

# **QUINO CHECKERSPOT BUTTERFLY CONSERVATION STRATEGY FOR OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16/19**

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The following Conservation Strategy for the Quino checkerspot butterfly (QCB) addresses potential impacts to QCB and its potential habitat to the extent such impacts may result from development of Otay Ranch Village 14 and Planning Areas 16/19, located in the unincorporated area of San Diego County.

## **ASSUMPTIONS**

1. On June 26, 2019, the project applicant (GDCI Proctor Valley LP or “Applicant”) secured County approval for the Otay Ranch Village 14 and Planning Area 16/19 Project (the “Approved Project”), which contemplates development on 809.1 acres, including 794.7 acres of potential<sup>1</sup> QCB habitat. This same 809.1-acre Development Footprint includes 502.4 acres of federally designated critical habitat for the species. Through a combination of conveyance of land to the Otay Ranch RMP Preserve (“Preserve”) and biological conservation easements, the Approved Project would preserve approximately 827.3 acres of QCB potential habitat.
2. The Approved Project Development Footprint includes areas within Village 14 known as PV1 and PV3, which, are considered by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) (collectively termed Wildlife Agencies) to be biologically important to the QCB<sup>2</sup>.
3. The Applicant and the County have agreed to process a revised project design through a process described in the Dispute Resolution Agreement (DRA), dated June 26, 2019, and is referred to herein as the “Proposed Project Amendment”. The DRA was negotiated, prepared and executed jointly by the Applicant, the Wildlife Agencies, and the County.
4. The Proposed Project Amendment is contingent on successful completion of three processes: (1) County approval of a revised Tentative Map; (2) County approval, and

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<sup>1</sup> The term “Potential Habitat” means all areas meeting the definition of habitat areas requiring surveys under the 2016 survey protocol developed in coordination with the USFWS, County of San Diego and Building Industry Association. This 794.7 acres includes 5.3 acres of impacts within the City of Chula Vista.

<sup>2</sup> See comment letter from CDFW, dated April 16, 2018, describing importance of PV1 and PV3 to QCB migration and conservation.

CDFW and USFWS concurrence, of a County-initiated amendment to the County's MSCP Subarea Plan; and (3) approval by the California Wildlife Conservation Board (WCB), and USFWS consent to, the land exchange proposed in the DRA, through which the Applicant and the CDFW would exchange property and thereby allow for a more consolidated and biologically sensitive development.

5. Under the DRA, the Applicant retains the right to terminate any of the three processes described above and pursue the Approved Project.
6. The Proposed Project Amendment contemplates development on 578.6 acres, including 527.1 acres<sup>3</sup> of potential QCB habitat and 500.2 acres of QCB critical habitat. Through a combination of conservation mechanisms, the Proposed Project Amendment would permanently preserve 765.8 acres<sup>4</sup> of QCB potential habitat. The Proposed Project Amendment's contribution for the purpose of the USFWS QCB analysis<sup>5</sup> is the permanent preservation of approximately 613.7 acres of potential QCB habitat.
7. Some of the lands exchanged under the DRA provide (or may provide in the future) potential habitat for QCB. As such, those lands are subject to this QCB Conservation Strategy and are acknowledged in the 765.8 acre calculation, and will be considered in the Proposed Project Amendment's overall mitigation and land conservation obligations for purposes of QCB take authorization. In other words, all 765.8 acres are available for QCB restoration activities per this QCB Strategy.
8. No protocol-level surveys for QCB individuals are required under the QCB Management Plan or by this Conservation Strategy. Enough survey data exist to conclude that QCB individuals have used the Proposed Project Amendment project area in the past and may use it in the future, especially if the quality and functionality of the potential QCB habitat is protected, enhanced, and managed. Surveys are expensive and are not necessary to inform the management decisions associated with this Conservation Strategy. However, QCB monitoring is included as part of the Framework Management Strategy and will be conducted as part of the adaptive management component of the program. Additionally, surveys will be conducted every 5 years under the long-term management provided by the Otay Ranch Preserve Owner/Manager (POM). QCB sightings will be documented and shared with the POM, County, and Wildlife Agencies.

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<sup>3</sup> Impacts to potential habitat for Quino checkerspot butterfly include impacts to City of San Diego Cornerstone Lands, but exclude 5.3 acres of impacts associated with the improvement of Proctor Valley Road within the City of Chula Vista, as those impacts were already addressed in the City of Chula Vista's MSCP Subarea Plan as part of the Rolling Hills Ranch project. The amount of critical habitat reported does not include areas of habitat deemed unsuitable for QCB (i.e., no physical or biological features for the species), and thus not included as a part of protocol surveys.

