

Division of Apprenticeship Standards (DAS)

Apprenticeship Program Summary Sheet

To: Adele Burnes, Chief
From: Maria D. Silva Reyes
CC: Program Planning and Review
Date: December 4, 2025

Program Name: Marine Science Research Technician Apprenticeship
Industry: Agriculture
DAS File No.: 101524
Grant Awardee: ☐ No ☒ Yes 23COYAAP-30

Actions:

- ☒ Proposed new apprentice program
- ☐ Existing apprenticeship program adding new occupations
- ☐ Existing apprenticeship program expanding area of operations
- ☐ Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:

None

Request for Approval under Labor Code 3075:

Marine Science Research Technician Apprenticeship is not intended to train in the building and construction trades and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements within the meaning of Labor Code sections 1720 and 3075 and will not train or dispatch apprentices in the building and construction trades or firefighters occupations.

Comments:

Reef Check Foundation's Marine Science Research Technician program provides scuba and scientific diving certification, marine science education, and ocean stewardship training to low-income tribal and underserved communities historically excluded from the marine science and resource management space. This is a 24-month program that incorporates classroom and ocean-based instruction. Participants will gain skills in scientific diving. They will learn species identification, data collection, data entry, and how to integrate complex ideas around math, biology, oceanography, marine science, and climate change. They will learn the importance of the kelp forest, and the impact of climate change on ocean health and conservation. Through scuba, they will develop skills in time management, team-building, communication, and

problem solving. This program is designed to accelerate and broaden access for a more diverse workforce in marine research, ocean conservation, marine resource management agencies, sustainable fisheries, aquariums, ocean recreation/ecotourism and other Blue Economy jobs.

Reef Check Foundation will oversee the apprenticeship program herein and seeks approval from the Department of Industrial Relations, Division of Apprenticeship Standards for the following:

Proposed Occupation, Wage Rate & O*Net Code:

- Marine Science Research Technician O*Net: 19-4021.00
Professional Worker Wage: \$24.00 per hour
Proposed Apprentice Wage: \$21.00 per hour
Proposed No. of Apprentices: 15

Proposed Employers:

- Reef Check Foundation - 5760 Lindero Canyon Road, Suite 1116, Westlake Village, CA 91362
 - Occupation(s): Marine Science Research Technician

Marine Science Research Technician Apprenticeship Program Standards

Table of Contents

Program Standards.....	1-7
List of Committee Members.....	Attachment A
Training Schedule and Working Conditions	
Marine Science Research Technician.....	Attachment B
Local Education Agency Letter(s).....	Attachment C
Sample Employer Agreement	Attachment D

Article I Purpose and Policy

The parties hereto declare it to be their purpose and policy to establish an organized, planned system of apprenticeship, conducted as an education-sponsored, employer-based undertaking.

These standards have, therefore, been adopted and agreed upon under the Shelley-Maloney Apprentice Labor Standards Act of 1939, as amended, to govern the employment and training of apprentices in the trade, craft or occupation defined herein, to become effective upon their approval.

Article II Craft, Trade or Occupation, Related and Supplemental Instruction, Term of Apprenticeship, Ratio, Wage Schedule and Work Training

Occupation: Marine Science Research Technician

O*Net Code: 19-4021.00

Attachment: B

Article III Organization

There is hereby established the above-named master apprenticeship committee. The committee shall consist of three (3) members, who shall be selected by and represent the employer organization(s) signatory hereto. In addition, there shall be one (1) apprenticeship consultant representing the Division of Apprenticeship Standards and one (1) advisor from the Local Education Agency and such other advisors as the committee shall determine. Such advisors and the apprenticeship consultant shall act without vote.

Article IV Jurisdiction

These standards shall apply to the employer and employee organizations signatory hereto; their members, to other employers who subscribe hereto or who are party to a collective bargaining agreement with an employee organization(s) signatory hereto, and to all apprentice agreements hereunder.

