

*Notes from General SRR Meeting
Bozeman, MT
9-23-08*

Notes Recorded by Laura Tyler, Colorado State University

Introductions- 29 in attendance

Robin Reid-welcome, appreciation of all the voluntary efforts of members and SRR structure diagram.

UPDATES:

- Timeline-keeping with the same 4 goals. Status of progress & tactics.
- Rangeland Ecosystem Goods, Services & Core Processes-publication of booklet, system for evaluating and assessing. Linking indicators with evaluation. Hopefully in press by the end of the year.
- Conceptual Model article publication-social and economic model on range sustainability. Being published in Society of Natural Resource Journal. To show what the indicators mean and how they can help us.
- SRR local assessment effort-local ranch assessment effort in Wyoming. To demonstrate SRR business plan approach for ranch sustainability assessment. Several agencies are involved. Intended to use the indicators to determine the sustainability of individual ranches. The idea is to adapt the indicators and simplify some of them to create straight forward monitoring that a rancher can use.
- SRR Fragmentation Workshop-Landscape dynamics because the land is so vast. SRR hosted a workshop. Use of satellite images. Can also use high quality aerial photography for fragmentation (changes in patterns of land cover) assessment.
- SRR Monograph Status- publication has been reviewed and is being edited. Purpose is to get recognition for the work SRR has done.
- Outreach efforts-4NCGL-focused on pulling in local land managers. We may do a workshop and/or trade show. SRM-workshop or symposium, ecosystem services work, posters. NCBA-ranch assessment. ESA-landscape pattern workshop & ecosystem service. Need to decide on funding and priorities. Add as we work on strategic plan.
- W1192 committee and opportunities for SRR-facilitate research on out indicators. Regional research projects W1192 looking at the effects of wildfire and invasives on range and local communities. Need ecologists. Mentioned conference in Reno. Grant through E-extension website development with educational materials-great link for SRR. Be developed over the next year and a half.
- SRR Pilot project review-Conduct peer review of report. Need recommendations for reviewers.
- Other resource roundtable sessions-Water, Minerals, Sustainable Forestry Roundtables. Similar criteria focused on different resources. Common focus is relation of indicators to climate change. Discussion of funding for case studies. In Forest RTBL there is a commitment to working at the regional level. Primary focus needs to be done at watershed level for Water RTBL.
- Indicator Review- work session in Denver and follow up. Critical work for SRR progress. Looking at all 64 indicators and all previous work about the data. Revising names, including potential additions and deletions. Defining of terms. Questionnaires and gathering outreach.

- 1) Update on multi-agency Oregon Pilot Project to date and future plans
 - a) Huge effort to get 3 agencies on the same page with this project.
 - b) Looking at 4 indicators.
 - c) Decided on protocols and worked collectively on the ground.
 - d) Collected field data in 13 county area in central Oregon.
 - e) Currently doing data analysis and preparing a report.
 - f) Results are hopeful for agencies to work together on Rangelands.
 - g) Challenges would be to develop indicators on a national level, and to include other agencies.

- h) Proof of concept is an important issue- to use different national surveys.
- i) This work is providing a real need for rangeland data on a national scale.
- j) Basic challenges are “What does it mean?” and “What scale does it represent?” Is this a reporting or management tool?
- k) Our goal is to take what we’ve learned and determine costs and requirements to implement this at a national level.
- l) Need continued support.
- m) Over 500 data points were included.

2) MULTI-SCALE RANGE ASSESSMENT EFFORTS

- a) SRR is providing a beneficial framework for many agencies to work together.
- b) FIA grid will be expanded into rangelands for the first time.
- c) Skip definition of range or forest in initial stages of data gathering, leaving definitions for later in the process.
- d) Grid can be expanded and intensified through partnerships with other interest groups (who then contribute to funding).
- e) Resource Planning Act assessment-be nice to have some range data to put into this.
- f) Intensifying criteria and indicators down to local levels.
- g) BLM-National monitoring AIM.
- h) How do we manage our data? How to collect and store and re-use data.
- i) Healthy lands issue to manage at large scale. Northern Great Basin-looking at 2 level- 3 ecosystems, at a rapid assessment.
- j) Rapid regional assessments: what are the drivers of change? Should we focus on areas that we want to conserve? How to maintain conservation areas in good condition.
- k) To monitor how management decisions connect to land health. Long term land health is the key and data management can support that. NRCS:
- l) Ecological Site Descriptions-to be more effective and efficient in monitoring rangelands.
- m) Draft of handbook to develop site descriptions is coming out. NRCS with BLM & Forest Service is standardizing procedures and criteria for inventories. NRI can be done at a local level when funding is available.

