Water Science Program Review

2011-2012

1. Program Description

A. Description

The WS program provides students with the technical training they need to pursue a career in the municipal potable water and wastewater industries. Waterworks operators protect public health by ensuring that plant operations comply with state and federally mandated drinking water and wastewater disposal standards. Students seeking an Associate's Degree in Water Science may choose the Water option to prepare them for a career in potable water treatment or the Wastewater option to prepare them for a career in wastewater sanitation. Regardless of the option chosen, both paths lead to rewarding careers protecting the health of both the community and the environment at local, state, and federal levels.

B. Program Student Learning Outcomes - Successful students in the program are able to:

1. Analyze the fundamentals of chemistry, biology and hydraulics, as they relate to the water industry.
2. Evaluate water quality management, water source, and the prevention of contamination.
3. Analyze the principles involved in the treatment, processing and distribution of potable water.
4. Evaluate the collection and treatment of waste water.
5. Understand the state licensing requirements for employment in the water industry.

C. College Level Student learning Outcomes

1. Critical Thinking and Problem Solving
2. Communication
3. Information Competency

D. Estimated Costs (Required for Certificate of Achievement ONLY)

	Cost
Enrollment Fees	1008
Books	580
Supplies	15
Total	1602

E. Criteria Used for Admission

F. Vision

Ventura College will be a model community college known for enhancing the lives and economic futures of its students and the community.

G. Mission

Ventura College, one of the oldest comprehensive community colleges in California, provides a positive and accessible learning environment that is responsive to the needs of a highly diverse student body through a varied selection of disciplines, learning approaches and teaching methods including traditional classroom instruction, distance education, experiential learning, and co-curricular activities. It offers courses in basic skills; programs for students seeking an associate degree, certificate or license for job placement and advancement; curricula for students planning to transfer; and training programs to meet worker and employee needs. It is a leader in providing instruction and support for students with disabilities. With its commitment to workforce development in support of the State and region's economic viability, Ventura College takes pride in creating transfer, career technical and continuing education opportunities that promote success, develop students to their full potential, create lifelong learners, enhance personal growth and life enrichment and foster positive values for successful living and membership in a multicultural society. The College is committed to continual assessment of learning outcomes in order to maintain high quality courses and programs. Originally landscaped to be an arboretum, the College has a beautiful, park-like campus that serves as a vital community resource.

H. Core Commitments

Ventura College is dedicated to following a set of enduring Core Commitments that shall guide it through changing times and give rise to its Vision, Mission and Goals.

- Student Success
- Respect
- Integrity
- Quality
- Collegiality
- Access
- Innovation
- Diversity
- Service
- Collaboration
- Sustainability
- Continuous Improvement

I. Degrees/Certificates

Program's courses are designed to articulate to UC and CSU for transfer students.
A.S. – Water Science
Certificate of Achievement

J. Program Strengths, Successes, and Significant Events

One new full-time instructor has been hired to expand the program to include day courses that are of interest not only to Water / Wastewater professionals, but also to students of environmental science, agricultural science and political science. There remain two part-time instructors with a combined teaching experience on this campus of more than 30 years.

Of the 35 California state colleges and universities that offer Water Science courses, Ventura College has one of the most comprehensive programs, providing the vital training required by the state Dept. of Public Health and Water Resource Board for certification and licensure. Those students who receive the Ventura College Associate Degrees in Water Science have established the foundation for both management positions in the water industry and for higher degrees in related fields such as environmental or agricultural from other institutions.

The Water/Wastewater sector is probably the most stable industry in the United States. There are no lay-offs or permanent shut-downs. The public must have drinking water, and the public health must be protected through wastewater treatment.

The Ventura College Water Science program has a licensure pass rate of about 80% for the first attempt and a 95% pass rate, which strongly contrasts with the national average of 30 – 40%.

K. Organizational Structure

President: Robin Calote
Executive Vice President: Ramiro Sanchez
Assistant Dean: Jerry Mortensen
Department Chair: Casey Mansfield

Instructors and Staff

Name	**J. Richard Forde**
Classification	Asst. Professor
Year Hired	2011
Years of Work-Related Experience	20 years
Degrees/Credentials	B.S., Water Treatment License, Registered Environmental Auditor, Certified Environmental Inspector, Certified Laboratory Analyst, Certified US-EPA Stormwater Permit Writer

Water Science Program Review

2011-2012

2. Performance Expectations

A. Program Student Learning Outcomes - Successful students in the program are able to:

1. Analyze the fundamentals of chemistry, biology and hydraulics, as they relate to the water industry.
2. Evaluate water quality management, water source, and the prevention of contamination.
3. Analyze the principles involved in the treatment, processing and distribution of potable water.
4. Evaluate the collection and treatment of waste water.
5. Understand the state licensing requirements for employment in the water industry .

B. Student Success Outcomes

1. The program will increase its retention rate from the average of the **program's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
2. The program will increase its retention rate from the average of the **college's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.
3. The program will increase the student success rates from the average of the **program's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of c or better.
4. The program will increase the student success rates from the average of the **college's** prior three-year success rates. The student success rate is the percentage of students who receive a grade of C or better.
5. Students will complete the program earning certificates and/or degrees.

C. Program Operating Outcomes

1. The program will maintain WSCH/FTEF above the 525 goal set by the district.
2. Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over $200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over $5,000 will be budgeted if funds are available.
3. The Water Science Program will continue to improve its curriculum and learning environment. The program should review curriculum and assess equipment needs including maintenance, to assure that student needs are being met.
4. The program will maintain a full-time to part-time FTEF ratio of one-to-one or greater.

D. Courses to Student Learning Outcomes Map

Course to Program-Level Student Learning Outcome Mapping (CLSLO)

I: This program-level student learning outcome is **INTRODUCED** is this course.

P: This program-level student learning outcome is **PRACTICED** in this course.

M: This program-level student learning outcome is **MASTERED** in this course.

Leave blank if program-level student learning outcome is not addressed.

Courses	PLSLO #1	PLSLO #2	PLSLO #3	PLSLO #4	PLSLO #4
WS V10	M	P		P	I
WS V11		M	M	P	I
WS V12			M	M	
WS V13		P	P	M	
WS V14	P	M			I
WS V15	M		P		
WS V16	M	P			I
WS V17	P		M	P	
WS V18	P		M		
WS V21	M		P		
WS V25	M	M	P	P	I

Water Science Program Review
2011-2012

3. Operating Information

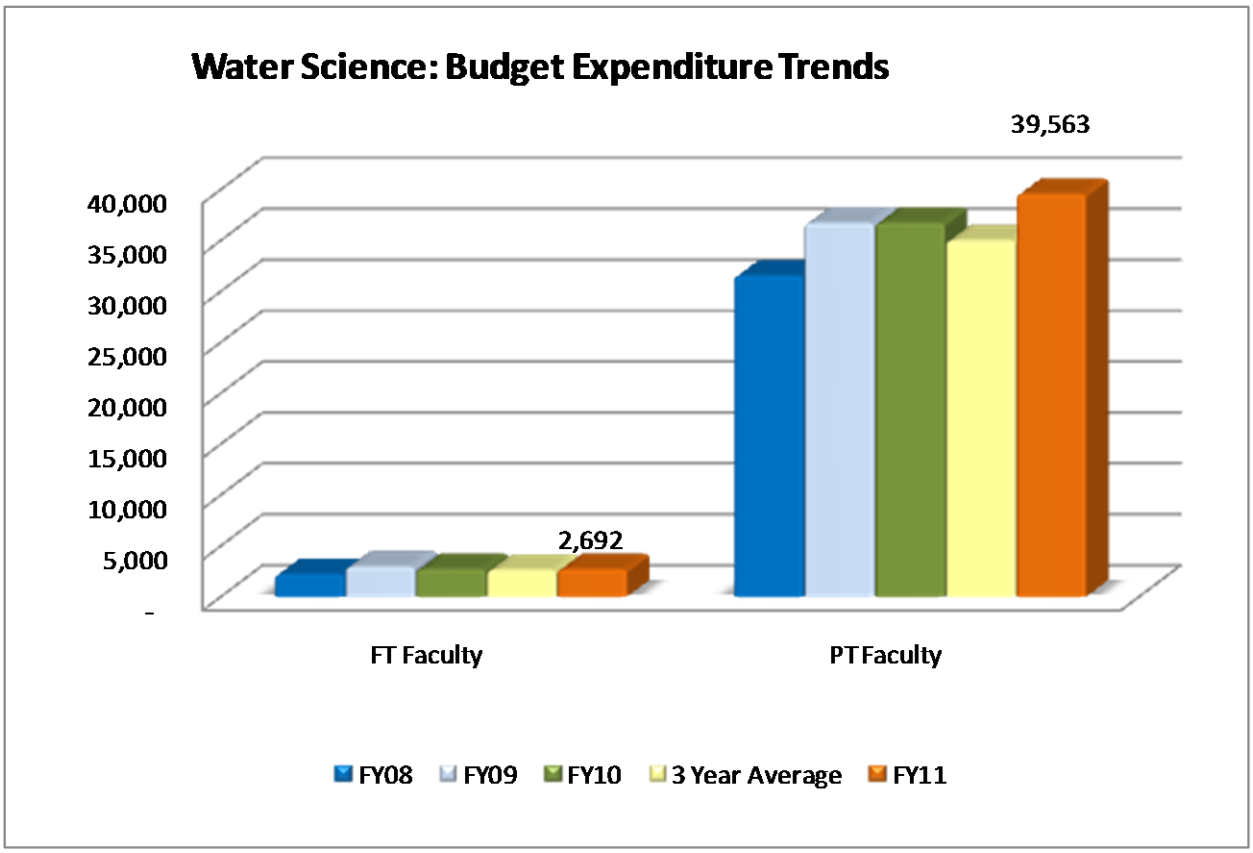
A1: Budget Summary Table

To simplify the reporting and analysis of the Banner budget detail report, the budget accounts were consolidated into nine expense categories. The personnel categories include employee payroll expenses (benefits). The "3 Year Average" was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 expenses. The "FY11 College" expense percentages are included to provide a benchmark to compare the program's expenses to the overall college expenses.

