2018 Supplemental Operating Budget Request

Active Minds Changing Lives

WESTERN
WASHINGTON UNIVERSITY

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WASHINGTON UNIVERSITY

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October 9, 2017

The Honorable Jay Inslee
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

Dear Governor Inslee:

I am pleased to submit Western Washington University's 2018 Supplemental Operating budget for the 2017-19 biennium.

We are submitting three proposals that address critical State needs as set forth in the goals of your Results Washington plan, including *World Class Education, Prosperous Economy, Sustainable Energy and a Clean Environment, and Efficient, Effective and Accountable Government*. These proposals capitalize on firm foundations already in place that help to minimize recurring budget commitments.

- *Increasing STEM Capacity:* Given recent substantial growth in demand for STEM degree programs by Western students and by the state for STEM graduates, Western proposes a three-pronged plan for increasing capacity and throughput efficiency in critical first- and second-year entry-level courses in Mathematics, Physics, and Chemistry. These are critical support and gateway courses for some of our highest demand degree programs, including Computer Science, Engineering, and Pre-Health Sciences. The proposed program would provide recruiting, advising, and additional course sections for a 100-student cohort of entering freshmen. The cohort model is a proven method for increasing retention and supporting students from diverse backgrounds, while the increased course capacity reduces waitlist times and overall time to degree for important STEM programs, thereby reducing instructional costs as well as potential costs to students.

- *Undergraduate Program in Marine, Coastal, and Watershed Sciences:* To address Washington's emerging challenges associated with climate change and sustainability, Western is proposing to develop a new cross-disciplinary program in Marine, Coastal and Watershed Sciences. Following in the footsteps of our successful Institute for Energy Studies program, this degree program will be highly interdisciplinary, and have a unique emphasis on coastal marine environments and on the rivers and inland waterways that are so strongly connected to coastal systems yet are typically treated separately in traditional curricula. We view this new "mountains-to-sea major" as a response to the complexity of problems facing society and an acknowledgement of the need for new interdisciplinary methods to meet the needs of Washington's rapidly expanding clean technology economy, as well as the sectors of environmental protection and resource management. Graduates will possess a strong blend of analytical, critical thinking, and communication skills our state and nation will need to address challenges related to climate change and associated threats including changing weather and hydrologic cycles, sea level rise, sustainable fisheries, ocean acidification, and pollution and population pressures on coastal and

watershed systems. Washington needs qualified graduates interested in pursuing problems in sectors as diverse as sustainable energy solutions, maritime transportation, ecology, coastal and landslide hazards, and sustainable aquaculture. Western has the capacity and experience with multi-disciplinary programs such as this to provide them.

- *M&O for Poulsbo Marine Science Center:* Western Washington University, the city of Poulsbo and the Poulsbo Marine Science Foundation have approved initial agreements that will allow Western to lease and then to assume ownership of the Poulsbo Marine Science Center building. The Center has been an important educational resource for the community and the region. Western students on the Kitsap and Olympic Peninsulas are now given the opportunity to learn, teach, and do research in an exciting new environment. This proposal requests funding needed to operate and maintain the Center as Western assumes ownership, and stewards this community resource into the future.

As you consider these requests, please note that in order to fund the policy decisions on compensation passed in the June 30, 2017 budget, Western was required to use 100% of our tuition increase authority for resident undergraduate students, the maintenance level adjustment for the inflation on tuition backfill, and the first 2.2% increases on tuition from our other student categories in addition to the state general fund appropriation for increases in compensation and healthcare. This leaves no flexibility for other inflationary operating expenses, eliminates potential enhancements to academic programs, and imposes enormous strain to maintain enrollment levels that may not be sustainable in the current environment of higher education. If the Legislature were to fund Western's $5,795,455 biennial shortfall for compensation in this supplemental cycle, we would be able to redirect the aforementioned funding in support of our decision package priorities listed in this submission and other campus needs.

Western Washington University stands ready to help address Washington's critical needs. We believe education is the most important investment our State can make in revitalizing Washington's economy and building a 21st century workforce, creating an economic climate where innovation and entrepreneurship can continue to thrive, and creating brighter futures for all Washingtonians. We welcome the opportunity to provide additional information on these proposals should you or your staff require it.

