



## FINAL MEMORANDUM

To: Alexander Tengolics, Yolo Habitat Conservancy  
From: Robert Spencer, Urban Economics  
CC: Sally Nielsen, Hausrath Economics Group  
Date: August 19, 2022  
Subject: Updated Land Cover Fee & Valley Foothill Riparian Fee

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The purpose of this memorandum is to update the Conservancy's land cover and valley foothill riparian fees for changes in costs not anticipated in the original cost and funding models developed for implementation of the Yolo HCP/NCCP (the Plan). These changes update the changes recommended last year in our March memoranda.

### Land Cover Fee

Last year we developed a new "elderberry site maintenance fee" to cover the cost of post-construction maintenance and monitoring of mitigation sites for elderberry shrubs impacted by covered projects in non-riparian habitats.<sup>1</sup> These impacts and costs were not anticipated in the original cost and funding models developed for implementation of the Plan, and therefore are not funded by the Plan's development fees.

All other costs associated with impacts to elderberry shrubs are either funded by the project applicant or by the existing wetland fee:

- ◆ Initial direct costs associated with transplanting impacted shrubs or planting new seedlings to replace these shrubs, as well as native associates, are the direct responsibility of the project applicant, whether these shrubs are in riparian or non-riparian habitat.
- ◆ The valley foothill riparian fee funds all other costs including post-construction maintenance and monitoring costs for impacts to elderberry shrubs in riparian habitat.<sup>2</sup>

Since last year we have conducted a further review of the elderberry mitigation site maintenance fee. As a result of this review, we are recommending a revised approach to cover post-construction maintenance and monitoring costs for mitigation of impacts to non-riparian

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<sup>1</sup> To mitigate impacts on the valley elderberry longhorn beetle, the Yolo HCP/NCCP requires that if elderberry shrubs are not avoided directly within a project footprint and for shrubs within a 100-foot buffer distance, project proponents must transplant those shrubs or plant new elderberry seedlings along with native associates in a riparian restoration site. See Yolo Final HCP/NCCP, April 2018, Section 4.3.4, AMM12, Minimize Take and Adverse Effects on Habitat of Valley Elderberry Longhorn Beetle.

<sup>2</sup> Costs also include restoration site planning and engineering and construction oversight.

elderberry shrubs. This additional review was based on an analysis of total impact to non-riparian elderberry shrubs since Plan inception through July 2022.

This analysis of data since Plan inception indicates that projects have impacted only eight non-riparian elderberry shrubs since Plan inception. At this rate the Conservancy's costs associated with mitigating impacts to non-riparian elderberry shrubs will be minimal over the permit term. Consequently, we are recommending that these additional costs be included in the land cover fee because:

- ◆ The land cover fee would increase by an insignificant amount, less than 0.5 percent, because of including these additional costs.
- ◆ Minimizing the types of fees charged reduces administrative costs to the Plan and therefore the total fee burden on project applicants.
- ◆ Minimizing the types of fees charged simplifies fee calculation estimates by potential project applicants.

The increase in total Plan costs associated with mitigating impacts to non-riparian elderberry shrubs are shown in Table 1 and further explained below:

- ◆ **Post-construction costs per site:** We updated 2021 cost estimates per restoration site for elderberry shrubs based on more recent work scopes and budgets for actual elderberry mitigation projects implemented by the Yolo Habitat Conservancy. Updated costs are estimated at \$2,500 per elderberry mitigation site (for each shrub impacted). To incorporate these costs in the funding model we have deflated them to 2017 dollars resulting in an estimate of \$2,000 per site (for each shrub impacted).
- ◆ **Rate of impact:** As mentioned above, projects have impacted eight non-riparian elderberry shrubs to date, resulting in a rate of impact of 2.41 shrubs per 100 acres of permanent impact.
- ◆ **Total Incremental Plan costs:** Total Plan costs would increase by approximately \$800,000 over the permit term assuming the Conservancy experiences that same rate of impact to non-riparian elderberry shrubs over the permit term as it has to date.

The updated land cover fee is shown in Table 2. Based on this analysis, the current (2022) land cover fee would increase 0.37 percent from \$15,571 to \$15,629 per acre.

