$161,153	\$165,987	\$170,967	\$176,096	\$181,379	\$186,820
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$5,063,391</b>	<b>\$5,215,293</b>	<b>\$5,371,752</b>	<b>\$5,532,904</b>	<b>\$5,698,891</b>	<b>\$5,869,858</b>	<b>\$6,045,954</b>	<b>\$6,227,332</b>	<b>\$6,414,152</b>

**Figure 2**  
**Natomas Basin HCP**  
**Cash Flow Summary- 2002\$**

	44 2039	45 2040	46 2041	47 2042	48 2043	49 2044	50 2045
<b>LAND ACQUISITION</b>							
<b>Beginning Balance</b>	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832	\$10,317,832
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from Admin/O&M Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>	<b>\$10,317,832</b>
<b>RESTORATION &amp; ENHANCEMENTS</b>							
<b>Beginning Balance</b>	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284	\$11,284
Total Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>	<b>\$11,284</b>
<b>ADMINISTRATION/O&amp;M</b>							
<b>Beginning Balance</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenues	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500	\$682,500
Drawdown on Endowment Fund	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581	\$1,062,581
Total Expenditures	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)	(\$1,745,081)
Balance Adjustments (Inc. Transfers)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>O&amp;M ENDOWMENT</b>							
<b>Beginning Balance</b>	\$43,263,497	\$43,520,162	\$43,785,380	\$44,059,442	\$44,342,650	\$44,635,313	\$44,937,756
Total Revenues	\$1,319,245	\$1,327,799	\$1,336,643	\$1,345,788	\$1,355,245	\$1,365,023	\$1,375,135
Drawdown on Endowment Fund	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)	(\$1,062,581)
Balance Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$43,520,162</b>	<b>\$43,785,380</b>	<b>\$44,059,442</b>	<b>\$44,342,650</b>	<b>\$44,635,313</b>	<b>\$44,937,756</b>	<b>\$45,250,310</b>
<b>SUPPLEMENTAL ENDOWMENT</b>							
<b>Beginning Balance</b>	\$6,414,152	\$6,606,577	\$6,804,774	\$7,008,918	\$7,219,185	\$7,435,761	\$7,658,833
Total Revenues	\$192,425	\$198,197	\$204,143	\$210,268	\$216,576	\$223,073	\$229,765
Drawdown	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Ending Balance</b>	<b>\$6,606,577</b>	<b>\$6,804,774</b>	<b>\$7,008,918</b>	<b>\$7,219,185</b>	<b>\$7,435,761</b>	<b>\$7,658,833</b>	<b>\$7,888,598</b>

cash flow

10

**Figure 3**  
**Natomas Basin HCP**  
**Land Acquisition and Restoration/Enhancements Cost**  
**and Acquired Habitat Land Utilization Assumptions**

<b>Assumes:</b> 17,500 acres of development 1/2 acre of mitigation land per gross acre of developed land 25% marsh
---

<b>Part A - Assumptions</b>				Notes:
<b>Inflation</b>	<b>0.0%</b>			
<b>Interest Rate</b>	<b>3.0%</b>			
<b>Land Acquisition Values per Acre</b>	<u>Land Value</u>	<u>Permitted by Plan</u>	<u>Assumed in Financial Analysis</u>	
In-Basin Lands	\$6,000	80%	100%	Estimated \$4,000-\$9,000 per acre range Estimated \$3,100-\$3,500 per acre range per Recent Experience of NBHCP
Out-of-Basin Lands	\$3,250	20%	0%	
<b>Average Land Value (1)</b>	<b>\$6,000</b>	Use In-Basin Land Value		
Plus Transaction Costs & Contingency	\$1,500	per Acre		
<b>Average Land Acquisition Cost</b>	<b>\$7,500 per acquired acre</b>			Beginning 1/1/01
<b>2002 Habitat Acres</b>				
Average Land Value	\$9,500	per acquired acre		
Plus Transaction Costs & Contingency	\$1,500	per acquired acre		
<b>Average Land Acquisition Cost</b>	<b>\$11,000 per acquired acre</b>			
<b>Estimated Use of In-Basin Lands</b>				
Marsh	25%			
Existing Rice	50%			
Other/Upland	25%			
<b>Total Initial Use</b>	<b>100%</b>			
Rice Converted to Marsh	After year 5, 324 acres in marsh 25% thereafter			
<b>Rice Lands (excluding land converted to marsh) (7)</b>				
Uplands/Fallow	10%			
Leased for Other Crops	0%			
Leased Rice Base Land	90%			
<b>Total Rice Lands</b>	<b>100%</b>			
<b>Initial Restoration/Enhancement</b>	<u>Use of Land</u>	<u>Initial Costs</u>	<u>Weighted Cost (6)</u>	
<b>Expended At Time Land Is Acquired</b>				
Marsh (2)	0%	\$0	\$0	Note (3)
Existing Rice	75%	\$0	\$0	Note (3)
Dry Converted to Rice	0%	\$0	\$0	Note (3)
Other Upland	25%	\$0	\$0	Note (3)
<b>Subtotal</b>	<b>100%</b>	<b>\$0</b>		
<b>Expended At Time Land Is Converted</b>				
Rice/Other Converted to Marsh	25%	\$5,095	\$1,274	Note (4)
Site Specific Plan Costs			\$127 per acre	Note (5)
<b>Average Cost per Habitat Acre</b>	<b>\$1,401</b>			Weighted average cost per acre

