Proposal Title: MVC Campus Trail and Burrowing Owl Education Site

Originator and Position: Nick Reeves, Associate Professor and Chair, Biological Sciences and Farah Firth, Associate Professor and Chair, Chemistry

Area Dean: Michael Beckham, Interim Dean of Mathematics and Science

Campus: Menifee Valley Campus

Area Vice President: Brandon Moore, Interim Vice President of Instruction

Budget Account Code: Not sure – General fund or bond funds

*Total Amount Requested: $151,100

*Please complete all applicable portions of “Section VI - Projected Expense File” now to determine the “Total Amount Requested” above.

Please check:

- One-Time Funding: ☒
- On-Going Funding: ☐
- Safety: ☐

1.) For what are you asking? 2.) Why is the request timely and important? 3.) Where was the need identified? Please answer these three questions in 250 words or less. See instructions for further explanation.

1. We are asking for the construction of a trail ($119,600), fencing ($11,500), gazebo ($3,000), artificial burrowing owl burrows ($5,000), telemetry equipment ($5,000), webcam equipment ($2,000) and educational signage ($5,000) to enhance the biology research area in the undeveloped southeast part of the Menifee Valley Campus. 2. This is a timely request because burrowing owl (a protected species under the California Environmental Quality Act - CEQA) burrows are found in this area of campus and in projected development areas, and the conservation of this part of the Menifee campus would aid in their protection and also in the College’s CEQA Evaluation. Also, there is a data driven push to develop Course based Undergraduate Research Experience (CUREs) because they are high impact teaching strategies. This site would be used by several of our courses for relevant field research experiences. The trail to the site could be used by our Physical Education courses too. 3. An honors student named Tammy Russell has been monitoring our burrowing owl population for a few years and has recently developed a report on their population as part of a biology independent project class. Also, the MVC biology department has received NSF funding to develop a biodiversity CURE in collaboration with UCSD. Lastly, the MSJC district is currently undergoing a CEQA certification and the development of a protected space for a protected species may be an important demonstration of our commitment to environmental quality. The California Department of Fish and Wildlife is willing to support this effort and help develop a site that will conserve our resident burrowing owls.
Section I – Program Review and Learning Outcomes - 20 points possible

1.) Identify support from your 2014-15 Comprehensive Program Review (CPR) or 2015 – 16 Annual Program Assessment (APA) for this request (8 points). [Link to Program Review]

2014-15 LA MASC CPR 2011-14 IIA. Planning and Resource Requirements – Goals: page 45 Goal 4: Continue to grow our Majors Biology program and make curriculum more inquiry based through authentic research experiences. 2015-16 LA MS APA: IIA. Planning and Resource Requirements – Goals: Goal 8: Leverage and preserve undeveloped campus space as an educational resource IIB. Planning and Resource Requirements – Facilities: 2. We are working to develop an outdoor research site on both campuses that would provide realistic and relevant Course based Undergraduate Research Experiences for students and opportunities for other disciplines and uses as well.

2.) How will this request help improve student learning in the course and/or program (12 points)? [Link to Learning Outcomes]

ILOs - Scientific Awareness: The student will possess an awareness of the physical and biological principles related to science. – The outdoor facilities being requested above supports the investigation of biological principles. - Biological Sciences DLOs - 1. Explain and appreciate how scientific knowledge is obtained and verified. - The outdoor facilities above will enable our department to offer a more relevant and up to date laboratory experience. 2. Explore and appreciate the facts and principles concerning heredity, variation and diversity, the cell, evolution and natural selection. – The outdoor facilities will enable new and improved activities to explore these fundamental concepts in biology 3. Explain and appreciate the cycling of matter and the flow of energy in living systems. – The concepts happen outdoors and this outdoor facility will enable their exploration 4. Achieve basic literacy in the language of biology. - Basic literacy is gained through experiential learning. Students will be able to experience the concepts of biology using these outdoor facilities. - Additional Course Learning Outcomes specifically addressed by the items in this RAP proposal - BIOL-115 - Topics in Biology – SLO 1: The student will collect data and test hypotheses SLO 2: The student will be able to identify the need for a control group and sufficient sample size in a scientific experiment. – BIOL-117 - CLO 1: Describe and apply the scientific method and explain how it is related to the study of conservation biology. CLO 3: Evaluate the effects of human activities on habitats and their inhabitants and demonstrate how to assess environmental impact of these activities. – BIOL-140 - CLO 1: The student will consider evolution by natural selection as the basis of biodiversity.; CLO 2: The student will demonstrate proficiency in understanding the cycling of energy and matter in ecosystems. CLO 3: the student will relate the fundamental ideas of energy transfer and the cycling of matter to sustainable human societies – BIOL-144 - CLO 3:
The student will appreciate the role of natural selection in the continuing adaptation of plants to their ever changing environments. – BIOL-146 - CLO 1: The student will evaluate the history of life on planet earth.

