Partnership Opportunities in Fire and Restoration between USDA Forest Service and DOI Landscape Conservation Cooperatives

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What is the Collaborative Forest Landscape Restoration Program?

- Forest Landscape Restoration Act of 2009
- USDA FS national initiative, 2009-2019
- Up to $4 million each year to be matched by other federal and private funds
- Funding for implementation AND collaborative, multi-party monitoring of restoration
- Competitive process
- RFP in 2010 – 31 proposals received

CFLRP Goals and Objectives

- Reduce wildfire risk, including through the use of fire for ecological restoration and for maintaining and reestablishing natural fire regimes;
- Improve fish and wildlife habitat;
- Maintain/improve water quality & watersheds;
- Maintain, decommission, rehabilitate roads & trails;
- Prevent or control invasions of exotic species;
- Use woody biomass and small-diameter trees produced from projects implementing the strategy;

Opportunities LCC/CFLRP Partnerships

- Identify shared goals:
  - Landscape-level
  - Overlapping geography
  - Collaboration
  - Monitoring
  - Restoration
- Co-Design of data collection methods
- Leverage monitoring resources
- Shared data repositories and catalogs
- Mapping across boundaries
- Understanding change across large landscapes

2010 Selected CFLRPs

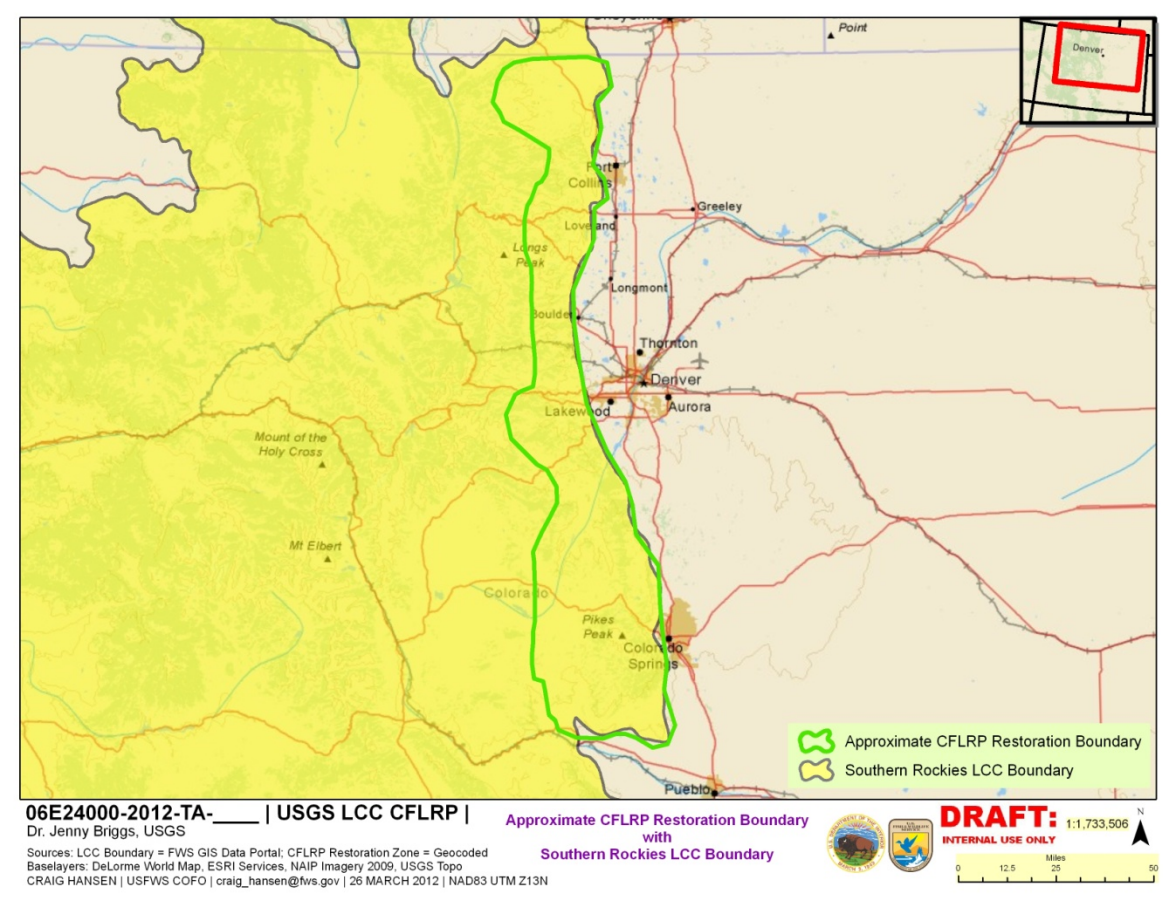
- Selway-Middle Fork Clearwater - $1 M – ID
- Colorado Front Range - $1 M - CO
- Uncompahgre Plateau - $446,000 - CO
- SW Crown of the Continent - $1.3 M – MT
- 4 Forest Restoration Initiative - $2 M – AZ
- Southwest Jemez Mountains - $392,000 – NM
- Dinkey Landscape Restoration - $829,900 - CA
- Deschutes Skyline - $500,000 – OR
- Tapash - $1.6 M – WA
- Accelerating Longleaf Pine Restoration -$1.2 M - FL