3) SUMMARY OF STATUS OF RANGE CLIMATE CHANGE WORK:

- a) ARS presentation; Dr. Jack Morgan. IPCC working group report.
- b) Indisputable that CO2 is rising and different plants respond in different ways.
- c) Classify relative plant types to predict responses.
- d) Most plants have positive water relations with inc. CO2.
- e) Temp increase is area of concern for rangelands.
- f) Cannot currently decide if C3 or C4 plants will be favored.
- g) Desiccation due to warming is expected to be a problem.
- h) Precipitation events will be changed.
- i) Climate change is really about water. And water availability determines rangeland health.
- j) Elevated CO2 may decrease plant quality and digestibility.
- k) Uncertainties include species response, weather & climate in general, rangeland responses and how changes will manifest at local levels.
- l) Consistent themes: more drought, more fire, plant community changes, need for better predictions, importance of integrated monitoring, need for managers to respond Fast & Flexible.
- m) All SRR core strategies contribute to assessment of climate change affects on rangeland. Documenting changes will enhance management since we are moving into climate conditions that we have not previously experienced.
- n) Increases expected in pests and plant diseases. Would be useful to include plant phenology studies.

4) OTHER AGENCY IDEAS ABOUT CLIMATE CHANGE:

- a) The Forest Service requested linking SRR with other Roundtables, however due to constraints tied to funding sources, SRR cannot work outside of the US (individual partners can, but SRR as an entity cannot).
- b) Beyond the U.S. the Forest Service is involved in a Global Rangeland Assessment-GRAS. Many other countries are involved in the collaboration and have been showed the SRR model.
- c) The U.N. has a Council on Sustainability that works on policy. 2008-09 they have focused on Rangelands and Desertification and have asked for info
- d) There is a need for countries to assess their rangelands and to share that information. So there is a need for international criteria.
- e) ROSES-Research Opportunities in Space and _____Sciences-to use remote sensing data with EROS to add another tool for monitoring.
- f) National Phenology Network-USGS
- g) Many of the SRR indicators can be very valuable for climate change monitoring.

ROUNDTABLE ON SUSTAINABLE FORESTS Climate Change:

- a) Discussion of the indicators and carbon sequestration.
- b) Broader context is to be able to report if all the data indicates that current management is sustainable or not.
- c) With climate change it makes it even more complicated to sort out management effects from climate change effects.
- d) How to manage forests to mitigate effects of climate change.

CONSORTIUM FOR SCIENCE, POLICY AND OUTCOMES PERSPECTIVES ON CLIMATE

CHANGE EFFORTS: Looking at the interaction of climate change SCIENCE with climate change policy.

- a) Relative magnitude of causes of climate changes and do other factors supersede and include this? Ex: increasing hurricane damage with time which goes along with increased population and development. So when you normalize the factors then the effects are about the same.
- b) Do we rely on predictions in lieu of decisions? Basic science-applied science-development (assumption of linear flow, but better info. Creates better policies). Short-term small scale forecasts are what people need
- c) Do we consider tech options/solutions from the outset?
- d) Do decisions integrate human and natural systems? Connect decision makes with scientists. Question assumptions regarding social scientists.

Discussion

- a) Agencies are adapting information needs.
- b) Sustainability science is defined by a limited group-focused on knowledge first criteria and excluding other vulnerabilities that are not within the resource context.
- c) Science, technology and society need to work together.
- d) Sustainable planning requires big changes in management structure.
- e) Decision makers need to utilize social science too.

WHOLE GROUP DISCUSSION ON CLIMATE CHANGE:

1) Possible Actions List for SRR:

- a) Are there additional indicators needed?
- b) We want to help range managers manage their way through the climate changes. Drought, fire and plant changes fit through the SRR system.
- c) SRR can help to identify new activities in other groups/agencies regarding climate change that we can get involved in.
- d) Adaptive management strategies are useful for managers especially regarding climate change.
- e) Important not to duplicate work of other groups, so it would be good for SRR to communicate more with other groups.