<sup>4</sup> This 765.8 acres includes Otay Ranch RMP Preserve owned by the Applicant, Conserved Open Space, the R-14 Conservation Easement, as well as the excess transferred to CDFW via the land exchange. This 765.8 acres is not to be confused with the 1.188:1 RMP Conveyance Requirement, which is estimated at 556.6 acres.

<sup>5</sup> The USFWS calculates the conservation-to-impact ratio based on how much potential QCB habitat would be conserved *after* the land exchange proposed in the DRA occurs. Based on this approach, the Proposed Project Amendment, following the land exchange, would conserve 613.7 acres of potential QCB habitat, resulting in a conservation-to-impact ratio of **1.16 to 1**.

## CURRENT QCB APPLICABLE MITIGATION MEASURES

In conjunction with the Approved Project, the County certified a Final Environmental Impact Report and adopted the following seven mitigation measures to reduce potential impacts to QCB. Each of these mitigation measures would apply equally to the Proposed Project Amendment if it were approved pursuant to the processes outlined in the DRA. The following is a summary of each of the seven mitigation measures described above for the Final Environmental Impact Report for the Approved Project (the full text of the mitigation measures is provided in the Final Environmental Impact Report). These same mitigation measures would also be applicable to the Proposed Project Amendment:

1. M-BI-1: Impacts will be minimized during construction through implementation of Best Management Practices (BMPs).
2. M-BI-3: The applicant shall convey land within the Otay Ranch RMP Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at 1.188 acres for each “developable acre” impacted, as defined by the Otay Ranch RMP. (Estimated at 556.6 acres for the Proposed Project Amendment<sup>6</sup>).
3. M-BI-4: The applicant shall record a biological open space easement for areas of Conserved Open Space, which allows for selective fire clearing by hand, and shall prepare a Resource Management Plan for those areas.
4. M-BI-5: The applicant shall install permanent fencing and signage between housing and open space.
5. M-BI-8: The applicant shall consult with the USFWS to determine if take authorization is required for impacts to potential QCB habitat.
6. M-BI-9: The applicant shall provide mitigation acreage at a ratio in excess of 1:1 (preservation of 1 acre for every 1 acres of impact) and shall adequately mitigate impacts to potential QCB habitat.
7. M-BI-10: The applicant shall prepare and implement a long-term QCB Management/Enhancement Plan that includes perpetual monitoring and management of habitat areas of potential QCB habitat, including habitat that could be restored or enhanced to provide support for the species.

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<sup>6</sup> Represents the conveyance requirement of the Proposed Project Amendment pursuant to the Otay Ranch RMP conveyance formula and illustrates one of the mechanisms that provides for potential QCB habitat conservation. As noted above, the total potential QCB habitat conservation is 765.8 acres.

## RECOMMENDED CONSERVATION STRATEGY

As indicated above, the Applicant has secured land use approvals from the County to pursue the Approved Project, and these approvals remain in place. Nevertheless, through the DRA, the Applicant has elected to prepare and pursue a revised project – the Proposed Project Amendment – as a means of addressing Wildlife Agency requests to improve preserve design and develop a Conservation Strategy that would enhance the recovery potential of QCB. Section 3.1.9 of the DRA recognizes that the Proposed Project Amendment, and in particular the designation of PV1, PV3, and Planning Area 16 as hardline preserve through a County-initiated amendment to its MSCP Subarea Plan, “contributes to the conservation of the QCB and its habitat.” The next step is to develop an effective Conservation Strategy that incorporates the DRA’s effort to reduce impacts on QCB potential habitat, improve preserve design, and improve recovery potential for QCB.

This Conservation Strategy consists of the following four imperatives: (1) reduce the amount of potential QCB habitat proposed for development; (2) maintain and enhance potential QCB habitat connectivity, thereby protecting QCB movement and “live in” habitat within and throughout Otay Ranch; (3) create “functional uplift” within conserved potential QCB habitat; and (4) commit to assessment, adaptation, and management of QCB habitat within the project area to ensure perpetual conservation of QCB, leading to improved recovery status. Each of these four tasks is explained in more detail below. Note that although the four imperatives listed above and discussed below were developed for application to the Proposed Project Amendment, these same imperatives, and the strategies for satisfying them, could be applied to the Approved Project as well, in the event the Proposed Project Amendment is ultimately not adopted.