Category	Title	FY08	FY09	FY10	3 Year Average	FY11	FY11 Program	FY11 College
1	FT Faculty	2,200	2,955	2,718	2,624	2,692	3%	12%
2	PT Faculty	31,523	36,712	36,724	34,986	39,563	13%	-10%
	Total	**33,723**	**39,667**	**39,442**	**37,611**	**42,255**	**12%**	**0%**

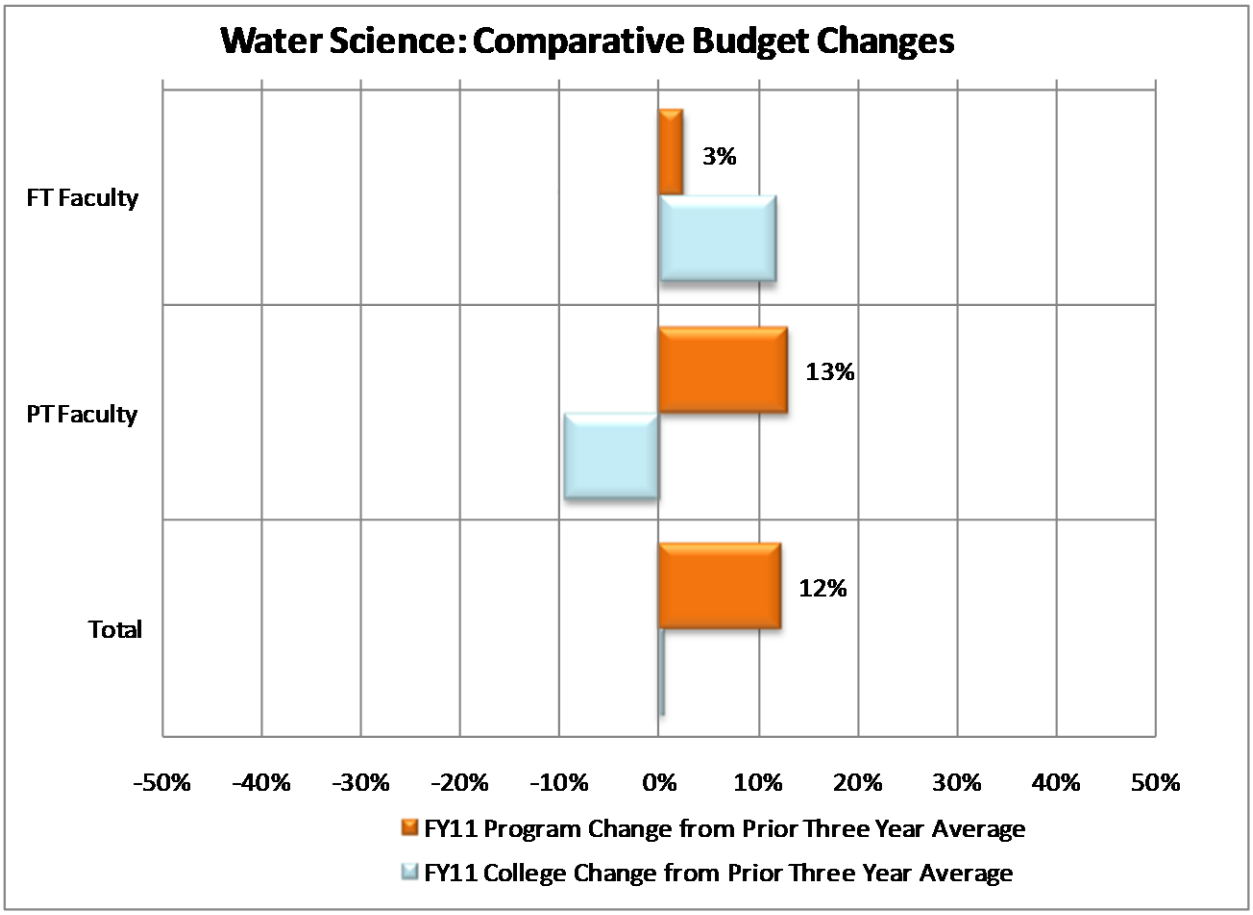
A2: Budget Summary Chart

This chart illustrates the program's expense trends. The data label identifies the FY11 expenses (the last bar in each group). The second-to-last bar is the program's prior three year average.



A3: Comparative Budget Changes Chart

This chart illustrates the percentage change from the prior three year average expense to the FY11 expenses. The top bar for each budget category represents the program's change in expenses and includes the data label. The second bar represents the college's change in expenses.



A4: Budget Detail Report

The program's detail budget information is available in *Appendix A – Program Review Budget Report*. This report is a PDF document and is searchable. The budget information was extracted from the District's Banner Financial System. The program budget includes all expenses associated to the program's Banner program codes within the following funds: general fund (111), designated college equipment fund (114-35012), State supplies and equipment funds (128xx), and the technology refresh fund (445). The *Program Review Budget Report* is sorted by program (in alphabetical order) and includes the following sections: total program expenses summary; subtotal program expenses for each different program code; detail expenses by fund, organization and account; and program inventory (as posted in Banner). To simplify the report, the Banner personnel benefit accounts (3xxx) were consolidated into employee type benefit accounts (3xxx1 = FT Faculty, 3xxx2 = PT Faculty, 3xxx3 = Classified, etc.).

A5: Interpretation of the Program Budget Information

The program shows a only a 3% increase in average FT faculty expenditures and a 13% increase in average PT faculty over the last three years paralleling the college average expeditures over that same period. The program did not have FT faculty during this period and was conducted entirely by PT faculty.

Water Science Program Review
2011-2012

B1: Program Inventory Table

This chart shows the inventory (assets) as currently posted in the Banner Financial System. This inventory list is not complete and will require review by each program. Based on this review an updated inventory list will be maintained by the college. A result of developing a complete and accurate inventory list is to provide an adequate budget for equipment maintenance and replacement (total-cost-of-ownership). The college will be working on this later this fall.

Item	Vendor	Org	Fund	Purchased	Age	Price	Perm Inv #	Serial #
#15 474 100 WATER BATH MDL 2	Fisher Scientific	37010	121	6/29/2010	1	2,310	N00022145	209405-1005
Cat #14385464 Genesys 10 VIS W	Fisher Scientific	37010	121	2/11/2010	1	3,136	N00018922	209M341003
Cat #14385464 Genesys 10 VIS W	Fisher Scientific	37010	121	2/11/2010	1	3,136	N00018921	209N014001
Subtotal Inventory for Water and Wastewater Technology						**8,582**		

B2: Interpretation of the Program Inventory Information

The equipment list provided by Banner is incomplete and does not reflect the program's holdings. An inventory is underway to provide an accurate equipment list.

C1: Productivity Terminology Table

Sections	A credit or non-credit class. Does not include not-for-credit classes (community education).
Census	Number of students enrolled at census (typically the 4th week of class for fall and spring).
FTES	Full Time Equivalent Students A student in the classroom 15 hours/week for 35 weeks (or two semesters) = 525 student contact hours. 525 student contact hours = 1 FTES. Example: 400 student contact hours = 400/525 = 0.762 FTES. The State apportionment process and District allocation model both use FTES as the primary funding criterion.
FTEF	Full Time Equivalent Faculty A faculty member teaching 15 units for two semesters (30 units for the year) = 1 FTE. Example: a 6 unit assignment = 6/30 = 0.20 FTEF (annual). The college also computes semester FTEF by changing the denominator to 15 units. However, in the program review data, all FTE is annual. FTEF includes both Full-Time Faculty and Part-Time Faculty. FTEF in this program review includes faculty assigned to teach extra large sections (XL Faculty). This deviates from the district practice of not including these assignments as part of FTEF. However, it is necessary to account for these assignments to properly produce represent faculty productivity and associated costs.
Cross Listed FTEF	FTEF is assigned to all faculty teaching cross-listed sections. The FTEF assignment is proportional to the number of students enrolled at census. This deviates from the practice of assigning load only to the primary section. It is necessary to account for these cross-listed assignments to properly represent faculty productivity and associated costs.
XL FTE	Extra Large FTE: This is the calculated assignment for faculty assigned to extra large sections (greater than 60 census enrollments).The current practice is not to assign FTE. Example: if census>60, 50% of the section FTE assignment for each additional group of 25 (additional tiers).
WSCH	Weekly Student Contact Hours The term "WSCH" is used as a total for weekly student contact hours AND as the ratio of the total WSCH divided by assigned FTEF. Example: 20 sections of 40 students at census enrolled for 3 hours per week taught by 4.00 FTEF faculty. (20 x 40 x 3) = 2,400 WSCH / 4.00 FTEF = 600 WSCH/FTEF.
WSCH to FTES	Using the example above: 2,400 WSCH x 35 weeks = 84,000 student contact hours = 84,000 / 525 = 160 FTES (see FTES definition). Simplified Formulas: FTES = WSCH/15 or WSCH = FTES x 15
District Goal	Program WSCH ratio goal. WSCH/FTEF The District goal was set in 2006 to recognize the differences in program productivity.

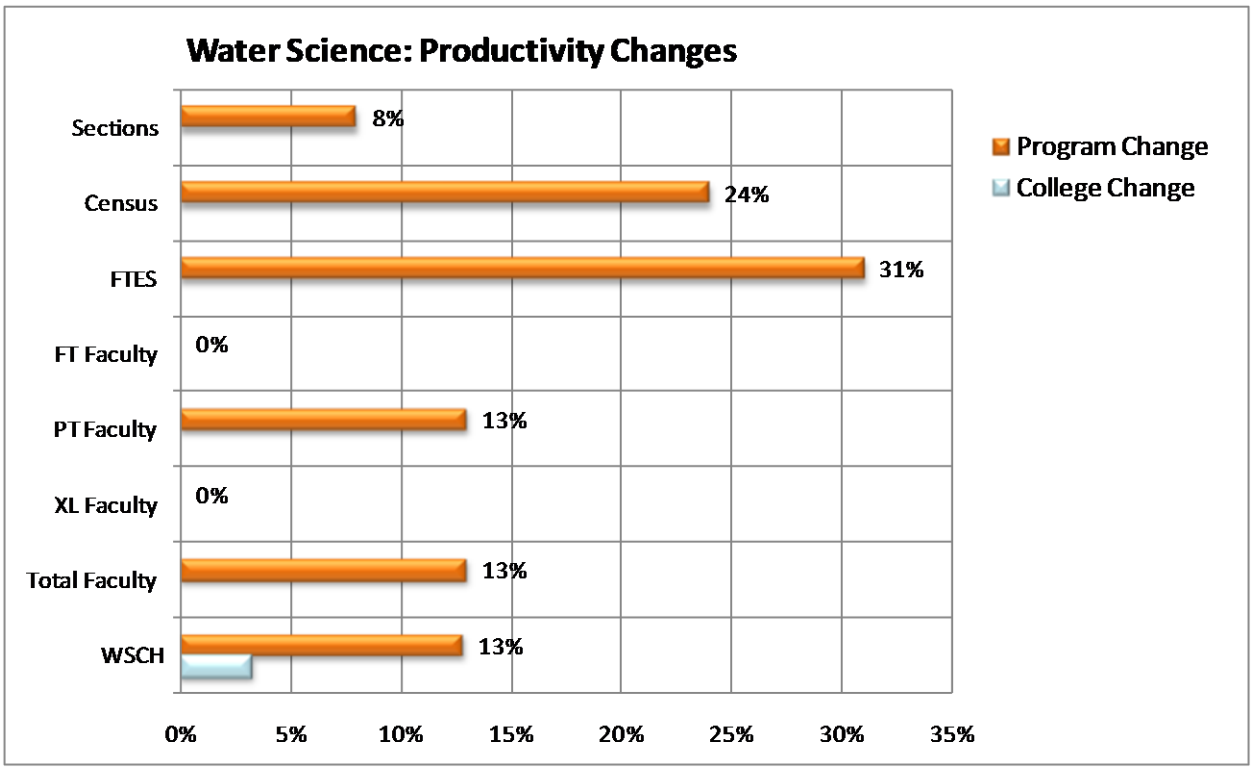
C2: Productivity Summary Table

This table is a summary of the detail information provided in the *Program Review Productivity Report*. The "3 Year Average" was computed to provide a trend benchmark to compare the results of the prior three years to the FY11 results. The "FY11 College" percentages are included to provide a benchmark to compare the program's percentages.