Section II – Alignment with Institutional Priorities via the Strategic Plan - 25 points possible

1.) How is your request aligned to the strategic goals below? Check all (typically 2 – 6 goals total) that apply. Click here for the 2016-17 Prioritization Allocation Rubric (PAR) for points-weighting during scoring.

2014-17 Strategic Plan Goals

☒ 1. Reduce time to completion of student educational goals and increase degree, transfer and certificate completion.
☒ 2. Drive institutional decision-making using internal and external data to inform planning and prioritize resources.
☐ 3. Refine staffing plan and process
☒ 4. Improve fiscal responsibility that is sustainable for the long term
☐ 5. Identify sustainability strategies to improve efficiencies in processes district-wide
☒ 6. Expand and improve student involvement in campus life
☒ 7. Promote quality of institution through enhanced communication within the community (internal/external)
☒ 8. Enhance the overall campus life experience
☒ 9. In an effort to serve students build bridges between instructional services, student services and administrative services
☒ 10. Increase the College’s visibility, value and recognition in the service area

2.) Please describe the connections between the goals you checked and your proposal (200 words maximum):

Goal 1: Objective 1.2 Increase face-to-face and online course completion and success rates leading to increase in transfers to four-year institutions – The facilities requested above supports student learning and provides a better learning environment that will lead to improved student retention and success. Subgoals addressed - Promote student success through focused and tactical advising, innovative learning strategies, and student education plan development. The use of undeveloped space on campus is an innovative way to leverage resources for learning. These facilities improvements will also drive institutional decision-making using data (Goal 2) since this technology will impact how department learning outcomes are taught and assessed. The use of undeveloped space will help the college achieve a more fiscally sound position (Goal 4) because more campus resources will be in use without having to purchase additional resources. This facilities improvement will result in higher utilization of our campus resources. The facilities improvement will also promote enhanced communication within the community (Goal 6) The implementation of this conservation site plan will not just include students that
are enrolled in courses that do research in this area, but will also be available for students wishing to do independent research, under an appropriate professor. It will also engage the students outside of these courses by having an example of native habitat that once filled their local community. These sorts of conservation areas serve as an ambassador for more conservation and to create empathy in individuals that were not exposed to the outdoors and environmental concerns in their youth. This concern and engagement in conservation will lead to more student involvement, and hopefully more activities to help the environment and our local habitat even more. An idea that would ignite this movement would be to establish an Environmental club that helps maintain the conservation area. (Goal 7) since students, staff, and faculty will have opportunities to use this space for many purposes and make connections through the use of this space. This facilities improvement will also “enhance the overall campus life experience” (Goal 8) since they will meet the goal of “provid(ing) facilities that enhance student engagement” and (Goal 8.1) “Improve the aesthetics of campuses to instill pride of ownership and creating a sense of place” Students enjoy and appreciate an active learning environment. Students learn more from hands-on experiences that force them to problem solve. (Goal 8.3) and will increase student awareness “of services and activities using...other technologies” (Goal 8.4). Equipment will “increase professional development” (Goal 9.1) opportunities and “think tank sessions” (Goal 9.3) through districtwide training opportunities for biology faculty. This facilities improvement will increase the College’s visibility, value, and recognition (Goal 10) since this will improve the reputation of the Menifee Valley Campus in the local community as a site that is at the forefront of environmental protection and also a destination for the community to learn more about local biodiversity.