Area Covered by Standards: Humboldt, Mendocino, Sonoma, Del Norte, Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, San Diego

Article V Functions

The functions of the apprenticeship committee shall be to:

- 1) develop an efficient program of apprenticeship through systematic on-the-job training with related and supplemental instruction and periodic evaluation of each apprentice;

- 2) serve in an advisory capacity with employers and employees in matters pertaining to these standards;
- 3) ensure the program's ability, including financial ability, and commitment to meet and carry out its responsibilities under federal and state law and regulations applicable to the apprenticeable occupation and for the welfare of the apprentice;
- 4) aid in the adjustment of apprenticeship disputes;
- 5) develop fair and impartial selection procedures and an affirmative action plan in accordance with existing laws and regulations and apply them uniformly in the selection of applicants for apprenticeship.

Article VI Responsibilities

The responsibilities of the apprenticeship committee shall be to:

- 1) supervise the administration and enforcement of these standards;
- 2) adopt such rules and regulations as are necessary to govern the program provided that the rules and regulations do not conflict with these standards;
- 3) conduct orientations, workshops or other educational sessions for employers to explain the apprenticeship program's standards and the operation of the apprenticeship program;
- 4) pass upon the qualification of employers and, when appropriate, to suspend or withdraw approval;
- 5) conduct on-going evaluation of the interest and capacity of employers to participate in the apprenticeship program and to train apprentices on the job;
- 6) make periodic evaluations of each apprentice's on-the-job training and related and supplemental instruction;
- 7) ensure safe work site facilities, skilled workers as trainers at the work site, and safe equipment sufficient to train apprentices;
- 8) determine the qualifications of apprentice applicants and ensure fair and impartial treatment of applicants for apprenticeship selected through uniform selection procedures;
- 9) file a signed copy, written or electronic, of each apprentice agreement with the Division of Apprenticeship Standards, within 30 days of execution, with copies to all parties to the agreement;
- 10) establish and utilize a procedure to record and maintain all records of the apprentice's worksite job progress and progress in related and supplemental instruction;
- 11) establish and utilize a system for the periodic review and evaluation of the apprentice's progress in job performance and related instruction;
- 12) discipline apprentices, up to and including termination, for failure to fulfill their obligations on-the-job or in related instruction, including provisions for fair hearings;

- 13) annually prepare and submit a Self-Assessment Review as well as a Program Improvement Plan to the Chief of the Division of Apprenticeship Standards;
- 14) ensure training and supervision, both on the job and in related instruction, in first aid, safe working practices and the recognition of occupational health and safety hazards;
- 15) ensure training in the recognition of illegal discrimination and sexual harassment;
- 16) establish an adequate mechanism to be used for the rotation of the apprentice from work process to work process to ensure the apprentice of complete training in the apprenticeable occupation including mobility between employers when essential to provide exposure and training in various work processes in the apprenticeable occupation;
- 17) establish an adequate mechanism that will be used to provide apprentices with reasonably continuous employment in the event of a lay-off or the inability of one employer to provide training in all work processes as outlined in the standards;
- 18) comply with meaningful representation requirements for the interests of apprentices in the management of the program where apprentices are at least equally represented on an advisory panel established by the apprenticeship committee responsible for the operation of the program;
- 19) adopt changes to these standards, as necessary, subject to the approval of the parties hereto and the Chief of the Division of Apprenticeship Standards.

Article VII Definition of an Apprentice

An apprentice is a person at least 18 years of age, who has met the requirements for selection under the selection procedures of a participating employer, who is engaged in learning a designated craft or trade and who has entered into a written apprentice agreement under the provisions of these standards.

Article VIII Duties of an Apprentice

Each apprentice shall satisfactorily perform all work and learning assignments both on the job and in related instruction and shall comply with the rules, regulations and decisions of the apprenticeship committee.

Article IX Apprentice Agreement

- 1) Each apprentice agreement shall conform to the State law governing apprentice agreements, and shall be signed by the employer, by the program sponsor, and by the apprentice and must be approved by the apprenticeship committee.
- 2) Each apprentice shall be furnished with a copy of or be given an opportunity to study these standards before registration. These standards shall be considered a part of the apprentice agreement as though expressly written therein.

