

## **MEMORANDUM**

To: The Natomas Basin Habitat Conservancy

From: Allison Shaffer and Sean Fisher

Subject: Natomas Basin Habitat Conservation Plan Fee Sensitivity Analysis; EPS #202004

Date: June 30, 2020

### **Introduction**

For many years, Economic & Planning Systems, Inc. (EPS) has assisted The Natomas Basin Conservancy (TNBC or Conservancy) in calculating and updating the annual Natomas Basin Habitat Conservation Plan (NBHCP or Plan) habitat mitigation fee (NBHCP Fee) and in performing various other related projects. TNBC has contracted with EPS to provide sensitivity analyses that examine several alternative changes to the NBHCP Fee development and land acquisition assumptions and the effect these changes would have on the Conservancy's ability to maintain the habitat in perpetuity.

In recent years, new non-NBHCP development and planned development has occurred beyond the levels envisioned in the 2003 NBHCP, using acreage that would have otherwise been available for NBHCP mitigation land. This level of development has resulted in escalating habitat land prices as available approvable mitigation land has diminished. As a result of the increasing development and declining available habitat land, the Conservancy anticipates the following outcomes that could necessitate changes to the annual NBHCP Fee calculation:

- A shortage of land in the NBHCP Area that is available to meet the NBHCP specifications of 17,500 acres of NBHCP Fee paying development and 8,750 acres of habitat.
- Increasing Land Acquisition Fund portion of the NBHCP Fees (Land Acquisition Fees).

To address the impact of these two probable situations on the NBHCP Fee, EPS developed three different sensitivity scenarios and compared the resulting NBHCP Fee for each scenario to the current 2020 NBHCP Fee (adopted by the Sacramento City

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Council on February 25, 2020). To assess the impact of each variable separately, each sensitivity scenario incorporates only one change as compared with the model used to calculate the current NBHCP Fee (**Base Model**). The land acquisition and development assumptions used in the **Base Model** and each sensitivity scenario are summarized in the table below:

Scenario	Description	Land Acquisition Assumption	Development and Habitat Acres Reduction
<b>Base Model</b>	2020 NBHCP Fee Model	Fee Paid	5%
<b>Scenario 1</b>	Land Dedication of Remaining Habitat	Land Dedication	5%
<b>Scenario 2</b>	10% Reduced Level of Development/Habitat	Fee Paid	10%
<b>Scenario 3</b>	15% Reduced Level of Development/Habitat	Fee Paid	15%

The following sections first summarize and then describe the detailed assumptions for each sensitivity analysis scenario.

## Summary

### NBHCP Fee Estimate Methodology

For each scenario, the NBHCP Fee is estimated so that adequate revenue will be available at the conclusion of the Plan in 2053 to fund the ongoing operations of the Conservancy in perpetuity. The NBHCP Fee model assumes that after the conclusion of the Plan, ongoing habitat operations will be funded through an annual transfer from the Endowment Fund to the Administration/Operations and Maintenance (Admin/O&M) Fund. To ensure adequate habitat operations funding in perpetuity, the annual earnings of the Endowment Fund in 2053 must at least equal the annual habitat operating costs in the same year. This requirement is based on the assumption the annual operating costs (in current-year dollars) will remain constant in all future years after conclusion of the Plan in 2053. Given that annual interest earnings must be sufficient to fund annual operating costs, the key variable assessed for the Base Model and each sensitivity scenario is the annual operating costs as a percentage of annual interest earnings at the conclusion of the Plan. If this percentage is greater than 100 percent, then estimated annual costs are projected to be greater than estimated annual revenues, in which case, in the long term, the Endowment Fund would be insufficient to fund ongoing operations of the Conservancy. Consequently, the NBHCP Fee would need to be increased to ensure sufficient ongoing funding.

### Sensitivity Scenario Assumptions

Each sensitivity scenario changes one land acquisition assumption as compared with the **Base Model**. **Scenario 1** assumes that all future fee payers will dedicate land rather

than remit cash for the Land Acquisition Fees. Most fee payers already dedicate land, both because of NBHCP Fee requirements and the rising cost and declining availability of habitat land, and it is probable that land dedication will continue to be the predominant method of satisfying the NBHCP land acquisition requirement. **Scenario 1** includes the same level of development and habitat acquisition as the **Base Model**.