Title	FY08	FY09	FY10	3 Year Average	FY11	Program Change	College Change
Sections	8	8	9	8	9	8%	
Census	202	208	221	210	260	24%	
FTES	20	23	22	22	28	31%	
FT Faculty	-	-	-	-	-	0%	
PT Faculty	0.80	0.87	0.90	0.86	0.97	13%	
XL Faculty	-	-	-	-	-	0%	
Total Faculty	0.80	0.87	0.90	0.86	0.97	13%	
WSCH	375	397	367	384	433	13%	3%

C3: Comparative Productivity Changes Chart

This chart illustrates the percentage change from the prior three year average productivity to the FY11 productivity. The top bar for each budget category represents the program's change in productivity and includes the data label. The second bar represents the college's change in productivity.



C4: Interpretation of the Program Productivity Information

The C2 Chart and the C3 Graph indicate that the program offerings have significantly increased over the past three years. The WSCH/FTEF ratio has been very consistent and closely aligned with the district goal of 400 and is currently 437.

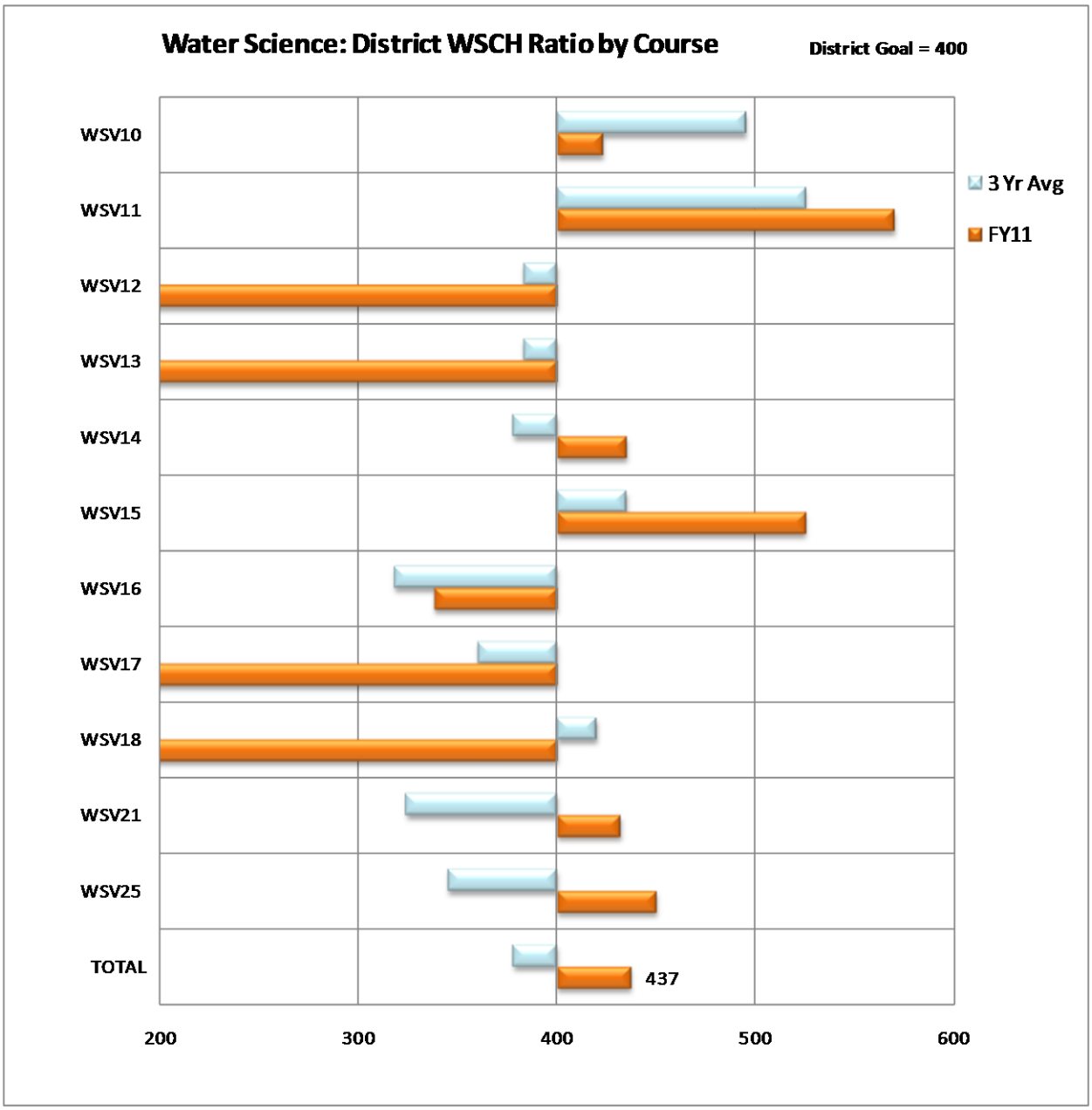
D1: District WSCH Ratio Productivity Table

This table shows the District WSCH ratio (WSCH/FTEF) for each course by year for this program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table distributes FTEF to all cross-listed sections (proportional to census enrollment) but does not include the associated faculty costs of extra large assignment.
District WSCH Ratio = WSCH / (PT FTE + FT FTE).

District WSCH Ratio: Weekly Student Contact Hours/(FT FTE+PT FTE)									
Course	**Title**	**FY08**	**FY09**	**FY10**	**3 Yr Avg**	**FY11**	**Change**	**Dist Goal**	**% Goal**
WSV10	Basic Water & Wastewater	435	555	-	495	423	-15%	400	106%
WSV11	Water Treatment	-	525	-	525	570	9%	400	143%
WSV12	Wastewater Treatment	345	-	420	383	-	-100%	400	0%
WSV13	Wastewater Collection	390	-	375	383	-	-100%	400	0%
WSV14	Water Distribution	375	375	381	378	435	15%	400	109%
WSV15	Water Systems Instrum&Contro	-	435	-	435	525	21%	400	131%
WSV16	Water Quality Protect&Control	338	308	308	318	338	6%	400	84%
WSV17	Water&Wastewater Hydraulics	375	-	353	360	-	-100%	400	0%
WSV18	Motors&Pumps Maint & Opera	435	-	405	420	-	-100%	400	0%
WSV21	Water Chemistry&Bacteriology	-	324	-	324	432	33%	400	108%
WSV25	Water & Wastewater Managem	-	345	-	345	450	30%	400	113%
TOTAL	**Annual District WSCH Ratio**	**379**	**391**	**365**	**378**	**437**	**16%**	**400**	**109%**

D2: District WSCH Ratio Productivity Chart

This chart illustrates the course level District WSCH ratio. The top bar shows the program's three year average. The second bar shows the program's FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart.



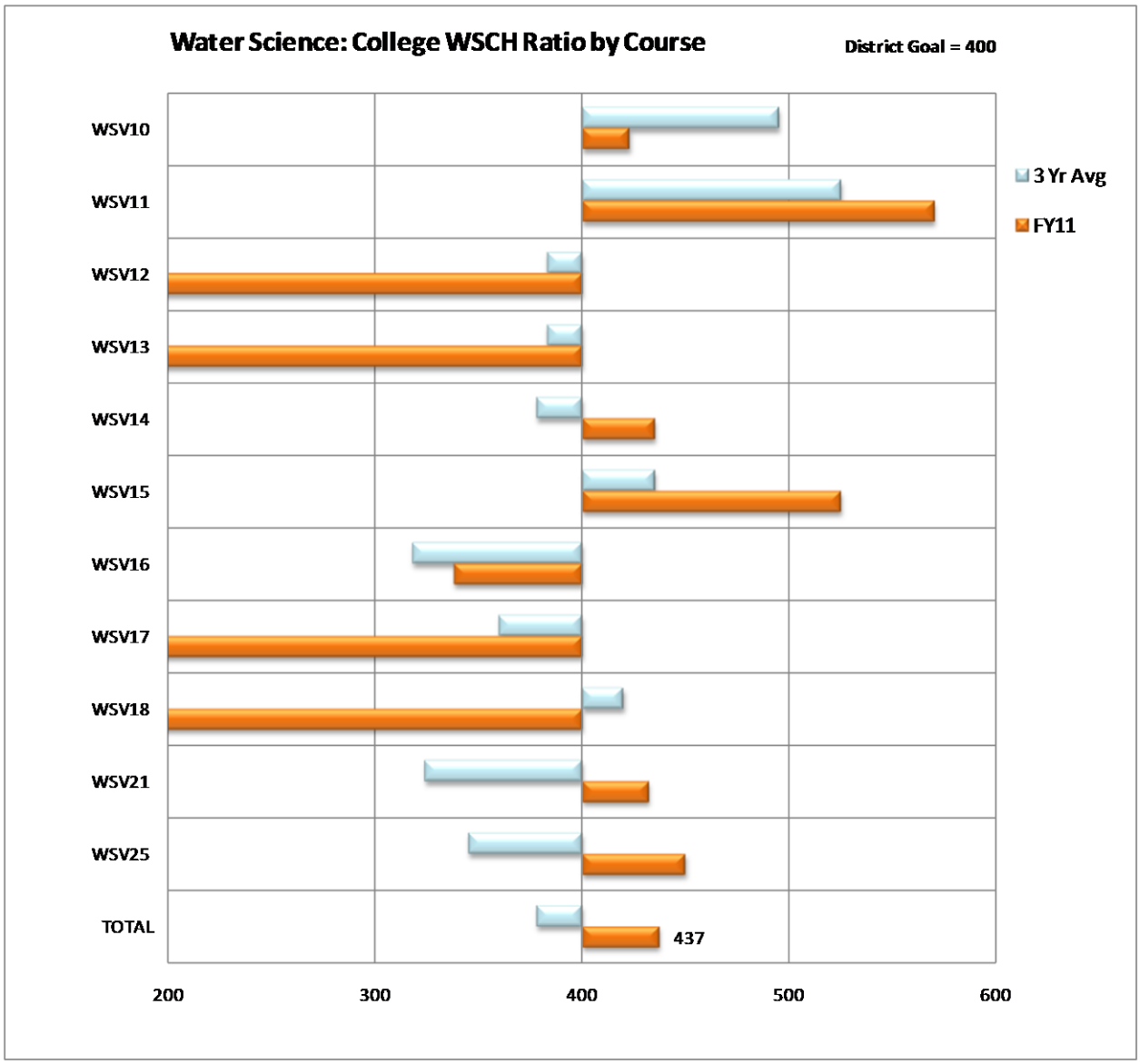
D3: College WSCH Ratio Productivity Table

