How are REAs Prepared?

An Assessment Management Team (AMT) composed of Federal and state managers and technical specialists from within the ecoregion provides overall direction for each REA. The AMT guides the assessment and oversees the work of contractors who perform technical data management and analysis tasks. REAs are then prepared in the two phases shown to the right.

During the pre-assessment phase, partnerships are developed with additional Federal and local agencies--beyond the AMT, as well as non-governmental organizations within each REA to review work and provide additional input into the REA tasks. For the Middle Rockies REA, current partners include:

What REAs Do

REAs evaluate landscapes across an ecoregion to more fully understand ecological conditions and trends; natural and human influences; and opportunities for resource conservation, restoration, and development. They seek to identify important resource values and patterns of environmental change that may not be evident when focusing smaller, local land areas.

REAs describe and map conservation elements, which include sensitive resources and areas of high ecological value. This information will help to identify regionally important habitats for fish, wildlife, and species of concern. Then REAs gauge the potential of these habitats to be affected by regional change agents: climate change, wildfires, invasive species, insects and disease, and development. Additional change agents may also be addressed based on ecoregional needs.

What REAs Don't Do

REAs do not allocate resource uses or make management decisions. They provide science based information and tools for land managers and stakeholders to consider in subsequent resource planning and decision-making processes.

Public Input and Review Opportunities

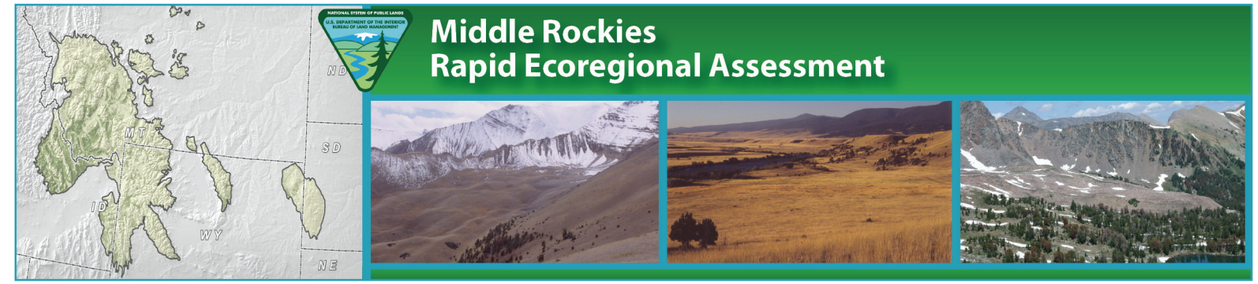
REAs provide information and tools for land managers and stakeholders to consider in subsequent resource planning and decision-making processes. Because REAs are science assessments, they will undergo a science peer review process overseen by the U.S. Geological Survey, rather than a public comment process.

REA TASKS

- PHASE I - PRE-ASSESSMENT
- PHASE II - ASSESSMENT
- WHERE ARE WE NOW

1. Refine Management Questions, Conservation Elements, and Change Agents
2. Identify, Evaluate, and Recommend Potential Data for the Analysis
3. Identify, Evaluate, and Recommend Models, Methods, and Tools
4. Prepare REA Work Plan
5. Compile and Generate Source Datasets
6. Conduct Analyses in Response to Management Questions and Generate Findings, Including Maps and Supporting Documents
7. Prepare REA Documents

If you would like to be added to BLM's mailing list to receive additional information and notices of upcoming webinars and REA materials, please contact David Wood, Conservation Biologist, BLM Montana State Office at: 406-896-5246 or dwood@blm.gov, or visit: ww.blm.gov/wo/st/en/prog/more/climatechange.html



Middle Rockies Rapid Ecoregional Assessment

Issued 3/25/2011

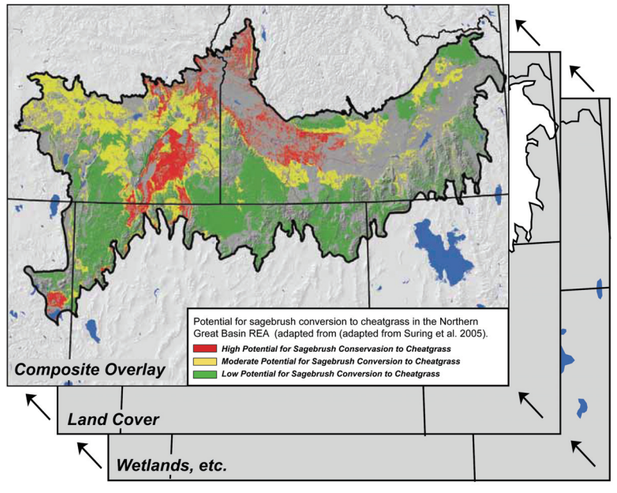
REAs

- Identify and answer important management questions and provide a baseline to guide future management actions.
- Identify and map key opportunities for collaborative resource conservation, restoration, and development.
- Document key resource values (conservation elements), such as species of concern and regionally-significant terrestrial and aquatic habitats.
- Describe influences from environmental change agents and the collective effects of projected trends from:
  - o Climate Change
  - o Wildfire
  - o Invasive Species
  - o Insect Outbreaks and Disease
  - o Development
- Identify science gaps and data needs.