**Scenario 2** and **Scenario 3** assume reduced levels of development and habitat acquisition as compared to the Base Model. Because of the decreasing supply of approvable mitigation land and competing non-NBHCP development, it can reasonably be expected that not all NBHCP permitted acres will develop. **Scenario 2** and **Scenario 3** maintain the land acquisition assumptions in the **Base Model**, assuming that all fee payers will pay the Land Acquisition Fee. The **Base Model** and each sensitivity scenario are summarized below and detailed in the remainder of this memorandum.

- **Base Model: 2020 NBHCP Fee Model**

The **Base Model** represents the 2020 NBHCP Fee model that was used to calculate the current 2020 NBHCP Fee (adopted by the City of Sacramento on February 25, 2020). It is included as the model against which to compare the other scenarios and to estimate the effect of changing various assumptions. The key land acquisition assumptions in the Base Model are summarized below.

- All remaining land required for mitigation from 2022 through the end of the Plan is obtained through payment of the Land Acquisition Fee (rather than through land dedication).
- The development and habitat acquisition assumed for 2022 through the end of the Plan is reduced by 5 percent from the level specified in the Plan.

- **Scenario 1: Land Dedication of Remaining Habitat**

***Assumption Change from Base Model:***

- All remaining land required for mitigation from 2022 through the end of the Plan is obtained through fee payer dedication, and Land Acquisition Fund fees are no longer collected.

- **Scenario 2: 10% Reduced Level of Development/Habitat**

***Assumption Change from Base Model:***

- The development and habitat acquisition assumed for 2022 through the end of the Plan is reduced by 10 percent from the level specified in the Plan.

- **Scenario 3: 15% Reduced Level of Development/Habitat**

***Assumption Change from Base Model:***

- The development and habitat acquisition assumed for 2022 through the end of the Plan is reduced by 15 percent from the level specified in the Plan.

## Scenario Results

**Table 1** summarizes the results of all three sensitivity scenarios, as well as of the **Base Model**. For each scenario, **Table 1** shows the annual costs and revenues at the end of the Plan in 2053 under the current NBHCP Fee and the percentage by which the costs exceed the revenues for each scenario. In addition, **Table 1** shows the estimated adjusted NBHCP Fee per acre for each scenario that would be necessary to ensure sufficient ongoing interest earnings to fund the habitat operations in perpetuity. These estimated fees range from \$771 to \$1,725 per acre greater than the current NBHCP Fee.

## Sensitivity Scenarios Detail

### Scenario 1: Land Dedication of Remaining Habitat

**Scenario 1** assesses the impacts to the Plan if all remaining land required for mitigation is obtained through fee payer dedication and Land Acquisition Fund fees are no longer collected. This scenario is based on the assumption the fee payer would not pay the portion of the land acquisition fee related to the purchase of new land but would continue to be responsible for the portion related to transaction and legal costs of land acquisition, as well as for the fees for the remaining funds that make up the NBHCP Fee. In addition, the Conservancy would not incur any land purchase costs for the remainder of the Plan.

EPS estimated the impact of this scenario on two key factors: the long-term ability of the Endowment Fund to fund ongoing operations in perpetuity, and the fee increase required to ensure adequate funding should all remaining mitigation land be dedicated.

**Table 2** details the comparison of **Scenario 1** to the **Base Model**. Under **Scenario 1**, without a fee adjustment, the "Cost as Percentage of Interest Earnings" ratio at the end of the Plan is estimated at 107 percent, indicating that the annual interest earnings of the Endowment Fund would be insufficient to fund ongoing TNBC operations in perpetuity. The primary reason for this dynamic is the decrease in interest earning revenues to the Land Acquisition Fund, which results in a smaller surplus of Land Acquisition Fund funds available to transfer to the Endowment Fund at the end of the Plan.

The deficit in the estimated annual interest earnings available at the end of the Plan to fund habitat operations could be remedied by increasing the NBHCP Fees. A combined increase of all fee components (excluding Land Acquisition Fund and Fee Administration) of approximately \$1,037 per acre, from \$24,246 per acre to \$25,283 per acre, would be required to ensure adequate funding for the operation of the habitat in perpetuity.

