FINAL SABBATICAL REPORT TO THE BOARD OF TRUSTEES

To be completed by faculty members and submitted to the vice president for academic affairs.

Name and Title of Faculty Member: Kevin Alexander, Ph.D. Professor of Biology

Period of Leave: 2009-2010 Academic Year

Attach final sabbatical report for review by the trustees as required in Section 3.07 of the *Handbook for Professional Personnel* and §23-5-123 C.R.S. and as agreed to in the faculty member's sabbatical application.

_____	22 November 2010
Signature of Sabbatical Recipient	Date

2009-2010 Sabbatical Report
Kevin D. Alexander, Ph.D.
Biology
Department of Natural and Environmental Sciences

The most difficult aspect of my position at Western State College of Colorado is staying current in my areas of expertise. Thus I used this sabbatical to renew and further develop my work within my areas of expertise in environmental assessment, aquatic biology and biodiversity studies. I also used this sabbatical to develop activities for my courses and to support the role of the college as a regional service provider.

I completed the following projects during my sabbatical:

1. I produced a report entitled "Uncompahgre Fritillary Butterfly Monitoring, Inventory, Genetic Sampling and Mapping: 2009 Report and Status" based on external funding along with hosting the U.S. Fish and Wildlife Service's federally endangered Uncompahgre fritillary butterfly (UFB) recovery team meeting on the Western State campus.
2. Conducted externally funded research to monitor and assess the populations of the federally endangered Uncompahgre fritillary butterfly. This involve hiring five students
3. Received external funding and conducted wildlife and federally endangered Uncompahgre fritillary butterfly surveys for the proposed Cochetopa Hills section of the Continental Divide National Scenic Trail.
4. Received external funding and surveyed six selected sites for the White River National Forest for the federally endangered Uncompahgre fritillary butterfly. A report and associated files has been submitted.
5. Conducted externally funded research and produced a report entitled the "Benthic Macroinvertebrate Assessment of the Taylor River on the Taylor River Ranch, Gunnison County, Colorado" that assists with litigation over water flows and water rights from Taylor Park Reservoir.
6. Proposed upcoming research for assessment of stream health and Oppossum shrimp (*Mysis relicta*) on the Taylor River for which external funding has been obtained.
7. Produced a peer reviewed publication that is in review based on research of stonefly distributions in the upper Gunnison River basin with former student Jenna Wright and Clemson University ecologist, Brian Brown. The paper is currently in review.
8. Supervised Western student Clayton Bondurant's ongoing Thornton Fund for Undergraduate Research project on the possibility of reintroducing the giant willowfly, *Pteronarcys californica*, into the Gunnison River.
9. Supervised Kathryn Bernier's Thornton Fund for Undergraduate Research project on floral diversity in Uncompahgre fritillary butterfly habitat.
10. Conducted externally funded research on the "Coal Creek Riparian Habitat Assessment" where the condition of riparian and stream habitat was assessed along Coal Creek, Gunnison County, Colorado. Impaired sites were prioritized for restoration and I assisted with obtaining funding for those restoration efforts.
11. Conducted externally funded research assessing the aquatic life and water quality of five selected sites in the upper Gunnison River basin for the Upper Gunnison River Water Conservancy District. Produced a report entitled "Aquatic Biocriteria Assessment for the Upper Gunnison River Basin, 2009". The results of this research are being used to determine if the upper Gunnison River basin is meeting the recently adopted water quality standards for aquatic life.

12. Conducted a riparian habitat assessment of the Gunnison River from Almont to McCabe's Lane for the Upper Gunnison River Water Conservancy District and an additional outside funding source. The ecological condition of riparian and stream habitat was assessed along the Gunnison River, Gunnison County, Colorado. Impaired sites were prioritized for restoration and I have begun assisting with obtaining funding for those restoration efforts.

I have met and exceeded all of the goals of my sabbatical proposal and would be happy to discuss any of the results, reports or publications resulting from the above the projects.