



Water Science Advisory Committee Agenda

March 10, 2010

4– 5:30 pm

**Ventura College Institute for Community and Professional Development
71 Day Road, Ventura, CA**

- **Introductions/Welcome** (Casey Mansfield, Department Chair Career and Technical Education)

- **Overview of the Role of the Advisory Committee and Member Expectations** (Luann Swanberg, Performance Improvement Specialist)

- **Water Science Program Overview** (Joe Richardson, Water Science Faculty)

- **Business and Industry Needs** (Joe)
 - Skills and Competencies Required
 - Employment Needs

- **Discuss Committee Chairperson Person Responsibilities** (Luann)

- **Dates and Times for Future Meetings** (Luann)

- **Adjourn**

**VENTURA COLLEGE
WATER SCIENCE ADVISORY COMMITTEE
March 10, 2010**

PRESENT:

- Brian Collins – Ventura College Student /United Water Conservation District
- Jim Corella – City of Oxnard, Water Resources Division
- Tony Goff – Calleguas Municipal Water District
- Richard Jones – City of Santa Paula
- Casey Mansfield – Ventura College
- John Mundy – Las Virgenes Municipal Water District
- Jim Passanisi – City of Ventura, Public Works Department
- Joe Richardson – Ventura College
- Luann Swanberg – Ventura College
- Ron Ventura – County of Ventura, Environmental Health Division

INTERESTED BUT UNABLE TO ATTEND:

- Jon Strutzel – California Department of Public Health

1. Introductions & Welcome

Casey Mansfield introduced himself as the Chair, Career and Technical Education Division which includes manufacturing, construction, and water science. He also introduced Joe Richardson, Water Science part-time faculty and thanked Luann Swanberg for putting together this committee. Advisory Committees are becoming more popular. They are here to serve the community, and ideally they should meet once or twice a year.

Comments from the attendees during self-introductions:

- Good way for staff to earn CEUs
- Baby Boomers populate the field and over the next few years will be retiring. It's important for the younger generation to be ready to step up and take over.
- Need to attract more young people and women into the profession.
- Important to keep this program going and hopefully see it grow.
- Casey said it was important to convey to the college president (Dr. Robin Calote), and the EVP (Mr. Ramiro Sanchez) the importance of this program in this age of cutbacks. It is not threatened yet, but management is looking at everything. It is important that management knows how important these areas are to the industry and the community.

2. Overview of the Role of the Advisory Committee and Member Expectations

- Participation in one to two meetings per year
- Providing feedback from members on the educational needs in this area
- Conducting tours of facilities

- Being a guest speaker in a classroom
- Providing students with career guidance.

3. Water Science Program Overview

Associate in Science Degree

Certificate of Achievement

WATER SCIENCE

Transfer requirements may differ

See counselor or consult assist.org

REQUI RED COURSES:

	U nits
WS V10 Basic Water and Wastewater Systems	3
WS V15 Water Systems Instrumentation and Controls	3
WS V16 Water Quality Protection and Cross-Connection Control	3
WS V17 Water and Wastewater Hydraulics	3
WS V18 Motors and Pumps Maintenance and Operation	3
WS V21 Water Chemistry and Bacteriology	4

REQUI RED ADDITIONAL COURSE:

Select one (1) of the following courses:

SUP V90 Introduction to Supervision	3
WS V25 Water and Wastewater Management	3

REQUI RED ADDITIONAL COURSES FOR OPTION:

Select one (1) of the following options and complete all courses listed:

WASTEWATER OPTION:

WS V12 Wastewater Treatment	3
WS V13 Wastewater Collection	3

WATER OPTION:

WS V11 Water Treatment	3
WS V14 Water Distribution	3
	<u>3</u>
	28

- Joe distributed a handout with information on the program (See attached)
- The intent of the program is to provide basic knowledge and skills for people who wanted to get into the field to pass the certification exams.
- The program is under Casey's leadership and no longer in the Math/Science Division.
- All the classes are not available every semester. Because of this, it takes students a long time to finish the program.
- A matrix of classes was developed that provides all of the classes within a two year period.
- There are currently five part time instructors.
- Classroom size isn't adequate for the number of students who want in the program. All of the classes are full and there are wait lists. A primary goal is a bigger classroom.

- Casey mentioned that when the college finishes the construction, it will open up space, but that won't happen for over a year.
- Currently the VC program targets Grade 1 and 2 certifications.
- The curriculum needs to be improved. There needs to be a beginning and an advanced treatment class at 3 units each instead of one 3 unit class. This would support the Grade 3 Certification.
- Joe indicated that they would like to add a Math class.
- Classes have attendance of people from the County of Ventura, Kern County, Santa Barbara County, and the San Fernando Valley.
- There just isn't another program out there that has consistently been going with a full curriculum.
- Joe would like to see people from the Waste Water side get involved in the program.
- We need to double up on the Waste Water training program.
- Luann suggested Community Ed as another delivery method that the college has found helpful.

4. **Business and Industry Needs**

- In the industry, 33% of the current Grade 5 are eligible to retire within 18 months and 60% within the next four years.
- Administrators are being called back to shift work as operators because they hold the required higher level certifications.
- There are lots of career opportunities to do well for oneself in this field. Good money and good retirement.
- This program is highly valuable to the industry and the communities served.
- The community college program is needed with courses supported. We can't afford to fail this industry or the public's health and safety could be in jeopardy.
- Employment is somewhat slow at the moment, and like most, goes up and down with the economy.
- John Mundy is willing to pull agencies together to gather support for the program and the impact it would have on the community without enough certified water and wastewater operators. It is a matter of public health.
- John Mundy would seek a letter and resolution from his Board to give to Dr. Calote in support of the program.