"assumptions1"

Source: Natomas Basin Conservancy

- (1) Assumes all acquisition occurs at the average in-basin land value.
- (2) Initial use of marsh land estimated at 0% because NBHCP estimates that little to no marshland is available for acquisition. However, rice land will be converted to marsh land.
- (3) The initial costs of marsh, existing rice, dry land converted to rice and other upland have been set to zero as no initial restoration or enhancement costs are anticipated.
- (4) The current estimate of \$5,095 per acre is based on the estimate of \$1,235,000 spent to convert 242.4 acres to marsh through 2002.
- (5) The site specific plan cost per acre is estimated as the cost of the site specific plans prepared through 2001 divided by the total acres of all properties except Ayala, which is not yet in the plan (\$224,571 / 1,772 acres).
- (6) The cost of restoration and enhancement is weighted by the percent of acres assumed to be converted or used for that particular land use.
- (7) Rice Lands percents included for cost and revenue calculation purposes only.

**Figure 4**  
**Natomas Basin HCP**  
**Operations & Maintenance Assumptions**

**Assumes:**  
 17,500 acres of development  
 1/2 acre of mitigation land per gross acre of developed land  
 25% marsh

<b>Part A - Assumptions Con't</b>		Notes:
<b>Operations &amp; Maintenance Costs</b>		
Marsh	\$281.00 per acre	Updated Cost -- May 2001 Based on Wildlands, Inc. Estimates Based on Wildlands, Inc. Estimates alfalfa, safflower, etc.
Upland/Fallow	\$18.25 per acre	
Land Leased for Planted Rice Base	\$2.96 per acre	
Land Leased for Other Crops	\$2.96 per acre	
Other	\$0.00 per acre	
Hunting	\$0.00 per acre	
Misc./Monitoring/Adaptive Mgmt.	\$27.35 per acre	Updated Cost -- May 2001 Based on Wildlands, Inc. Estimates
<b>Special Assessment &amp; Property Tax Costs</b>		
<u>Sacramento County</u>		
Reclamation District #1000	\$13.08 per acre	Based on published tariffs and rates Based on published tariffs and rates Based on published tariffs and rates Based on published tariffs and rates
NCMWA	\$0.42 per acre	
SAFCA O&M Assessment #1	\$5.69 per acre	
CSAI Safety Lights	\$0.08 per acre	
Property Tax [1]	\$54.42 per acre	Based on average assessed value of all properties acquired through Feb. 2002 -- \$5,100 per acre
<b>Subtotal Sacramento County</b>	<b>\$73.68 per acre</b>	
<u>Sutter County</u>		
Reclamation District #1000	\$13.08 per acre	Based on published tariffs and rates Based on published tariffs and rates
NCMWC	\$0.42 per acre	
Property Tax	\$51.00 per acre	Based on average assessed value of all properties acquired through Feb. 2002 -- \$5,100 per acre
<b>Subtotal Sutter County</b>	<b>\$64.50 per acre</b>	
<b>Administrative Costs</b>		
During Development	\$551,598 per year	Figure 5 for detail phased in over 3- 5 years
After All Land Acquired	\$468,858 per year	
<b>Operations &amp; Maintenance Revenues</b>		
<b>Crop Land Leases</b>		
<u>Through 2002</u>		
Planted Rice Base Acreage	\$160 per acre/year	normal ag. practices
Other Crops (Flex. acreage)	\$80 per acre/year	normal ag. practices
<u>2003 +</u>		
Planted Rice Base Acreage	\$160 per acre/year	normal ag. practices
Other Crops (Flex. acreage)	\$80 per acre/year	normal ag. practices
<b>Hunting</b>		
Hunting Revenue per Acre	\$12 per acre	Based on Wildlands Estimate for initial Site Plan

"assumptions2"

Source: Natomas Basin Conservancy

[1] Includes G.O. bond assessment.

**Figure 5**  
**Natomas Basin HCP**  
**Estimated Annual Natomas Basin Conservancy (NBC) Administrative Cost**

	Annual Cost	Notes
<u>Administrative Expenses</u>		
Staff	\$195,000	
Benefits	\$64,350	
Board Expense	\$6,000	
<b>Subtotal</b>	<b>\$265,350</b>	
<u>Office Expense</u>		
Rent	\$20,000	
Telephone	\$1,700	
Copying & Printing	\$16,000	
Office Supplies	\$5,000	
Postage	\$600	
Equipment	\$2,500	
Auto Expense	\$6,500	
<b>Subtotal</b>	<b>\$52,300</b>	
<u>Miscellaneous Expense</u>		
Insurance	\$25,000	Liability and E&O
Accounting	\$20,000	
Legal	\$80,000	
Corporate Taxes	\$1,000	
<b>Subtotal</b>	<b>\$126,000</b>	
Contract Work/ Public Education/ Publications/Monitoring/Reports, etc.	<b>\$36,000</b>	
<b>Subtotal Costs</b>	<b>\$479,650</b>	
Contingency	\$71,948	15% Contingency
<b>Total Administration During Habitat Acquisition Phas</b>	<b>\$551,598</b>	
<b>Total Administration After Habitat Acquisitioi</b>	<b>\$468,858</b>	[1]

"admin"

Source: NBC FY 2001 budget estimate

[1] Administrative costs are reduced by 15% after all habitat lands have been acquired per John Roberts.