Sincerely,

Sabah Randhawa

Sabah Randhawa
President

Enclosure

Copy: Brent Carbajal, Provost/Vice President for Academic Affairs
Becca Kenna-Schenk, Director, Government Relations
Linda Teater, Director, Budget Office

State of Washington

Recommendation Summary

Agency: 380 Western Washington University

Dollars in Thousands

			Annual Average FTEs	General Fund State	Other Funds	Total Funds
2017-19 Current Biennium Total						
Total Carry Forward Level						
Percent Change from Current Biennium						
Carry Forward plus Workload Changes						
Percent Change from Current Biennium						
Total Maintenance Level						
Percent Change from Current Biennium						
PL	AD	Increasing STEM Capacity	12.5	1,490		1,490
PL	AH	Marine Sciences	11.0	1,306		1,306
PL	AI	M&O for Poulsbo Marine Science Ctr		164		164
Subtotal - Performance Level Changes			**23.5**	**2,960**		**2,960**
2017-19 Total Proposed Budget			**23.5**	**2,960**		**2,960**
Percent Change from Current Biennium						

PL AD Increasing STEM Capacity

Given Western's role in serving the needs of the state of Washington, and further given the recent substantial growth in demand for STEM degree programs by WWU students and by the state for STEM graduates, Western proposes a three-pronged plan for increasing capacity and throughput efficiency in critical first- and second-year entry-level courses in Mathematics, Physics, and Chemistry. These courses are critical support courses for programs that are under the most significant demand, including Computer Science, Engineering, and Pre-Health Sciences. The proposed program would provide recruiting, advising, and additional course sections for a 100-student cohort of native freshmen; the cohort model is a proven method for increasing retention and supporting students from diverse backgrounds, while the increased course capacity reduces waitlist times and overall time to degree for important STEM programs, thereby reducing instructional costs.

PL AH Marine Sciences

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PL AI M&O for Poulsbo Marine Science Ctr

Western Washington University, the city of Poulsbo and the Poulsbo Marine Science Foundation have approved initial agreements that will allow Western to lease and then to assume ownership of the Poulsbo Marine Science Center building. The Center has been an important educational resource for the community and the region. Western students on the Kitsap and Olympic Peninsulas are now given the opportunity to learn, teach, and do research in an exciting new environment. This proposal requests funding needed to operate and maintain the Center as Western assumes ownership.

2018 Supplemental Budget
Decision Package

Agency: Western Washington University

Decision Package Code/Title: Increasing STEM Capacity

Budget Period: 2019

Budget Level: Performance Level

Agency Recommendation Summary Text:
Given Western's role in serving the needs of the state of Washington, and further given the recent substantial growth in demand for STEM degree programs by WWU students and by the state for STEM graduates, Western proposes a three-pronged plan for increasing capacity and throughput efficiency in critical first- and second-year entry-level courses in Mathematics, Physics, and Chemistry. These courses are critical support courses for programs that are under the most significant demand, including Computer Science, Engineering, and Pre-Health Sciences. The proposed program would provide recruiting, advising, and additional course sections for a 100-student cohort of native freshmen; the cohort model is a proven method for increasing retention and supporting students from diverse backgrounds, while the increased course capacity reduces waitlist times and overall time to degree for important STEM programs, thereby reducing instructional costs.

Fiscal Summary:

Operating Expenditures	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Fund 001-1	$1,490,256	$1,197,776	$1,225,325	$1,253,507
Total Cost	**$1,490,256**	**$1,197,776**	**$1,225,325**	**$1,253,507**
Staffing	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
FTEs	12.5	12.5	12.5	12.5
Revenue	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Fund 001-1	$1,490,256	$1,197,776	$1,225,325	$1,253,507
Object of Expenditure	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Obj. A	$619,800	$641,114	$655,860	$670,944
Obj. B	$229,511	$233,357	$238,724	$244,215
Obj. E	$601,945	$307,960	$315,043	$322,289
Obj. G	$39,000	$15,345	$15,698	$16,059
Total Cost – by Object	**$1,490,256**	**$1,197,776**	**$1,225,325**	**$1,253,507**

