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science for a changing world

Sustainability, Science, and the USGS

How can USGS science most effectively be used in sustainable resource management and other societal decisions?

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Action Learning Team

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Susan Aragon-Long – Climate & Land Use Change Mission Area
Jeffrey Fischer – New Jersey Water Science Center
Hannah Hamilton – Office of Communications
Steven Hilburger – Ecosystems Mission Area
Jason Lambrecht – Nebraska Water Science Center

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Tools Used

Visual Explorer
Polarity Map*
6 Thinking Hats
Forced Connections
Whack Pack
Brain Writing
Converging Grids*

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Breakthrough Moments

- Definition of the problem with use of the polarity map
- Grouping of “stickies”
- Use of grids to identify ideas that provide the “most bang for the buck”

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The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

The Need for Sustainability

- Natural resource managers are facing increasingly complex questions
- Increasing competition for natural resources
- A sustainable approach can decrease long term costs of resource use (environmental, economic, and social)
- We have a responsibility to future generations
- USGS needs to continue to be a leader in relevant science

Sustainability Defined

"to create and maintain conditions, under which humans and nature can exists in productive harmony, that permits fulfilling the social, economic, and other requirements present and future generations."
--NEPA 1969 and Executive Order 13514 of 2009

Challenge: How can USGS science most effectively be used in sustainable resource management and other societal decisions?

Challenges

- Sustainability is a new concept to USGS
- No clearly defined vision for sustainability science
- Lack of new funding
- Cross Mission Area interactions
- Limited number experts in sustainability science

Sustainability Opportunities

- Broad science scope at USGS
- New Science and Decisions Center
- Wyoming Landscape Conservation Initiative
- Powell Center Use Optimization Study
- USGS Climate Science Centers
- USFWS Landscape Conservation Cooperatives
- Etc…

Recommendations

1. Clearly articulate a vision for Sustainability Science at USGS
2. Educate USGS on this vision
3. Build on current sustainability opportunities
4. Pilot projects (one per REx Area)
5. Incorporate sustainability into all USGS science activities

1. Where is the natural gas?
2. Where is the high priority wildlife habitat?
3. Where are the water resources limited?

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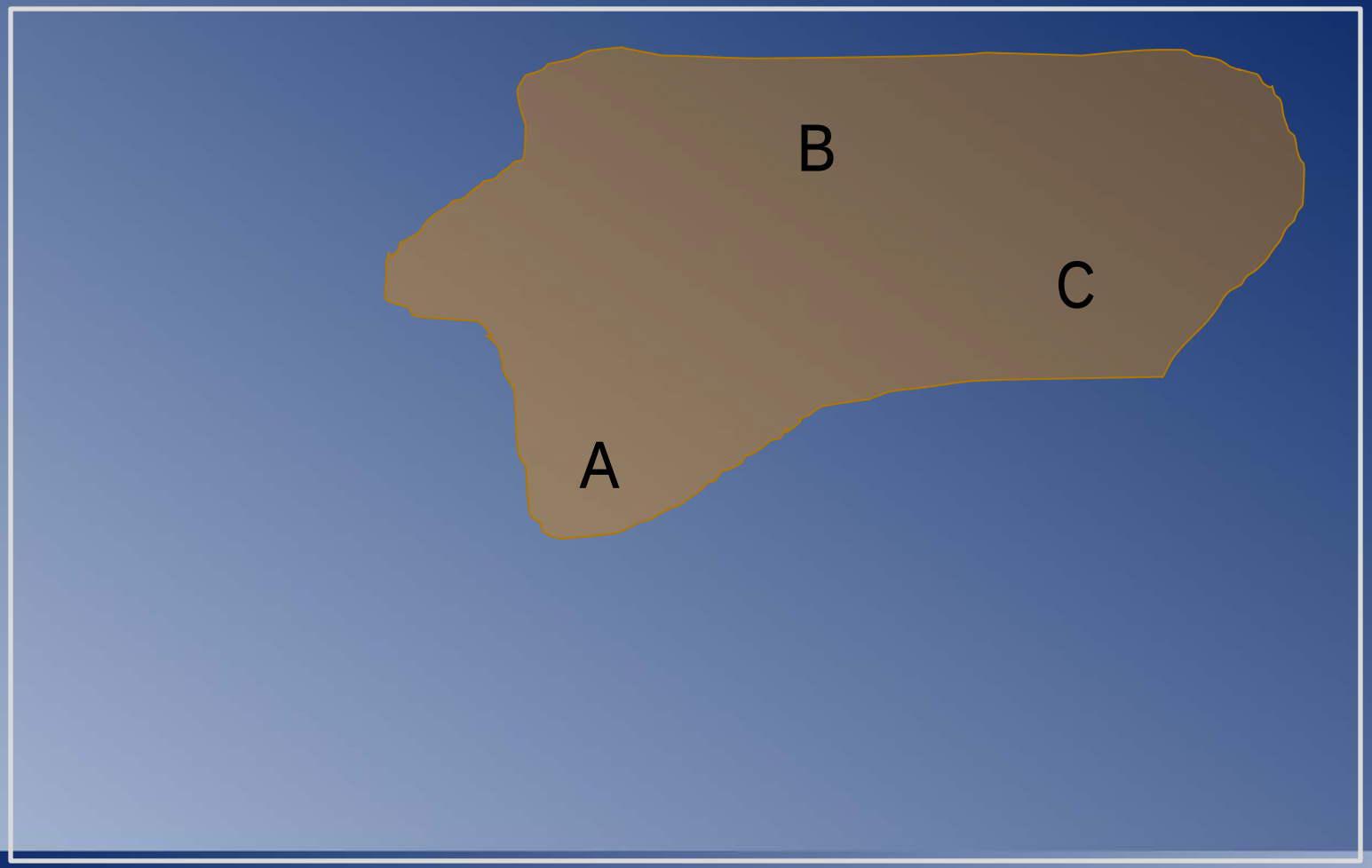