Article X Termination and Transfer of Agreements

- 1) During the probationary period, an apprentice agreement shall be terminated by the apprenticeship committee at the request in writing of either party. After such probationary period, an apprentice agreement may be terminated by the Administrator by mutual agreement of all the parties thereto or cancelled by the Administrator for good and sufficient reason.
- 2) If an employer is unable to fulfill his/her obligations to train under any apprentice agreement or in the event of a layoff, the apprenticeship committee may, with the approval of the Administrator, transfer such agreement to any other employer if the apprentice consents, and such other employer agrees to assume the obligation of said apprentice agreement.

Article XI Lay-off

- 1) If for any reason a lay-off of an apprentice occurs, the apprentice agreement shall remain in effect unless cancelled by the Administrator. However, credit for related instruction shall be given when the apprentice continues such instruction during the lay-off.
- 2) There shall be no liability on the part of the employer, the program, or the committee for an injury sustained by an apprentice engaged in schoolwork at a time when the apprentice is unemployed.

Article XII Controversies

All controversies or differences concerning apprentice agreements that cannot be adjusted locally by the apprenticeship committee or otherwise shall be submitted to the Administrator for determination.

Article XIII Certificate of Completion

- 1) In addition to previous on-the-job training and related school instruction, which is of an approved nature, the Apprentice shall have completed not less than an additional six (6) months as an apprentice under the laws of the State of California and demonstrated mastery of the skills and knowledge of the prescribed program.
- 2) In recognition of unusual ability and progress, the apprenticeship committee may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half percent (12½%).

- 3) Upon evidence of satisfactory completion of apprenticeship, and upon the recommendation of the apprenticeship committee, each apprentice will be issued a Certificate of Completion by the authority of the Chief of the Division of Apprenticeship Standards and the Interagency Advisory Committee on Apprenticeship.

Article XIV Equal Opportunity in Apprenticeship

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation or veteran or military status.

Marine Science Research Technician Apprenticeship will create selection procedures that meet objective standards and maintain a fair and equitable selection process for all applicants.

Article XV Written Applications

Applications for apprenticeship will be accepted:

Request an application by emailing Morgan Murphy-Cannella at mmurphycannella@reefcheck.org.

Article XVI Records

All records will be maintained, in written or electronic form, for five (5) years and kept at:

Marine Science Research Technician Apprenticeship
Reef Check Foundation
5760 Lindero Canyon Road, #1116,
Westlake Village, CA 91362

Article XVII Annual Compliance

Marine Science Research Technician Apprenticeship will submit an annual compliance report to the Division of Apprenticeship Standards as requested by the Division.

Marine Science Research Technician Apprenticeship agrees to accept electronic signatures for these Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted by Marine Science Research Technician Apprenticeship on November 24, 2025 (Committee approval date).

Employer Organization

Reef Check Foundation

5760 Lindero Canyon Road, #1116, Westlake Village, CA 91362

Jan Freiwald, Executive Director

Date

The foregoing apprenticeship standards, being in conformity with the applicable California Labor Code, California Code of Regulations and Federal Regulations, are hereby approved

_____.
(DAS approval date)

Adele Burnes, Chief
Division of Apprenticeship Standards

Date

Attachment B

Training Schedule and Working Conditions

Marine Science Research Technician Apprenticeship

Occupation

Occupation: Marine Science Research Technician

O*Net Code: 19-4021.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be a competency-based approach, with approximately 2000 on-the-job training (OJT) hours, 144 related and supplemental instruction (RSI) hours, and completed within approximately 24 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one year. The period of probation shall be six (6) months.

Article II Wage Schedule

Professional Worker Wage:

\$ 24.00 per hour effective 11/24/2025.