**Table 1: Non-Riparian Elderberry Shrub Mitigation Site Maintenance Costs (\$ 2017)**

<b>Post-construction Restoration Monitoring &amp; Maintenance Costs per Site</b>		
Cost per Restored Acre	\$44,000	per acre (including contingency)
Transplant Sites per Acre	<u>22</u>	sites
Cost	\$2,000	per site
<b>Rate of Impact<sup>1</sup></b>		
Non-Riparian Elderberry Impacts	8	shrubs impacted
Permanent Impacts	<u>332.53</u>	acres
Impact Factor	2.41	shrubs per 100 acres of permanent impact
<b>Incremental Plan Cost</b>		
Cost per Unit of Impact	\$4,812	per 100 acres of permanent impact
Cost per Unit of Impact	48.12	per acre of permanent impact
Total Permanent Impacts	<u>16,668</u>	acres
Total Incremental Plan Cost	\$801,997	

<sup>1</sup> Based on cumulative data from Plan inception through July 2022.  
Sources: Hausrath Economics Group, memorandum dated July 22, 2022 (restoration costs); Yolo Habitat Conservancy (elderberry impacts); Yolo HCP/NCCP, Appendix I - Funding Model, Table 1, 2018 (permanent impacts).

**Table 2: Updated Land Cover Fee (\$ 2017)**

Mitigation Cost Share (2017 Plan) (\$ 2017)	\$215,881,992
Additional Cost for Non-riparian Elderberry Shrub Mitigation	<u>801,997</u>
Revised Mitigation Cost Share (\$ 2017)	\$216,683,989
Land Conversion (acres)	<u>16,668</u>
Land Cover Fee per Acre of Land Conversion	\$13,000
Inflation Adjustment (2018-2022) <sup>1</sup>	<u>20.22%</u>
<b>Revised Valley Foothill Riparian Wetland Fee (\$ 2022)</b>	<b>\$15,629</b>
Current Land Cover Fee (\$ 2022)	<u>15,571</u>
Increase from Current Fee	0.37%

<sup>1</sup> Based on increase in land cover fee from initial 2018 fee to current 2022 fee.  
Sources: Yolo HCP/NCCP, Appendix I - Funding Model, Table 6, 2018; Yolo Habitat Conservancy (inflation index); Table 1.

## Valley Foothill Riparian Fee

The increase in post-construction costs discussed above requires an adjustment to the valley foothill riparian fee that must fund these costs for elderberry shrubs impacted in riparian habitat. The revised fee is shown in Table 3. The table shows the current estimate for permit term restoration costs based on the 2021 update reduced to 2017 dollars for input into the cost and funding models used to calculate the initial fee. Cost increases are shown for

elderberry restoration site maintenance and monitoring (based on this 2022 update) and associated environmental compliance, also in 2017 dollars. The recalculated fee is then increased for the annual inflation adjustment for wetland fees that the Conservancy has adopted from 2019 through 2022. The revised fee is \$85,009 per acre of impact.

**Table 3: Valley Foothill Riparian Fee (2022 update memorandum)**

Valley Foothill Riparian Restoration Costs (\$ 2017) <sup>1</sup>	\$35,857,611
Cost Increases For Elderberry Shrub Mitigation Sites (\$ 2017)	
Restoration Site Maintenance and Monitoring	\$9,751,893
Environmental Compliance	187,235
Revised Restoration Costs (\$ 2017)	\$45,796,739
Restored Lands During Permit Term (acres)	608
Valley Foothill Riparian Fee per Acre of Impact (1:1 ratio) (\$ 2017)	\$75,324
Inflation Adjustment (2018-2022) <sup>2</sup>	12.86%
<b>Revised Valley Foothill Riparian Wetland Fee (\$ 2022)</b>	<b>\$85,009</b>
<b>Revised Valley Foothill Riparian Wetland Fee (\$ 2022)</b>	<b>\$85,009</b>
Current Valley Foothill Riparian Wetland Fee (\$ 2022)	66,560
Change From Current Fee	27.72%
<b>Revised Valley Foothill Riparian Wetland Fee (\$ 2022)</b>	<b>\$85,009</b>
2021 Valley Foothill Riparian Wetland Fee (prior to 2021 revision) (\$ 2021)	\$85,683
Change From Current Fee	(0.79%)

<sup>1</sup> Costs reflect 2021 update (\$ 2017).

<sup>2</sup> Based on increase in wetland fees from initial 2018 fee to current 2022 fee, excluding 2021 update to Valley Foothill Riparian fee.

Sources: Urban Economics, memorandum dated March 24, 2021 (restoration costs based on 2021 update); Hausrath Economics Group (restoration cost increases); Yolo Habitat Conservancy (inflation index).

As shown in the middle of Table 3, the updated valley foothill riparian wetland fee is 28 percent higher than the current fee. However, the fee was reduced substantially as part of the 2021 revisions to reflect the transfer of planting costs from the Conservancy to now being the responsibility of the project applicant. As shown in at the bottom of Table 3, when the cost increases incorporated this year are balanced with the cost decreases incorporated in 2021, the updated fee is slightly lower (about one percent) than the fee amount prior to the 2021 revisions.