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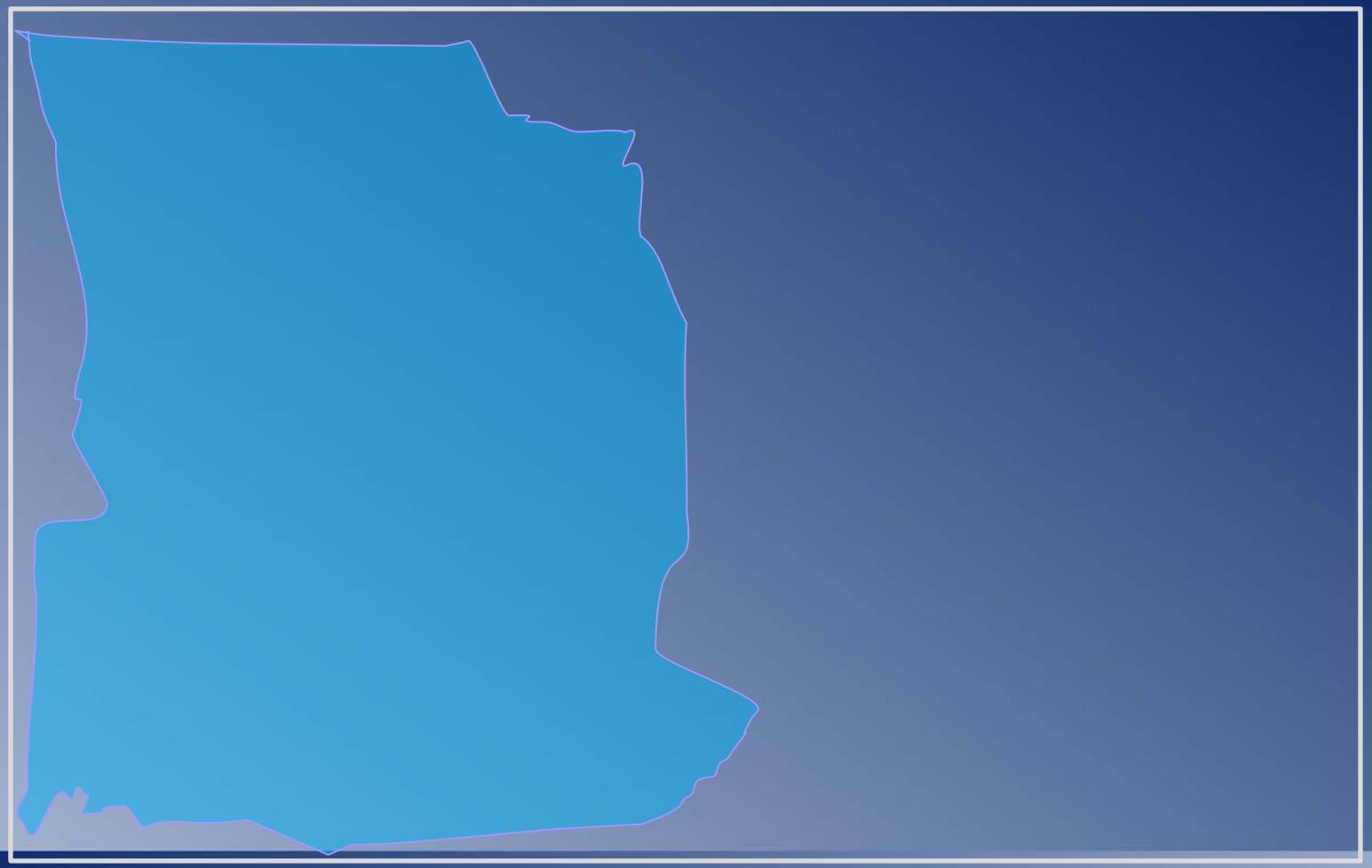