4. **Committee Chairperson Responsibilities**

John Mundy agreed to serve as the Chairperson of this Advisory Committee.

Joe thanked everyone for agreeing to serve on this Advisory Committee.

Adjourned at 5:20 pm.

This class is now taught at the college with equipment purchased by the college and donated by the industry. The class size has been limited due to available equipment for the hands on portion of the class. Recent purchases made at 50% discount have improved the test set availability but there is a significant shortfall in devices for hands on test practice and practical learning that needs to be addressed either by outright purchase of more devices or seeking additional donations from industry representatives.

Completion of the course and successfully passing of the final exam (a County of Ventura document) leads to issuance of a Certificate of Completion of the Water Quality Protection and Cross Connection class that meets the County special education requirement for Tester hands-on demonstration, prior to licensing.

College awards for Water and Wastewater Program

The water science program provides a student with options to pursue an A.S. degree by completing the full range of classes offered in the treatment scheme they have chosen, providing they have also completed all the general education requirements for an A.A. degree. If a student took both treatment stream classes they would then be awarded two A.S. degrees, one in Water Science and one in Waste-water Science.

For the student that did not complete the general education class requirements the completion of a full stream in the water science curriculum would provide them a Certificate of Completion from the college in their respective field.

The program at Ventura College has been basically the only source of training for Ventura county residents, with Santa Barbara residents, and western Los Angeles residents utilizing the program. Santa Barbara City College has offered some classes off and on but never a complete program. College of the Canyons after a few years of on and off again classes is now offering classes on a regular basis.

1990's Certification of curriculum by State Agencies

During the 90's then Dean Jaime Casillas worked with the college program staff, the State Department of Health, and the State Water Resources Control Board and reviewed and modified the specific class curriculum included in our program. The result of the review led to both State agencies recognizing and awarding certifications to the college for its training programs. These certifications remain to this day.

During the first decade the staff was made up basically of four individuals providing evening classes, two or three each semester. The result of this was all of the classes making up the program were usually only provided once every five or six semesters.

As the number of people taking the courses was made up mainly of those already working in the field looking to move up in their certifications and only a few individuals looking to enter the field, this shortfall of sufficient offerings was not a major issue.

Over time staff changed, the curriculum was upgraded; the economy led to additional interest in the field and it was recognized that the program needed to be offered more fully and possibly as a full daily program. This led to a process to find a full-time instructor to meet this goal. As things turned out, college financing would not be made available and the proposed expansion of the program was dropped.

When then Dean Casillas left for points south the goals of improvement transferred with a program move from Building Technology over to the Math/Science Department. At first this seemed to be great fit and opened lots of discussions about expansion of the program into environment health issues, biotech firm support, storm water programs that were being legislated, and other similar related fields.

The changes going on with certification programs and the desire to upgrade curriculum to cover more subjects and improve the level of material covered in the current classes all seemed to be moving forward. It was recognized that, as UC Sacramento had done, the treatment classes needed to be split into a basic and advanced course for better coverage of the material.

More importantly this need to expand the level of materials in the treatment field exists today as the SDPH recognizes only one class in treatment from our program and is currently requiring two classes for the level three certification test.

Most of the efforts to improve the program fell to the leadership of Bob Thieman at Math/Science. When he retired that support and vision for the program was lost. Then the fiscal crisis of 2005-6 occurred and the college looking to make cuts dropped the whole program for eighteen months during which time two of the instructors retired from their respective employment and left the State.

With pressure from water and wastewater district administrators along with the County Environmental Health Authority the program was restarted thru the efforts of Casey Mansfield three years ago.

Provided under the construction technology division again we offered the cross-connection class initially and then progressively the whole program of courses.

Two of the original instructors returned and three more instructors have been acquired.

The classes have been limited in size due to being held in what was the college potting shed as a classroom. Makeshift wet benches were built allowing a basic offering of hands on practical knowledge of backflow device testing.

A major improvement to the restarted program was made when a matrix of class offerings was standardized based on using the four nights a week available and the current staff.

Posting this plan allowed the students to see when each class will be offered and allowed them to plan their involvement. This matrix allows a student to complete the

curriculum in four semesters if he gets into every class when it is available, but due to class size limitations, and with nearly all classes full with wait lists over a dozen students, indicate that the program is NOT meeting the community needs.

In the past this issue was more a staffing problem but now the staff personnel is available and the only restriction holding the program back is the lack of sufficient classroom space allowing larger student counts in each.

The Cross-connection class at Ventura College provides the required specialized training necessary to apply for a Back-Flow tester license issued by the County Environmental Health Authority for those wishing to become a Back-Flow device tester.

The class is conducted using the curriculum established by the University of California Foundation for Cross-Connection Control and Hydraulic Research.

This course is required for anyone interested in testing backflow devices and thus caters to many professionals not otherwise seeking certification in the water and wastewater treatment, distribution, or collections fields. Plumbing, agricultural workers, and landscape businesses routinely have employees seeking certification to do backflow tester work but not seeking any other classes or expertise offered in the water science field. For that reason this class is offered every semester and this class is always full.

In closing, after nearly 22 years in the program, my goal was to do 'whatever' I could or initiate to try to accomplish the following

1. Have the program recognized for the importance it warrants and be supported through the administrative levels of the college.
2. On the immediate front, acquire larger classroom facilities allowing class sizes that support the demand
3. Work to have the administration modify and improve the class offerings (splitting the treatment classes first priority, then possibly the distribution and collection classes if deemed desirable)
4. Add to the program subject matter such as a Water/Wastewater Math class.
5. Add personnel to better support the Wastewater side of our program