### Scenario 2: 10% Reduced Level of Development/Habitat

**Scenario 2** illustrates the impacts of a reduction of development and associated habitat acquisition of 10 percent of the originally planned acres. The NBHCP specifies that 17,500 acres in the NBHCP area will develop and pay the NBHCP Fees and 8,750 acres of habitat will be created and preserved. The **Base Model** assumes that 5 percent of the total development will not occur and the habitat size will correspondingly be reduced by

5 percent. EPS evaluated the effects of a further reduction in development and habitat creation by expanding the existing 5 percent reduction to a 10 percent reduction. Under this scenario, EPS reduced the number of remaining development acres by a total of 1,750 acres (10 percent of 17,500 acres) and remaining habitat acres by a total of 875 acres (half of the development acres), spread proportionally over the years from 2022 through 2051.

**Table 3** details the comparison of **Scenario 2** to the **Base Model**. Under **Scenario 2**, the “Cost as Percentage of Interest Earnings” ratio at the end of the Plan is estimated at 104 percent, indicating the annual interest earnings of the Endowment Fund would be insufficient to fund ongoing TNBC operations in perpetuity if the reductions in development occur and the NBHCP Fee remains at the current level. This deficit could be remedied by increasing the NBHCP Fees. A combined increase of all fee components (excluding Land Acquisition Fund and Fee Administration) of approximately \$771 per acre, from \$24,246 per acre to \$25,017 per acre, would be required to ensure adequate funding for operation of the habitat in perpetuity.

### **Scenario 3: 15% Reduced Level of Development/Habitat**

**Scenario 3** illustrates the impacts of a reduction of development and associated habitat acquisition of 15 percent of the originally planned development acres. As described above for **Scenario 2**, the **Base Model** assumes that 5 percent of the total 17,500 acres of development specified in the NBHCP will not occur and the planned habitat size of 8,750 acres will correspondingly be reduced by 5 percent. EPS evaluated the effects of a further reduction in development and habitat creation by expanding the existing 5 percent reduction to a 15 percent reduction. Under this scenario, EPS reduced the number of remaining development acres by a total of 2,625 acres (15 percent of 17,500 acres) and remaining habitat acres by a total of 1,312.5 acres (half of the development acres), spread proportionally over the years from 2022 through 2051.

**Table 4** details the comparison of **Scenario 3** to the **Base Model**. Under **Scenario 3**, the “Cost as Percentage of Interest Earnings” ratio at the end of the Plan is estimated at 110 percent, indicating the annual interest earnings of the Endowment Fund would be insufficient to fund ongoing TNBC operations in perpetuity if the reductions in development occur and the NBHCP Fee remains at the current level. This deficit could be remedied by increasing the NBHCP Fees. A combined increase of all fee components (excluding Land Acquisition Fund and Fee Administration) of approximately \$1,725 per acre, from \$24,246 per acre to \$25,971 per acre, would be required to ensure adequate funding for operation of the habitat in perpetuity.

## **Conclusion**

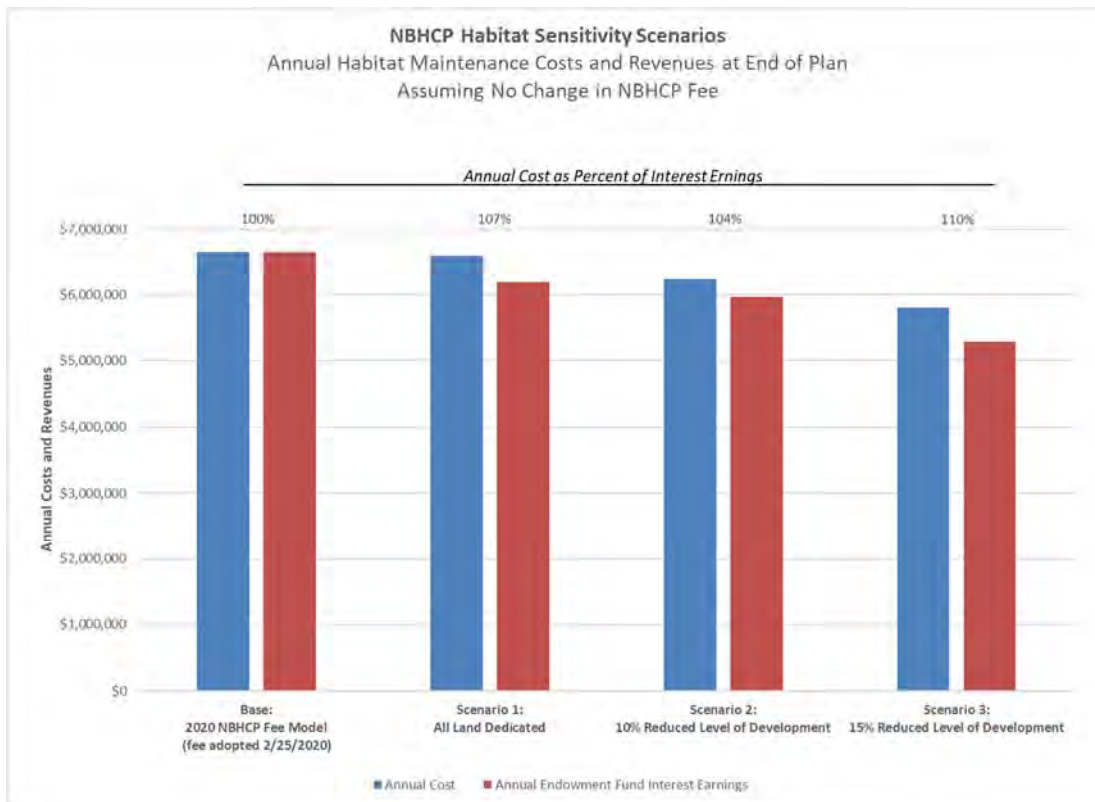
The 2020 NBHCP Fee model accurately estimates the NBHCP Fee needed to manage the NBHCP habitat in perpetuity under the model assumptions concerning land acquisition and the amount of development that will occur. In the three sensitivity scenarios presented in this memorandum, the model assumptions are changed to either assume