Package Description

Washington State faces a well-documented current and growing shortage of STEM graduates, particularly in Engineering and Computer Science fields. At the same time, demand from students for STEM degree programs has increased dramatically at WWU. Although demand has grown for all STEM degree programs at Western, enrollment management concerns are particularly acute in the new Engineering and Design and the existing Computer Science programs, which have seen unprecedented increases in demand from students. While the State and the University have committed resources to these programs to address workforce and student demands, Engineering, Computer Science, Pre-Health Science, and other STEM programs all rely on a common set of entry-level courses as part of their degree program sequence. Therefore, increasing capacity in entry-level courses for STEM majors is critical to increasing overall capacity across all STEM majors at Western. Existing enrollment management and student advising resources, course laboratory budgets, and staffing levels have not kept pace, creating a situation where students are unable to take courses in a timely or predictable manner. As demand has outpaced resources and more students have been unable to enroll in gateway courses as part of their freshmen and sophomore sequences, the gateway courses enroll with upper-division students, further decreasing opportunity for timely access to programs. As a result, WWU has been forced to cap all but one major within the University's College of Science and Engineering, which limits students' ability to pursue STEM majors and increases their overall time to degree.

Operationally, this package supports three key elements designed to streamline the first two years of study for Engineering, Computer Science, or Pre-Health Science interest incoming freshmen:

1) *Introduction of a new cohort model*. Enrollment in the introductory sequences will be actively managed via cohorts of incoming freshmen, organized according to their expressed areas of interest and level of high school preparation. Cohort models introduced at other universities have been shown to improve retention and success rates, including retention and success of underrepresented and first-generation students, by ensuring improved access via integrated multi-year scheduling. Beginning with an initial cohort of 100 high achieving students, but with a goal of eventually extending to all students, entering freshman participating in the proposed program will be guaranteed access to the introductory core courses leading to each degree program. While streamlining passage into STEM majors, the program also provides a strong recruiting incentive for high-achieving students to attend Western.

2) *Restructured multi-year advising model*. Cohorts will receive early and robust advising, with more vigorous intervention for students identified as being at risk of falling off track. The goal is to both improve retention and keep the cohort moving in step together, which directly addresses several of the scheduling and enrollment challenges noted above. Eventually the model will include the integration of transfer students at the appropriate level.

3) *Increased capacity in critically impacted first and second year foundational STEM courses.* The above two elements enable cohorts to move through sequences together, creating streamlined registration, enrollment, advising, and completion. To implement these changes, additional instructional capacity will be required, for which the package requests faculty, teaching assistants, and support staff.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

Currently, Chemistry, Math, and Physics are running at resource capacity, with the introductory course sequences providing service for their respective major programs, as well as for Computer Science, Engineering, and the Pre-Health Science students. Specifically, each quarter, these program offerings consist of:

- Introductory Chemistry: 11 lecture sections (60 students each) and 20 lab sections (30 students each),
- Introductory Organic Chemistry: 8 sections of (60 students each),
- Introductory Physics: 7 lecture sections (60 students each) and 17 lab sections (24 students each),
- Introductory Calculus: 23 sections (25 students each)

The total teaching resources currently required to deliver the core sequences is approximately 25 full-time equivalent faculty, 20 full-time equivalent lab teaching assistants, and 3 full time equivalent technical support staff (not including instrumentation and equipment support). Currently, resources for dedicated advising do not exist. The proposed changes constitute a 17% increase in teaching resources to add sections accommodating 100 students to the Introductory Chemistry, Organic Chemistry, Physics, and Calculus sequences across the board.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

The package requests resources specifically to accomplish the first stage of access enhancement, including tenured/tenure-track (TT) faculty, staff, and instructional operating dollars in support of the gateway STEM sequences, as follows:

	FTE	2018-19	2019-20
TT Mathematics Faculty	3	$ 281,467.00	$ 287,162.00
TT Chemistry Faculty	2	$ 187,645.00	$ 191,442.00
TT Physics Faculty	1	$ 93,822.00	$ 95,721.00
Academic Career Advisor	0.5	$ 35,766.00	$ 36,336.00
Instruction/Classroom Support Tech	3	$ 198,193.00	$ 210,380.00
TA Graduate Assistance	3	$ 52,417.00	$ 53,430.00
Total	**12.5**	**$ 849,310.00**	**$ 874,471.00**

In addition to salaries and benefits, WWU is requesting one-time funds (2018-19) in the amount of $300,000 for the purchase of lab equipment as well as $323,305 in recurring funds for goods, services, and travel related expense.

