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MEMORANDUM

To: John Roberts, *Natomas Basin Conservancy*
 From: Tim Youmans and Georgette Lorenzen
 Subject: Natomas Basin Habitat Conservation Program; EPS #10175
 Date: August 29, 2000

EPS has revised the Natomas Basin Conservancy's (NBC) Habitat Conservation Program (HCP) cash flow analysis to reflect current experience in land acquisition, restoration and enhancement, operation and maintenance, and administration costs and revenues. As a result of the updated analysis, EPS recommends a 20 percent, or \$649 increase in the HCP development impact fee charged to new development.

The fee program is based on the HCP mitigation requirement of one half acre of mitigation land for each gross acre of developed land. The cost per acre of habitat mitigation is shown below. The habitat mitigation impact fee is 50 percent of the cost per acre of habitat as shown below:

Item	Cost per Acre of Habitat (a)	Mitigation Fee per Acre of Development (b)= (a) x 0.5
Land Acquisition Cost (LA)		
Land Cost	\$4,250	\$2,125
Transaction Costs & Contingency	\$750	\$375
Total Land Acquisition Cost	\$5,000	\$2,500
Restoration/Enhancement (RE)	\$845	\$423
Administration/O&M	\$1,220	\$750
O&M Endowment Fund	<u>\$380</u>	<u>\$190</u>
Subtotal	\$7,445	\$3,863
Fee Collection Administration (2%)		\$78
Total		\$3,941

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The proposed fee is estimated based on a cash flow analysis originally prepared by EPS in 1995. The cash flow analysis was last updated and the fee increased in August 1999. **Figure 1** shows the past fee levels and the percent increase as fees were revised. Since the last fee increase, the NBC has acquired an additional 334 acres of mitigation acreage land which brings the total mitigation land acquired to 1,631 acres. In addition Wildlands, Inc. has prepared the "Site-Specific Management Plans for the Natomas Basin Conservancy's Mitigation Lands" for the first 1,296 acres of habitat acquired. Many of the updated assumptions in the 2000 update of the cash flow analysis reflect the assumptions and cost estimates prepared by Wildlands, Inc.

The cash flow model includes four major funds—land acquisition (LA), restoration/enhancement (RE), administration/O&M, and the endowment fund. The proposed increase in the fee is a result of more current information obtained as the implementation of the Natomas Basin Habitat Conservation Plan progresses. This new information caused a change in the assumptions behind each fund category. The major changes or adjustments for each fund are outlined below.

LAND ACQUISITION

The fund which includes the largest increase in the fee component is the LA Fund. The fee is proposed to increase \$464, from \$2,036 in 1999 to \$2,500 in 2000. The fee increase accounts for increasing land prices and transaction costs, and to allow a contingency. The NBC estimates that land costs will range between \$3,500 to \$4,500 per acre as shown in **Figure 2**. The fee program assumes an average land cost of \$4,250 per acre.

RESTORATION & ENHANCEMENT

The cash flow analysis allows for restoration and enhancement of land acquired by the NBC of either existing rice land, marshland, rice converted to marsh land, or upland/fallow land. NBC currently estimates that the majority, if not all the restoration and enhancement costs will be a result of converting existing rice lands to marsh. NBC is required to have at least 25 percent of its land holdings in marsh land after December 2002.

The current cost estimate for converting existing rice land to marsh land is based the "Site-Specific Management Plans for the Natomas Basin Conservancy's Mitigation Lands" prepared by Wildlands, Inc in June of 2000. As shown in **Figure 2**, Wildlands, Inc. estimates the cost of restoring and enhancing managed marsh lands is \$2,919 per acre, which is significantly higher than the estimated costs in prior versions of the cash flow analysis.

ADMINISTRATION/OPERATIONS & MAINTENANCE

The cost and revenue assumptions were updated in the Administration/O&M fund cash flow and are shown in **Figure 3**. Operations & maintenance costs were updated to reflect the cost assumptions used in Wildlands' Site Specific Management Plans as shown in **Figure 5**. As in the case of restoration and enhancement, the O&M cost associated with managed marsh is

significantly higher than previously estimated. The 1999 Fee update assumed a cost per acre of \$85 per acre. Current estimates are \$191 per acre, an increase of \$106 per acre. However, cost assumptions for other land types have decreased since the 1999 Fee update. For example, the O&M cost for upland/fallow land was estimated to be \$33 per acre in 1999. The current estimate is \$18 per acre for upland/fallow land.

The administrative costs are based on the expenses of NBC as currently budgeted as shown in Figure 4. The administrative budget allows for a 15 percent contingency, in the event actual costs prove to be higher than estimated in any given year.

The 2000 Fee update assumes that NBC earns revenues from waterfowl and pheasant hunting. The revenue estimate is based on the estimated hunting revenues as presented in the Site Specific Plans as prepared by Wildlands, Inc. and are presented as a per acre revenue shown in Figure 6 (\$50 per acre). Only 60 percent of the acquired acres are assumed to be hunted, and they are phased in through 2010. The cost per acre for hunting is assumed to be \$13, which is based on Wildlands, Inc. estimated cost in the Site Specific Plans (as shown in Figure 4) plus \$10 per acre to allow for hunting management costs.

The proposed fee for the administration and O&M components of the HCP represents a decrease from the 1999 fee. The 1999 fee included \$800 for administration/O&M; the fee as proposed includes \$750 for this fund, representing a \$50 decrease in the fee component. The decrease is achieved largely as a result of an increase in projected revenues due to hunting and a greater share of rice lands to be farmed. Ninety percent of rice acres are assumed to be farmed.

ENDOWMENT

The endowment fund was established to provided for on-going administration and operations and maintenance expenses in the future years of the HCP, after all fee revenues have been collected and expended. The 2000 update does not assume any change in the level of fee allocated to the endowment fund.

CASH FLOW ANALYSIS

A summary of the cash flow analysis is shown in Figure 7. The detailed cash flow analysis is presented in Appendix A.

Figure 1
Natomas Basin HCP

HCP Mitigation Fee Summary 1996-2000

	1996/1997	1998	1999	Proposed 2000
Land Acquisition Cost (LA) (1)	\$1,830	\$1,830	\$2,036	\$2,500
Restoration/Enhancement (RE) (2)	\$140	\$198	\$200	\$423
Administration/O & M	\$150	\$475	\$800	\$750
O & M Endowment Fund	\$75	\$100	\$190	\$190
Fee Collection Administration	\$45	\$53	\$66	\$78
Subtotal Mitigation Fee	\$2,240	\$2,656	\$3,292	\$3,941
<i>Percent Increase</i>		19%	24%	20%

"fee_sum"

- (1) Land acquisition cost includes land cost, transaction costs, and contingency costs. Acquisition costs estimated at \$3,500 to \$4,500 per acre.
- (2) Increases in RE fee components reflects the significant cost of restoring or enhancing marsh land to benefit Swainson's hawk and the giant garter snake.