that the land dedication process is used for land acquisition of all habitat or that there are lower levels of development and habitat acquisition. EPS is confident the NBHCP Finance Model, especially as calculated most recently, is based on fair and reasonable assumptions. This sensitivity analysis tests the NBHCP Finance Model using different land acquisition or development assumptions than those now in place that predict different outcomes when the NBHCP Finance Model is recalculated. If the Conservancy determines that either of these assumptions warrant making a change in the NBHCP Finance Model, this exercise projects that making such a change could result in insufficient funding to manage the preserves in perpetuity beyond the 50-year life of the NBHCP. Therefore, an adjustment in the fees would be indicated.

The potential funding deficit would be caused by the collection of less fee revenue than anticipated because of one or more of the following reasons:

- The likelihood that most fee payers will dedicate habitat land rather than pay the land acquisition fund portion of the NBHCP Fees.
- Less development in the Plan area than anticipated.
- A potential lack of available mitigation land, and/or resulting land cost increases.

The estimated annual funding deficits for each scenario are shown graphically in the chart below. The annual “Cost as Percentage of Interest Earnings” ratio at the end of the Plan ranges from 104 percent to 110 percent, indicating annual funding deficits of 4 percent to 10 percent.



Assuming Conservancy obligations and expenses do not substantively change, the sensitivity analysis detailed in this memorandum suggests that higher NBHCP fees would be required to sustain long-term Conservancy operations. As summarized in the table below, the required per-acre fee increase (excluding the Land Acquisition Fund and Fee Administration components) would range from \$771 to \$1,725 to bring income in line with expected expenses at the end of the 50-year life of the Plan.

Item	Base Model 2020 NBHCP Fee Model <i>(fee adopted 2/25/20)</i>	Scenario 1 - All Land Dedicated	Scenario 2 - 10% Reduction in Dev./Habitat	Scenario 3 - 15% Reduction in Dev./Habitat
<b>Assumptions</b>				
All Land Dedicated from 2022-2051	No	Yes	No	No
Reduction in Development/Habitat Acq.	5%	5%	10%	15%
<b>Acres at End of Plan</b>				
Development	16,625	16,625	15,750	14,875
Habitat	8,312	8,312	7,875	7,438
<b>Total NBHCP Fee excluding Fee Administration</b>				
Land Acquisition [1]	\$15,750	\$750	\$15,750	\$15,750
Restoration & Enhancement	\$1,411	\$1,411	\$1,411	\$1,411
Administration/O&M	\$13,402	\$14,050	\$13,858	\$14,424
O&M Endowment	\$8,041	\$8,430	\$8,315	\$8,654
Supplemental Endowment Fund	\$642	\$642	\$683	\$732
<b>Total</b>	<b>\$39,246</b>	<b>\$25,283</b>	<b>\$40,017</b>	<b>\$40,971</b>
<b>Total NBHCP Fee excl. Land Acq. &amp; Fee Admin. [2]</b>				
Difference from Base	<b>\$24,246</b>	<b>\$1,037</b>	<b>\$771</b>	<b>\$1,725</b>
Percentage Difference		4.3%	3.2%	7.1%

[1] Land acquisition fee component consists of 2 sub-components: land cost (\$15,000 per acre) and transaction costs and contingencies (\$750 per acre). Scenario 1 includes only the transaction costs and contingencies component.