Professional Worker Benefits:

Health & Welfare \$ 2.50 per hour

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0% – 24% Competencies	\$ 21.00 /hour
2nd period	25% – 50% Competencies	\$ 21.50 /hour
3rd period	51% – 75% Competencies	\$ 22.00 /hour
4th period	76% – 100% Competencies	\$ 23.00 /hour

Hours of Work and Working Conditions and Overtime Provision:

Eight hours of labor constitutes a day's work. Employment beyond eight hours in any workday or more than six days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight hours, up to and including 12 hours in any workday, and for the first eight hours worked on the seventh consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

Article III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency

Name of Competency Section**Initial/Date**

List competencies below

1) Master Advanced Scuba Skills for Certification

- a) Conducts deep dive to 100 feet
- b) Navigates underwater using a compass and natural references to follow a predetermined course and return to a designated location
- c) Performs safe boat dives and shore dives
- d) Demonstrates ability to maintain neutral buoyancy and hover
- e) Identifies common species of fish, algae and inverts
- f) Completes scuba e-learning with a passing score

2) Master Rescue Scuba Skills for Certification

- a) Performs and earns certifications in First Aid and CPR
- b) Performs and earns Oxygen Provider certification
- c) Demonstrates self-rescue techniques
- d) Demonstrates emergency rescue techniques
- e) Conducts search and recovery techniques
- f) Completes scuba e-learning with a passing score

3) Master American Academy of Underwater Sciences (AAUS) Scientific Diving Skills

- a) Swims 400 meters in 12 minutes, 25 meters underwater on one breath, treads water for 10 minutes
- b) Collects underwater scientific data using transects, quadrats, species identification, and data recording procedures
- c) Identifies scientific diving regulations (AAUS, OSHA, NOAA) and ethics
- a) d) Demonstrates knowledge, skills and ability to conduct Reef Check Kelp Forest Monitoring Protocol underwater, including setting transects, assessing sites, recording substrates, and identifying of key indicator species (35 fish, 34 marine invertebrates, 11 algae) and collect high quality data
- d) Inputs data from kelp forest monitoring dives
- e) Analyzes data using R statistical computing method

4) Master Kelp Restoration Skills

- a) Performs Reef Check's Kelp Restoration Protocol, including site preparation, restoration activities, safety procedures, and data documentation
- b) Collects urchins and records biodata
- c) Culls and dissects urchins using Reef Check-specified protocol
- d) Inputs kelp restoration data

5) Conducts 24 Reef Check Dives per Calendar Year

Article IV Related Instruction

Related and supplemental instruction (RSI) will be provided and/or overseen by the Local Education Agencies (LEA) whose confirmation of such has been affixed to these Standards for this occupation.

Any significant difference in sample related and supplemental instruction (RSI) listed below, and the related and supplemental instruction (RSI) provided by the Local Education Agency (LEA) will be detailed and included with the Local Education Agency's (LEA) confirmation letter and submitted to the Division of Apprenticeship Standards for review.

Time spent in related and supplemental instruction may not be compensated.

SAMPLE COURSES**HOURS****INTERMEDIATE MARINE SCIENCE & SCUBA COURSES****72**

This intermediate-level course sequence builds the scientific knowledge and diving proficiency required for marine fieldwork. Apprentices complete Advanced Scuba e-Learning and Rescue Scuba e-Learning modules covering navigation, buoyancy control, emergency response, diver rescue, and dive safety. Marine science instruction includes plankton, invertebrates, and fish identification; California's canopy-forming kelps; changes in ocean chemistry and temperature; ocean zones; ocean-atmosphere connections; trophic cascades and food webs; and climate change impacts on nearshore ecosystems. Learning is assessed through quizzes, written assignments, instructor-led discussions, and practical diving exercises.

ADVANCED MARINE SCIENCE SCUBA COURSES**72**

This advanced course sequence prepares apprentices to conduct Reef Check and AAUS-compliant scientific diving operations. Apprentices receive an introduction to Reef Check's citizen science training program, learn standardized kelp forest monitoring methods, and complete AAUS scientific diving instruction focused on research diving safety, underwater survey techniques, data collection protocols, navigation, and field documentation. Training culminates in supervised field surveys in which apprentices collect ecological data using approved Reef Check methodologies. Competency is assessed through written examinations, field practicums, and instructor evaluation of data accuracy, safety, and protocol adherence.

TOTAL HOURS 144**Article V Ratio**

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise two (2) apprentice(s)