Abstract
This multi-dimensional project had two specific goals. The first goal was to develop a collaboration between UW-Eau Claire Department of Geography and Anthropology, Wildlands School and Beaver Creek Reserve to advance geospatial knowledge for the students by developing geospatial data for Beaver Creek Reserve. The second goal was to create a blueprint for future K-12 geospatial collaborations. This project introduces K-12 educators and students to geospatial technology and its classroom uses. This collaboration provided technology, resources, and support through communication and team building in an innovative setting through project-based, real-world experience. The approach consisted of a continuous cycle of educating, planning and implementing the geospatial tools and data. Students learned geodatabase management, data collection and mapping applications. Students collected data in a hands-on approach and uploaded the data to a GIS (Geographic Information System) to create physical maps for Beaver Creek Reserve. The process was documented throughout its entirety. Although the project is still in progress, there are two expected outcomes. The first is the creation of physical maps for Beaver Creek Reserve produced by the Wildlands students with assistance from the UW-Eau Claire Geography and Anthropology Department. The second is a blueprint for future K-12 geospatial collaborations.

Expected Outcomes
Multiple outcomes were expected through the collaboration of this project. The outcomes consisted of students gaining basic skills using GPS and GIS and to create updated maps of Beaver Creek Reserve to be used for submission of new grant proposals. We also hoped to create a blueprint of our methods to be used in future K-12 geospatial collaborations for the University of Wisconsin Eau Claire Geography and Anthropology Department.

Methods
Planning
The first step of the process was to meet with the Wildlands students and staff and Beaver Creek Reserve staff.
The learning outcomes for the students were decided and a mapping project workflow was created in the initial meeting. The themes of the final maps were also discussed.

Data Collection
Students were taught how to use Trimble Juno GPS units and ArcPad basics.
The geodatabase created by the students was deployed to the GPS unit and data was collected and imported back into the geodatabase on the server.

Map Creation
A geodatabase activity was created to help the students understand geodatabase organization. The students used this activity to define necessary datasets and place corresponding features into each dataset.

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Data Creation
The workflow created in the initial meeting for the mapping project was used as working diagram. The workflow was a continuous process of planning, student learning and implementation.

Results
Students learned how to deploy the geodatabase to the Trimble Juno GPS units while designing, creating and organizing a geodatabase. Students were introduced to ArcGIS Desktop 9.3 including ArcPad, ArcMap and ArcCatalog.

Updated maps of Beaver Creek Reserve were created by Wildlands students with aid from UW-Eau Claire Geography and Anthropology student volunteers. The updated maps can be used for future grant proposals for Beaver Creek Reserve and also be handed out to public visitors of the reserve.
The UW-Eau Claire student coordinator and staff member worked together to document the process of the mapping project throughout its entirety. The documentation can be used as a blueprint model for future geospatial collaborations for educators and students.
The goals of this project were reached. Wildlands students and faculty were introduced to the uses of GIS in the classroom while resources for future geospatial collaborations were created. There may even be opportunity for internship funding through Beaver Creek Reserve grants in the future.

Introduction
Goals
The goals of this project were to introduce K-12 Educators to geospatial technology and possible uses in the classroom while providing an avenue for support as well as to develop a relationship with K-12 educators.

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Equipment
The Trimble Juno GPS units that were used were from the UW-Eau Claire Geography and Anthropology Department. Data collection was scheduled at times when the GPS units were not being used by UW-Eau Claire classes.

Summary
Scheduling
Wildlands School is a project-based charter school; this was beneficial to the mapping project because the UW-Eau Claire student coordinator could work with the students at times that worked best for both. Students met weekly to work on the project.
The student coordinator worked within the parameters of the UW-Eau Claire students that were interested in helping with the mapping project to schedule times that worked with the volunteer’s class schedules.

Technology
The version of ESRI ArcGIS Desktop used by Wildlands school differs from the version used by UW-Eau Claire. The student coordinator had to familiarize herself with ESRI ArcGIS Desktop 9.3 in order to assist the Wildlands students with the map creation. Martin Goettl, the student coordinator and Mr. Paul Tweed worked together to secure enough server space availability for the mapping project data.

Future Collaborations
Specific curriculum could be developed for teachers using this blueprint. This would allow teachers to move forward much quicker in the use of geospatial technologies within the classroom.

Acknowledgements
UW-Eau Claire Geography and Anthropology Department; Office of Research and Sponsored Programs; UW-Eau Claire Career Services Internship Office; Erik Kiesler, Faculty Member Beaver Creek Reserve; Paul Tweed, Faculty Member, Wildlands Charter School; UW-Eau Claire Department of Geography and Anthropology; Learning Technology Services; Dr. Ezra Zeitler