### 1. Reduce Development within Potential QCB Habitat

The Approved Project would disturb approximately 789.4 acres<sup>7</sup> of potential QCB habitat. By contrast, the Proposed Project Amendment, if approved, would disturb 527.1 acres of potential QCB habitat, reflecting a 262.3-acre reduction in potential QCB habitat impacts (Table 1).

In addition, the Proposed Project Amendment, as compared to the Approved Project, would improve the conservation-to-impact ratio for suitable QCB habitat. Specifically, the Approved Project would conserve 827.3 acres of potential QCB habitat while disturbing 789.4 acres, resulting in a conservation-to-impact ratio of **1.05 to 1**. By contrast, the Proposed Project Amendment would conserve 765.8 acres of potential QCB habitat, while disturbing 527.1 acres,

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<sup>7</sup> The Final EIR for the Approved Project states that development would impact a total of 794.7 acres of potential QCB habitat. This acreage includes the 5.3 acres of development associated with the improvement of Proctor Valley Road within the City of Chula Vista. Since QCB is a covered species within the Chula Vista Subarea Plan, this Conservation Strategy is basing the impact comparison on 789.4 acres (794.7 acres minus 5.3 acres). Potential habitat is defined as the areas of the project that meet the criteria specified by USFWS’s survey protocol for protocol-level surveys for QCB.

resulting in a conservation-to-impact ratio of **1.45 to 1**. This level of preservation results in a conservation-to-impact ratio comfortably beyond the 1:1 ratio required by the County under M-BI-9. Note, however, that USFWS calculates the conservation-to-impact ratio slightly differently. Specifically, USFWS calculates the ratio based on how much potential QCB habitat would be conserved *after* the land exchange proposed in the DRA occurs. Based on this approach, the Proposed Project Amendment, following the land exchange, would conserve 613.7 acres of potential QCB habitat, resulting in a conservation-to-impact ratio of **1.16 to 1**. Table 2 provides a summary of the QCB habitat conservation acreage for the Proposed Project Amendment.

**Table 1. Comparison of Approved Project and Proposed Project Amendment for Potential QCB Habitat Impacts and Conservation**

<b>Project Area</b>	<b>Approved Project</b>		<b>Proposed Project Amendment</b>	
	<b>Impacts (ac)*</b>	<b>Conservation (ac)</b>	<b>Impacts (ac)*</b>	<b>Conservation (ac)</b>
Village 14	402.6		454.7	
PA 16/19	272.3		17.5	
Offsites	80.1		34.8	
LDA Impacted	12.6		-	
MSCP Preserve	21.8		20.1	
On-site Conveyance		404.8		397.7**
Conserved Open Space		72.4		24.5
Biological Open Space Easement		-		191.5
Off-site Conveyance		350.1		-
Subtotal		789.4		827.3
Land Exchange Net Conservation	NA	NA	NA	152.1***
<b>TOTAL</b>	<b>789.4</b>	<b>827.3</b>	<b>527.1</b>	<b>765.8</b>

\*The 5.3 acres that occurs in the City of Chula Vista has been excluded from the potential QCB habitat for the Approved Project (see footnote 7 above) and has been excluded from the Proposed Project Amendment.

\*\*This acreage excludes the portion of the Preserve that is isolated by a connector road, as shown in Figure 1 of the QCB Framework Management Plan (see Appendix A).

\*\*\*The 152.1 acres of net conservation refers to the difference of potential QCB habitat owned by the Applicant within PV1, PV3, R-15, and R-16 (336.5 acres) that would be exchanged to the state and the potential QCB habitat owned by the state within Parcels A, B, C, and E (184.4 acres) that would be exchanged to the Applicant.

Thus, the Proposed Project Amendment satisfies the first imperative of this Conservation Strategy, in that it reduces the amount of potential QCB habitat that would be developed. Note also that by consolidating the development footprint in Village 14, the Proposed Project Amendment would eliminate 13.1 miles of “edge” at the development/preserve interface compared to the Approved Project.

