

**From:** [McFadzen, Mary](#)  
**To:** [Stephen Torbit](#); [Greg Watson](#)  
**Cc:** [Sean Finn](#); [Yvette Converse](#); [Matthew Heller](#); [S Olliff](#); [Kevin Johnson](#); [John Rice](#)  
**Subject:** Re: Conservation Efforts Database info sheet  
**Date:** Friday, January 30, 2015 12:46:30 PM  
**Attachments:** [CED-DRAFT.pdf](#)

---

Attached is the draft Conservation Efforts Database info sheet. Please provide comments by Wed, Feb 4.

Ideally, the same header and footer would be used for the other info sheets, but the title, LCC logo, and colors would change.

Mary

**Mary McFadzen**

Communications & Outreach Specialist

[Great Northern LCC](#) | [Southern Rockies LCC](#)

Phone: 406 994-2388

Email: [mmcfadzen@montana.edu](mailto:mmcfadzen@montana.edu)

Montana Institute on Ecosystems

Montana State University - Bozeman

---

**From:** Stephen Torbit <[Stephen\\_Torbit@fws.gov](mailto:Stephen_Torbit@fws.gov)>  
**Date:** Monday, January 12, 2015 at 11:22 AM  
**To:** Mary McFadzen <[mmcfadzen@montana.edu](mailto:mmcfadzen@montana.edu)>, Greg Watson <[greg\\_watson@fws.gov](mailto:greg_watson@fws.gov)>  
**Cc:** Sean Finn <[sean\\_finn@fws.gov](mailto:sean_finn@fws.gov)>, Yvette Converse <[yvette\\_converse@fws.gov](mailto:yvette_converse@fws.gov)>, Matthew Heller <[matthew\\_heller@fws.gov](mailto:matthew_heller@fws.gov)>, S Olliff <[tom\\_olliff@nps.gov](mailto:tom_olliff@nps.gov)>  
**Subject:** RE: Conservation Efforts Database info sheet

My feedback, meant to send it to all of you.

ST

Stephen Torbit Ph.D.  
ARD - Science Applications  
Region 6  
Fish and Wildlife Service  
Office: 303-236-4602  
Cell: 720-626-7504  
[stephen\\_torbit@fws.gov](mailto:stephen_torbit@fws.gov)

---

**From:** McFadzen, Mary [mailto:[mmcfadzen@montana.edu](mailto:mmcfadzen@montana.edu)]  
**Sent:** Monday, January 12, 2015 10:52 AM  
**To:** Stephen Torbit; Greg Watson  
**Cc:** Finn, Sean; Yvette Converse; Heller, Matthew; Olliff, S  
**Subject:** Conservation Efforts Database info sheet

Steve and Greg,

Attached is the draft Conservation Efforts Database info sheet developed by Sean, Matt, and me. After we receive your edits, we'll develop the layout and provide another opportunity for review.

Thanks, Mary

**Mary McFadzen**

Communications & Outreach Specialist

[Great Northern LCC](#) | [Southern Rockies LCC](#)

Phone: 406 994-2388

Email: [mmcfadzen@montana.edu](mailto:mmcfadzen@montana.edu)

Montana Institute on Ecosystems

Montana State University - Bozeman

# PROJECT PROFILE

## The Conservation Efforts Database: Improving Our Knowledge of Landscape Conservation Actions

Anthropogenic impacts that are detrimental to fish, wildlife, plants, and ecosystems are often the focus of conservation attention. Although it is relatively easy to document the intensity and extent of these impacts, conservation actions (management activities) that attempt to counter those impacts are rarely documented as thoroughly. Even when conservation actions are documented, it can be difficult to determine the effects on focal species or systems because records are poorly organized and follow-up monitoring is not always performed.

In ways never before achievable, the Conservation Efforts Database (CED) provides the base data that enables partners to evaluate diverse conservation actions occurring across the landscape and implement landscape-scale adaptive management.

### What are the functions of the CED?

The CED is a highly secure, cloud-based, spatially enabled tool that can be used to document and track conservation actions across large, multi-jurisdictional landscapes. Originally developed to help determine if a species should be listed under the Endangered Species Act, the CED is being used to support the 2015 greater sage-grouse status review. Currently, the CED accepts policy level (e.g., Land Use Plan) and program level (e.g., Candidate Conservation Agreement) data and enables a variety of custom spatial representations. By design, the CED architecture is fluid and adaptable to many different landscape management challenges. The CED allows:

- Multiple-users to enter data (single entry or batch upload) from any location
- Document upload and storage (e.g., reports, protocols) Linking conservation actions to one or more threats (one-to-many relationships)
- Generation of reports that summarize conservation actions at multiple scales (e.g., management zones, populations, priority conservation areas)
- Interactive mapping of queried data
- Accounting of actions at multiple scales from small easements to state wildlife action plans to regional planning efforts

The CED was co-designed and co-developed by the Great Northern Landscape Conservation Cooperative (GNLCC), the U.S. Fish and Wildlife Service (FWS), and the U.S. Geological Survey (USGS):

- GNLCC provided ecological, database, and GIS expertise that greatly enhances CED capabilities.
- FWS provided a comprehensive ecological assessment (the Sage Grouse Conservation Objectives Team Report) parsed out by threats and efforts, and structure based on user needs.
- USGS provided design expertise tiering off of the Land Treatments Digital Library.

