**EBTJV Catchment Web Updater**

Cooperator:

 USDA Forest Service Northern Research Station

 USGS Leetown Science Center, Conte Anadromous Fish Research Center

University of Massachusetts Department of Environmental Conservation

The scope of work for this agreement identifies the following Objective:

**Creation of a web application that would allow credentialed users to modify and update EBTJV catchment classifications for presence of salmonid species**

Background and justification:

The Eastern Brook Trout Joint Venture (EBTJV) concluded its most recent range-wide salmonid assessment in 2015 and made the data available to view and download at <http://ecosheds.org:8080/geoserver/www/Web_Map_Viewer.html>. An update to this assessment was performed for the state of Connecticut in 2016 at their request, and since then other states have also requested updates in light of new sample data. In its current form, updates must be made to the layer using a GIS and then uploaded onto the web. There is enough demand to warrant the creation of a web application that would enable resource managers to update the layer themselves, thus cutting out the expense and delay of contracting out this process.

Achievement of the scope of work objective would enable resource managers to update their own catchment classifications on their own time table. This would aid managers, researchers, and stakeholders alike as they would have access to the most up to date spatial information on salmonid population presence, while also informing the general public on the state of the resource.

Steps to achieve objective:

* Expansion of the existing, or creation of a new web platform that would allow for credentialed users to login and modify catchment classifications.
* Writing of computer code to communicate between the web browser and the backend database to update and track specified changes in catchments.
* Development of a versioning system that would allow end users to determine which version of the data they have and retrieve it to replicate analysis results.
* Development of back-end scripts to automatically update the associated habitat patch layer after changes have been made to the catchment layer.
* Design and conduct an instructional webinar on tool operation.

Expected products:

* A web application that allows credentialed users to login and modify the existing catchment layer.
* A versioned catchment layer that contains recent catchment updates and is available to view and download.
* A versioned habitat patch layer that reflects changes to the underlying catchment layer and is available to view and download.
* Trained end-users

Budget:

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| --- | --- | --- | --- |
|  | **FS-in kind** | **FS-cash to cooperator** | **Cooperator Match** |
| **Salaries** |  |  |  |
| **Postdoctoral Researchers/P.I.s** | $7,500(0.05 FTE GS-15 FS Tech Rep) | $20,000Postdoctoral Support | $EBTJV Coordinator Time??? |
| **Travel** |  | $5,000 (Travel for Postdoc and P.I. – EBTJV and AFWA meetings) |  |
| **Totals** | $7,500 | $25,000 | $??? |
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