At the request of the Wildlife Agencies, the Applicant re-evaluated the alignment of a project road (identified as Street I on the Revised TM) that is intended to provide a water transmission line and access to a water reservoir located within the RMP Preserve<sup>8</sup>. The current alignment of the access road, as contemplated in the Proposed Project Amendment, would result in approximately 12.6 acres of impacts (temporary and permanent) to potential QCB habitat. In an effort to reduce these impacts, the project applicant developed an optional road alignment that would locate the road directly adjacent to the Development Footprint, removing most of the road from the Preserve. The applicant, in consultation with the project engineers, has determined that this optional road alignment is feasible and would reduce impacts to potential QCB habitat by 8.3 acres. The optional road realignment would also reduce fragmentation and edge effects as compared to the alignment that would occur as part of the Proposed Project Amendment. The optional road alignment will be evaluated by the County for approval, therefore the acreages in this QCB Conservation Strategy reflect the current design for the Proposed Project Amendment. Should the County approve the optional road alignment, the acreages in this QCB Conservation Strategy will be adjusted accordingly.

**Table 2. QCB Conservation Acreage Summary – Proposed Project Amendment**

<u>Project Area<sup>1</sup></u>	<u>QCB Conservation Acres<sup>2</sup></u>
<b>Village 14 RMP Preserve</b>	
I	5.5
II	42.3
III	26.2
IV	162.0
V	14.9
Subtotal	250.9
<b>PA 16/19 RMP Preserve</b>	
VI	13.9
VII	51.3
VIII	23.3
IX	10.5
X	47.8
Subtotal	146.8
<b>Conserved Open Space</b>	
XI	1.2
XII	9.4
XIII	6.3
XIV	6.2
XV	1.1
XVI	0.3
Subtotal	24.5

<sup>8</sup> The reservoir and the water transmission line are approved facilities within the RMP Preserve.

**Table 2. QCB Conservation Acreage Summary (cont.)**

<u>Project Area<sup>1</sup></u>	<u>QCB Conservation Acres<sup>2</sup></u>
<b>R-14 Conservation Easement</b>	
XVII	191.5
Subtotal	191.5
<b>TOTAL</b>	<b>613.7</b>

<sup>1</sup>Project Area refers to the 17 project areas identified on Figure 1 of the Framework Management Plan.

<sup>2</sup>QCB Conservation Acreage refers to the amount of potential QCB habitat that occurs within each of the 17 project areas and excludes portions that do not contain physical or biological features of QCB habitat, as shown on Figure 1 of the QCB Framework Management Plan (see Appendix A). Subtotals may be off slightly due to rounding.

## **2. Maintain and Enhance Potential QCB Habitat Connectivity**

PV1: PV1 contains important patches of QCB host plant and also lies adjacent to potential QCB habitat where QCB sightings had occurred during past surveys. One QCB larva was observed on PV1 on December 12, 2019. Therefore, where the Approved Project allows development of PV1, the Proposed Project Amendment would not. Instead, the DRA includes a process to amend the County’s MSCP Subarea Plan that would designate all of PV1 – approximately 18.9 acres – as hardline preserve, thus providing for expansion of existing wildlife corridor buffer areas and additional live-in potential habitat for QCB. In addition, by including PV1 in the Preserve, the Proposed Project Amendment would eliminate the Approved Project’s proposed road crossing within wildlife corridor L4, thereby enhancing QCB and wildlife movement opportunities in this area.

PV3: The Approved Project contemplates development on 120.5 acres of the 134.5 total acres within the PV3 site. The DRA includes a process to amend the County’s MSCP Subarea Plan to designate hardline preserve on approximately 95% of PV3, excepting only a small 6.1-acre area of the parcel needed for a stormwater detention basin, and a short segment of Proctor Valley Road. Note that Proctor Valley Road is a County mobility element road and an essential public facility in the MSCP. Preserving approximately 95% of PV3 further enhances the existing connectivity between the QCB habitat areas to the south (Village 13) and the QCB habitat areas to the northwest (San Miguel Mountain). Preservation of PV3 would not only preserve the unrestricted QCB movement provided by the Approved Project design, it would also further expand unrestricted QCB movement along a lower elevation route to upper Otay Reservoir, as well as a broader connection to the more rugged ridgeline north of Lower Otay Reservoir.

### **3. Create “Functional Uplift” Within Conserved Potential QCB Habitat**

Currently, no part of the Approved Project site is being managed specifically for the benefit of the QCB. Likewise, no part of the Proposed Project Amendment project area – including that portion currently owned by CDFW – is currently being actively managed for the benefit of QCB.