This table shows the College's WSCH ratio (WSCH/FTEF) for each course by year for the program. Courses not offered during FY11 (last year) or without faculty load (independent study) are excluded. Because these are ratios, the combined average is computed using total WSCH and total FTEF (not the average of ratios). The formula used in this table includes the associated faculty costs of extra large sections. Faculty teaching extra large sections are paid stipends equal to 50% of their section FTE assignment for each group of 25 students beyond the first 60 students (calculated in this table as XL FTE). This College WSCH Ratio is a more valid representation of WSCH productivity. The College WSCH Ratio will be used in the program review process.
College WSCH Ratio = WSCH / (PT FTE + FT FTE + XL FTE)

College WSCH Ratio: Weekly Student Contact Hours/(FT FTE + PT FTE + XL FTE)									
Course	**Title**	**FY08**	**FY09**	**FY10**	**3 Yr Avg**	**FY11**	**Change**	**Dist Goal**	**% Goal**
WSV10	Basic Water & Wastewater	435	555	-	495	423	-15%	400	106%
WSV11	Water Treatment	-	525	-	525	570	9%	400	143%
WSV12	Wastewater Treatment	345	-	420	383	-	-100%	400	0%
WSV13	Wastewater Collection	390	-	375	383	-	-100%	400	0%
WSV14	Water Distribution	375	375	381	378	435	15%	400	109%
WSV15	Water Systems Instrum&Contro	-	435	-	435	525	21%	400	131%
WSV16	Water Quality Protect&Control	338	308	308	318	338	6%	400	84%
WSV17	Water&Wastewater Hydraulics	375	-	353	360	-	-100%	400	0%
WSV18	Motors&Pumps Maint & Opera	435	-	405	420	-	-100%	400	0%
WSV21	Water Chemistry&Bacteriology	-	324	-	324	432	33%	400	108%
WSV25	Water & Wastewater Managem	-	345	-	345	450	30%	400	113%
TOTAL	**Annual College WSCH Ratio**	**379**	**391**	**365**	**378**	**437**	**16%**	**400**	**109%**

D4: College WSCH Ratio Productivity Chart

This chart illustrates the course level College WSCH ratio. The top bar shows the program's three year average. The second bar shows the FY11 WSCH ratio. The axis represents the District WSCH ratio goal set in 2006. The program's (or subject's) total WSCH ratio is shown as the TOTAL at the bottom of the chart. The computation used for the College WSCH Ratio includes XL FTE (extra-large sections) and the assignment of FTEF to all cross-listed sections (proportional to census enrollment).



D5: Productivity Detail Report

The program's detail productivity information is available in *Appendix B – Program Review Productivity Report*. This report is a PDF document and is searchable. The productivity information was extracted from the District's Banner Student System. The productivity

information includes all information associated with the program's subject codes. The *Program Review Productivity Report* is sorted by subject code (alphabetical order) and includes the following sections: productivity measures and WSCH ratios by course by year.

D6: Interpretation of the Program Course Productivity Information

The D2 Chart shows mixed WSCH/FTEF ratios with the average at 378, which is 95% of the district 400 goal. Considering the fact that only three sporadic part-time faculty carried the entire program, this is remarkably efficient.

E1: Student Success Terminology

Census	Number of students enrolled at Census (typically the 4th week of class for fall and spring). Census enrollment is used to compute WSCH and FTES for funding purposes.
Retain	Students completing the class with any grade other than W or DR divided by Census Example: 40 students enrolled, 5 students dropped prior to census,35 students were enrolled at census, 25 students completed the class with a grade other than W or DR: Retention Rate = 25/35 = 71%
Success	Students completing the class with grades A, B, C, CR or P divided by Census Excludes students with grades D, F, or NC.

E2: Student Success Summary

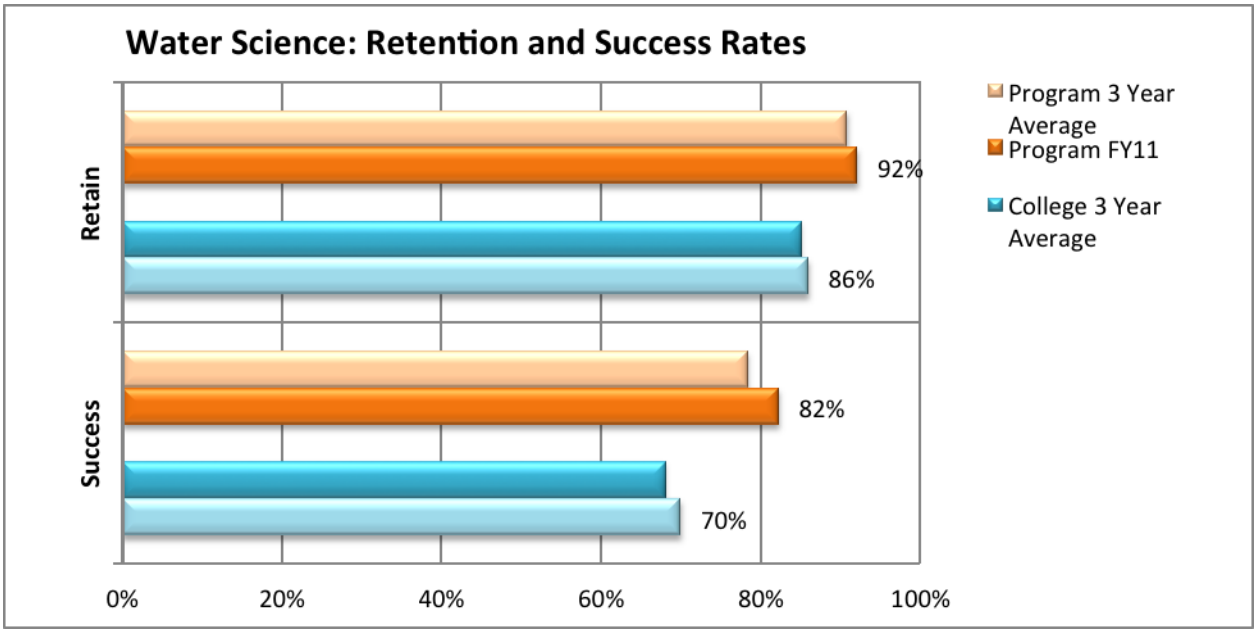
The following two tables summarize the detail information provided in the *Appendix C - Program Review Student Success Report*. The first table shows the number of students. The second table shows the percentage of students. Both tables show the distribution of student grades by year for the program (subject). They show the number of students who were counted at census, completed the class (retention), and were successful. The "3 Year Average" was computed to provide a trend benchmark to compare the prior three year expenses to the FY11 success measures. The "College" success percentages are included to compare the results of the program to the results of the college.

Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
WS	FY08	86	40	29	-	2	30	13	1	201	188	155
WS	FY09	87	43	30	1	2	19	25	-	207	182	161
WS	FY10	96	47	31	-	5	17	19	-	215	196	174
WS	3 Year Avg	90	43	30	-	3	22	19	-	208	189	163
WS	FY11	112	64	33	-	1	23	20	1	254	234	209

Subject	Fiscal Year	A	B	C	P/CR	D	F	W	NC	Census	Retain	Success
WS	FY08	43%	20%	14%	0%	1%	15%	6%	0%		94%	77%
WS	FY09	42%	21%	14%	0%	1%	9%	12%	0%		88%	78%
WS	FY10	45%	22%	14%	0%	2%	8%	9%	0%		91%	81%
WS	3 Year Avg	43%	21%	14%	0%	1%	11%	9%	0%		91%	78%
WS	FY11	44%	25%	13%	0%	0%	9%	8%	0%		92%	82%
College	**3 Year Avg**	**33%**	**19%**	**12%**	**5%**	**5%**	**10%**	**15%**	**2%**		**85%**	**68%**
College	FY11	33%	20%	13%	3%	5%	10%	14%	2%		86%	70%