Section III – Alignment with Institutional Plans - 15 points possible

Explain how your proposal is supported by the following plans: 2009-16 Educational Master Plan (4 points), Distance Education Plan (4 points), Technology Plan (4 points) and/or Facilities Master Plan (3 points). Link to Plans

This conservation site will provide a new and engaging spaces for activities that will improve our appearance which supports the the Education Master Plan on page 36 that “The opportunity to provide intellectual and cultural activities in the District” and “The fact that new facilities must compete with surrounding colleges in terms of access, appearance, and educational program”. We would also like to develop a live monitoring web cam system in collaboration with the technology departments and disciplines to watch the activities of the burrowing owls in real time which is supported by the Technology Master Plan - Goal 1 – Provide a stable, robust, and scalable core infrastructure to meet the ever-expanding current and future technology requirements of the College community. This future technology requirement will provide a new way for our students and the community to engage in the college. The Menifee Facilities Master Plan is supported through the Open Space Plans. In the Menifee Plan it incorporates pockets of “open space”. As the plan is, this proposed space will require extensive landscaping and large amounts of irrigation and water use. The proposed conservation site would be water-wise and have native and low maintenance flora. It would provide an open space for students, as well as an enjoyable fitness trail, away from the fumes of cars. The overall Facilities Master Plan is supported through the alignment of this project with the goal of providing additional programs for MSJC students by providing them a hands on research space. Many top universities and colleges have adjacent conservation areas or reserves for students to conduct independent research at and to also
incorporate into appropriate courses. Providing a space at MSJC would further the college’s position as a progressive community college. Hands-on experience in field research cannot be duplicated in a classroom. Providing this opportunity would strongly support student learning and give students a high standard of education. This project will not only promote student-faculty interaction by students working in small research groups, or one-on-one with instructors, but also a collaboration between faculty members. Instructors can work together to establish long-term and multi-disciplinary research projects that different aspects of could be incorporated into different courses. The projects that this area could provide would be interdisciplinary, such as: biological, environmental, hydrological and art studies, like photography and painting courses. Besides providing a vital resource to college courses, this will be an area of aesthetic value. The students and staff, as well as the community, would be able to enjoy the walking trails and open area. Burrowing owls are also a popular and sought-after bird to spot for bird watchers and the conservation area will be a landmark that people will was to visit. Once the project is established, maintenance of the conservation area will be low. The planned set up of the area is efficient and low cost considering the value of the return. Once initial plans are accomplished, the long-term maintenance of the area is at low cost and labor. Much of the upkeep work will be done by students to get hands on conservation experience, lessening any burden on facilities and maintenance operations. This area would provide a clean, natural area for people to get outside and walk, and enjoy the native flora and fauna that this conservation area will protect. The initial plans for the project will enhance the natural area and species that are already present. These plans will support a transition to a completely native habitat, while providing sustainable and environmentally sound access to the site for people's enjoyment. This plan also addresses any CEQA concerns with the campus being home to a significant burrowing owl population.

Section IV – Goals and Measurable Outcomes – 30 points possible

1.) Describe your goal(s) for this project (10 points). How will this improve student learning or enhance institutional services? For a review of goals, see pp. 18 – 20 of a presentation via this link.

Goal One: Provide an enhanced and engaging field learning site for biology and environmental studies students to increase retention and success rates. Goal Two: Create an open space that the college and local community can utilize for health and enrichment. Goal Three: To protect the breeding habitat of the burrowing owls that are currently living on the Menifee Valley Campus.

2.) What are the measurable outcomes for this RAP (10 points)? That is, how will progress toward meeting your goal(s) be identified and/or measured? Click here for learning outcome reference materials.

Measurable outcome for Goal One: Creation and implementation of new field lab activities in biology and environmental studies courses and review of student retention and success data in the future as part of the program review process. Measurable outcome for Goal Two: Track the number of courses utilizing the conservation site and survey the campus community to find out how many staff, faculty, administrators, and students are using the site. Measurable outcome for Goal Three: Track the number of burrowing owls that return each year and the number of offspring. This may be done in collaboration with the California Department of Fish and Wildlife.
3.) Explain how your outcomes are tied to your CLOs/PLOs/AUOs/SLOs (10 points).