An inflation adjustment of 2.3% (ERFC Seattle CPI forecast) has been added to all costs beginning in FY 2020 WWU does not anticipate adding additional staff or goods and services beyond the scope of this proposal.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

The outlined investment will reduce STEM majors' time to degree by 0.67 per academic year (from current waitlist and time to degree data), greatly improving efficiency and return on the state's investment. The resulting cost savings to the state is roughly $88,000 per cohort at the current funding level. Students are anticipated to save $516,000 per cohort (or $5,166 per student) in tuition. In addition, investment would increase throughput and improve outcomes for Engineering, Computer Science, and other impacted STEM majors by addressing obstacles to timely enrollment in core introductory mathematics, chemistry, and physics courses. The targeted courses are critically impacted first; second-year sequences serving as the gateway to the Engineering and Computer Science programs, as well as other STEM major programs and most pre-health majors. This package will introduce changes in course scheduling and advising, and add teaching capacity in key targeted courses to streamline passage of students through their first two years and into their majors.

Specific outcomes of funding, per cohort of 100 students, are:

- 1 additional section each of the General Chemistry sequence and the Organic Chemistry sequence.
- 2 additional sections of the Physics sequence.
- 3 additional sections each of the Calculus sequence and post-Calculus Math courses.

Performance Measure detail:

A primary metric will be time to degree of native freshman. Currently, time to degree in STEM disciplines is affected by the number of times students need to waitlist before successfully enrolling in pipeline courses. By quantifying the average waitlist time, and the resulting time to degree savings, the impact of the proposed change may be directly measured. By guaranteeing access to the entry level courses and providing increased advising, the time to degree will decrease concomitantly. Another metric will be the retention rates of first and second year students in STEM disciplines. The utilization of cohorts, and improved advising models should improve retention and completion rates, both of which can be measured quantitatively against current levels.

Fully describe and quantify expected impacts on state residents and specific populations served.

As previously stated, WWU intends to graduate more STEM majors in a more cost effective way for both the state and the student. WWU's intention specifically addresses Goal 1 - "World Class Education-Postsecondary: More Graduates" as well as Goal 2 – "Prosperous Economy-Thriving Washingtonians." This proposal will prepare state residents for quality jobs and expand their opportunities for personal growth by providing a world class education.

What are other important connections or impacts related to this proposal? Please complete the following table and provide detailed explanations or information below:

Impact(s) To:		Identify / Explanation
Regional/County impacts?	**Yes**	**Identify: Residents from all regions and counties of the state will be better prepared for job market.**
Other local gov't impacts?	**No**	**Identify:**
Tribal gov't impacts?	**No**	**Identify:**
Other state agency impacts?	**No**	**Identify:**
Responds to specific task force, report, mandate or exec order?	**No**	**Identify:**
Does request contain a compensation change?	**No**	**Identify:**
Does request require a change to a collective bargaining agreement?	**No**	**Identify:**
Facility/workplace needs or impacts?	**No**	**Identify:**
Capital Budget Impacts?	**No**	**Identify:**
Is change required to existing statutes, rules or contracts?	**No**	**Identify:**
Is the request related to or a result of litigation?	**No**	**Identify lawsuit (please consult with Attorney General's Office):**

Is the request related to Puget Sound recovery?	**No**	**If yes, see budget instructions Section 14.4 for additional instructions**
Identify other important connections		

Please provide a detailed discussion of connections/impacts identified above.
Impacts and connections to this table are referenced in the "Package Description."

What alternatives were explored by the agency and why was this option chosen?

The only alternative to the proposed program is to continue to manage waitlists on the entry-level courses, which impacts retention and throughput. Without additional resources, proactive steps towards recruiting and advising students as part of the overall enrollment management process is not possible; succinctly, there is no alternative to increase STEM capacity without additional faculty, staff, advising, and laboratory support resources. Due to the magnitude of the increased demand across the board in the College of Science and Engineering, alternatives such as inter-college shifting of resources are not effective. Expansion of the pipeline infrastructure is required to allow for any growth of the individual programs.

What are the consequences of not funding this request?