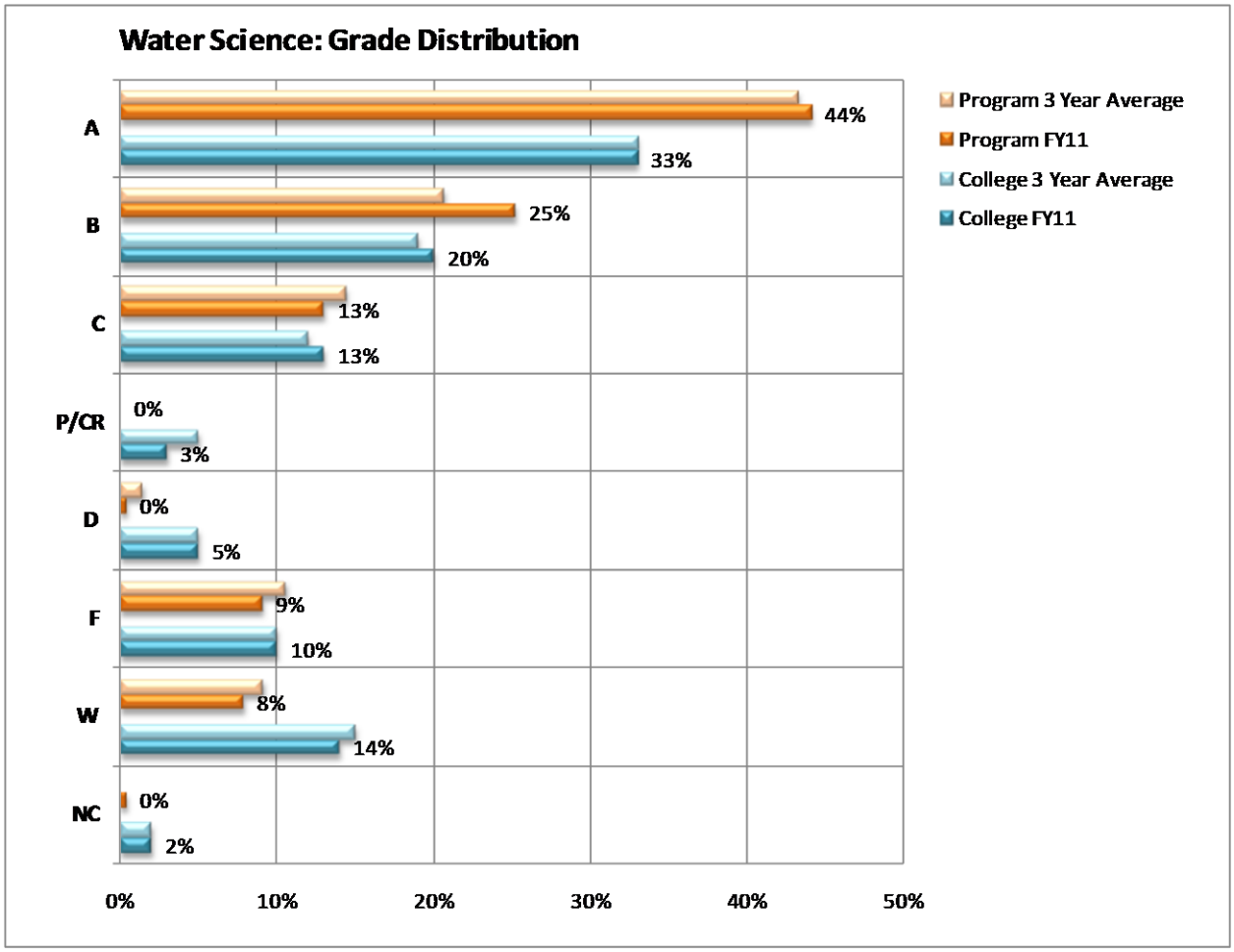
E3: Retention and Success Rates

This chart illustrates the retention and success rates of students who were counted at census. Each measure has four bars. The first bar represents the program's prior three year average percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.



E4: Grade Distribution

This chart illustrates the program's distribution of grades (by subject). Each grade has four bars. The first bar represents the program's prior three year average percent of grades. The second bar shows last year's (FY11) grade distribution percents. The third and fourth bars represent the overall college distribution percents.



E5: Student Success Detail Report

The program student success detail information is available in *Appendix C – Program Review Student Success Report*. This report is a PDF document and is searchable. The student success information was extracted from the District's Banner Student System. The student success information includes all information associated with the program's subject codes. The *Program Review Student Success Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary and course detail by term. The following table defines the terminology.

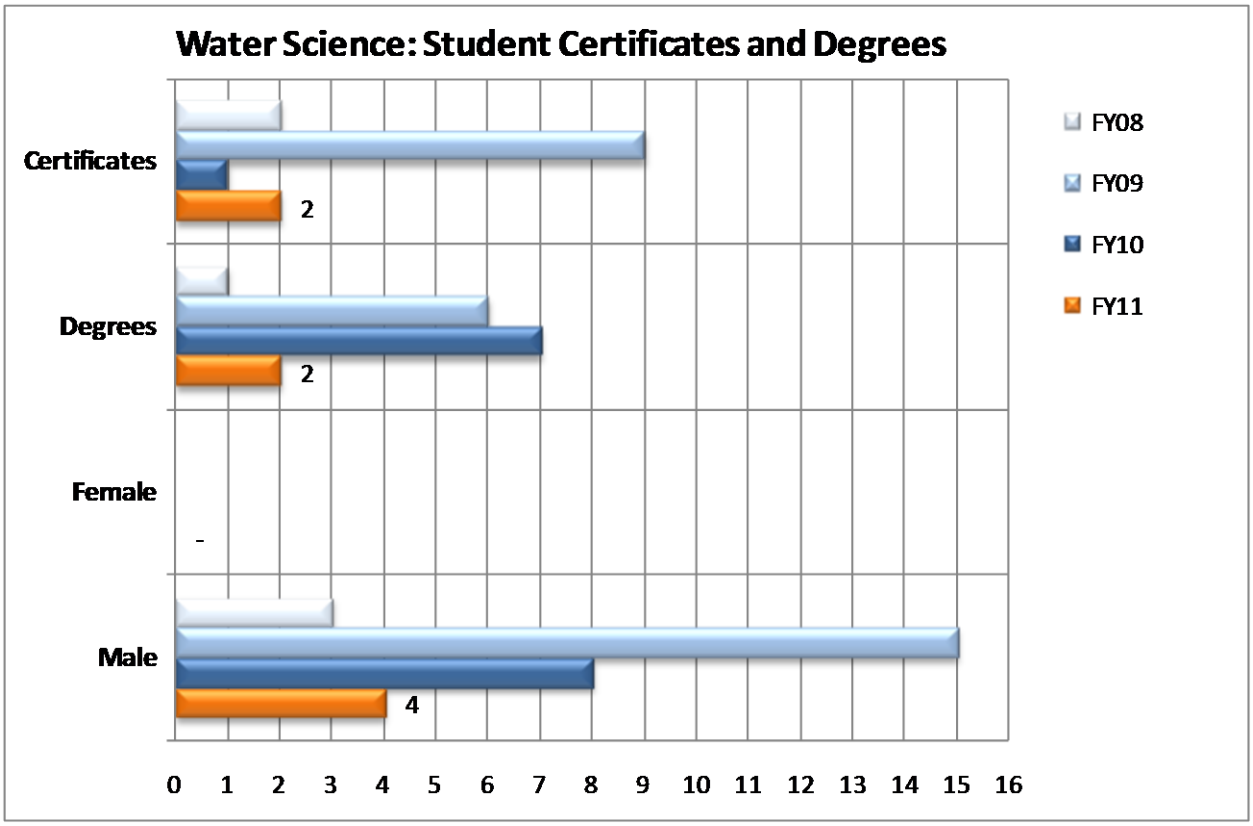
E6: Interpretation of Program Retention, Student Success, and Grade Distribution

Student success and retention rates in Water Science are slightly higher than the prior three year average of the program and the college. Grade distributions mirror those of the college with 44% of the students receiving A's and 25% of successful students receiving B's. The distribution is not a normal distribution and may indicate a strong desire by these students to obtain jobs upon completion of the program.

F1: Program Completion – Student Awards

This table shows the number of students who completed a program certificate or degree during the fiscal year. Gender distribution is included. The following chart illustrates this information.

Program	FY	Certificates	Degrees	Female	Male
Water Science	FY08	2	1	-	3
Water Science	FY09	9	6	-	15
Water Science	FY10	1	7	-	8
Water Science	FY11	2	2	-	4
Total Awards in 4 Years		**14**	**16**	**-**	**30**



F2: Interpretation of the Program Completion Information

The program has been very successful in students earning 14 certificates and 16 degrees, however further work must be done to expand the female participation. On-going plans include adding curriculum such as Environmental Science, Water Politics, and to include industry tours and guest speakers in order to enhance the program and to attract individuals that might otherwise look elsewhere for educational opportunities.

G1: Student Demographics Summary Tables

This table shows the program and college census enrollments for each demographic category. It also shows the average age of the students. The program FY11 results can be compared to its prior three year average, the college FY11 results, and the college prior three year average.

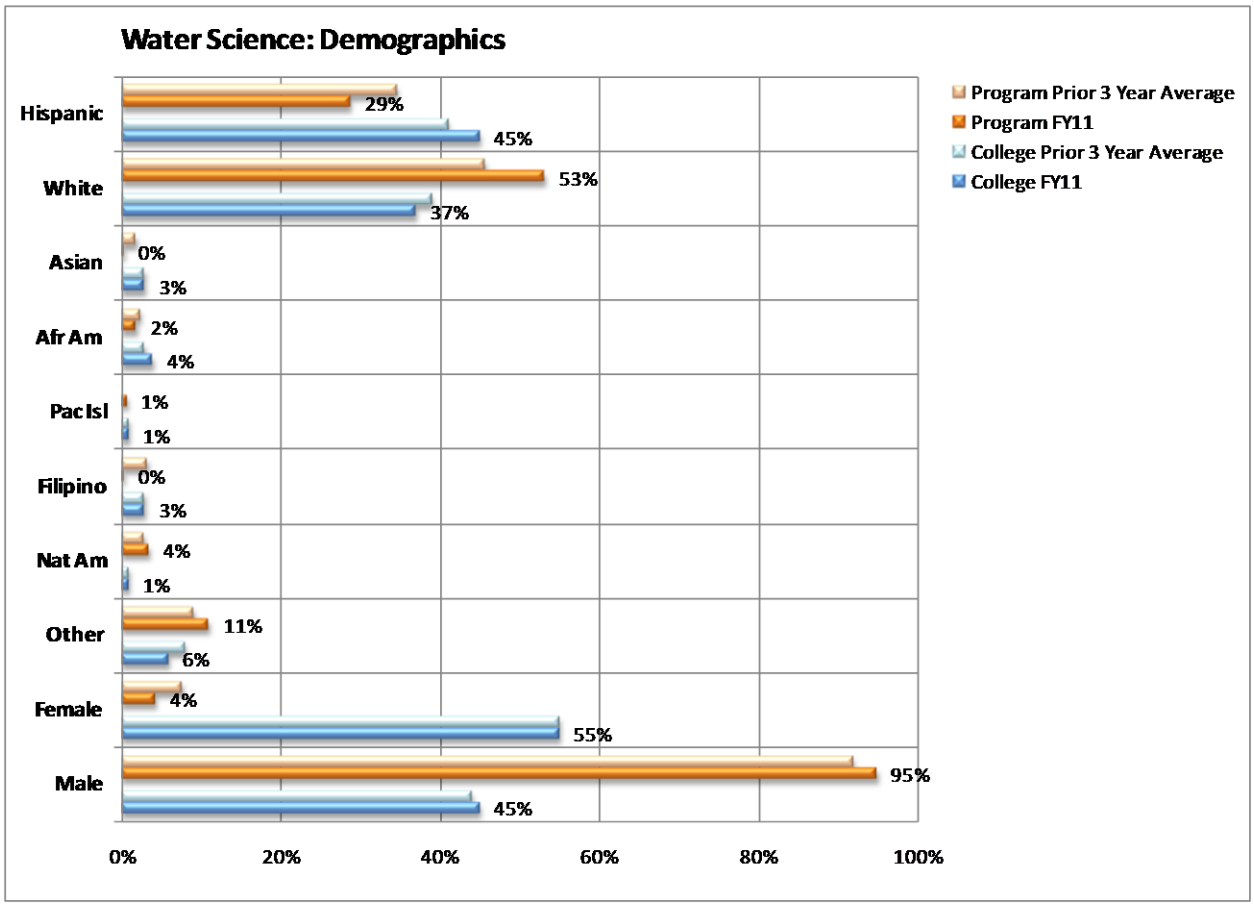
Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
WS	FY08	65	103	1	3	-	7	6	16	13	188	-	42
WS	FY09	61	96	5	4	-	8	10	23	18	189	-	40
WS	FY10	90	86	6	8	-	6	1	18	18	195	2	39
WS	**3 Year Avg**	**72**	**95**	**4**	**5**	**-**	**7**	**6**	**19**	**16**	**191**	**1**	**40**
WS	**FY11**	**73**	**135**	**1**	**5**	**2**	**1**	**9**	**28**	**11**	**241**	**2**	**36**
College	3 Year Avg	11,806	11,169	988	1,005	217	827	403	2,302	15,888	12,694	134	27
College	**FY11**	**13,034**	**10,566**	**977**	**1,040**	**196**	**886**	**402**	**1,688**	**15,734**	**13,014**	**40**	**24**

