

MEMORANDUM

To: Carmen Bowen, Professor, Yuba College

From: Ebony J. Benzing, Research Manager, North/Far North Center of Excellence

Date: Tuesday, October 11, 2022

Re: Program endorsement request for new Watershed Management Technician certificate

Background

Yuba College contacted the North (Greater Sacramento) Center of Excellence to request labor market information for a new certificate program: Watershed Management Technician. This memo aims to support the college's application to the North/Far North Regional Consortium for program approval.

In April 2021, the North (Greater Sacramento) Center of Excellence authored a new program endorsement report, "Watershed Management in the Greater Sacramento Region." This report provides the base for the data included in this memo and should be included in any program application package to the Regional Consortium or Chancellor's Office.

This memo provides a brief analysis of occupational demand and program supply data to assess labor market gaps. Data is provided for the seven-county North subregion and comes from EMSI. Occupations are aligned to career education programs using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and the ONet OnLine education crosswalk.

Summary of Findings

- The "Watershed Management in the Greater Sacramento Region" report focuses on three middle-skill occupations (environmental engineering technologists and technicians, environmental science and protection technicians, and hydrologic technicians) and four above middle-skill occupations (natural science managers, conservation scientists, environmental scientists and specialists, and hydrologists).
- The North (Greater Sacramento) region held 4,808 watershed management jobs in 2019. About 18% (n = 850) of these jobs were in middle-skilled technician-related roles, while the remaining 82% (n = 3,958) were held in above middle-skilled manager and scientist jobs.
- Greater Sacramento watershed management jobs are projected to increase by 3% over the next five years, adding about 160 new jobs to the subregion. Middle-skilled

technician positions are projected to add 42 new jobs by 2024, while the above middle-skilled manager and scientist jobs will have 114 new openings.

- Between 2019 and 2024, watershed management occupations are projected to have 455 annual openings in the North (Greater Sacramento) region. Nearly 80% of the projected openings are for above-middle-skill jobs.
- Wage data shows that watershed management occupations earn hourly wages at or above the subregional living wage. Entry-level wages for middle-skilled technician roles range from \$17 to \$21 per hour, while above middle-skill manager and scientist roles earn between \$25 to \$52 per hour.
- Between 33% and 51% of incumbent middle-skilled watershed technicians have education levels consistent with community college offerings (some college or associate degrees). Up to 36% of incumbent workers in these roles hold a bachelor's degree.
- Most incumbent workers in above middle-skill watershed management occupations (managers and scientists) have a bachelor's degree or beyond. Up to 78% of workers in these roles have a bachelor's degree, while most remaining workers hold graduate and professional degrees.

North (Greater Sacramento) training providers conferred an average of 323 awards (certificates, associate degrees, and bachelor's degrees) each year between 2016-17 and 2018-19.

Recommendations

- Based on a three-year average of annual awards in North (Greater Sacramento) region watershed management programs and projected yearly openings, the supply gap analysis shows that the region seems to have room for new training programs. While a supply gap exists in the middle-skill and above-middle-skill career pathways, it is most noticeable at the higher level.
- A bachelor’s degree is necessary for career advancement in watershed management. Yuba College should ensure that its certificate program stacks to a transferable associate degree in a related field of study and that the college provides students with clearly articulated transfer agreements.
- The North/Far North Center of Excellence recommends moving forward with new program development.

Please contact Ebony Benzing, COE Research Manager, for further information at Ebony.Benzing@losrios.edu or 916-563-3215.

New Program Recommendation		
Move forward with the new program	Proceed with caution	A new program is not recommended
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>