If this package is not funded, student demand for STEM disciplines will continue to significantly exceed the University's capacity in these areas, and the University will miss an important opportunity for expansion in critical disciplines. The number of Engineering, Computer Science, and health science graduates will at best remain at current levels, the students not able to be accommodated will need to be turned away from the impacted programs, and there will then be a need for these students to be accommodated in other areas—a system for which has not been constructed. Lastly, time-to-degree, completion rates, and program quality will be negatively impacted. In particular, the waitlist times for impacted programs is on the rise, increasing in some areas from an average waitlist time of 2 quarters to a full 3 quarters, putting students 1 full academic year behind in time to degree. Time to degree delays increase overall instructional costs, as students stay in programs occupying seats that incoming students cannot take.

How has or can the agency address the issue or need in its current appropriation level?

The current demand on the affected programs exceeds resourcing. Delivering the programs at current levels is not sustainable.

2018 Supplemental Budget
Decision Package

Agency: Western Washington University

Decision Package Code/Title: Undergraduate Program in Marine, Coastal, and Watershed Sciences

Budget Period: 2019

Budget Level: Performance Level

Agency Recommendation Summary Text:
To address Washington's emerging challenges associated with climate change and sustainability, WWU is proposing to develop a new cross-discipline program in Marine, Coastal and Watershed Sciences. The degree program will be highly interdisciplinary and have a unique emphasis on coastal marine environments and on the rivers and inland waterways that are so strongly connected to coastal systems yet are typically treated separately in traditional curricula. We view this new "mountains-to-sea major" as a response to the complexity of problems facing society and an acknowledgement of the need for new interdisciplinary methods to meet the needs of Washington's rapidly expanding clean technology economy, as well as the sectors of environmental protection and resource management. Graduates will possess a strong blend of analytical, critical thinking, and communication skills our state and nation will need to address challenges related to climate change and associated threats including changing weather and hydrologic cycles, sea level rise, sustainable fisheries, ocean acidification, and pollution and population pressures on coastal and watershed systems. We need graduates interested in pursuing problems in sectors as diverse as sustainable energy solutions, maritime transportation, ecology, coastal and landslide hazards, and sustainable aquaculture.

Fiscal Summary:

Operating Expenditures	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Fund 001-1	$1,306,337	$1,020,077	$1,043,539	$1,067,542
Total Cost	**$1,306,337**	**$1,020,077**	**$1,043,539**	**$1,067,542**
Staffing	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
FTEs	9	11	11	11
Revenue	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Fund 001-1	$1,306,337	$1,020,077	$1,043,539	$1,067,542
Object of Expenditure	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Obj. A	$588,769	$615,968	$630,135	$644,629
Obj. B	$218,988	$226,733	$231,948	$237,283
Obj. E	$454,580	$157,376	$160,996	$164,699
Obj. G	$44,000	$20,000	$20,460	$20,931
Total Cost – by Object	**$1,306,337**	**$1,020,077**	**$1,043,539**	**$1,067,542**

Package Description

This new program draws on the strengths found within many units at the university; strategically taking advantage of those strengths and overlapping synergies to expand into certain key niches that advance the mission of WWU and the state. Western has an incredible reputation in environmental sciences and in environmental studies, but also has a strong national reputation in marine and aquatic sciences. Western is experiencing intense enrollment pressure in all STEM majors. This program will provide some new STEM capacity and will attract students who want to spend a quarter living and learning at WWU's coastal marine laboratory that is focused around marine, watershed, and climate change problems.

Unique features

Shannon Point Marine Center. One of the most attractive and unique features of the program is a curriculum that will standardize an opportunity for students to spend a period of time enrolled in an entire set of upper-level course credits at WWU's Shannon Point Marine Center (SPMC). Students will study in integrated courses with opportunities for field, laboratory study and faculty-led travel. The flexibility provided during this time will allow program faculty to incorporate new topical material and collaborate between courses in a way that is very different from the traditional on-campus schedule. Some faculty will be able to come and go from the SPMC quarter to teach in shorter blocks of time. This will provide an opportunity to teach intense concentrations on a variety of topics. For example, faculty might introduce policy or writing, and it may be used for capstone research credits. Details of the curricula and logistics of this immersive living-learning block will be finalized by faculty committees, but expect that some aspects will be modeled upon successful features of SPMC's ongoing WWU Marine Science Scholar's program for first and second-year Western students.