This table shows the program and college percentage of census enrollments for each demographic category.

Subject	FY	Hispanic	White	Asian	Afr Am	Pac Isl	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
WS	FY08	32%	51%	0%	1%	0%	3%	3%	8%	6%	94%	0%	42
WS	FY09	29%	46%	2%	2%	0%	4%	5%	11%	9%	91%	0%	40
WS	FY10	42%	40%	3%	4%	0%	3%	0%	8%	8%	91%	1%	39
WS	3 Year Avg	35%	46%	2%	2%	0%	3%	3%	9%	8%	92%	0%	40
WS	**FY11**	**29%**	**53%**	**0%**	**2%**	**1%**	**0%**	**4%**	**11%**	**4%**	**95%**	**1%**	36
College	3 Year Avg	41%	39%	3%	3%	1%	3%	1%	8%	55%	44%	0%	27
College	**FY11**	**45%**	**37%**	**3%**	**4%**	**1%**	**3%**	**1%**	**6%**	**55%**	**45%**	**0%**	**24**

G2: Student Demographics Chart

This chart illustrates the program's percentages of students by ethnic group. . Each group has four bars. The first bar represents the program's prior three year percent. The second bar shows last year's (FY11) percent. The third and fourth bars represent the overall college percents.



G3: Student Demographics Detail Report

The program student success detail information is available in *Appendix D – Program Review Student Demographics Report*. This report is a PDF document and is searchable. The student success information was extracted from the District's Banner Student System. The student demographic information includes all information associated with the program's subject codes. The *Program Review Student Demographics Report* is sorted by subject code (alphabetical order) and includes the following sections: comparative summary by year, and detail demographics by term and course.

G4: Interpretation of the Program Demographic Information

. The ethnic and gender distribution in water science has remained relatively constant over the past three years and roughly mirrors the college as a whole.

4. Performance Assessment

A1: Program-Level Student Learning Outcomes

Program-Level Student Learning Outcome 1	Performance Indicators
Analyze the fundamentals of chemistry, biology and hydraulics, as they relate to the water industry.	Students will formulate the rationale for water quality standards, health and aesthetic aspects, aeration, zeta potential, coagulation / flocculation, sedimentation, filtration, precipitation, ion exchange, reverse osmosis and water distribution. 80% of the students enrolled in WS 11 will achieve mastery.
Operating Information	
At least 80% of the students in WS 11 are able to select the correct sequence of treatment methodologies based upon raw water quality and EPA drinking water requirements.	
Analysis – Assessment	
The Ventura College Water Science program has a licensure pass rate of about 80% for the first attempt and a 95% pass rate, which strongly contrasts with the national average of 30 – 40%.	

Program-Level Student Learning Outcome 2	Performance Indicators
Evaluate water quality management, water source, and the prevention of contamination.	Students will discover the sources of water, the chemistry and mechanical processes of treatment, microbiology and disinfection, occupational safety, water laws and regulations, and industry mathematics. 80% of the students enrolled will achieve mastery.
Operating Information	
Insufficient data is available to assess this PLSLO.	
Analysis – Assessment	
Dara relating to this SLO has been collected, but further analysis of this data will be required. Additional data will need to be gathered and interpreted due to variations in instructor data collection methodologies.	

Program-Level Student Learning Outcome 3	Performance Indicators
Analyze the principles involved in the treatment, processing and distribution of potable water.	Students are questioned in class to determine understanding, plus periodic exams are administered to confirm retention of materials presented.
Operating Information	
Many students are currently employed in the water industry and are given time to explain their jobs, what classroom information has been the most useful, and the actual mcertification process.	
Analysis – Assessment	
These students are serious and determined to learn the processes and equipment of water treatment because these courses lead directly to state certification and jobs.	

4B: Student Success Outcomes

Student Success Outcome 1	Performance Indicators
The program will increase its retention rate from the average of the **program's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the **program's** retention rate for the prior three years.
Operating Information	
Water Science's prior three year average retention rate was 91%. Water Science's FY11 retention rate was 92%. (3E2 and 3E3)	
Analysis – Assessment	
In FY11 Water Science student retention rate was 1% greater than the program average for the prior three years. – The Water Science Program is on track with serving the needs of the students and improving student retention.	

Student Success Outcome 2	Performance Indicators
The program will increase its retention rate from the average of the **college's** prior three-year retention rate. The retention rate is the number of students who finish a term with any grade other than W or DR divided by the number of students at census.	The program will increase the retention rate by 2% or more above the average of the **college** retention rate for the prior three years.
Operating Information	
The college prior three year average retention rate was 85%. Water Science's FY11 retention rate was 92%. (3E2 and 3E3)	
Analysis – Assessment	
Since both the Water Science three year retention rate (91%) and the FY11 retention rate (92%) exceed the college three year retention rate (85%) and the FY11 retention rate (86%) by percentage points, the program is successfully retaining students.	

Student Success Outcome 3	Performance Indicators
The program will increase the student success rates from the average of the **program's** prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program will increase student success rate by 2% or more above the **program's** average student success rate for the prior three years.
Operating Information	
Water Science's prior three year student success rate was 78%. Water Science's FY11 student success rate was 82%. (3E2 and 3E3)	
Analysis – Assessment	
In FY11 the Water Science student success rate was 5% greater than the program's average for the prior three years. (See Table E2 and Graph E3) The Water Science Program is on track with serving the needs of the students and improving student success.	

Student Success Outcome 4	Performance Indicators
The program will increase the student success rates from the average of the **college's** prior three-year success rates. The student success rate is the percentage of students at census who receive a grade of C or better.	The program student success will increase by 5% over the average of the **college's** student success rate for the prior three years.
Operating Information	
The college prior three year average student success rate was 68%. Water Science's FY11 student success rate was 82%. (3E2 and 3E3)	
Analysis – Assessment	
In FY11, the Water Science student success rate was 14% greater than the college average for the prior three years. This success coupled with increasing enrollments, reflects the dedication and hard work of the Water Science faculty.	

Student Success Outcome 5	Performance Indicators
Students will complete the program earning certificates and/or degrees.	Increase the number of students earning a certificate to a minimum of 20% of the number of students enrolled in second-year courses.
Operating Information	
Fourteen certificates were awarded and sixteen degrees were conferred to Water Science students over the past 4 years. (3F1 and 3F2 Program Completion)	
Analysis – Assessment	
Though these numbers reflect a high rate of student success, there is a need to increase the female completion rate. It is also noted that many Water Science students are taking one or two courses to increase their certification level and are not pursuing certificates and degrees.	

C. Program Operating Outcomes

Program Operating Outcome 1	Performance Indicators
The program will maintain WSCH/FTEF above the 400 goal set by the district.	The program will exceed the efficiency goal of 400 set by the district by 2%.
Operating Information	
WSCH/Faculty FTE ratio data is reported in 3D3 and 3D4 and indicates an efficiency of 437; 9,3% above the district's WSCH Ratio goal.	
Analysis – Assessment	
Efficiency appears to be near the upper limit considering the limits of 32 students per course. Efficiency could be enhanced by allowing 40 students (the classroom has desk and seat space for 42). Scheduling appears to meet the needs of those students enrolled; however, the demand appears to be greater than the number of available assigned openings per course.	

Program Operating Outcome 2	Performance Indicators
Inventory of instructional equipment is functional, current, and otherwise adequate to maintain a quality-learning environment. Inventory of all equipment over $200 will be maintained and a replacement schedule will be developed. Service contracts for equipment over $5000 will be budgeted if funds are available.	A current inventory of all equipment in the program will be maintained. Equipment having a value over $5000 will have a service contract. A schedule for service life and replacement of outdated equipment will reflect the total cost of ownership.
Operating Information	
The inventory list is out of date and needs to be reviewed (3B1)	
Analysis – Assessment	
The inventory list through Banner is out of date. Exact inventory is complicated by the cross of laboratory equipment by Water Science, Agriculture Science, Biology and Anthropology.	

Water Science Program Review

2011-2012

5. Findings

Finding 1

The curriculum though meeting the needs of Water / Wastewater operators for degree and certificates plus state certification, does not address a broader student body interested in Environmental Science, Global Water Issues and Water / Health issues. It would benefit the program, the college and the students by expanding the Water Science Program to include courses to cover these issues.

Finding 2

Currently only two courses include lab work. The Cross-Connection course uses water stands to test valves and other specialized devices. The Chemistry / Microbiology course is a combination of Classroom / Laboratory course. It would benefit the students to introduce more hands-on laboratory activities in every Water Science course.

Finding 3

The Water Science program has not made textbooks available in the campus bookstore. Starting in the Spring 2012 semester, the college bookstore will have Water Science textbooks on the shelf.