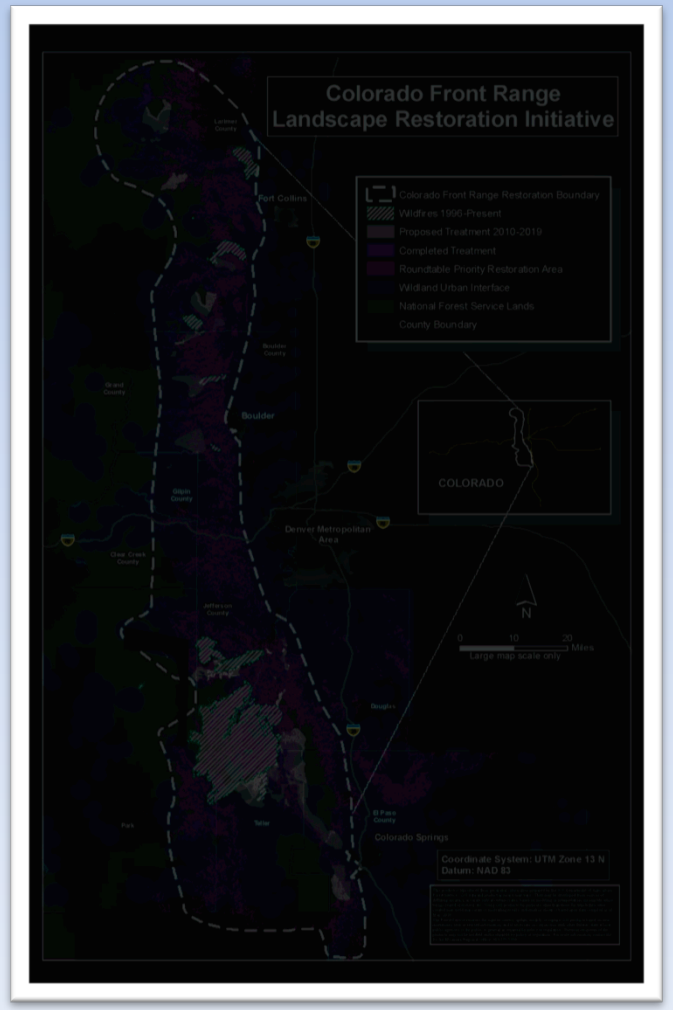
Front Range CFLRP objectives

1. Complex mosaic of tree density, age, size (at stand scale)
2. More characteristic fire regime
3. More favorable distribution of tree species
4. Diverse native plant communities
5. Improved habitat for expected wildlife species
6. Complex mosaic of forest density, age, size (at landscape scale)

View from Heil Valley Ranch, Boulder County

Map - Front Range CFLRP boundary relative to So. Rockies LCC (SR LCC = portions of 4+ states)





Efforts of Front Range CFLRP Monitoring team, 2010-11

- Attempts to define DFC
  - Field trips
  - Guided discussions
  - Literature review
  - 16 “expert interviews”
- Discussion of monitoring methods
- Development of Monitoring Plan
  - Built on USFS Common Stand Exam procedures
- Supplemental proposal to Southern Rockies LCC, 2011