- f) We can check if SRR model captures the interactions of variables that are similar to climate change models.
- g) Looking at vectors-hanta virus
- h) Looking at energy involves the utility of any given piece of land.
- i) Separate the hype from the facts.
- j) Communicate with decision makers-environmental services tied to sustainability tied to climate change.
- k) Needs to be recognition of the value and benefits of Rangeland, and support for programs.
- l) BLM has a challenge in addressing indicators-drivers are fire and invasives-and BLM could use help because the drivers and the answers are extremely different.
- m) Broaden thinking on rangelands-including marshes along the coast in the east, and shrubs in Maine
- n) Society will change the use of rangelands due to climate changes.

Additional SRR Climate Change Comments Tuesday 9/23/08

- 1) SRR potential climate change efforts
 - a) Help range managers manage through the era of climate change
 - b) Will SRR criteria and indicators work under climate change conditions?
 - c) SRR can provide tools
 - d) We can stimulate the development of tools to respond/adapt
 - e) Drought, fire, and plant community changes (including invasives) that are resulting changes from climate change, run through the model, fit in the system
- 2) Are there missing indicators? Like pollutants, dust, pests/diseases/vectors
 - a) Energy-oil & gas, biofuels, wind, solar
 - b) We can tie into other rangeland groups addressing:
 - Climate change
 - What, who?
 - How to take advantage?
 - Value added to both
 - Phenology network
 - c) Do indicators capture the info on CC that is needed by users, policy makers, decision makers
 - d) Need to address how the impacts (ecological, economic & social) interact. Does the model capture these links as we think about climate change?
 - e) Identify thresholds using indicators.
 - f) Separate hype from facts
- 3) Drivers of landscape change-energy development, urban interface, fire/invasives- what are the ways to address the differences?
 - a) Tie challenges (energy, water, etc) to climate change...run scenarios-integrated & cumulative
 - b) Include coastal rangelands too
 - c) Broaden challenges of climate change
 - d) Adaptation beyond impacts on traditional uses of rangelands
 - How will lands be used in the future?
 - How climate changes the options for rangelands?.
 - e) Broaden the scope-are information needs covered in a relevant way?
 - f) Develop a 4 page modeling paper
- 4) Do the indicators tell us what to think in terms of climate change?
 - a) Tie together- environmental services with sustainability with climate change
 - b) Provide options/support/direction to agencies regarding rangelands and climate change
 - To help them in allocating resources and implementing programs
 - Work with groups like NIDAS for rangeland integrated assessments to leverage focus on rangelands in terms of climate

STEERING COMMITTEE & NEW STRATEGIC PLAN 2009-20013:

- a) There was previous work on a charter-that is currently in goal 4.
- b) Goal 1 & 4 seem similar, maybe they can be changed-in goal 1 the focus is moving the community (federal agencies) to adopt the use of the indicators. Goal 4 is public relations.
- c) It was mentioned that one goal can be to promote the value of rangelands, and another is to promote SRR methodologies.
- d) Is there a call for criteria and a national assessment (action or objective)?
- e) GOAL 2- trends are long term trends.
- f) The tactics that include international engagement-this could mean a loss of funding.
- g) We want to support/advocate it...to have it happen, but not to actually do it.
- h) Oil & gas and western governors need to be part of advocacy & promotion-limiting factor is funding, need to say "owners, users and decision makers"
- i) Even though we don't have lots of funds we need to capitalize on SRR members going to other meetings-multiple people carrying the torch....breakfast meetings, seminars.

GOAL#2

- a) Don't stop with the pilot project.
- b) List wants at the end of 5 years....with a goal towards full implementation.
- c) Compilation of metadata is very important component but also very difficult/complicated-protocols, technology....SRR only wants to encourage compilation, not actually DO the work.
- d) Federal agencies are driven by data committee-required to store metadata.
- e) Where the criteria for building business plans is??
- f) Put ranch business planning activities under goal #1
- g) Expand it to statewide and regional planning-various scales

GOAL#3

- a) Research-we have a good start with W1192 and social and economics aspects.
- b) Opportunities to promote research by engaging the right people-seems to be the intent of Objective B.
- c) Relationship between indicators as a research topic is needed as an ACTION.
- d) Sensitivity of the indicators is looked at, then the next inference could be interdependence....then a possible equation for sustainability.
- e) BUT sustainability is dependent on the view therefore it is somewhat subjective.
- f) If a 5 year program is developed, SRR can be confined to the list and can go in a logical way...a good work list.
- g) We need a work plan, a list of actions including budget requirements.