[2] Includes transaction costs and contingencies portion of land acquisition fee component.

Interest earnings rates are crucial in all three scenarios. Sustained periods of high inflation, for instance, would substantially change the outcome of the various scenarios. In addition, greater development in the Natomas Basin outside the NBHCP's 17,500-acre permit area would likewise challenge the ability of the Conservancy to balance revenues and expenses.

**Table 1**  
**NBHCP Fee Update Scenario Analysis**  
**NBHCP Fund Balances in 2053 - Summary of All Scenarios**

Item	Base Model 2020 NBHCP Fee Model <i>(fee adopted 2/25/20)</i>	Scenario 1 - All Land Dedicated	Scenario 2 - 10% Reduced Level of Development/Habitat	Scenario 3 - 15% Reduced Level of Development/Habitat
<i>Source</i>		<i>Table 2</i>	<i>Table 3</i>	<i>Table 4</i>
<b>Assumptions</b>				
All Land Dedicated from 2022-2051	No	Yes	No	No
Reduction in Development/Habitat Acquisition	5%	5%	10%	15%
<b>Acres at End of Plan</b>				
Development	16,625	16,625	15,750	14,875
Habitat	8,312	8,312	7,875	7,438
<b>NBHCP Fees</b>				
2020 NBHCP Base Fee (excl. Fee Admin. & Land Acq.)	\$24,246	\$24,246	\$24,246	\$24,246
Adjusted NBHCP Fee (excl. Fee Admin & Land Acq.) [1]	\$24,246	\$25,283	\$25,017	\$25,971
Difference from Base Model		<b>\$1,037</b>	<b>\$771</b>	<b>\$1,725</b>
<b>Admin/O&amp;M</b>				
<b>Beginning Balance - 2053</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue</b>				
Rice Base Land Lease	\$1,309,217	\$1,309,217	\$1,240,311	\$1,171,404
Other Crop Land Lease	\$29,394	\$29,394	\$28,027	\$26,659
Miscellaneous Revenue and Interest	\$19,108	\$19,108	\$19,108	\$19,108
<b>Total Revenue</b>	<b>\$1,357,719</b>	<b>\$1,357,719</b>	<b>\$1,287,445</b>	<b>\$1,217,172</b>
<b>Cost</b>				
O&M Costs (Prop Maint & Land Mgmt)	\$1,518,752	\$1,518,752	\$1,441,363	\$1,363,973
Property Taxes	\$3,063,318	\$3,063,318	\$2,775,364	\$2,487,384
Special Assessments (RD 1000+NCMWC)	\$969,548	\$969,548	\$920,144	\$870,740
SSMPs, Administration, and Monitoring	\$1,676,203	\$1,676,203	\$1,676,203	\$1,676,203
<b>Total Cost</b>	<b>\$7,227,821</b>	<b>\$7,227,821</b>	<b>\$6,813,074</b>	<b>\$6,398,300</b>
<b>Drawdown on Endowment</b>	<b>\$5,870,103</b>	<b>\$5,870,103</b>	<b>\$5,525,629</b>	<b>\$5,181,129</b>
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Endowment (Before Adjustments)</b>				
<b>Beginning Balance - 2053</b>	<b>\$221,902,961</b>	<b>\$206,406,814</b>	<b>\$198,968,901</b>	<b>\$176,015,624</b>
<b>Interest Earnings</b>	<b>\$6,657,089</b>	<b>\$6,192,204</b>	<b>\$5,969,067</b>	<b>\$5,280,469</b>
<b>Cost</b>				
Drawdown	\$5,870,103	\$5,870,103	\$5,525,629	\$5,181,129
Fees and Taxes	\$784,160	\$729,924	\$703,891	\$623,555
<b>Total Cost</b>	<b>\$6,654,263</b>	<b>\$6,600,026</b>	<b>\$6,229,520</b>	<b>\$5,804,683</b>
<b>Ending Balance</b>	<b>\$221,905,787</b>	<b>\$205,998,992</b>	<b>\$198,708,448</b>	<b>\$175,491,410</b>
<b>Cost as Percentage of Interest Earnings</b>	<b>100%</b>	<b>107%</b>	<b>104%</b>	<b>110%</b>

*sum*

Source: Natomas Basin Habitat Conservancy; EPS.