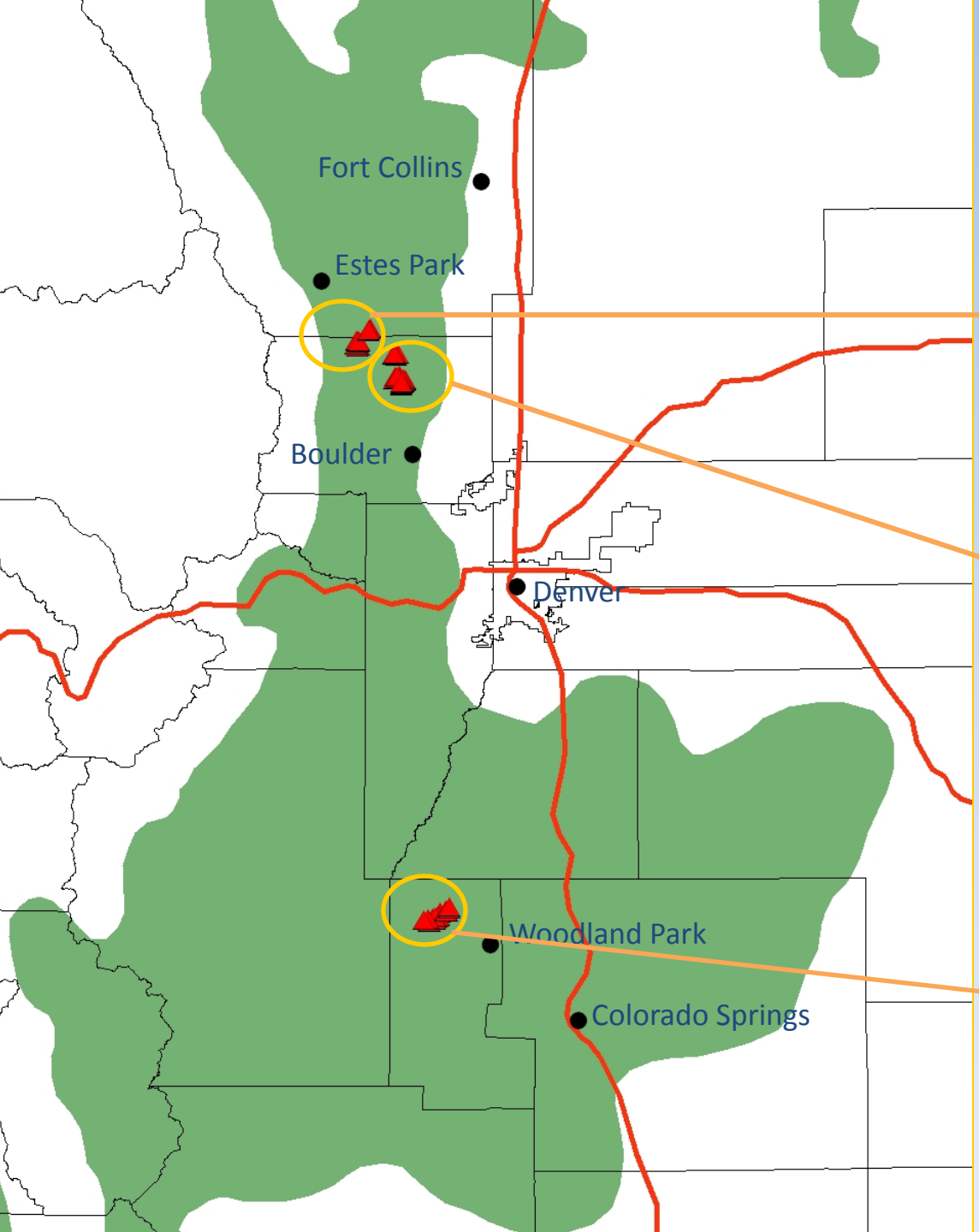
Phantom Creek treatment area, PSI

Southern Rockies Landscape Conservation Cooperative (SRLCC) proposal

- 3 co-PIs and 9 partners from RT Monitoring Team
- Objectives:
  - Assess impacts of forest restoration treatments on <u>diverse</u> components of ponderosa pine ecosystems
  - "Test" monitoring methods
  - Contribute to landscape-scale science-based adaptive management and other SRLCC goals

- Awarded $75,981 for FY11-12
- One of 4 projects funded (of 71 proposals)

Overview of sites



Arapaho-Roosevelt NF (AR NF) – 3 units

Boulder County Parks & Open Space (BCPOS) – 3 units

Pike San Isabel NF (PSI NF) – 2 units

Mech. treatments – Heil Valley Ranch, Boulder Co.