Finding 4

There is a need for students to build scale models of each of the following processes:
Watershed, Water Treatment, Water Distribution, Wastewater Collection & Wastewater Treatment.
Modeling materials can be purchased for a few hundred dollars and will be pursued.

Finding 5

There is the need to reach more students, especially those with full-time jobs and those with physical challenges through distance learning and other tools.

6. Initiatives

Initiative Model building equipment for water/wastewater processes.

Initiative ID WS 1-12

Links to Finding 1
The Water Science curriculum, as it stands, does not directly address the Global environmental issues, of human health as it links to clean drinking water and adequate wastewater disposal. Three million people per year die of water related diseases. Many students, including those wishing to become certified water/wastewater operators are interested in these issues

Benefits: By adding course curriculum to include these issues the program expands the outreach to include students from many other majors, plus fulfilling a college need for environmental science courses.

Request for Resources
Budget money

Funding Sources

No new resources are required (use existing resources)	X
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

Initiative Model building equipment for water/wastewater processes.

Initiative ID WS 1-12

Links to Finding 2
Currently only two courses include lab work. The Cross-Connection course uses water stands to test valves and other specialized devices. The Chemistry / Microbiology course is a combination of Classroom / Laboratory course. It would benefit the students to introduce more hands-on activities in every Water Science course.

Benefits: Students will develop a more clear understanding of these processes than textbook descriptions can provide.

Request for Resources
SEE ATTACHED GRANT REQUEST & LETTERS OF LOCAL SUPPORT – It is expected that the U.S. Dept. Of Labor Grant that was written last Spring will be awarded within the next month. The Water Science Program will receive $216,000 for Laboratory Equipment and supplies. In addition, the Water Science classrooms and laboratory will receive $260,000 for renovations to install the new laboratory equipment and to improve the student experience within the classrooms.

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	X

Initiative Model building equipment for water/wastewater processes.

Initiative ID WS 1-12

Links to Finding 3
The Water Science program has not made textbooks available in the campus bookstore. Starting in the Spring 2012 semester, the college bookstore will have Water Science textbooks on the shelf.

Benefits: Students will develop a more clear understanding of these processes than textbook descriptions can provide.

Request for Resources
Budget money

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	X

Initiative Model building equipment for water/wastewater processes.

Initiative ID WS 1-12

Links to Finding 4
There is a need for students to build scale models of each of the following processes:
Watershed, Water Treatment, Water Distribution, Wastewater Collection & Wastewater Treatment.
Modeling materials can be purchased for a few hundred dollars and will be pursued.

Benefits: Students will develop a more clear understanding of these processes than textbook descriptions can provide.

Request for Resources
SEE ATTACHED GRANT REQUEST & LETTERS OF LOCAL SUPPORT– It is expected that the U.S. Dept. Of Labor Grant that was written last Spring will be awarded within the next month. The Water Science Program will receive $216,000 for Laboratory Equipment and supplies. In addition, the Water Science classrooms and laboratory will receive $260,000 for renovations to install the new laboratory equipment and to improve the student experience within the classrooms.

Funding Sources

No new resources are required (use existing resources)	
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	X

Initiative To make distance learning available to students that currently cannot access the campus environment.

Initiative ID WS 1-12

Links to Finding 5
There is the need to reach more students, especially those with full-time jobs and those with physical challenges through distance learning and other tools.

Benefits: Students, that are now disadvantaged to Ventura College on-campus courses, will be able to develop new careers, learn new aspects of Environmental & Water Sciences through the World Wide Web.

Request for Resources
While the college develops the necessary curriculum and facilities for a Water Science Distance Learning system, we will work in unison with existing online programs available from the American Water Works Association and the well-respected programs from Amatrol.

Funding Sources

No new resources are required (use existing resources)	X
Requires additional general funds for personnel, supplies or services (includes maintenance contracts)	
Requires computer equipment funds (hardware and software)	
Requires college equipment funds (other than computer related)	
Requires college facilities funds	
Requires other resources (grants, etc.)	

6A: Initiatives Priority Spreadsheet

The following blank tables represent Excel spreadsheets and will be substituted with a copy of the completed Excel spreadsheets.

Personnel –Faculty Requests

Other	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

Personnel – Other Requests

Personnel - Other	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	New General Funds	Other
1												
2												
3												
4												
5												

Water Science Program Review

2011-2012

Computer Equipment and Software

Equipment - Computer Related	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Technology Fund	Other
1												
2												
3												
4												
5												

Other Equipment Requests

Equipment	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Equipment Fund	Other
1												
2												
3												
4												
5												

Facilities Requests

Facilities	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	Facilities Fund	Other
1												
2												
3												
4												
5												

Other Resource Requests

Other Resources	Program	Program Priority (0, 1, 2, 3…)	Division Priority (R,H,M,L)	Committee Priority (R, H, M, L)	College Priority (R, H, M, L)	Initiative ID	Initiative Title	Resource Description	Estimated Cost	No New Resources Requested	General Fund	Other
1												
2												
3												
4												
5												

6B: Program Level Initiative Prioritization

All initiatives will first be prioritized by the program staff. If the initiative can be completed by the program staff and requires no new resources, then the initiative should be given a priority 0 (multiple priority 0 initiatives are allowed). All other initiatives should be given a priority number starting with 1 (only one 1, one 2, etc.).

6C: Division Level Initiative Prioritization

The program initiatives within a division will be consolidated into division spreadsheets. The dean may include additional division-wide initiatives. All initiatives (excluding the '0' program priorities) will then be prioritized using the following priority levels:

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

6D: Committee Level Initiative Prioritization

The division's spreadsheets will be prioritized by the appropriate college-wide committees (staffing, technology, equipment, facilities) using the following priority levels.

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).

H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

6E: College Level Initiative Prioritization

Dean's will present the consolidated prioritized initiatives to the College Planning Council. The College Planning Council will then prioritize the initiatives using the following priority levels.

R: Required – mandated or unavoidable needs (litigation, contracts, unsafe to operate conditions, etc.).
H: High – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)
M: Medium – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)
L: Low – approximately 1/3 of the total division's initiatives by resource category (personnel, equipment, etc.)

7A: Appeals

After the program review process is complete, your program has the right to appeal the ranking of initiatives.

If you choose to appeal, please complete the form that explains and supports your position.
The appeal will be handled at the next higher level of the program review process.

7B: Process Assessment

In this first year of program review using the new format, programs will be establishing performance indicators (goals) for analysis next year. Program review will take place annually, but until programs have been through an entire annual cycle, they cannot completely assess the process. However, your input is very important to us as we strive to improve, and your initial comments on this new process are encouraged.

EQUIPMENT & eLearning Software PKGS			
Automotive	195,904	15,000	15,00
General Technology Electronics/Mechanics	243,607	50,000	50,00
Water Science	186,008	15,000	15,00
EQUIPMENT TOTAL	**625,519**	**80,000**	**80,00**
(in excess of $25,000 + major equipment)	***459,798***	***25,000***	***25,00***
Automotive & General Tech eLearning Software and systems $439,511			
Water Science - Autoclaves for sterilization $6800, temp controlled centrifuge-$11000, Muffle furnace for volatile solids-$501			
Chemical hoods for safe work with chemical/reactions - $7,000, Laminar flow hoods for aseptic microbiological work - $8,70			
SUPPLIES (Instructional & Project)	**77,000**	**35,000**	**25,00**
In addition to paper, pencils, workstations with printers, a multi-use copier			
Water Science supplies will include student microscopes at $2435 ea., pH meters to measure acidity at $1300 ea.			
Glassware, colorimeters, water samplers, settleometers, petri dishes, growth media, goggles, chemical gloves, test tubes			
CONTRACTUAL Bldg Renovation	**150,000**	**85,000**	**25,00**
(in excess of $25,000)	***125,000***	***60,000***	
Includes electrical re-wiring, plumbing, ADA compliance upgrades, IT infrastructure			

VENTURA COLLEGE EXECUTIVE SUMMARY - UPDATE AUGUST 30, 2011

Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants Program - CTE

FUNDING AGENCY: Department of Labor / ETA

VC APPLICATION FOCUS: Automotive / General Technology / Water Science

PROJECT TITLE: Career Training Expansion at Ventura College **(CTE @ VC)**

COMPETITION ANNOUNCED: January 20, 2011 / *DUE:* April 21, 2011

PROJECT TIMELINE: Three year project start date October 1, 2011 - September 2014

BUDGET FINAL: Project - $3,883,438 / Indirects - $382,637 / TOTAL - $4,266,075

PRIMARY FOCUS of the FUNDING AGENCY:

Funds are to be used to expand and improve the ability of institutions to deliver education and career training programs than can be completed in two years or less that are suitable for eligible Trade Adjustment Assistance workers (and OTHER students in underserved areas). This grant is heavily data driven.

FOUR PRIORITIES for TAACCCT:

1. Accelerate progress for low-skilled and OTHER workers
2. Improve retention/achievement rates, reduce time to completion

3. Build programs that meet Industry needs, developing career pathways
4. Strengthen Online and Technology-enabled learning

Panelist applications for consideration were due - May 27, 2011
There will be both a technical review panel and an expert review panel to validate strength of evidence cited and technical feasibility of the project design.

Review process of project applications expected to take place July - August 2011

Funding announcements are expected late August or sometime in September 2011

Trade Adjustment Assistance Community College and Career

Training Grants Program (TAACCCT)

CAREER TRAINING EXPANSION - VENTURA COLLEGE (CTE @ VC)

COMMUNITY OUTREACH - 5 pages

1.a List of Organizations that VENTURA COLLEGE reached out to/consulted with:

INDUSTRY

Automatic Transmission Rebuilders Association (ATRA) - *Dennis Madden,* CEO

2400 Latigo Ave., Oxnard, CA 93030. 805/604-2035. dmadden@atra.com

Mr. Madden has provided strong evidence of support to this project through his letter of commitment. ATRA was founded in 1954 and is an international trade association for the professional automatic transmission repair industry, with a membership consisting of more than 2,000 repair specialists. The ATRA.com website is the most visited website in the transmission repair industry.

DCH Toyota of Oxnard - *Chris Case,* ccase@dchusa.com **- Service and Parts Manager**

1631 Auto Center Drive, Oxnard, California 93036. 805/988-2300. DCH Toyota of Oxnard is the Toyota dealer that serves many cities throughout Ventura County. In addition to

automobile sales, DCH Toyota provides quality servicing by knowledgeable automotive technicians. DCH strongly supports the expansion of the Automotive Program at Ventura College and have provided a letter of commitment.