[1] Fee necessary to have a 100% Cost as Percentage of Interest Earnings Ratio.



**Table 2**  
**NBHCP Fee Update Scenario Analysis**  
**NBHCP Fund Balances in 2053 - Scenario 1: All Land Dedicated**

Item	Base Model	Scenario 1: All Land Dedicated		Difference from Base	
	2020 NBHCP Fee Model <i>(fee adopted 2/25/20)</i>	Before Fee Adjustment	After Fee Adjustment	Before Fee Adjustment	After Fee Adjustment
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>B-A</i>	<i>C-A</i>
<b>Assumptions</b>					
All Land Dedicated from 2022-2051	No	Yes	Yes		
Reduction in Development/Habitat Acquisition	5%	5%	5%		
<b>Acres at End of Plan</b>					
Development	16,625	16,625	16,625	0	0
Habitat	8,312	8,312	8,312	0	0
<b>NBHCP Total Fee (excl. Fee Admin. &amp; Land Acq.)</b>	<b>\$24,246</b>	<b>\$24,246</b>	<b>\$25,283</b>	<b>\$0</b>	<b>\$1,037</b>
<b>Cost as Percentage of Interest Earnings in 2053</b>	<b>100%</b>	<b>107%</b>	<b>100%</b>		
<b>Admin/O&amp;M</b>					
<b>Beginning Balance - 2053</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue</b>					
Rice Base Land Lease	\$1,309,217	\$1,309,217	\$1,309,217	\$0	\$0
Other Crop Land Lease	\$29,394	\$29,394	\$29,394	\$0	\$0
Miscellaneous Revenue and Interest	\$19,108	\$19,108	\$19,108	\$0	\$0
<b>Total Revenue</b>	<b>\$1,357,719</b>	<b>\$1,357,719</b>	<b>\$1,357,719</b>	<b>\$0</b>	<b>\$0</b>
<b>Cost</b>					
O&M Costs (Prop Maint & Land Mgmt)	\$1,518,752	\$1,518,752	\$1,518,752	\$0	\$0
Property Taxes	\$3,063,318	\$3,063,318	\$3,063,318	\$0	\$0
Special Assessments (RD 1000+NCMWC)	\$969,548	\$969,548	\$969,548	\$0	\$0
SSMPs, Administration, and Monitoring	\$1,676,203	\$1,676,203	\$1,676,203	\$0	\$0
<b>Total Cost</b>	<b>\$7,227,821</b>	<b>\$7,227,821</b>	<b>\$7,227,821</b>	<b>\$0</b>	<b>\$0</b>
<b>Drawdown on Endowment</b>	<b>\$5,870,103</b>	<b>\$5,870,103</b>	<b>\$5,870,103</b>	<b>\$0</b>	<b>\$0</b>
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Endowment</b>					
<b>Beginning Balance - 2053</b>	<b>\$221,902,961</b>	<b>\$206,406,814</b>	<b>\$221,823,172</b>	<b>(\$15,496,148)</b>	<b>(\$79,789)</b>
<b>Interest Earnings</b>	<b>\$6,657,089</b>	<b>\$6,192,204</b>	<b>\$6,654,695</b>	<b>(\$464,884)</b>	<b>(\$2,394)</b>
<b>Cost</b>					
Drawdown	\$5,870,103	\$5,870,103	\$5,870,103	\$0	\$0
Fees and Taxes	\$784,160	\$729,924	\$783,881	(\$54,237)	(\$279)
<b>Total Cost</b>	<b>\$6,654,263</b>	<b>\$6,600,026</b>	<b>\$6,653,984</b>	<b>(\$54,237)</b>	<b>(\$279)</b>
<b>Ending Balance</b>	<b>\$221,905,787</b>	<b>\$205,998,992</b>	<b>\$221,823,884</b>	<b>(\$15,906,795)</b>	<b>(\$81,904)</b>
<b>Cost as Percentage of Interest Earnings</b>	<b>100%</b>	<b>107%</b>	<b>100%</b>		

Source: Natomas Basin Habitat Conservancy; EPS.