Rapid Ecoregional Assessments

The Bureau of Land Management (BLM) recognizes that public lands are facing increasingly complex and widespread environmental challenges that transcend traditional management boundaries. These challenges include managing wildfire; controlling weeds and insect outbreaks; providing for energy development and urban growth; and addressing pervasive impacts from the effects of climate change. The BLM understands a landscape-scale management approach is the most effective way to evaluate challenges that transcend traditional management and ownership boundaries and impact lands managed by BLM.

In response, the BLM in 2010 launched Rapid Ecoregional Assessments (REAs) to improve the understanding of existing landscape conditions, and conservation elements that guide the assessment of how ongoing environmental changes and land use demands may alter them. The REAs start with development of list of management questions and examine ecological values, conditions, and trends within ecoregions. The Middle Rockies Ecoregion encompasses lands in Montana, Wyoming, Idaho, and South Dakota. An assessment of this size provides land managers with information and tools to use in subsequent resource planning and decision-making.



One product of REAs is a variety of maps that synthesize the best available data about resource conditions and trends within an ecoregion. These maps help BLM Managers and public land stakeholders understand environmental conditions and trends from a broader landscape perspective.

For more information, visit: www.blm.gov/wo/st/en/prog/more/climatechange.html

Management Questions

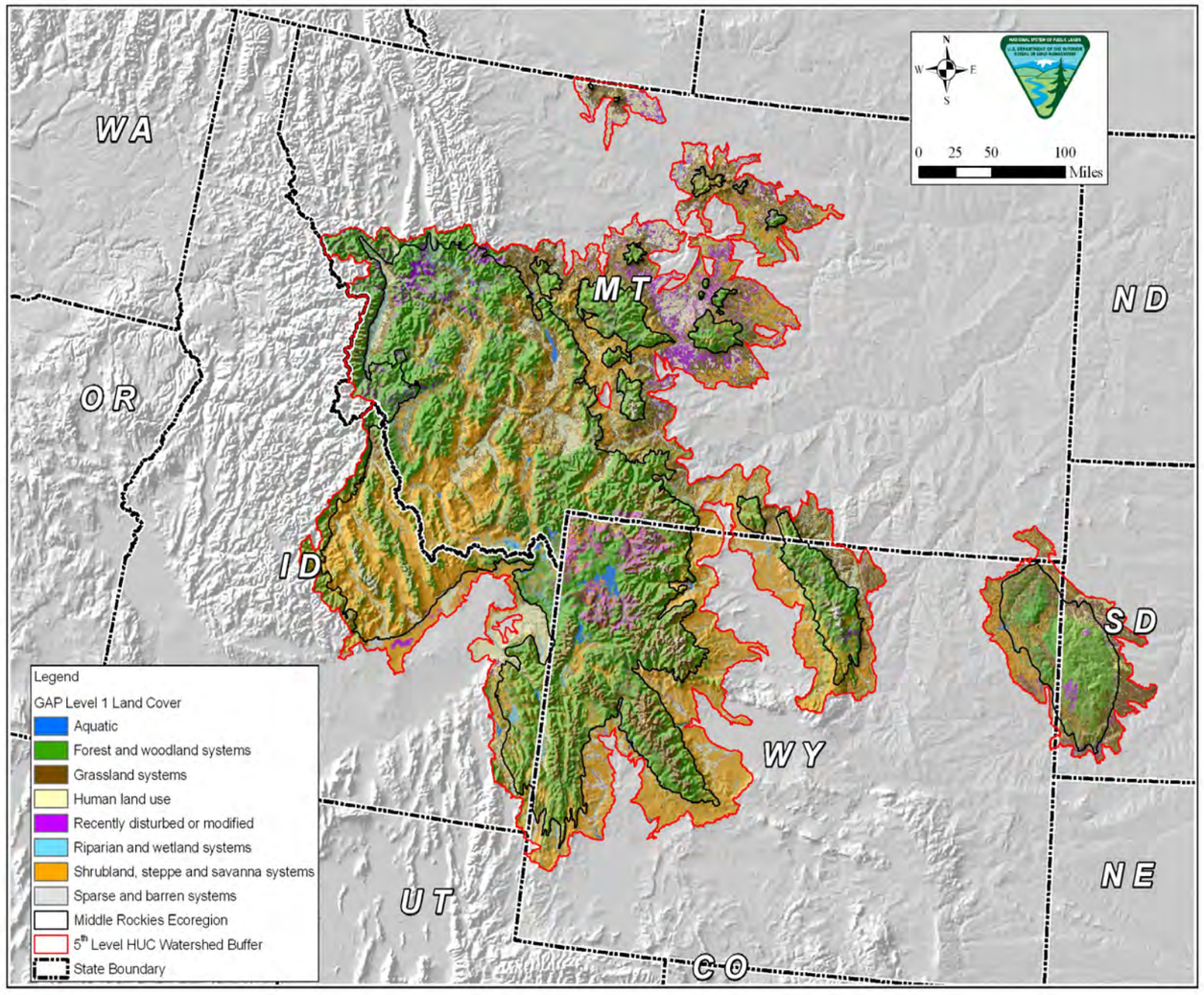
Ecoregional assessments are guided by management questions which:

- Identify regional problems faced by BLM managers
- Provide clear direction for pressing problems
- Guide the development of clear, measurable REA objectives

The following management questions have been developed to guide this REA:

- Where are the important regionally significant terrestrial and aquatic/riparian biotic features, functions, and services across the ecoregional landscape?
- Where are the key habitat types (seasonal, refuges, corridors/connectivity, migration routes, concentrations of regionally significant species, etc.) for landscape species, keystone species, and regionally significant suites of species?
- Where could core regionally significant values be negatively and positively affected from altered wildland fire regimes (frequency, severity, and seasonality change from historic to present to future)?
- Where will regionally significant values be affected through:
  - changes in the spatial distribution and abundance of invasive, (undesired) non-native species, and insect/disease outbreaks;
  - development; and
  - climate change?

Middle Rockies Ecoregion Land Cover



Conservation Elements

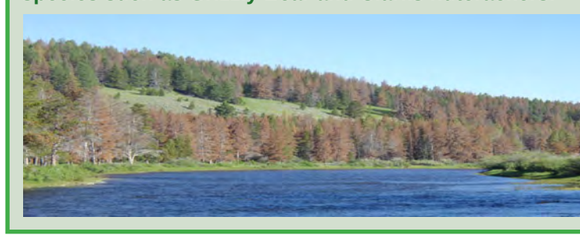
Alpine Ecosystems
Five Needle Pine (Whitebark/Limber Pine) Communities
Sagebrush-Grassland Ecosystems
Grizzly Bear
Forest Carnivores
Greater Sage-Grouse
Big Game Crucial Winter Range and Parturition Areas
Pronghorn (Migration Corridors)
Native Cold Water Fish Communities
Golden Eagle

Change Agents

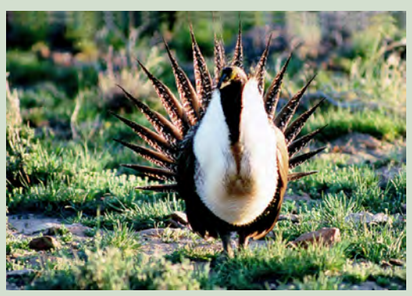
Climate Change
Wildfire
Invasive Species
Insect Outbreaks and Disease
Development

- Urban/Exurban
- Agriculture
- Hydrological
- Energy

Rapid decline of Whitebark Pine has resulted from mountain pine beetle infestations and the spread of blister rust. Loss of these stands not only causes impacts such as erosion but also has compounding impacts through the loss of a primary seasonal food source for species such as Grizzly Bear and Clarks nutcrackers.

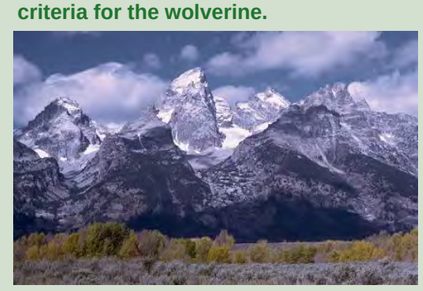


Encroachment from urban development, infrastructure, oil and gas exploration, and wind farms can significantly impact sage grouse habitat.



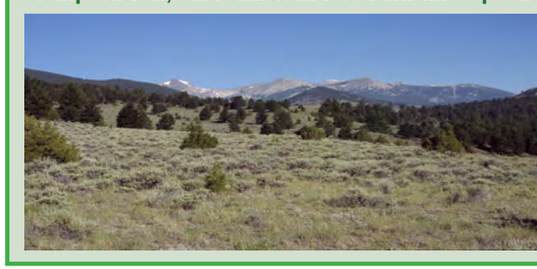
Temperature changes associated with climate change during critical periods could affect streams that provide habitat for cold water fish species.

Increasing temperatures due to climate change reduces the amount of spring snow cover, an important habitat criteria for the wolverine.



Sage-steppe lands are being lost due to a number of factors including agriculture and development.

Conifer encroachment into native grassland communities can alter hydrological function, soil properties, changes in vegetation composition, and shifts in local wildlife species.



Middle Rockies Rapid Ecoregional Assessment