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| The Evergreen State College |
| Proposal to River Delta Consortium for River Delta Restoration Fellowship |
| Graduate Program on the Environment The Evergreen State College |
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| **Martha L. Henderson, PhD. Director, Graduate Program on the Environment** |
| **5/30/2014** |

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| This proposal is in response to the Consortium RFP for support of a graduate student for the River Delta Restoration Fellowship |

May 30, 2014

1. Graduate Program on the Environment (offering the Master of Environmental Studies degree), at The Evergreen State College, Olympia, WA 98505

Contacts: Dr. Martha Henderson, Director and Member of the Faculty, Geography

[mhenders@evergreen.edu](mailto:mhenders@evergreen.edu) 360 867 6841

Dr. Erin Martin, Member of the Faculty, Oceanography

[martine@evergreen.edu](mailto:martine@evergreen.edu) 360 867 5264

1. Current involvement in ecosystem management and restoration with consortium work: Currently, faculty members of the Graduate Program on the Environment are engaged in supporting student work in ecosystem management and restoration with consortium members. This work is done primarily by supporting graduate student research and learning and in some cases with faculty research work with individual consortium members. This year, thesis projects included student research in Washington Sea Grant, Washington Department of Natural Resources, Washington Department of Transportation, Washington Department of Fish and Wildlife, the Center for Natural Lands, the Sustainable Prison Project, and Cascadia Research. Students working on thesis projects also had internships with the agencies and non-profit organizations. In most cases, the internships were paid and allowed the students to develop research projects in collaboration with their hosts. Faculty members sponsored the student internships and worked with professionals within the host agencies or non-profit organizations in overseeing student work and development of thesis worthy projects.

Faculty members engage in ecosystem management and restoration work as a regular part of teaching in the graduate program. As an interdisciplinary program, management and restoration work is addressed as a product of both natural and social sciences within a policy and regulatory environment. Topics within management and restoration work are approached from lecture, seminar, field observation, writing, and methods development. Core curriculum in the graduate program provides learning opportunities to develop critical thinking and writing skills. As referenced in point 5 below, a major objective of the core curriculum is to develop an in-depth understanding of ecosystem functioning in aquatic and terrestrial ecosystems. Electives (such as Freshwater Ecology, Conserving and Restoring Biodiversity, Fire Science and Society, Applied Wildlife Ecology and Policy, Geographic Information Systems) provide further content development and specific skill building including geographic information systems and field data collection. The graduate program emphasizes environmental conditions of the Pacific Northwest especially surround and including Puget Sound. The college’s location in Olympia provided excellent access to both natural settings, and the regulatory and research work in public and private facilities. With over 650 graduates with MES degrees from Evergreen, the abilities of Evergreen graduate students to work across disciplinary interests with excellent writing and research skills is widely recognized in local, regional, state, federal and tribal ecosystem management and restoration work.

1. Budget

There is no cost to the consortium for sponsoring the fellowship in the Graduate Program on the Environment or at The Evergreen State College. Faculty members typically sponsor students as part of the Program’s experiential education curriculum and independent learning internships. The fellow would be sponsored by Dr. Erin Martin as part of her regular workload within the Evergreen faculty work contract. The College does not expect overhead costs for students engaged in individual learning internships in off-site locations. The only requirement of the fellowship supervisor is a narrative evaluation written at the end of each academic quarter. The narrative evaluation is sent to the sponsoring faculty member and the faculty member embeds the evaluation into a formal narrative evaluation. It is this evaluation, filed by the faculty member that justifies earned credit for the student. As a teaching institution, The Evergreen State College is efficient and effective in utilizing state funding to promote learning about resource management through experiential education for Washington State.

1. In-kind or Cash Resources

The sponsoring faculty member will include supervision of the fellow including periodic check-ins, site visits and collaboration with the fellow consortium supervisor if opportunities arise. This work is done to ensure graduate level learning experiences for the fellow and continues growth in understanding natural resource management. Developing a relationship between the faculty member, the Graduate Program on the Environment, and the river delta restoration consortium will enhance professional work that leads to increased knowledge and teaching about Puget Sound delta river restoration. Dr. Erin Martin has expertise studying carbon cycling in large rivers, and has conducted her research within the Amazon, Mekong, and Queets River basins. Although her work has traditionally been done upstream of saltwater intrusion to these environments, she is excited about the possibility of working in river deltas. There are no cash resources available from The Evergreen State College to support collaboration between the college and the consortium.

1. There are numerous ways in which the fellowship could become integrated into the graduate curriculum.  As mentioned above, a major learning objective of the required (core) first-year programs is that students develop a strong understanding of how terrestrial, aquatic, and marine ecosystems function.  In doing so, faculty examine key ecological processes occurring within each ecosystem type, and try to use case studies of current environmental problems as a platform for learning about these processes.  Case studies are either based off of the peer-reviewed literature, or they are taken from real-world research problems that faculty members are engaged in. Currently, faculty members have developed case studies examining ecosystem functioning in forests, lakes, and open ocean environments.  Although students learn about ecosystem functioning in estuarine and deltaic environments, the program currently does not have any case studies that complement the concepts presented in lecture/course readings.  Dr. Martin would be excited to expand the set of case studies to include the restoration of river deltas.  Faculty members would work with the fellow to design a case study that exposes students to techniques used in restoration.  Ideally, faculty would tailor readings and lectures (both of these would hopefully be supplemented by materials developed by the fellow) to provide all students with the foundation to propose specific restoration plans to meet a particular restoration goal.  Ideally, students would then visit the site and compare their proposed restoration plans with that which has been implemented at that particular location.  The fellow would benefit by sharing his/her work with his/her home institution, and he/she would get the experience of working with faculty to design pedagogical activities on delta restoration. Finally, the fellow could develop a thesis project based on original research for the completion of the MES degree. This work could lead to further collaboration between MES students, faculty, and the consortium.