

# BUDGET NEEDS ASSESSMENT APPLICATION

**Fall 2019**

Name of Person Submitting Request:	<b>TATIANA VASQUEZ</b>
Program or Service Area:	<b>BIOLOGY</b>
Division:	<b>SCIENCE</b>
Date of Last Program Efficacy:	<b>SPRING 2017</b>
What rating was given?	<b>Continuation</b>
Amount Requested:	<b>\$850</b>
Object Code:	<b>5310</b>
<a href="#">Object Codes</a> <a href="#">Object Code Guidelines</a>	
State specifically how this budget will be used:	<b>Fee payment for renewal of Fish &amp; Wildlife Special Permit for handling and collecting biological organisms</b>
Strategic Initiatives Addressed:	Goal 1, Access Goal 2, Student Success
<a href="#">Strategic Directions + Goals</a>	

*Note: To facilitate ranking by the committee, please submit separate requests for each general area of budget augmentation needed. Do not request a lump sum to encompass many different areas.*

One-Time     ☐                      Ongoing     ☒

Does program or service area have an existing budget?     Yes     ☐     No     ☒

Are there alternative funding sources? (*for example, Department, Budget, Perkins, Grants, etc.*)

Yes     ☐     No     ☒

If yes, what are they: \_\_\_\_\_

1. Provide a rationale for your request (Give a detailed explanation of why this budget increase is needed.)

The **request is to fund the renewal fees of a required Special Permit with the State of California Fish and Wildlife and US Fish and Wildlife** as part of the responsibilities of a biologist working in the outdoors. The Biology major is a three-course program, in which two of the courses require field biology exposure in the form of an outdoor classroom. Outdoor classroom activities afford our students the opportunity to capture, handle, measure, and identify animals and plants. The experiential opportunities that cultivate technical and understanding of abstract concepts are conducted in a diversity of natural environments such as the San Bernardino National Forest, the Mt San Jacinto State Park, the Mojave Desert, Dana Point Tide Pools, and San Pedro Harbor among others. But to perform ethical outdoor activities the Fish and Wildlife agencies require us to have a special permit for the handling and collection of organisms. Students are also engaged in short-term and long-term studies from which they benefit because study results are presented in local and/or national conferences (Strategic goal 1.11, 2.13, 2.17). Student and faculty collected data is also contributed to local agencies that are in dire need of natural history information for conservation and land management efforts. For five academic years the AS degrees in Biology have increased (Strategic goal 2.5).

Furthermore, SBVC's Biology teaching museum is dependent on our ability to perform ethical collections permitted by the State and Federal agencies. The teaching botanical and zoological museum is growing. It already provides three particular functions: supports training and teaching for various courses (Cell and Molecular Biology, Organismal Biology, Evolutionary Ecology, General Biology for non-majors, and History of Life), the Geology Department and the Environmental Science program can also use them; the teaching museum is used frequently as

reference for student research projects; and K-12 students and members of the local community regularly tour the collections to gain insight into the academic vision of the College (Strategic goal 1.6, 2.8, 2.9). Yet, our department is constrained to maintain support of these activities since there is no funding for the Special Permit fees.

Biology students and faculty are engaged in a number of bio-monitoring projects with different agencies (San Bernardino National Forest Service, San Bernardino County Special Districts, Pomona College, Cal Poly Pomona, and Rancho Santa Ana Botanical gardens). Thus, reliable data and access to collected specimens are vital. These affiliations have been developed to enrich students' hands-on training and provide them with job skills (Strategic goals 1.6, 2.8.5, 2.8.7) and labor force access. But a Special Permit is required to perform any scientific work.

2. Indicate how the content of the department/program's latest Efficacy Report and/or current EMP supports this request and how the request is tied to program planning. (*Directly reference the relevant information from your latest Efficacy Report and/or current EMP in your discussion.*)

The funds available to the Biology department are limited (see Program Efficacy Report, *challenges* p. 20). The budget supply does not allocate funds to special permits such as the one requested here. Our Program Efficacy report (pp. 18-19) demonstrates the wide diversity of employment opportunities that our Biology students have today. But they must be ready with various technical skills. The EMP data for AS Biol degrees (p. 1) demonstrate our commitment to leading the students' career pathways. According to the Efficacy Team Analysis and Feedback (p. 4), "the department has many strengths which are utilized to support the goals and objectives of the department" and "these strengths support the greater college community..."

3. Indicate any additional information you want the committee to consider (*for example, regulatory information, compliance, updated efficiency, student success data, or planning, etc.*).

In Biology courses in which the outdoor classroom has been implemented, student success rates range between 70-77% (B.O.R.G Data Cubes). Science courses are typically perceived to make gains in the lab, but in the life sciences the lecture and lab spaces are actually outside. A study published in Bioscience (At a Crossroads: The Nature of Natural History in the Twenty-First Century, Apr 2016), reveals that early-career scientists benefit greatly when exposed to "opportunities to gain desired skills" and "opportunities for exposure to natural areas and environments."

4. Indicate any related costs (including any ongoing maintenance or updates) and department/program plans to support those costs.

Renewal of Special Permit must be done every three years with each agency (State and Federal State & Wildlife). Budget supply cannot be allocated to object code 5310.

5. What are the consequences of not funding this budget request?

- Eliminate outdoor classroom activities due to failure to acquire permit.
- Failure to meet the Department's curricular objectives (in COR). Failure to meet accreditation standards.
- Anemic student engagement and student success.
- Weak preparation for upper division and professional school as the parity with "native" university students is reduced.
- Reduce opportunities for students and faculty to collaborate with outside agencies (e.g., US Forest Service, RSABG, Big Bear Pebble Plain Committee)