Rivers to the Ocean. Another unique and exciting aspect of the program will be a new core curriculum built around the idea of the "Mountains to the Sea." Traditional marine curricula of the 20th century were built around interweaving branches of physical, biological, geological, and chemical oceanography, integrating the four disciplines within the dynamics of the global world ocean. Marine biology curricula have a different, more organismal approach. Undergraduate curricula that emphasize aquatic systems might approach ecosystems within departments with a more terrestrial focus while their students learn hydrodynamics from faculty in engineering or geology. We propose re-framing traditional curricula to develop Western's own set of unique 300-level courses. The new core courses would cover fundamental concepts (geochemistry, hydrodynamics) instead in a rivers and marine context.

Computational analysis in a scientific context. Based on feedback from advisers in the private sector, the program will incorporate a component of coursework that includes hands-on computing and data analysis, taught as a tool for solving problems within a practical, scientific context. This concept revolves around getting students up to a level of *simple* coding as a tool for statistics, data base manipulation, predictive modeling, production of graphics, spatial analysis, and answering scientific and environmental data questions. Exposure to the elements of logic,

critical thinking, and the skill of basic coding that come with doing computational analysis to solve a scientific or business question will be added value to the student.

Policy Requirement. The program will make sure graduates have some training in policy or economics. Scientists interact with policy makers and both need to understand the principles of economics and management of policy. Graduates need to be able to help inform policy, or be active participants in the generation of policy, not just at the state, but also at the national and international level. We will take advantage of Western's strength in this realm and the wide range of courses available in policy, economics, and business.

Strengthening the Graduate Program in Marine and Estuarine Studies. This program will meet a key need at WWU by closing a critical gap: currently there is a graduate program in Marine and Estuarine Studies (MESP), but no corollary undergraduate degree program. This program will provide a coordinated entry point for graduate students to one unit that is currently spread between multiple units. Not only would the new program support new undergraduate students, it would better enrich and focus the experience of MESP graduate students, who would benefit from mentoring and teaching undergrads who are pursuing a field of study similar to their interest. This program would open up a wide variety of new research opportunities for graduate students, faculty, and undergraduate students.

Organizational Structure The program will be listed in the catalog under University Interdisciplinary Studies and housed organizationally in the Shannon Point Marine Center, due to its interdisciplinary and intercollegiate nature. In this it is similar to the academic programs run through the Institute for Energy Studies. Both SPMC and IES report to the Provost's Office.

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

This request includes 6 tenure track faculty FTE, 1 non-tenure track faculty FTE, 2 graduate student FTE, and 2 classified staff FTE. The specific disciplines of the faculty hires are unknown as of this writing, but will be located in the Huxley College of the Environment (Environmental Sciences) and the College of Science and Engineering (likely Biology, Chemistry, Geology, Physics). Some of the faculty will be based at Shannon Point; others will be based on campus in Bellingham. All will teach at least part of their load in Bellingham. This request also includs 2 graduate student FTE and will be utilized in assisting both faculty and undergraduates in marine and estuarial studies. Classified staff positions include a program coordinator as well as staff whose primary responsibility will be to drive a shuttle bus or van to take students and faculty to and from Shannon Point and other student coordination efforts.

	FTE	2018-19	2019-20
TT Faculty	6	$562,934	$562,934
NTT Faculty	1	$96,296	$96,296
Graduate Assistants	2	-	$34,945
Classified Staff	2	$ 148,526.00	$ 148,526.00
Total	**11**	**$ 807,756.00**	**$ 842,701.00**

In addition to salaries and benefits, WWU is requesting one-time funds (2018-19) in the amount of $300,000 for faculty start up as well as $198,580 in recurring funds for goods, services, and travel related expense.

An inflation adjustment of 2.3% (ERFC Seattle CPI forecast) has been added to all costs beginning in FY 2020. WWU does not anticipate adding additional staff or goods and services beyond the scope of this proposal.

Decision Package Justification and Impacts

What specific performance outcomes does the agency expect?

WWU expects between 20 and 40 students per year to enroll in this program in its initial years, based loosely on the number of students enrolled in the marine-focused emphases within majors in the Environmental Sciences and Biology departments currently. However, interest *might* be much higher, considering that 345 applicants for the incoming 2017-2018 year marked “Marine Studies” as their highest academic interest in order to be considered for the 21 spots in the competitive WWU Marine Science Scholars program. WWU plans to control enrollment to match program resources. As the new degree program ramps up, we will design the living-immersive learning quarter at Shannon Point to accommodate the correct student numbers with room and flexibility to accommodate non-majors in these courses. It is anticipated that once the program is up and running, WWU can produce roughly 30 graduates per year.

