

**PROGRAM APPROVAL APPLICATION**  
**NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED**  
**(This application may not exceed 3 pages)**

**Fill In Form**

Environmental Technology /Water Management

Fall 2016

Proposed Program Title

Projected Program Start Date

Rio Hondo College

Rio Hondo Community College District

College

District

**Contact Information**

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Voting Member

Title

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Phone Number

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**Goal(s) of Program (Check all that apply):**

- Career Technical Education (CTE)       Transfer       Other

**Type of Program (Check all that apply):**

- Certificate of Achievement 12-17 (or 17-27 quarter) units       Certificate of Achievement 18+ semester (or 27+ quarter) units  
 Associate of Science Degree       Associate of Arts Degree

**Reason for Approval Request (Check One):**

- New Program       Substantial Change       Locally Approved

**Program Information**

0303.00

Recommended [Taxonomy of Program \(TOP\) Code](#)

NA

Units for Major-Degree

NA

Total Units for Degree

25-26

Required Units-Certificate

**Written Form**

**1. Insert the description of the program as it will appear in the catalog. (See PCAH pp. 142 and 170)**

The Environmental Technology Water Management Certificate is designed to prepare students to enter the water management field or to upgrade working individuals with water management field technician skills. Students will gain the skills and knowledge that allow a person to work in the environmental field in compliance with governmental regulations and at the same time protect human health and the environment.

## **2. Provide a brief rationale for the program.**

This application is being put forward to allow for the augmentation of an already existing Environmental Technology AS Degree (28 units) and COA (30 units) with a number of fewer-unit COAs that are stackable. One, of which, is the Environmental Technology/Water Management Certificate.

The Environmental Technology Water Management Certificate provides students with the courses that all Water Management Technicians would need to be successful in the water management field. The certificate is 25-26 units, so it is designed to be completed within a few semesters and to allow for a rapid transition as an intern/employee into the environmental field. The relatively low unit certificate is also designed to increase the number of certificate “completers” in the Environmental Technology Program. Additionally, the lower unit Environmental Technology Field Technician Certificate contains the core courses that this Water Management Certificate requires for completion and therefore they are “stackable”. The “stackable” nature of these certificates will allow students to be completers with multiple certificates.

A review of the data from the CCCC Program Awards Summary Reports over the last two years (2013-2015) indicates that four of the LAOC/RC schools with the ET TOPS Code (030.03) (Golden West, Irvine Valley, Santa Monica, and Rio Hondo) show a combined AS degree and Certificate completion rate of 34 in 2013-2014 and 19 in 2014-2015. These numbers indicate the need to develop and implement new reduced unit certificates to not only stabilize the number of program awards but most importantly to increase the number of completers.

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## **3. Summarize the Labor Market Information (LMI) and employment outlook (including citation for the source of the data) for students exiting the program. (See PCAH pp. 85-88, 136, 147, 148, 165, 168, and 176)**

Many of these interns are placed in full and part time positions with the same companies that have accepted them as interns. This is partly because of their newly gained experience in the field and because they have the proper coursework and required certifications to work successfully in the environmental field. The new Water Management certificate will definitely enhance the success rates of such job placement.

In terms of nationwide employment trends in the water management field, the Bureau of Labor statistics estimates that the Water and Waste Water Treatment Plant and System Operators positions will continue to increase by 8 % up to 2022 and expects job prospects to be excellent. With California already having the second highest number of Water and Wastewater Treatment and System Operators (9200) and in a prolonged drought, many of these jobs will be found in California, particularly Southern California.

Data from the California LMI Dept. indicate that workers with a SOC of 51-8031 (Water and Wastewater Treatment Plant and System Operators) in the LA-OC Area will have 2087 jobs in 2016 with 78 annual openings. The median income will be \$33.33/hr. The new and more restrictive Stormwater Pollution Prevention Regulations that came into effect in July 2015 will also stimulate job growth in the Water Management field in the near future. Additional job titles include: Operator, Process Operator, Supervisory Control and Data Acquisition Operator, Waste Water Treatment Plant Operator, and Waste Water Operator.

The above data show that annual ET completers have averaged about 26/year over the past 2 years (2013-2014 and 2014-2015), whereas, the combined annual openings in Water and Waste Water Treatment related positions number nearly 80. This indicates not only a more than adequate number of available Water Management jobs for these completers, but it also indicates the room for expanding/increasing the number of ET completers that the ET Water Management certificate is designed to do.

**4. List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (There is space for 10 listings, if you need more, please contact [laocrc@sccollege.edu](mailto:laocrc@sccollege.edu))**

College	Program	Who You Contacted	Outcome of Contact
Citrus College	Water Technology	James Lancaster	Supportive
LA Trade Tech College	Water & Wastewater Tech	Sylvia Ibarra/Bill Elarton	No Objection
Mt. SAC College	Water Technology	Paulo Madrigal	Supportive
Santiago Canyon College	Water Utility Science	Stephen McLean	No Objection

**5. List all courses required for program completion, including core requirements, restricted electives and prerequisites. (There is space for 20 listings, if you need more, please contact [laocrc@sccollege.edu](mailto:laocrc@sccollege.edu)). (See PCAH pp. 143 and 171)**

Courses	Course Number	Course Title	Units
Environ. Technology ( <b>Core Courses</b> )	ET 230	Safety & Emergency Response	4
"	ET 260	Sampling and Analysis	4
"	ET 290	Internship/Cooperative Work Experience	1-2
Biology	BIOL 120	Environmental Biology Lecture	3
"	BIOL 120 L	Environmental Biology Lab	1
Select 4 of these <b>Elective Courses</b> :	ET 270	Waste Water Treatment Plant Operation I	3
Environ. Technology	ET 271	Waste Water Treatment Plant Operation II	3
"	ET 272	Advanced Waste Water Treatment	3
"	ET 273	Storm Water Management, Treatment & Contrl	3
"	ET 274	Industrial Waste Water	3
"	ET 275	Water Treatment	3
"	ET 276	Water Distribution	3

**6. Include any other information you would like to share.**