Please complete the project summary and return the completed form to April Snyder, Associate Administrator for the Institute on the Environment at april.snyder@umn.edu. Paper copies will not be accepted. Please also attach any photos, publications, brochures, event agendas or other materials that were a result of the mini grant summary.

**Date of Report Submission:** October 13, 2014

**Project PI & Dept/School:** Matthew D. Aro; University of Minnesota Duluth, Natural Resources Research Institute

**Project Title:** Cross-Campus Collaboration: Life-Cycle Analysis Methods and Tools

**Grant Amount $:** $1,800

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**Project Context & Purpose**

Please include the original project purpose statement and revise for any changes that occurred in the project after the start date with a short explanation of the changes.

**Original Project Purpose Statement**
The project team proposed to design and deliver an intense, day-long life-cycle analysis (LCA) seminar to University of Minnesota Duluth Natural Resources Research Institute (UMD NRRI) researchers, UMD faculty and staff, and UMD undergraduate and graduate students. The seminar was held at UMD to educate attendees on natural resource-based, industry-accepted LCA methods and tools, their application, and their integration into current and future research projects. Methods and tools that were covered in the seminar included LCA goal and scope definition, inventory analysis, impact assessment, and interpretation.

**Revisions**
None to report.
Please provide a summary of the work that was completed for the mini grant project.

The completed work included:

1. Development of a master list of potential attendees.
2. Emailing invitations to potential attendees.
3. Maintaining of list of committed attendees.
4. Development of a seminar agenda in collaboration with Dr. Jason Hill, Dr. Kimberley Mullins, and Dr. Jeffrey Howe.
5. Working with UMD Facilities Management and the UMD Assistant Director for Events and Conferences to select an attractive conference room at UMD to hold the seminar.
6. Working with UMD Catering Services to select continental breakfast, lunch, and snacks.
7. Conducting the LCA seminar at UMD.
8. Collecting all seminar materials for distribution to attendees (to occur soon).
Partnerships & Collaborations

Please provide a summary of the project personnel, partnerships and collaborations that worked directly on the project or were started as a direct result of the mini grant project.

Matthew Aro (PI) worked directly with Dr. Jason Hill (Assistant Professor, Department of Bioproducts and Biosystems Engineering, University of Minnesota), Dr. Kimberley Mullins (Research Associate, Department of Bioproducts and Biosystems Engineering, University of Minnesota), and Dr. Jeffrey Howe (President and Founder, Dovetail Partners Inc.) to plan and execute this event. This team had frequent email discussions to plan the agenda for the LCA seminar. In addition, the PI met with Dr. Hill and Dr. Howe several times at the University of Minnesota to discuss the agenda and execution of the event. As part of his dissertation work, the PI (a full-time UMD NRRI forest products researcher and Ph.D. student at the University of Minnesota) intends to work with Dr. Hill on conducting new LCA-related research on thermally-modified wood products.

The information presented in this seminar was of great value to UMD faculty, students, UMD NRRI researchers, and industry participants. It is very likely that the information disseminated in the seminar will be used directly in the preparation of future joint grant proposals submitted by UMD and UMD NRRI researchers.
Project Outcomes & Impacts

Please provide a summary of the outcomes and/or impacts of the mini grant project including future plans for the project.

The chief outcomes of the project were: (1) the training of UMD and UMD NRRI researchers, faculty, staff, and students on LCA-related topics; and (2) creation of new collaborations between UMD, UMD NRRI, and University of Minnesota researchers. The chief future outcome is the completion LCA-related research as part of the PI's dissertation work (in partnership with Dr. Hill).

The chief impacts of the project were training of researchers, faculty, staff, and students on valuable LCA-related skills. The chief future impacts are generation of more impactful research outcomes and submission of higher-quality grant proposals by incorporation of the new knowledge gained in this seminar.