Performance Measure detail:

The following metrics can be used to evaluate the performance of the program:

- The number of degrees awarded
- Placement rates of graduates with employers in Washington and in other states
- Placement rates of graduates in MS or PhD programs
- Satisfaction of graduates with their educational experience, based on surveys taken post-graduation and multiple years after graduation
- The effect of the program on the total number of degrees awarded in STEM
- Program Learning Outcomes

Fully describe and quantify expected impacts on state residents and specific populations served.

Washington State's decadal master plan for higher education is to produce 26,800 to 36,200 more bachelor's degrees annually by 2018 than graduated in 2008. This same plan strongly emphasizes developing more programs and graduates in STEM disciplines. This new program can be one of multiple programs Western can develop to help meet this need. Marine and watershed sciences are quantitative fields, requiring computational and data analysis, technical skills, and critical thinking. Graduates will come into the state and national workforce prepared to take on careers in positions such as, environmental consultant, water rights consultant, coastal restoration specialist, restoration ecologist, coastal geomorphologist, field technician, GIS analyst, environmental data analyst, agricultural positions, government scientist, FDA technician, marine transportation safety specialist (hazardous spills), toxics reduction specialist or supervisor, grant writer, water quality specialist, stormwater management permitting chemist, underground storage tank inspector (environmental specialist), forest technician, and others. With further training and job experience graduates from the program in Coastal and Watershed Sciences might go on to become Licensed Engineering Geologists, Coastal Engineers, or other such specialists.

What are other important connections or impacts related to this proposal? Please complete the following table and provide detailed explanations or information below:

Impact(s) To:		Identify / Explanation
Regional/County impacts?	**Yes**	**Identify: Residents from all regions and counties of the state will be better prepared for job market.**
Other local gov't impacts?	**No**	**Identify:**
Tribal gov't impacts?	**No**	**Identify:**
Other state agency impacts?	**No**	**Identify:**
Responds to specific task force, report, mandate or exec order?	**No**	**Identify:**
Does request contain a compensation change?	**No**	**Identify:**
Does request require a change to a collective bargaining agreement?	**No**	**Identify:**
Facility/workplace needs or impacts?	**No**	**Identify:**
Capital Budget Impacts?	**No**	**Identify:**
Is change required to existing statutes, rules or contracts?	**No**	**Identify:**
Is the request related to or a result of litigation?	**No**	**Identify lawsuit (please consult with Attorney General's Office):**
Is the request related to Puget Sound recovery?	**No**	**If yes, see budget instructions Section 14.4 for additional instructions**
Identify other important connections		

Please provide a detailed discussion of connections/impacts identified above.

As stated before, Washington State's decadal master plan for higher education lays out a plan to produce 26,800 to 36,200 more bachelor's degrees annually by 2018 than graduated in 2008. Graduates will come into the state and national workforce prepared to take on careers in positions such as, environmental consultant, water rights consultant, coastal restoration specialist, restoration ecologist, coastal geomorphologist, field technician, GIS analyst, environmental data analyst, agricultural positions, government scientist, FDA technician, marine transportation safety specialist (hazardous spills), toxics reduction specialist or supervisor, grant writer, water quality specialist, stormwater management permitting chemist, underground storage tank inspector (environmental specialist), forest technician, and others.

What alternatives were explored by the agency and why was this option chosen?

Only a new degree program addresses state needs during this rapidly changing time. This program will assist Western with intense STEM enrollment pressure and close the undergraduate gap to our graduate MESP program. This program will provide a critical and unique niche by focusing on the coastal ocean, and going up estuaries, rivers, into watersheds (hence the nickname "Mountains to Sea.") This is truly an important feature of the program – not only does it put Western on the map and will it attract students, it fits the Pacific Northwest and the needs of Washington State. No other alternatives exist given the uniqueness and nuances of the project.

What are the consequences of not funding this request?