GOAL#4 –

- a) Communication Coordination
- b) Do we need to re-name this to make it more of marketing?
- c) To be effective SRR has to revise language to include a broader audience-not just owners and managers....like real estate brokers, oil and gas people, congress people....to convince everyone of the value of rangelands.
- d) Need to reconnect people to the source and value of rangelands....big job.
- e) Quantifying the value is a good idea.
- f) Maybe reorganize objectives-
 - 1) what we do.
 - 2) who we reach
 - 3) what is our message
- g) Define & prioritize stakeholders that SRR wants to reach.
- h) Some stakeholders don't even KNOW they are stakeholders.

SRR Notes Wed 9/24/08

Remarks: There are opportunities to share things across agencies. It is good that this group brings all the stakeholders together and we can get their perspective. We're hopefully setting a course toward at least 30 years ahead.

Ted Heintz Presentation:

- 1) NEST- the effort that has focused on a national set of indicators. See handouts.
 - a) Not a full set but a high quality set that is based on selected conditions.
 - b) They are of interest to and affecting several different agencies.
 - c) The intent is to produce these indicators using consistent data and to be able to collect the data repeatedly.
 - d) The importance of these indicators goes beyond range indicators due to the collaborative processes within the federal government, national forums and the private sector.
 - e) It is a demonstration on water availability.....to take process and the substance of roundtables and prove that they work.

- 2) The Forest .Service. has agreed to take the lead.
 - a) This is where the work can continue.
 - b) The key thing is improved consistency and availability.
 - c) Easy access to the data that is most important to users at a local level.
 - d) Will this access be affected by privacy issues? That is an important point that depends on the quantity of data.

- 3) PART-Program Assessment and Reviewing T?????
 - a) OMB support for the project is important.
 - b) The executive management team is meeting monthly.
 - c) A national forum is expected early maybe Feb 2009.
 - d) The 5 indicators are: essentially a water balance approach on a watershed basis.
 - e) What happens to water that is still in the environment?
 - f) The Water Roundtable has developed aspects. Their list is between 50-100 possible indicators. The final list is difficult with the consideration of different factors in different areas.
 - g) States will be part of the national forum. Many federal programs already have agreements with the states.
 - h) The Advisory Committee AQWI involves significant state and local structure so the forum will draw on this.
 - i) There is a question about the definition of "availability". It can be what nature provides and then is being used. It is not what is in excess.
 - j) Some NGO's will be invited to the national forum.
 - k) USGS came to recognize that this was an opportunity for them and their chief hydrologist is a member of the executive management team.
 - l) Is there any discussion about a pilot location?
 - m) The pilot aspect is that it will pertain to just water, but will be conducted all over the country.
 - n) Have not yet organized the step to actually go out and get the data. It may be done in some subset of the US.
 - o) The theory is fine, but lots of details/problems come up when the field work is done.
 - p) Water involves many, many agencies; NOA, Ag, etc. So, to actually collect the data with so many sources is hard.
 - q) Cannot do much with 5 indicators....not on quality and quantity

- r) The strategy is not to tell everything you know but just to start and demonstrate that the agencies can work together and show people how it looks.
- s) The Oregon Pilot was a model. To demonstrate that we can run a process on some indicators, not all indicators, and that is challenging enough.

Christine Negra:-Heinz Center- State of the Nation's Ecosystems

1) Organizing 6 major ecosystem types

- a) How to characterize the most important ecological phenomena.
- b) June 17 party at Reagan Center to celebrate effort.
- c) There is lots of interest in the policy MOU.

note-The 2008 Report is not fully accurate because some legends are mixed. The final report will be edited.

2) What is new with grasslands?

- a) There is more data, better indicators and indicator refinement.
- b) Landscape pattern, carbon storage, air quality-these all involve looking at more difficult things. c) The Core Indicators look at a broad focus of the nation.
- d) There are 6 new indicators, bringing the total to 108.
- e) A big finding is that there isn't quite as much data as needed to use the program. We intend to keep our bar high.
- f) Not all indicators are with data. Some have been changed, some have data. There is a new core national storage indicator.

3) What are the data sources?

- a) Land Cover, USDA, USGS, NatureServe
- b) The pattern of grassland and shrubland indicators was redesigned by the working group, to allow people to see regions and patch sizes.
- c) We want a national picture, but to have a nuance regionally so that different users with different questions can find what they need.
- d) Streamflow working group has refined the baseline, the duration of zero flow. This is regarding the duration of dry periods. Duration made a significant difference.
- e) The audience is decision makers and university researchers.
- f) We work on how to anchor the work in science but make it clear to lay people.