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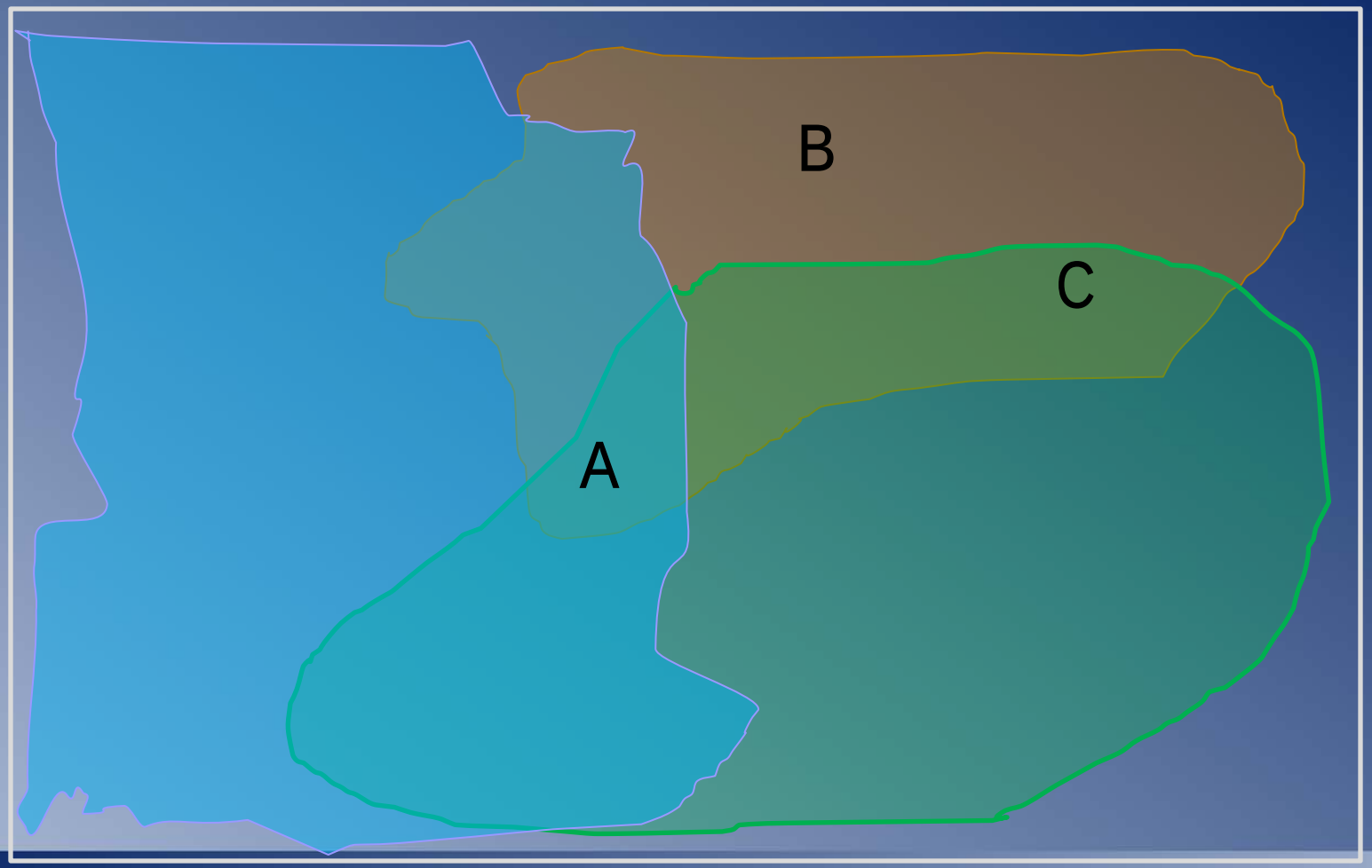

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