Through the long-term QCB Management Plan, this element of the Conservation Strategy mandates that qualified biologists monitor and report on the quality and functionality of the conserved potential QCB habitat, including status of host plant. To assist in this effort, and to comply with County mitigation measure M-BI-10, the Applicant or its designee/transferee shall prepare and implement a QCB Management Plan, which will require that the Applicant or designee (i.e., the preserve owner/manager [POM]) implement an adaptive management strategy to ensure that the functionality of the conserved potential QCB habitat be maintained in the face of changed conditions or unexpected events. The QCB Management Plan shall be subject to Wildlife Agency review and approval and shall address potential QCB habitat within those areas placed into Preserve or otherwise conserved by virtue of the Proposed Project Amendment, and shall focus on the higher quality extant QCB host plant patches and those areas targeted for restoration.

Preparation and implementation of a long-term QCB Management Plan for the Proposed Project Amendment, as required by M-BI-10, would alter this situation to create “functional uplift” within the conserved potential QCB habitat. This plan would involve, at a minimum, the following four tasks: (1) controlling invasive species and allowing for the expansion of existing host plant resources within QCB habitat nodes or other areas targeted for weeding and enhancement as identified in the QCB Framework Management Plan (Appendix A). This will include a minimum of two (2.0) acres of QCB host plant expansion; (2) seeding of more host plant (e.g., *Plantago erecta*) in Preserve areas with the proper soil and topographic characteristics; (3) monitoring and reporting as to the quality and functionality of the conserved potential QCB habitat and (4) implementing an adaptive management strategy.

As contemplated herein, the effort to control invasive species would target existing higher quality QCB host plant patches as well as areas most suitable for restoration, and the monitoring and potential replacement of newly seeded host plant would become new and perpetual responsibilities of the POM.

The goal of the plan should be to enhance the potential QCB habitat within the Preserve and thereby provide conditions suitable to support the species in perpetuity. The plan should include the following:

- Host plant seeding and removal of non-native plants in the Preserve shall take place first within QCB high density host plant areas (nodes) and in areas identified for enhancement based on QCB host plant mapping.

- A requirement to monitor the status of QCB habitat and high density QCB host plant in perpetuity.
- A requirement to monitor the status of QCB and periodically survey (non-protocol surveys) for QCB in perpetuity.
- A requirement to compare habitat monitoring data every 6 years to identify any new or significant changes to habitat. If habitat quality or functionality has significantly decreased or if it appears to be under threat based on host plant mapping and habitat assessment, the Applicant or its designee (i.e., the POM) shall initiate discussions with QCB experts, the County, and Wildlife Agencies to determine whether and to what extent management actions must be taken to prevent further degradation. Such discussions should focus on identifying specific management actions to improve habitat function, such as non-native plant removal, de-thatching, seeding of host plants and/or nectar plants, and focused habitat restoration.
- Adaptive management.

#### **4. Fund Management and Enhancement**

This element of the Conservation Strategy outlines the funding commitment. The most essential component is that the Applicant establish a Community Facilities District (CFD) or similar mechanism to fund all QCB-related management activities described herein and related to M-BI-10. As a prerequisite of CFD funding, the County, the Applicant, CDFW and/or USFWS must enter into a joint community facilities agreement or similar arrangement for management activities that would occur on State lands (the joint community facilities agreement would not apply to POM-managed lands). The timing of the CFD funding will occur upon issuance of the grading permit for the Proposed Project Amendment.

Separately, the Applicant shall provide funding for re-establishment of two acres of QCB host plant patches within the context of the larger long-term management strategy outlined in the QCB Management Plan. Funding shall include 5 years of maintenance and monitoring to ensure the successful establishment of these two acres of habitat.

#### **5. Framework QCB Management Plan**

A QCB Framework Management Plan collaboratively developed by USFWS, CDFW, the County and HELIX, is incorporated into this Conservation Strategy as Appendix A. The Framework Management Plan, this Conservation Strategy, and the Biological Assessment (to be prepared as part of the permitting with U.S. Army Corps of Engineers) shall serve as the basis for QCB Take Authorization.

## 6. Conclusion

To offset the Proposed Project Amendment's impacts to 527.1 acres of QCB Potential Habitat and 4.21 acres of QCB host plants, this QCB Conservation Strategy will provide the following:

- 613.7 acres of QCB Potential Habitat would be conserved
- 2.60 acres of QCB host plants would be conserved
- 1.23 acre of QCB host plants would be maintained and enhanced as part of the QCB Framework Management Plan. The acreage of QCB host plants is expected to change over time as part of adaptive management.
- 2.0 acre of QCB host plants would be established/re-established as part of a separate QCB habitat restoration effort.

The details of the 1.23-acre QCB host plant enhancement and the 2.0-acre QCB habitat restoration are provided in the QCB Framework Management Plan (Appendix A).