Many state and federal partners provided design recommendations and policy sideboards to ensure the CED has broad applicability and interoperability.



The screenshot shows the website for the Conservation Efforts Database. At the top, there are logos for USFWS and USGS, and navigation links: FOCUS SPECIES, BATCH UPLOAD, ABOUT CED, FAQ, HELP, HOME. The main header reads "Conservation Efforts Database". Below this is a large image of a Greater Sage-Grouse in flight. To the right of the image is a section titled "BETTER SCIENCE THROUGH DATA SHARING" with text explaining the database's purpose and a link to "ENTER GREATER SAGE-GROUSE DATA". Below the image is a section titled "New to the CED" with dates and descriptions of updates: 12/10/2014 (query page operational), 10/23/2014 (interactive map available), and 9/20/2014 (new geodatabase templates). At the bottom is a section for "Instructional Webinars on how to use the Conservation Efforts Database" with a link to a webinar.

*The Conservation Efforts Database website provides a gateway to share data and evaluate diverse conservation actions occurring across the landscape.*

## How can the CED be used?

The CED efficiently outputs summary information for a variety of criteria (e.g., threats, conservation metrics, implementation result measures) and multiple scales. Here are two examples on how the CED can be used:

- A wildlife manager interested in a specific population could summarize the extent of all habitat restorations or land acquisitions within a defined geographic area.
- A resource planner could quickly generate maps showing important gaps in the collective response to acute conservation threats, and focus actions to address those threats.

The CED also organizes data for highly enriched analyses. For example, when coupled with population, land cover change (e.g., wildfire), and climate data, CED data contributes

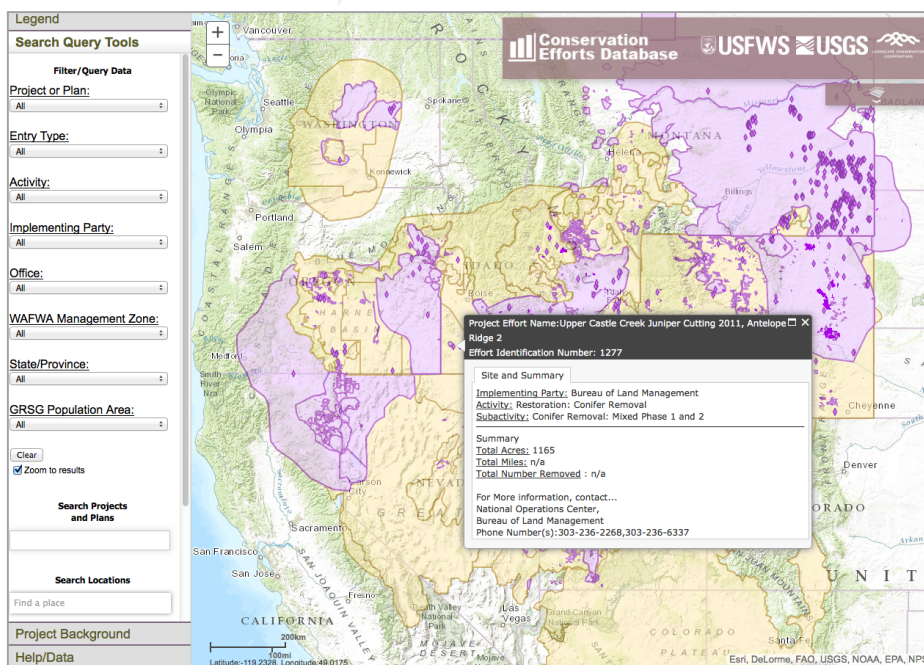
to analyses providing an understanding of population-level responses to multiple dynamic ecosystem processes. A researcher could easily conduct a balanced sensitivity analysis, revealing cost efficient (or ineffective) conservation actions. Further, multi-jurisdictional stewardship data sets the stage for landscape-scale effectiveness monitoring. Together, these planning, design, implementation, and monitoring applications provide a foundation for a landscape-scale adaptive management framework.

Though the CED is being used in many different ways, its potential will expand as traditional and emerging management needs and research questions are addressed.

Visit the Conservation Efforts Database at <http://conservationefforts.org>.

For questions, please see contacts on the About page.

*Highly customizable and adaptable web-based data entry allows multi-user editing to any authorized data provider with an internet connection.*



*The public interactive map allows front page access for quick perusal of conservation efforts by powerful filter options and pin-point identification of information.*