Treatment in progress – Phantom Creek, PSI NF

Hall Ranch Rx Fire, Boulder Co.

Data collection – Tier 1

- Pre-existing USFS Common Stand Exam (CSE) plots = foundation in treatment areas for “Tier 1” data:
  - Overstory trees
  - Seedlings/saplings
  - Fuels

- PSI and AR NFs collected data on 300+ plots, 20+ treatment units, pre-treatment, summer 2011

Data Collection – Tier 2 Enabled by So. Rockies LCC

- SR LCC crew expanded effort in several ways:
  - Included control areas
  - Monitored on partner agency sites
  - Included 4 categories of additional Tier 2 metrics
    1) Tree ages
    2) Wildlife use
    3) Within-stand structure
    4) Understory plants

Variables to be analyzed: pre/post treatment
treatment/control

Understory

- Species richness and cover

Wildlife

- Number of species present/using area
- Species Use, e.g. squirrels, ungulates, insects

Within-stand forest heterogeneity

- Opening/clump length
- Number of openings/clumps
- Number of single-storied v. multi-storied clumps

Lessons learned

Positives:

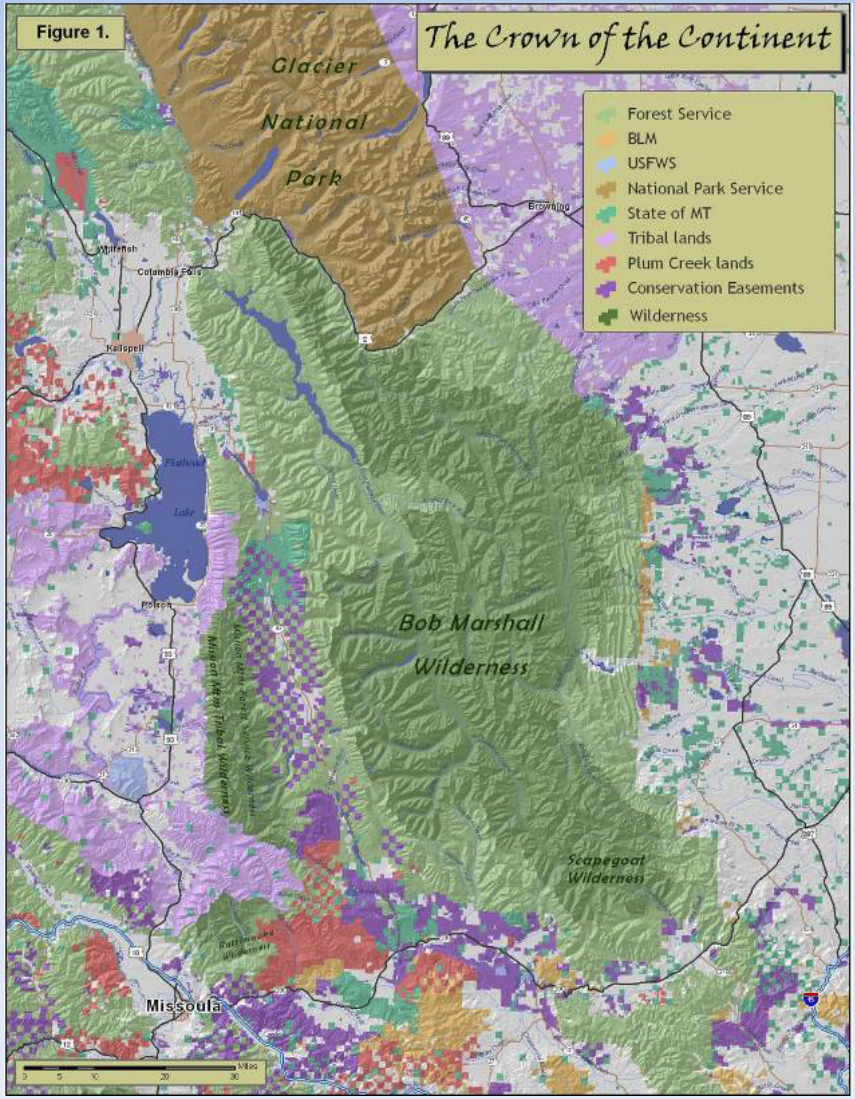
- Strong collaborative effort
- Successful sharing of maps, plans, data