Las Virgenes Municipal Water District (LVMWD) - *John Mundy*, General Manager

Headquarters, 4232 Las Virgenes Road, Calabasas, CA 91362. 818/251-2100.

Mr. Mundy has provided strong evidence of support to this project through his letter of commitment. Many of the LVMWD employees have benefitted from the limited Water Science program in the past, and the program will continue to be an important resource supporting training for the Water Science industry.

LIMONERIA - *Kathleen Thompson*: 805/525-5541 x258

Ventura College consulted with Ms. Thompson from LIMONERIA and received very positive feedback on support of this project and the expansion of opportunities for the Water Science certificate. There is a strong potential for experiential opportunities at the 7300 acres of land and water resources in Santa Paula for fruit production and marketing, a leading producer of lemons, avocados, oranges, and other specialty crops enjoyed throughout the world. They have actively sponsored scholarships through Ventura Promise for Water Science courses in the past.

Ojai Valley Sanitation District, 1072 Tico Rd., Ojai, CA - 805/646-5548 www.ojaisan.org

Bradshaw Pruitt and ***Ronald Sheets*** were both happy to support the Ventura College expansion of Water Science. Mr. Sheets, the Operations Superintendent, has provided a letter of commitment. Both of these industry representatives commit to providing access to the Ojai Valley Wastewater Treatment Plant facility to assist student learning opportunities.

SAGE - *Roberta Isaeff*, VP Human Resources: 805/410-7537, Roberta.isaeff@sagepub.com

Ventura College communicated multiple times with ***Roberta Isaeff***, VP Human Resources who provided a strong letter of commitment for this project. SAGE is a leading international publisher of academic and professional books, journals and electronic media employing approximately 1,000 employees. In addition to their desire to provide input to the General Technology certificate covering employability skills, SAGE has also committed to providing internships to eligible and appropriate students along with mentoring and corporate guest speakers.

State of California Water Resources Board, *Debbie Zucala*: 916/341-5254

The State Board is the entity responsible for issuing the required Water Science industry recognized certification.

Toyota Motor Sales, USA, Inc., *George Colletti*, Area Manager: 310/468-6120

Toyota Motor Sales has been a strong collaborator with Ventura College in the past by providing numerous internships over the years, and they have committed to doing so during this project. They have committed to encouraging a minimum of 12 internships per year at Toyota and Lexus automotive repair dealerships throughout Ventura County for the expanded automotive program at Ventura College.

COUNTY WORKFORCE AGENCIES

County Human Services Agency - *Phil Bohan*: 805/477-5442

Ventura College consulted with Mr. Bohan who is the Contracts and Grants Manager. He is strongly supportive of the CTE project, and his generous willingness to provide input, sharing his many years of expertise involving workforce grants, has been sincerely appreciated.

WIB Ventura County - *Richard McNeal*: 805/477-5344, Richard.mcneal@ventura.org

Ventura College and the WIB have benefitted from a long collaborative relationship specifically working together on state Allied Health projects. Dr. McNeal provided additional information on the EDD along with the appropriate TAA Administrators to follow up with.

WORKFORCE AGENCY - EDD - TAA Administrators

Ventura College consulted with the County/State workforce agency that administers the TAA for Workers program. VC representatives met with both ***Mary Navarro-Aldana***, Field Office Manager, 805/382-8600, mnavarr1@edd.ca.gov, and ***Yvonne Jonason***, EDD Programs Manager (TAA) 805/382-8630, Yvonne.Jonason@edd.ca.gov. Beyond the initial meeting which took place in their offices, both administrators were extremely helpful in providing applicable information regarding TAA workers through multiple follow-up phone conversations.

SERVICE / SYSTEM PROVIDERS

KLEIN (AMATROL & LJ Systems) - *Joe Ray,* Educational Systems: 760/412-9652,

joe@kleineducational.com. Klein is the provider of flexible, easily accessed educational material that is available whenever and wherever a student needs it. These eLearning programs offer superb technical content depth as well as breadth, strong interactivity for skill development, and excellent assessment and student tracking through an intuitive, easy-to-use web portal. The eLearning systems proposed provide proven curriculum, is problem solving oriented and teaches technical skills in a wide range of industrially-relevant technologies.

LIGHTHOUSE CONSULTING - Mike Gaudette

Evaluation will be a continual and evolutionary process to enable continuous improvement, not a task conducted once a year. An independent external evaluation will be conducted by Lighthouse Consulting, Inc., a higher education evaluation firm with extensive federal grant evaluation experience, working with more than 30 community colleges over the past five years.

Lighthouse Consulting president, Mike Gaudette, will ensure the project focus on achievement of project objectives through annual site visits documented by comprehensive written reports. Each year's evaluation will include multiple deliverables: 1) assessment of progress toward objectives, 2) assessment of the sustainability of the project after federal funding ceases, 3) assessment of the overall institutional impact that the project is having upon VC, 4) assessment of the success of individual project activities based on data collection and statistical analysis, 5) assessment of compliance with applicable federal regulations and 6) recommendations for improvement.

2.a Inventory of existing education and training offered - suitable for TAA workers

The Eligible Training Program List (ETPL) was accessed through the California Employment Development Department website at www.etpl.edd.ca.gov, for Ventura County. The existing training for the certificate programs proposed in this project are listed as follows:

Automotive (Electric)

There were no automotive training programs listed for Ventura County that were specific to automotive electric. However, the following programs listed may include some minimal coverage of automotive electric components.

Bilingual Vocational Center - Automotive Systems Technology - $ 5,000

College of Automotive Management - Automotive Internet Dept. Mgt. - $ 5,575

Oxnard College - Automotive Technology - $26 per unit

General Technology

There are no training programs listed for Ventura County that specifically state they are for general career technology education. However, the following programs listed may include some minimal coverage of general technology with employability skills.

Center for Employment Training - Machine Tool Operator - $ 9,307

Technology Development Center - Data Entry/Inventory Technician		$ 4,564
Technology Development Center - Digital Multimedia Technician	-	$ 6,428
Technology Development Center - Master Cam Technician	-	$ 3,318
Technology Development Center - Studio Production Technician	-	$ 8,765

Water Science

The only water science program listed for all of Ventura County is the Water Science / Wastewater / Water Operator certificate program (limited offerings) at Ventura College.

OJAI VALLEY SANITARY DISTRICT
A Public Agency
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April 7, 2011

To the U.S. Department of Labor - TAACCCT Review Committee:

The Ojai Valley Sanitary District is very pleased to provide our support and commitment to the expansion of the Water Science program at Ventura College. Over recent years it has become apparent in the Water Science industry that many of our most experienced and certified workers are retiring and/or nearing retirement age. Water and wastewater treatment plant and system operators are among the top 10 fastest growing occupations in Ventura County according to the Employment Development Department (EDD) Labor Market Information Division. I have been informed that the Ventura County Workforce System has provided applicable TAA data in their consultation efforts with Ventura College to further strengthen the project in accordance with the grant solicitation. The Water Science program at Ventura College is on the Eligible Training Provider List for Ventura County, listed at the California EDD website.

It is important to note that all individuals who work with water and wastewater treatment in some manner must be certified. The industry recognized certificate requires a minimum of 28 units. Currently it takes an individual a minimum of two years to complete this certification. The process has been slowed significantly at Ventura College because of a lack of personnel and infrastructure. We understand that the targeted populations for this program are workers who have lost their jobs or who are threatened with job loss as a result of foreign trade. If the Water Science program were to have the resources to expand, Trade Adjustment Assistance (TAA) individuals and others would be able to complete the certificate program in 18 months or less, for a quicker entry or re-entry into the workforce. As evidence of my personal support of the Water Science program, over the last several years I have provided ongoing access to the Ojai Valley Wastewater Treatment Plant facility for student experiential learning opportunities.

In closing, and as further evidence of our commitment to this vitally important Ventura College project, I commit to continue providing access to the Ojai Valley Wastewater Treatment Plant facility to assist student learning opportunities. The Ojai Valley Sanitary District provides a training budget that includes tuition costs at Ventura College for District employees. Having personally completed the Ventura College Water Science program many years ago I would like to help ensure that others have the same advantage to pursue a career in this field as I did. Please do not hesitate to contact me if I can be of any further assistance.

Sincerely,

Ronald E. Sheets

Ronald E. Sheets
Operations Superintendent

LAS VIRGENES MUNICIPAL WATER DISTRICT
EST. 1958
Dedicated to Providing Quality Water & Wastewater Service

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Director, Division 3

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MEMBER AGENCY OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

March 28, 2011

To the U.S. Department of Labor - TAACCCT Review Committee:

The Las Virgenes Municipal Water District strongly supports the expansion of the Water Science program at Ventura College. Many of the District's employees have benefited by the availability of the Water Science Program and it continues to be an important resource that supports the training needs of our industry. All individuals who work in water treatment plants or water distribution systems must be licensed by the State of California. To assist individuals in achieving this licensing Ventura College offers a 28 semester unit Water Science Certificate program. Currently it takes an individual a minimum of two years to complete this program.

In recent years completion of courses in the certificate program at Ventura College has been slowed significantly because of a lack of personnel and infrastructure. Targeted populations for this program are workers who have lost their jobs, who are threatened with job loss as a result of foreign trade and employed workers who need to meet state licensing requirements to remain employed. If the Water Science program were to have the resources to expand, Trade Adjustment Assistance (TAA) individuals and others would be able to complete the certificate program in 18 months or less, for a quicker entry or re-entry into the workforce.

In recent years it has become apparent in the municipal water industry that our most experienced and state licensed workers are nearing retirement age. The average age of a T5 water treatment operator is 51, with the overall average age of all water treatment operators at 46. The average age of a D5 water distribution operator is 49, with the overall average age for all water distribution operators at 45. Water and liquid waste treatment plant and system operators are among the top 10 fastest growing occupations in Ventura County according to the Employment Development Department (EDD) Labor Market Information Division. Without the resources of the Ventura College Water Science Program employers in this region will find it very difficult to fill these critical public health and safety jobs.

I have been informed that the Ventura County Workforce System has provided applicable TAA data in their consultation efforts with Ventura College to further strengthen the project in accordance with the grant solicitation. The Water Science program at Ventura College is on the Eligible Training Provider List for Ventura County, listed at the California EDD website.

In closing, and as further evidence of our commitment to the Ventura College project, either myself, or someone from my staff at the Las Virgenes Municipal Water District will be available to sit on the TAACCCT Advisory Council as necessary in order to continue providing our input and our support to this vital Ventura College project.

Sincerely,

John Mundy
General Manager
Las Virgenes MWD