**ILOs** - Scientific Awareness: The student will possess an awareness of the physical and biological principles related to science. – **Goals 1 and 2 above**; **Biological Sciences DLOs** - 1. Explain and appreciate how scientific knowledge is obtained and verified. – **Goals 1, 2, and 3 above** 2. Explore and appreciate the facts and principles concerning heredity, variation and diversity, the cell, evolution and natural selection. – **Goals 1, 2, and 3 above** 3. Explain and appreciate the cycling of matter and the flow of energy in living systems. – **Goals 1, 2, and 3 above** 4. Achieve basic literacy in the language of biology. – **Goals 1, 2, and 3 above**; **Biological Sciences CLOs**: For many of the CLOs mentioned in 2.) the students will successfully develop biology laboratory skills and **Goal 1 above** support those CLOs. For other CLOs mentioned in 2.) the students will gain an understanding of the scientific method and how it is used to develop new scientific knowledge and **Goal 1 above** above support those CLOs. Lastly, for other CLOs mentioned in 2.) the students will develop discipline specific knowledge and **Goal 1 above** support these CLOs

### Section V – Implementation Plan – 10 points possible

What are the steps that you will take or need to be taken to implement this proposal?

1.) Who is in charge of implementing the project (2 points)? Nick Reeves

2.) What are the projected start and end dates (2 points)? Fall 2016 to Spring 2017

3.) What other departments will need to assist to assist with the acquisition/implementation of the project (2 points)?

We will need support from the Business Services and Facilities Departments.

4.) When will the outcomes be measured (2 points)? During the 2017-2018 academic year after the site has been constructed.

5.) How will you measure the desired outcomes (2 points)? Analysis of institutional data in our Annual Program Assessment, analysis of student learning outcome data in eLumen, data from surveys of the owls at the conservation site, surveys of the college community.

### Section VI - Projected Expense Profile

For the object codes and titles below, please indicate the monetary amounts requested.
Object Code 4XXX
Supplies and Materials:  Click here to enter text.  Amount requested:  Click here to enter text.
Supplies and Materials:  Click here to enter text.  Amount requested:  Click here to enter text.
Supplies and Materials:  Click here to enter text.  Amount requested:  Click here to enter text.

Object Code 5XXX
Services:  Click here to enter text.  Amount requested:  Click here to enter text.
Services:  Click here to enter text.  Amount requested:  Click here to enter text.
Services:  Click here to enter text.  Amount requested:  Click here to enter text.

Object Code 6XXX
New Equipment/Building or Site Improvements:  Click here to enter text.  Amount requested:  Click here to enter text.
New Equipment/Building or Site Improvements:  Click here to enter text.  Amount requested:  Click here to enter text.
New Equipment/Building or Site Improvements:  Click here to enter text.  Amount requested:  Click here to enter text.

(S2) Subtotal from Non-Personnel Requests:  Click here to enter text.

Total Proposed Budget (sum subtotals (S1) and (S2) above):  Click here to enter text.

3. Secondary Effects (if this proposal is approved)

If a Classified/Administrative Personnel Prioritization Request is being submitted in tandem with this RAP, what additional space, if any, is needed to accommodate this position:  Click here to enter text.

For equipment and technology requests, will additional space be needed to accommodate the requested equipment?  If so, where is the proposed location?  Click here to enter text.

Will requested equipment require maintenance agreements or support personnel?  If so, what the projected costs?  Click here to enter text.

Please list future year anticipated needs and estimated financial needs.  NOTE:  This section refers to any anticipated funding not addressed by this RAP but required in the future.  This will not be automatically funded.  A new RAP must be completed in the future.

Fiscal Year:  Click here to enter text.  Anticipated need:  Click here to enter text.  Estimated amount:  Click here to enter text.
Fiscal Year:  Click here to enter text.  Anticipated need:  Click here to enter text.  Estimated amount:  Click here to enter text.
Fiscal Year:  Click here to enter text.  Anticipated need:  Click here to enter text.  Estimated amount:  Click here to enter text.
Fiscal Year:  Click here to enter text.  Anticipated need:  Click here to enter text.  Estimated amount:  Click here to enter text.