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**Table 3**  
**NBHCP Fee Update Scenario Analysis**  
**NBHCP Fund Balances in 2053 - Scenario 2: 10% Reduced Level of Development/Habitat**

Item	Base Model 2020 NBHCP Fee Model <i>(fee adopted 2/25/20)</i>	Scenario 2: 10% Reduced Level of Development/Habitat		Difference from Base	
		Before Fee Adjustment	After Fee Adjustment	Before Fee Adjustment	After Fee Adjustment
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>B-A</i>	<i>C-A</i>
<b>Assumptions</b>					
All Land Dedicated from 2022-2051	No	No	No		
Reduction in Development/Habitat Acquisition	5%	10%	10%		
<b>Acres at End of Plan</b>					
Development	16,625	15,750	15,750	(875)	(875)
Habitat	8,312	7,875	7,875	(437)	(437)
<b>NBHCP Total Fee (excl. Fee Admin. &amp; Land Acq.)</b>	<b>\$24,246</b>	<b>\$24,246</b>	<b>\$25,017</b>	<b>\$0</b>	<b>\$771</b>
<b>Cost as Percentage of Interest Earnings in 2053</b>	<b>100%</b>	<b>104%</b>	<b>100%</b>		
<b>Admin/O&amp;M</b>					
<b>Beginning Balance - 2053</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue</b>					
Rice Base Land Lease	\$1,309,217	\$1,240,311	\$1,240,311	(\$68,906)	(\$68,906)
Other Crop Land Lease	\$29,394	\$28,027	\$28,027	(\$1,367)	(\$1,367)
Miscellaneous Revenue and Interest	\$19,108	\$19,108	\$19,108	\$0	\$0
<b>Total Revenue</b>	<b>\$1,357,719</b>	<b>\$1,287,445</b>	<b>\$1,287,445</b>	<b>(\$70,273)</b>	<b>(\$70,273)</b>
<b>Cost</b>					
O&M Costs (Prop Maint & Land Mgmt)	\$1,518,752	\$1,441,363	\$1,441,363	(\$77,389)	(\$77,389)
Property Taxes	\$3,063,318	\$2,775,364	\$2,775,364	(\$287,954)	(\$287,954)
Special Assessments (RD 1000+NCMWC)	\$969,548	\$920,144	\$920,144	(\$49,404)	(\$49,404)
SSMPs, Administration, and Monitoring	\$1,676,203	\$1,676,203	\$1,676,203	\$0	\$0
<b>Total Cost</b>	<b>\$7,227,821</b>	<b>\$6,813,074</b>	<b>\$6,813,074</b>	<b>(\$414,747)</b>	<b>(\$414,747)</b>
<b>Drawdown on Endowment</b>	<b>\$5,870,103</b>	<b>\$5,525,629</b>	<b>\$5,525,629</b>	<b>(\$344,474)</b>	<b>\$0</b>
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Endowment</b>					
<b>Beginning Balance - 2053</b>	<b>\$221,902,961</b>	<b>\$198,968,901</b>	<b>\$208,813,033</b>	<b>(\$22,934,060)</b>	<b>(\$13,089,928)</b>
<b>Interest Earnings</b>	<b>\$6,657,089</b>	<b>\$5,969,067</b>	<b>\$6,264,391</b>	<b>(\$688,022)</b>	<b>(\$392,698)</b>
<b>Cost</b>					
Drawdown	\$5,870,103	\$5,525,629	\$5,525,629	(\$344,474)	(\$344,474)
Fees and Taxes	\$784,160	\$703,891	\$738,346	(\$80,269)	(\$45,815)
<b>Total Cost</b>	<b>\$6,654,263</b>	<b>\$6,229,520</b>	<b>\$6,263,974</b>	<b>(\$424,743)</b>	<b>(\$390,289)</b>
<b>Ending Balance</b>	<b>\$221,905,787</b>	<b>\$198,708,448</b>	<b>\$208,813,450</b>	<b>(\$23,197,339)</b>	<b>(\$13,092,338)</b>
<b>Cost as Percentage of Interest Earnings</b>	<b>100%</b>	<b>104%</b>	<b>100%</b>		