Not funding this request would be result in a failure to leverage our strengths in these areas and meet the needs of the state in a time of real change. Other universities around the west are responding quickly to society's interest in climate change and ocean studies, and have been busy creating large undergraduate programs in both ocean and marine studies. These fall into two categories: global initiatives in climate studies or marine studies, or programs focused on marine biology. Specific examples are [UCSD, OSU, UW, UO], and most of these have recently transitioned to include a living-at-the-sea component as well; this has become a very popular, perhaps expected, offering for undergraduates from those universities that have enough resources to house coastal marine laboratory facilities.

How has or can the agency address the issue or need in its current appropriation level?

Past appropriations have been allotted for specific purposes and are not available for this proposal.

2018 Supplemental Budget
Decision Package

Agency: Western Washington University

Decision Package Code/Title: M&O for Poulsbo Marine Science Center

Budget Period: 2019

Budget Level: Performance Level

Agency Recommendation Summary Text:
Western Washington University, the city of Poulsbo and the Poulsbo Marine Science Foundation have approved initial agreements that will allow Western to lease and then to assume ownership of the Poulsbo Marine Science Center building. The Center has been an important educational resource for the community and the region. Western students on the Kitsap and Olympic Peninsulas are now given the opportunity to learn, teach, and do research in an exciting new environment. This proposal requests funding needed to operate and maintain the Center as Western assumes ownership.

Fiscal Summary:

Operating Expenditures	FY 2019	FY 2020	FY 2021	FY 2022
Fund 001-1	$164,182	$167,958	$171,821	$175,773
Total Cost	**$164,182**	**$167,958**	**$171,821**	**$175,773**
Staffing	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
FTEs	0	0	0	0
Revenue	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Fund 001-1	$164,182	$167,958	$171,821	$175,773
Object of Expenditure	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**
Obj. A	$0	$0	$0	$0
Obj. B	$0	$0	$0	$0
Obj. E	$164,182	$167,958	$171,821	$175,773
Obj. G	$0	$0	$0	$0
Total Cost – by Object	**$164,182**	**$167,958**	**$171,821**	**$175,773**

Package Description

Poulsbo Marine Science Center – Western Washington University, the city of Poulsbo and the Poulsbo Marine Science Foundation have approved initial agreements that will allow Western to lease and then to assume ownership of the Poulsbo Marine Science Center building. The center has been an important educational resource for the community and the region. Western students on the Kitsap and Olympic Peninsulas are now given the opportunity to learn, teach, and do research in an exciting new environment. Assuming occupancy prior to the start of the 17-19 biennium, the operating increases will be needed in both years of the biennium.

FY19 need: 13,820 SF @ $11.88/SF = $164,182
FY20 need: 13,820 SF @ $12.15/SF = $167,958

Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.

Not Applicable.

Decision Package expenditure, FTE and revenue assumptions, calculations and details:

Expenditure calculations are based on actual historical costs of utilities, building and utility maintenance, custodial and ground services, and operations/maintenance support. An inflation adjustment of 2.3% (ERFC Seattle CPI forecast) has been added to all costs beginning in FY 2020 WWU does not anticipate adding additional staff or goods and services beyond the scope of this proposal.

Decision Package Justification and Impacts

Not Applicable.

What are other important connections or impacts related to this proposal? Please complete the following table and provide detailed explanations or information below:

Impact(s) To:		Identify / Explanation
Regional/County impacts?	**No**	**Identify:**
Other local gov't impacts?	**No**	**Identify:**
Tribal gov't impacts?	**No**	**Identify:**
Other state agency impacts?	**No**	**Identify:**
Responds to specific task force, report, mandate or exec order?	**No**	**Identify:**
Does request contain a compensation change?	**No**	**Identify:**
Does request require a change to a collective bargaining agreement?	**No**	**Identify:**
Facility/workplace needs or impacts?	**No**	**Identify:**
Capital Budget Impacts?	**No**	**Identify:**
Is change required to existing statutes, rules or contracts?	**No**	**Identify:**
Is the request related to or a result of litigation?	**No**	**Identify lawsuit (please consult with Attorney General's Office):**
Is the request related to Puget Sound recovery?	**No**	**If yes, see budget instructions Section 14.4 for additional instructions**
Identify other important connections		

What alternatives were explored by the agency and why was this option chosen?

Not Applicable

What are the consequences of not funding this request?

The Poulsbo Marine Science Center will go underutilized limiting access to potential students in the region.

How has or can the agency address the issue or need in its current appropriation level?

Not Applicable.