Challenges:

- Complex collaborative effort!
- Lag time before data can inform modification of monitoring methods or management actions
- Defining, implementing, and monitoring "restoration" is a difficult and non-linear process

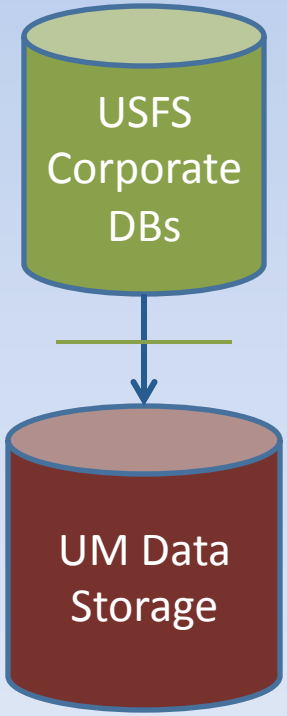
Southwestern Crown of the Continent CFLRP

- The SW Crown covers 1,449,670 acres, 70 percent of which is public land.
- It is one of the most biologically diverse and intact landscapes in the w. U.S.
- Restoration focuses on streams and forests using prescribed fire and natural ignitions.
- Removal of exotic species followed by planting of natives will restore the landscape.
- Bridge and culvert replacements and upgrades, road restoration and upgrades, removal of fish barriers, and stream channel manipulation are also included.



Data Storage

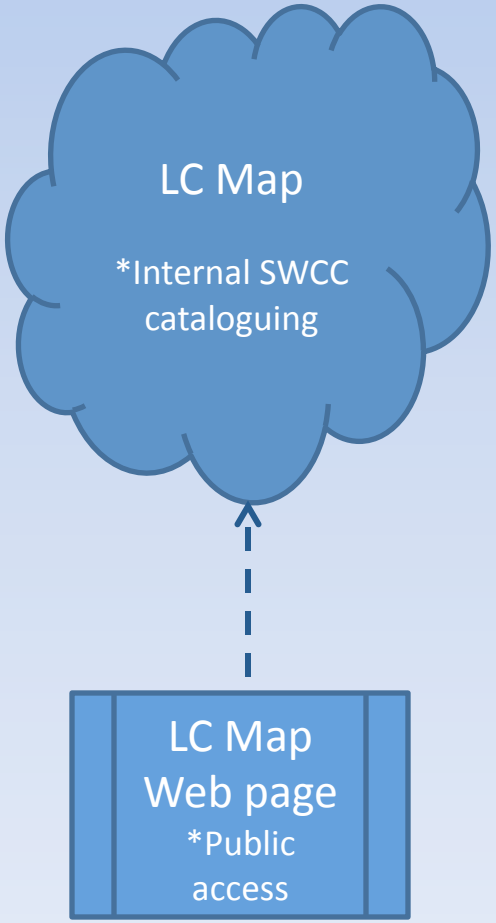
Needs: space, longevity, centralized location, accessibility, support



Answer: Both within and outside FS

- UM brings data storage and support as "match" in partnership agreement
- FS exports data as Access or Excel spreadsheet
- Simplifies public accessibility

Data Mining



Needs: partner access, cataloguing, search capabilities, security

Answer: Partner with Great Northern LCC Program: LC MAP

Collaborative Effort

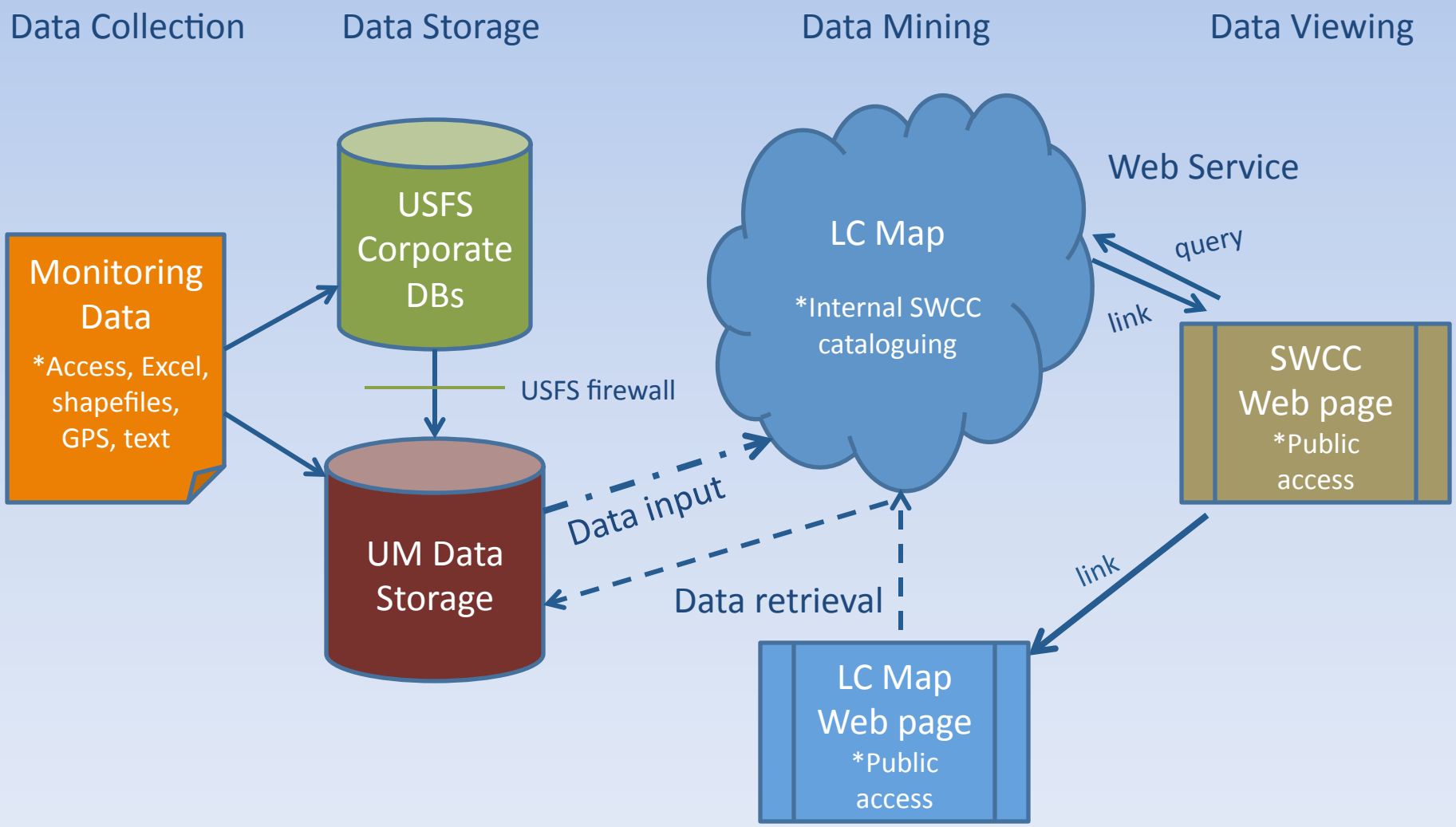
Monitoring program funds: FS CFLRP

Monitoring data: FS, UM, non-profits, place-based orgs, citizen scientists

Data storage: University Montana

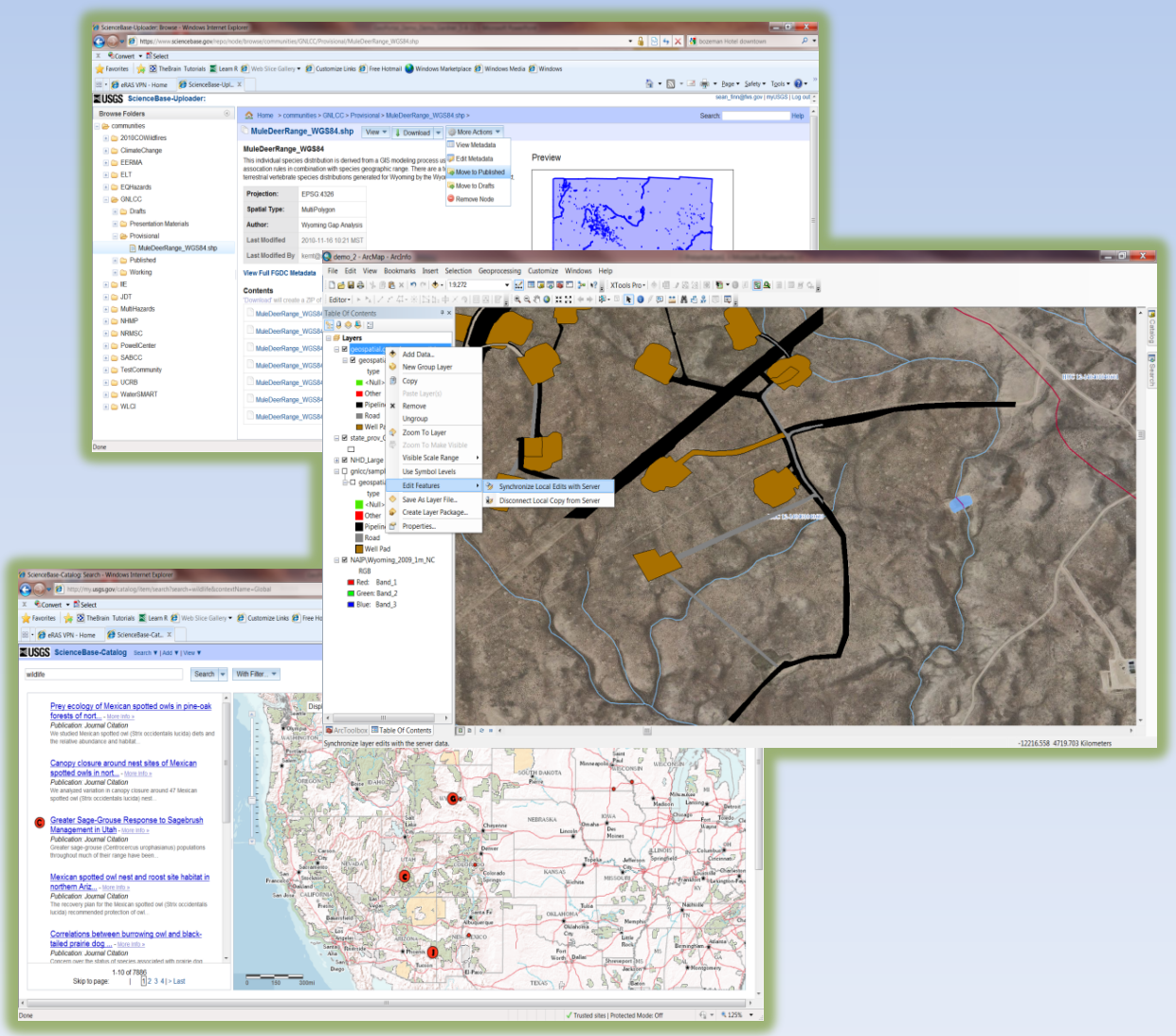
Data cataloguing/accessibility: Great Northern LCC

SWCC CFLRP Data Management Strategy



LC MAP: Landscape Conservation Management and Analysis Portal

- Repository
- Catalog
- ArcGIS Share
- Security
- Public Access
- Bigger Picture



LC Map Summary

- LC MAP provides a virtual collaboration data discovery, management, and analysis tool
- Project managers have full control over community identification and access
- Data remains fully editable and retrievable in real time and metadata is automatically updated
- The system keeps track of who submitted data, who is working with it, and who can see or use it
- Stability and **support**
- Source code is open for review

Data Viewing

Two Locations:

1) Great Northern LCC LC Map
2) SWCC webpage (www.swcrown.org)

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