4) We are showing more maps for core national indicators.

- a) Carbon storage reporting already had 3 indicators, so the working group didn't have data systems to support total carbon.
- b) Paper located on table in back of the room regarding utility and Carbon storage. In all cases the authors reported on change so that they could use the data available.
- c) The vision for the indicators is to look over time, but the data set isn't there.
- d) Big increase in forest soils, moderate change in grasslands. This may be due to grassland reserve.
- e) Some shows C gain or loss, some change in C density, some is acre/acre to address change in quantity of the grassland territory.
- f) Each chapter makes sure to get various indicators.
- g) At-risk species maps help to categorize condition.
- h) Example: Population trends in birds-invasive & non-invasive. We highlight trends in species across the whole range.

5) Fire frequency, fire severity and riparian condition are in need of development.

- a) The metric/index is not agreed on.
- b) There is riparian information in the freshwater chapter.
- c) Data gaps include estimating non-native grassland and nitrates in grassland and shrubland groundwater.

The above comments refer to what is new and different. There is plenty more information in each chapter.

We have produced 2 fact sheets: one for climate change, another for wildlife. There are more coming.

6) Goal of the project

- 1) To identify strategic indicators of condition and use.
- 2) To lay the groundwork for periodic, non-partisan reporting.

7) Data Gaps

- a) There are 10 high priority data gaps
- b) Gaps are often not consistent and not comparable.
- c) There is no system for coordinated data integration or priority setting.
- d) Budgets are getting cut but the demand is growing.

8) Recommendations for improving the system

- a) Congress-establish national system.
- b) Early executive action.
- c) Increase funding.
- d) Increase state level integration activities.

9) Questions from the audience

a) Is there a synthesis of relation of indicators to each other? Imbedded in C flux is fire information. The problem with landscape metrics is that no single one tells anything. Is there a conceptual model for the report? Wall to wall coverage, organized on ecosystem types and the way that the data is collected. Within that, to hit on 4 major categories of activity.

b) The distinction between choice of systems and process measures. When you talk about C it is a process and the study didn't try to address that. We always want the dynamic of the metric and the relationships of the indicators. This was a stakeholder activity; an agreement among the diverse group, not purely scientific, but that was not the intent. The goal was- "can this be done?" There is more appreciation of the multi-sector agreement. But this inclusion of the social factor is equally valuable. C is also an important indicator of fertility. There is a need for the indicators to be integrated.

c) Why isn't the EPA doing what Heinz is doing?

d) Where do you see this in 30 years?

e) Many agency groups came to the center. So it is a co-evolution about how they think and present their data.

f) The Heinz Center creates a set of indicators across the board. It would be nice to implement it as a whole set, but there is no way a federal agreement can be made due to the independence of different agency data collectors and the limits of budgets. Piece by piece decisions. Institutional structure has to change first.

g) Indicator design work-describes this effort.

h) Using indicators in decisions is using data products. The Heinz Center is interested in this too, especially regarding biofuels and agricultural products.

i) The EPA picked up indicators from the Heinz Center's 2002 indicator list. The Heinz Center has no stress indicators. More responsive indicators-state of the condition process. EPA is more comprehensive.

- 1) Working for 10 years
 - a) Business model.
 - b) Select group of individuals. Josh Spitzer, Jeremy Roberts, Hillary In Madison
 - c) Valley of Montana.
 - d) Primarily work with private land owners.
 - e) THE CHANGING WEST: everyone who visits and lives here changes the area. Economies change the environment, moving from extraction to conserving. Services outpace revenues. Human capital. Social capital. Entirely different mixture in the communities, different and new social institutions and all these things change the landscape.
 - f) Conservation of ecology and community involves redirecting development pressure. Try to guide development practices, to conserve the ecological and human communities. Need to involve the communities in an economic context. Planning is important and time needs to be spent on monitoring and management.
- 2) Ecosystem services.
 - a) Business model diversification.
 - b) Ecological monitoring and performance metrics-lots of data is available.
 - c) To keep larger scale in mind.
 - d) Blended value of land and community planning-Peer reviewed regional modeling, local expert assessments, ground truthing-models must be tested.
- 3) Science and conservation
 - a) Maps of developer factors and conservation needs. Marry the two.
 - b) Development breaks up the Y to Y ecosystem, bridges and remnant paths-this is where crucial ranches are. These are very important to maintain the contiguous ecosystem. Ranchland is keeping the integrity because all around there is development. Huge floodplain. So this is a key property, with importance beyond that valley.
- 4) Valuing maps
 - a) Describe the wildlife utilization, national resource values and weight the development factors.
 - b) Then they show the areas of least conflict between the factors and the areas of most conflict.
 - c) That provides a good visual for land-owner decisions, showing concentrations of financial value, animal value.
 - d) So that they can sell key small areas for financial gain while preserving key resource areas...and still make money.
- 5) We can apply same ideas to community planning.
 - a) Monoculture, native composition maps.
 - b) We also map the productivity and biodiversity to see what is valuable in order to make decisions about preserving what is good...to create matching goals based on what is possible.
 - c) There are lots of species to survey to map the condition.
 - d) To manage for biodiversity OR productivity.
 - e) Management plans are tuned for people who are on the landscape.
 - f) Down to real simple guidelines, based on manager values
 - g) Active restoration of water systems
 - h) Trout ranch for re-intro.
 - i) Wolves.
- 6) Research initiatives, community partnerships, traveler's philanthropy, living with wildlife workshops-responsibilities.
 - a) Going to refine methodology, include climate change, get lessons out to people.

- b) Trying to stabilize economically and ecologically the rangeland.

SMALL GROUP ACTIVITY: check the wording and objectives of strategic plan

GOAL 1- assessment is key. Long term for monitoring. Data management.

GOAL 2- will be reported after group activity

GOAL 3- “ “

GOAL 4- “ “

Actions- to make SRR activities successful. Must do actions

Priorities 5 year

Cost- 5 year

Clarify wording

Afternoon:

1) Suggested names of reviewers: These can be e-mailed to Kristie by the middle of next week. Names and contact information.

a) Questions for review panel:

1) Are data collection procedures and protocols developed for the pilot for the selected indicators sufficient to collect comparable data?

2) Can the modified methodologies pass the acid test/peer review?

3) By using the FIA and NRI designs (grids/panels) can we make meaningful (statistically sound) statements about overall rangeland conditions across ownerships?

4) Is the combination of plot designs statistically valid?

note: The final report may contain rigorous statistical analysis so the selected reviewers need to be ok with that.

1) Marketing

a) What other groups are using indicators ?

b) Sustainability and rangelands:

c) And how SRR does it differently?

d) Groups:

International Livestock Research Institute

NCBA

NACD

SWCS

In South Africa

Heinz Center

NEST

Malpai Borderlands

ESA

State of the USA effort

Agencies

e) Comment made that the 3 criteria are too broad, the list is too long.

f) What filters should we go through in a marketing assessment to determine which groups are important?

g) To see what is out there and how are we unique.

h) Defining our role.

2) Go back through the groups and ask if there is consensus on the changes, or what else can be changed.

a) And as a group, what is the way to get action accomplished.

b) Who do we bring in?

c) Mention Kristie's discussion for tomorrow. Agency folks too.

- d) Need to make assignments for action.
- e) Rob and Kristie-next steps
- f) When will meeting notes be out?
- g) What about additional meetings?

3) Comments about changes to the Goals:

- a) Goal 1 & 2- how is assessment defined?
- b) What do you mean by assessment?
- c) Using it as an umbrella....to include monitoring, reporting.
- d) Decisions to make from data. Interpretation of monitoring data.
- e) Inferences about the cause and effect and indicators.
- f) Specific action depends on the meaning of the terms.
- g) Need to define assessment and be consistent in the use in the document.

4) Objective A

- a) Concerns-Costs go down after the first year due to workshop, big push to develop comprehensive plan and then follow-up.
- b) Time frame on peer review on ecosystem services....to be done in the next year.
- c) ARS is taking the lead on getting this done.
- d) There is some cost and we think we'll have the resources.

5) Objective B

- a) Targeted stories can go into the ambassador kit.
- b) Taking general communications plan and getting specific, clear linkage.
- c) Joint inventory -should it be coordinated?
- d) Want to indicate all agencies together and change later.

6) Are there any opportunities to capitalize on?

- a) Oil shale?
- b) Anything we don't want to miss?
- c) EIS work is advanced...maybe too late for a good idea.

7) Objective C

- a) Is there an opportunity to take advantage of a sabbatical position thru SRM to get international experience? Seems ok.
- b) Exchange of information.
- c) Send posters along to international conference...be an ambassador.
- d) Formal ways through FSR to send out the information.
- e) CSIRO. Progress out of international conference
- f) Argentina-.Janette needs to wear SRR hat to that conference. But there is a fine line here-funding.
- g) So SRR has limits in international work due to funding sources....could grow and foul the nest so agencies cannot contribute.
- h) We need to have specific information on that issue.

8) Goal #2

- a) Wording is ok

9) Objective A

- a) Of these 3 or 4 actions, #1 is the highest priority.
- b) Concerns-none

10) Objective B

- a) Probably be more than 5 years for action 1

11) Objective C

- a) International collaboration as well?
- b) Good to be consistent....link it to the int'l collaborations identified in Goal 1.

12) Action 2 is a priority.

- a) \$15,000 is way low....it needs to triple.
- b) Applying indicators differently in urban, rural and energy developed areas
- c) 4 page paper to use indicators uniquely...to tell how the affects of development might show up in the indicators.
- d) Broad range (not just oil&gas). Include wind farms, solar and all fossil fuels.
- e) Writing these indicators for a variety of topics....

***Revisit this in tomorrow's discussion to capture priorities for agencies.

13) GOAL #3

- a) Verbage-not just research, but delivery to the people-tech transfer.
- b) But we're not doing research.
- c) Dissemination.
- d) Availability of research
- e) Promote distribution of research.
- f) Dissemination of findings.
- g) Technology transfer.
- h) Extension groups.

14) Objective B

- a) Action 1 has a variety of ways, someone has to decide which is most effective (or forums).
- b) Does SRR research needs differ from others?
- c) How to do truly integrated research?
- d) How to identify needs?

15) Outputs:

- a) Workshop
- b) White papers
- c) Research agenda displayed in most convenient way.
- d) Time frame for specific funding...can be done in a year.
- e) Agenda needs a time frame.
- f) Priorities instead of agenda....timeline needed to target and put into FS planning process.

16) Objective C

- a) similar to goal 2, need to coordinate.
- b) To promote database and generate a list of entities that could house it.
- c) Some historic data is useful.
- d) What formats to put data in?
- e) Tools to standardize, putting historic data into electronic files.
- f) Does SRR have a role in identifying if old data is useful? Or to identify what will be lost with retirement.
- g) Have a list to suggest data sources. To capture data for the future.
- h) Identify orphan data set.
- i) Is that appropriate for SRR even if we're aware of critical data sets?
- j) Identify and then make recommendations.
- l) Can communicate to those people....draft a letter....this is what we're looking for. Is this relevant to action 1 with new data?
- m) Most critical data needs to be based on funding.
- n) The way that the objectives are listed, it is hard to say priorities.

- o) Is this a new action or continuation of action 2?
- p) Promote identification of data sets and promote archiving.
- q) ½ day discussion-come prepared to name historical data sets. Suggestions for best practices?
- r) Cost associated. But have to know what it is, then if its important.
- s) Vegetation data from BLM may someday be very valuable.
- t) Could go far from criteria and indicator.
- u) Ought not to focus on the past too much, not everything, where it shows a past trend.

17) GOAL #4- Objective A

- a) Delete tactics.
- b) Communication plan instead of marketing.
- c) Complementary organizations.
- d) Positioning instead of planning.
- e) Identify the strengths & weaknesses about why SRR is unique, and partnering opportunities.
- f) Time frame-some of this is time sensitive.
- g) Get it to the hill-within a year. Reasonable?
- h) A couple months from now....Is the focus SRR or the criteria/product? What SRR does.

18) Objective B

- a) Dust off old matrix. Timeframe on updating matrix....next several months? Or is it worth it?
- b) Do SRR folks need to see it?
- c) Action-Lori send it out and ask for feedback and input, and manner of input.
- d) Start with workgroup, or steering committee? Both.
- e) Action- names on actions?
- f) Flag the word funding...be cautious....use support.
- g) Action 3- goes, it was from the old version

19) Objective C

- a) Do something up front- staff costs.
- b) About 5 weeks time.
- c) Website is high priority,
- d) We need to raise money.....re-prioritize other tasks to redirect funding.
- e) Is there a foundation we can hit up for funding?

20) Evaluating our progress.

- a) Regular reporting, evaluation, sticking to strategic plans, annual progress evaluation.
- b) