

VI. MONITORING & REPORTING PROGRAM

Per Section 10 of the ESA, the CV Link Habitat Conservation Plan for Casey's June beetle is required to specify the measures the applicant (CVAG) will take to monitor the impact of the take resulting from the proposed project actions. Usually, the applicant or party responsible for the HCP, shall monitor the project for compliance with the terms of the incidental take permit or HCP. However, if another party is responsible for monitoring compliance with the permit, the Service will require periodic reporting from such party to maintain overall oversight responsibility for the implementation of the HCP's terms and conditions.

CV Link will be an alternative transportation route, the implementation of which shall have long-lasting impacts, and therefore, this HCP is a long-term plan with respect to Casey's June beetle along Tahquitz Creek. The CV Link HCP includes a robust monitoring and reporting program to provide long-term assurances that it will be implemented correctly, that the project's actions will be monitored, and that such actions will work as expected. This will also include periodic accountings of take and progress reports on fulfillment of mitigation requirements. Monitoring plans for the HCP should establish practical benchmarks and reporting requirements throughout the life of the HCP and should address actions to be taken in case of unforeseen or extraordinary circumstances.

CVAG will contract with the Coachella Valley Conservation Commission (CVCC) to manage the acreage placed in conservation easements. CVCC staff (or approved contractor) will develop a restoration plan with the Service for the conservation easements. CVCC staff or their contractor will inspect the conservation areas at a minimum three times per year, one of which will occur during the evening in the active breeding season; one of which will occur prior to breeding season; and one of which will occur after the breeding season; to ensure that the conservation easements are being properly managed to preserve appropriate habitat for the Casey's June beetle. CVCC or their contractor will also be responsible for monitoring whether the Casey's June beetle is present during inspection visits in the active breeding season through the life of the HCP. Inspections will be conducted during the breeding season at intervals to be determined, and will include the installation of black light traps prior to inspection, and the collection, inventory and release of CJB caught in those traps. In addition, CVCC staff will observe the condition of the conservation easements to report any violations and/or activity prohibited by this HCP. CVCC will provide annual reports to CVAG and the Service. Specific tasks are described below.

Task 1: Develop and implement restoration plan.

Within a year after permit issuance, CVAG, CVCC (or approved contractor), and the Service shall develop a restoration plan for the easement areas. The restoration plan shall identify all specific locations to be restored (from Exhibit 4), and shall include soil restoration suitable for Casey's June beetle, and plantings consistent with existing native plants in the Palm Canyon Wash. The restoration plan will include plant lists, irrigation requirements, vegetation density, monitoring, and quantified success criteria. The restoration plan shall be reviewed and approved by the Service.

Task 2: Monitor, conserve and maintain the covered species in the Project Area.

As part of the tri-annual site walk-through, the presence and status of Casey's June beetle will be noted. Any necessary maintenance tasks will be identified, prioritized and implemented.

Task 3: Monitor and maintain control over major noxious weeds.

Monitoring and mapping of invasive species shall occur prior to construction and updates will continue for the life of the permit. Monitoring and control will address invasive species, including fountain grass (*Pennisetum setaceum*), salt cedar (*Tamarix* spp.) and/or other invasive plants or wildlife that diminish site quality.

Mapping shall be accomplished through use of available technologies, such as GIS and aerial mapping.

Each year's tri-annual walk-through survey will lead to the removal of invasive species during the same calendar year.

Manual removal shall be by cutting/mowing above ground and/or an approved herbicide treatment of any aggressive invasive plant species. Additional actions to control invasive species will be evaluated and prioritized on an as needed basis.

Task: Adaptively manage vegetation based on site conditions and data acquired through monitoring to maintain biological values.

Implement beneficial vegetation management techniques to maintain vegetation composition similar to conditions in Palm Canyon Wash or as determined likely to maintain function or habitat. Implementation of vegetation management techniques must be approved by the Service and the Restoration Plan will be completed within a year after permit issuance. Over the life of this HCP, adaptive management will also include monitoring changes resulting from climate change, including potential changes in rainfall amounts and duration, as well as changes in average temperatures.

Task: Provide annual report on all management tasks conducted, general site conditions, and trapping results to the Service.

For the life of this HCP permit, CVAG shall submit an annual report and any other additional documentation pertinent to monitoring activities. The report shall be provided to the Service by January 31 for activities conducted the previous calendar year.

VII. FUNDING

The preparation and implementation of the Restoration Plan for the mitigation lands will be funded by CVAG. CVAG hereby assures that it will fund or otherwise ensure funding in perpetuity for the initial restoration as well as the long-term management, enhancement, and monitoring activities on habitat lands in a manner consistent with this HCP. Final costs have not been developed at this time, but CVAG has up to \$1 million available in funding from Active Transportation Program right of way funds which has been earmarked for this project. The total estimated annual funding for implementation of the provisions of this HCP varies by year, but is approximately \$7,300 to 8,500.00 in current (2017) dollars (please see Appendix A).

CVAG will make an initial deposit to fund the endowment in the amount of \$160,075.00 on or before the date of recordation of the conservation easement and within a year after permit issuance. CVAG has adequate funding available from the Active Transportation Program, Cycle 1. CVAG shall establish or cause to be established a dedicated trust account with a non-wasting endowment that assures long-term funding for the long-term management of the project lands.

The project land manager is the Coachella Valley Conservation Commission (CVCC). CVCC will hold the conservation easement or identify another entity acceptable to the Service to hold the conservation easement.

Appendix A summarizes the anticipated costs of long-term management of the project land for the CV Link HCP. However, CVAG shall consult with the Service on a year-to-year basis in the first five years and every five years thereafter to report on the status of management funding and project land management and monitoring activities. The land manager shall apprise the Service of all management activities implemented during the reporting period. The annual costs required to maintain conservation lands are demonstrated in Table 4, below.

Table 4 Project Management and Monitoring Activities, Level of Effort, Frequency and Cost										
General Management & Monitoring Activities	Bank &	Description	Level of Effort	Cost per Unit	Cost	Frequency	Schedule	Monitoring and Management Cost (every year for five years, then every 5 years after that)	Annual Maintenance Cost (every year)	Annual Maintenance Cost (every year after five years)
Task 1: Development of Restoration Plan										
Research and Reconnaissance		Walking survey; notes, photos	No. of hours	\$ 80/hour	\$3,200	first year	February - April	\$3,200.00		
			40							
Preparation		Compile and present	No. of hours	\$ 80/hour	\$800	first year	February -April	\$800.00		
			10							
Task 2: Monitor Species										
Monitor Covered Species		Walking survey; notes, photos	No. of hours	\$ 70/hour	\$3,780	Annually	March-June	\$3,780.00	3,780.00	3,780.00
			54							

Table 4
Project Management and Monitoring Activities, Level of Effort, Frequency and Cost

General Management & Monitoring Activities	Bank & Monitoring Activities	Description	Level of Effort	Cost per Unit	Cost	Frequency	Schedule	Monitoring and Management Cost (every year for five years, then every 5 years after that)	Annual Maintenance Cost (every year)	Annual Maintenance Cost (every year after five years)
Task 3 Monitor Covered Habitat										
	Monitor Covered Habitat	Map; assess abundance/health	No. of hours	\$ 70/hour	\$840	Annually	April-June	\$840.00	840.00	840.00
			6							
Task 4: Vegetation Management										
	Assess weed growth, extent	Walking survey, map; research	No. of hours	\$ 70/hour	\$280	Annually	February-April	\$280.00	280.00	280.00
			4							
	Weed removal	Hand labor	No. of hours	\$30/hour	\$960	Annually	February-April	\$960.00	\$960.00	\$960.00
			8 hours (crew of 2 x 4 hours)							
	Materials for restoration	Materials: soil, rock, vegetation			\$1,000	annually first five years; every five-	before April	\$1,000.00	1,000.00	1,000.00

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General Management & Monitoring Activities	Bank &	Description	Level of Effort	Cost per Unit	Cost	Frequency	Schedule	Monitoring and Management Cost (every year for five years, then every 5 years after that)	Annual Maintenance Cost (every year)	Annual Maintenance Cost (every year after five years)
						years thereafter				
Task 5: Annual Report										
Annual report		Analyze & report; maps, photos	No. of hours 8 hours	\$ 70/hour	\$560	annually first five years; every five-years thereafter	By August 1st annually first five years; every	\$560.00	560.00	
Land & Account administration		Review and verify monitoring results and recommendations from BWG. Document in annual and five-year reports, and file with RAs.	No. of hours 8	\$70 /hour	\$560	annually first five years; every five-years thereafter	annually first five years; every five-years thereafter	\$560.00	560.00	
Vehicles and supplies		Time & Mileage	No. of hours: 4	\$ 106/hour	\$424	Annually	February -June	\$424.00	\$424.00	\$424.00
Totals					\$12,404.00			\$12,404.00	\$8,404.00	\$7,284.00

VIII. PROJECT ALTERNATIVES

Section 10(a)(2)(A)(iii) of the ESA requires that the CV Link HCP analyze alternative actions that would (1) not result in incidental take of Casey's June beetle or (2) reduce such incidental take below levels anticipated for the proposed project, and state the reasons why such alternatives are not being proposed for implementation. In addition to the proposed alternative to adopt and implement the CV Link HCP, CVAG has considered the No Project Alternative. An additional alternative considered but determined to not be feasible was an on-street route for CV Link between El Cielo and the western boundary of Cathedral City. This would require using Mesquite Avenue and Dinah Shore Drive. This alternative is not viable because it would place CV Link users on Dinah Shore Drive, a busy high-speed roadway, and through the Dinah Shore/Crossley intersection, in areas with high traffic volumes and limited access to protected bike lanes.

A. Alternative A: No Project Alternative

Under the No Project Alternative, no HCP would be developed, and no incidental take permit would be issued by the Service authorizing CVAG to undertake or permit development and other activities within the Project Area. Under this alternative, CVAG would not receive authorization to impact Casey's June beetle in connection with otherwise lawful activities in the Project Area. Under this alternative, the existing path would continue to occur through Demuth Park and the Tahquitz Creek Golf Course. There would continue to be pedestrian activity and some bicycle activity on the existing path, and golf cart activity on the golf course portion of the path.

Avoidance, minimization, or mitigation measures would not occur as the path is an existing, active facility. There would also be no preservation, conservation, creation or restoration of habitat under this alternative; nor would there be a prohibition on lighting during the active mating season.

CVAG would not be engaged in any activities that would result in a take of the Casey's June beetle, and therefore would not need incidental take permits from the Service. It would also not implement targeted management practices throughout the project site to minimize impacts to Casey's June beetle.

IX. PLAN IMPLEMENTATION

A. Responsibilities

CVAG is responsible for implementing each adopted measure described in this HCP and for providing sufficient funds to implement such measures. CVAG will not be responsible for any additional actions or costs that are not identified in the HCP, as long as the commitments and provisions of the HCP are fully implemented.

B. Changed and Unforeseen Circumstances

According to Federal regulation 50 CFR §17.3, “changed and unforeseen circumstances” of the HCP describe potential future responsibilities based on whether changes in circumstances could have reasonably been foreseen and whether they have been addressed by the CV Link HCP. This section of the HCP addresses changed and unforeseen circumstances in accordance with the regulations.

Changed Circumstances

The term “changed circumstances” describes the “changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the Service and that can be planned for (e.g., the listing of a new species, or a wildfire or other natural catastrophic event in area prone to such events).”

CVAG intends to maintain the CV Link path through the Survey Area for the life of the permit. No changes are anticipated, other than regular maintenance of facilities constructed with initial implementation of this segment of the path.

If monitoring or research indicates that performance standards are not attainable because technologies to attain them are either unavailable or infeasible, CVAG and the Service will consider adaptive management revisions to the management plan to address these standards and modify the management plan by mutual agreement. This will include discussion of use of additional restoration sites at the golf course if the restoration as proposed is not successful as demonstrated by monitoring results. Use of additional sites will require approval and cooperation of the City of Palm Springs.

The only other potential change in circumstances could be the listing of additional species under the ESA. If a species other than the Casey's June beetle were to be listed under the ESA during the term of the Section 10(a)(1)(B) permit, and newly-listed species could be affected by activities covered by the HCP, the Service may consider this to be a changed circumstance. In this case, the Service will reconsider the terms of the HCP, and covered activities could be modified, as mutually agreed upon by the Service and CVAG, to ensure that the activities covered under the HCP are not likely to result in take of, jeopardy to, or adverse modification of the critical habitat of, the newly-

listed, non-covered species. CVAG would implement modifications to covered activities mutually agreed to by CVAG and the Service, as necessary to avoid the likelihood of take of, jeopardy to, or adverse modification of the critical habitat of, the non-covered species. CVAG would implement such modifications when the Service approved an amendment of the Section 10 permit, in accordance with applicable statutory and regulatory requirements, to cover the non-covered species or when the Service notified CVAG in writing that the modifications to the HCP covered activities were no longer required to avoid the likelihood of take of, jeopardy to, or adverse modification of the critical habitat of, the non-covered species.

Unforeseen Circumstances

The term “unforeseen circumstances” describes the “events affecting a species or geographic area covered by the HCP that could not reasonably have been anticipated by the participants during the development of the HCP, and that result in a substantial and adverse change in the status of a Covered Species.” If unforeseen circumstances arise during the life of the HCP, the Service cannot require the commitment of additional land or financial compensation, or additional restrictions on the use of land, water, or other natural resources other than those agreed to in the HCP, unless CVAG consents.

The Service may require additional measures in some cases, including those in which:

1. The Service demonstrates an unforeseen circumstance exists;
2. Such measures are limited to modifications within conserved habitat areas or to the HCP's operating conservation program for the affected species;
3. The original terms of this conservation plan will be maintained to the maximum extent possible; and
4. Additional conservation and mitigation measures will not involve the commitment of additional land, water, or other natural resources otherwise available for development or use under the original terms of the HCP without the consent of all parties.

The Service bears the burden of demonstrating that unforeseen circumstances exist. A finding of unforeseen circumstances must be clearly documented, be based upon the best available scientific and commercial information, and be made considering certain specific factors. These factors may include:

1. Size of the current range of the CJB;
2. Percentage of the range adversely affected;
3. Percentage of the range conserved by the HCP;
4. Ecological significance of that portion of the range, level of knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP, whether the HCP was originally designed to provide an overall net benefit; and
5. Whether the failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If such a finding is made and additional measures are required, CVAG will work with the Service to appropriately redirect resources to address the unforeseen circumstances. If the Service

determines that additional mitigation measures are necessary to respond to the unforeseen circumstances, additional mitigation measures considered by the Service shall be as close as possible to the terms of the original HCP. Additional measures shall not involve the commitment of additional land or financial compensation, or additional restrictions on the use of land or other natural resources otherwise available for development or use under the terms of the original HCP without the consent of CVAG.

If the survey report prepared by CVAG for any year does not document the presence of Casey's June beetle on the conservation easement lands, CVAG will cause to be conducted focused surveys during the next two flight seasons to accurately detect the presence or absence of the CJB within the conservation easements. CVAG shall immediately notify the Service that focused surveys will be conducted, and provide the Service with the survey results within 30 days of completion of the survey each year. The applicant and the Service will evaluate the results of the surveys to determine if unforeseen circumstances have likely resulted in any absence and reduced numbers of the CJB on the conservation easements.

No Surprises Rule

Once an incidental take permit has been issued pursuant to an HCP, and its terms and conditions are being fully implemented, the federal government may not require additional conservation or mitigation measures, including land, water, money, or restrictions on land (50 CFR Part 17, 1998). If the status of a species addressed under an HCP unexpectedly declines due to unforeseen circumstances, and the additional measures noted above are unsuccessful in addressing the issue, nothing in the No Surprises rule limits or constrains the Service or any Federal, state, local, or tribal government agency from taking additional actions at its own expense to protect or conserve CJB.

C. Amendments

Amendments to the CV Link HCP may be proposed by CVAG or the Service. The party proposing the amendment shall provide the other party with a written statement of the reasons for the amendment and an analysis of the effect of the amendment on the environment, Casey's June beetle, and the implementation of the HCP. The permit may be amended in accordance with all applicable legal requirements, including, but not limited to, the ESA, NEPA, and regulations issued by the Service in effect at the time of the proposed amendment.

Minor Amendments

Minor modifications may include, but are not limited to the following:

1. Correction of typographic, grammatical, and similar editing errors that do not change the intended meaning;
2. Correction of any maps or exhibits to correct errors in mapping or to reflect previously approved changes;
3. Changes to survey, monitoring, or reporting protocols and similar revisions;
4. The addition of new Covered Activities, provided the activity will not result in an adverse effect on the environment that is new or significantly different from those analyzed in connection with the original HCP, or result in the additional take of Casey's June beetle.

5. Minor adjustments to permit area boundaries that do not result in a net loss of conservation area acreage. A change in performance standards if monitoring or research indicates that performance standards are not attainable because technologies to attain them are either unavailable or infeasible.

All minor modifications must be approved by CVAG and the Service. Minor amendments can be completed administratively without amending the underlying Section 10(a)(1)(B) permit or the scope of the HCP, and shall occur between CVAG and the appropriate Service Field Office.

Major Amendments

A major amendment is a change in the HCP that may affect the impact analysis or conservation strategy in the HCP. Major amendments require amending the HCP and the incidental take permit through the same formal review process as the original HCP and permit, including NEPA/CEQA review, a Federal Register notice, and/or an internal Section 7 consultation within Service.

Major modifications may include, but are not limited to the following:

1. Revisions of the permit area boundary that do not qualify for a minor modification;
2. Addition of species to the covered species list;
3. Increasing the allowable take limit of existing covered activities or adding new covered activities to the HCP; and
4. Modifications of any action or component of the conservation strategy under the HCP, including funding, that may substantially affect levels of authorized take, effects of the covered activities, or the nature or scope of the conservation program.

D. Suspension/Revocation

The Service may suspend or revoke its permits if CVAG fails to implement the HCP in accordance with the terms and conditions of the permits or if suspension or revocation is otherwise required by federal law. Suspension or revocation of a Section 10(a)(1)(B) permit, in whole or in part, must be in accordance with 50 CFR 13.27-29, 17.22 (b)(8), and 17.32 (b)(8).^{19,20}

E. Permit Renewal

Upon expiration, the Section 10(a)(1)(B) permit may be renewed without the issuance of a new permit, and that biological circumstances and other pertinent factors affecting covered species can be demonstrated not to be significantly different than those described in the original HCP.

The renewal request must be submitted in writing along with the original permit number. The renewal request must be filed 30 days prior to the permit expiration.

¹⁹ U.S. Government Publishing Office (Part 13 – General Permit Procedures); <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr;sid=742e9721530539b0a46e5cf13fca219f;rgn=div5;view=text;node=50%3A1.0.1.2.7;idno=50;cc=ecfr;> Accessed on 08.05.2016.

²⁰ Habitat Conservation Planning and Incidental Take Permit Processing Handbook (1996)

F. Permit Transfer

No transfer of the permits is foreseen or expected by CVAG. Should a transfer be proposed by CVAG for reasons not foreseen at the time the permits are secured, a Minor Amendment to this HCP shall be processed to bind the proposed permittee to this HCP.

G. Other Measures as Required by Director

Under Section 10(a)(2)(A)(iv) of the ESA, "other measures that the USFWS Director may require" shall also be described in the HCP. No other measures are known at this time for the CV Link HCP. Should they arise, "other measures" will be determined based on consultation and mutual agreement between the Service and CVAG.

X. LITERATURE CITED

AMEC Environmental & Infrastructure, Inc. July 2014. Focused Surveys for Casey's June Beetle (*Dinacoma caseyi*) for the CV Link Project.

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