Source: Natomas Basin Habitat Conservancy; EPS.

scen 2

**Table 4**  
**NBHCP Fee Update Scenario Analysis**  
**NBHCP Fund Balances in 2053 - Scenario 3: 15% Reduced Level of Development/Habitat**

Item	Base Model 2020 NBHCP Fee Model <i>(fee adopted 2/25/20)</i>	Scenario 3: 15% Reduced Level of Development/Habitat		Difference from Base	
		Before Fee Adjustment	After Fee Adjustment	Before Fee Adjustment	After Fee Adjustment
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>B-A</i>	<i>C-A</i>
<b>Assumptions</b>					
All Land Dedicated from 2022-2051	No	No	No		
Reduction in Development/Habitat Acquisition	5%	15%	15%		
<b>Acres at End of Plan</b>					
Development	16,625	14,875	14,875	(1,750)	(1,750)
Habitat	8,312	7,438	7,438	(875)	(875)
<b>NBHCP Total Fee (excl. Fee Admin. &amp; Land Acq.)</b>	<b>\$24,246</b>	<b>\$24,246</b>	<b>\$25,971</b>	<b>\$0</b>	<b>\$1,725</b>
<b>Cost as Percentage of Interest Earnings in 2053</b>	<b>100%</b>	<b>110%</b>	<b>100%</b>		
<b>Admin/O&amp;M</b>					
<b>Beginning Balance - 2053</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Revenue</b>					
Rice Base Land Lease	\$1,309,217	\$1,171,404	\$1,171,404	(\$137,813)	(\$137,813)
Other Crop Land Lease	\$29,394	\$26,659	\$26,659	(\$2,734)	(\$2,734)
Miscellaneous Revenue and Interest	\$19,108	\$19,108	\$19,108	\$0	\$0
<b>Total Revenue</b>	<b>\$1,357,719</b>	<b>\$1,217,172</b>	<b>\$1,217,172</b>	<b>(\$140,547)</b>	<b>(\$140,547)</b>
<b>Cost</b>					
O&M Costs (Prop Maint & Land Mgmt)	\$1,518,752	\$1,363,973	\$1,363,973	(\$154,779)	(\$154,779)
Property Taxes	\$3,063,318	\$2,487,384	\$2,487,384	(\$575,934)	(\$575,934)
Special Assessments (RD 1000+NCMWC)	\$969,548	\$870,740	\$870,740	(\$98,808)	(\$98,808)
SSMPs, Administration, and Monitoring	\$1,676,203	\$1,676,203	\$1,676,203	\$0	\$0
<b>Total Cost</b>	<b>\$7,227,821</b>	<b>\$6,398,300</b>	<b>\$6,398,300</b>	<b>(\$829,521)</b>	<b>(\$829,521)</b>
<b>Drawdown on Endowment</b>	<b>\$5,870,103</b>	<b>\$5,181,129</b>	<b>\$5,181,129</b>	<b>(\$688,974)</b>	<b>(\$688,974)</b>
<b>Ending Balance</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Endowment</b>					
<b>Beginning Balance - 2053</b>	<b>\$221,902,961</b>	<b>\$176,015,624</b>	<b>\$195,805,768</b>	<b>(\$45,887,337)</b>	<b>(\$26,097,193)</b>
<b>Interest Earnings</b>	<b>\$6,657,089</b>	<b>\$5,280,469</b>	<b>\$5,874,173</b>	<b>(\$1,376,620)</b>	<b>(\$782,916)</b>
<b>Cost</b>					
Drawdown	\$5,870,103	\$5,181,129	\$5,181,129	(\$688,974)	(\$688,974)
Fees and Taxes	\$784,160	\$623,555	\$692,820	(\$160,606)	(\$91,340)
<b>Total Cost</b>	<b>\$6,654,263</b>	<b>\$5,804,683</b>	<b>\$5,873,949</b>	<b>(\$849,580)</b>	<b>(\$780,314)</b>
<b>Ending Balance</b>	<b>\$221,905,787</b>	<b>\$175,491,410</b>	<b>\$195,805,992</b>	<b>(\$46,414,377)</b>	<b>(\$26,099,795)</b>
<b>Cost as Percentage of Interest Earnings</b>	<b>100%</b>	<b>110%</b>	<b>100%</b>		

alt 2A

Source: Natomas Basin Habitat Conservancy; EPS.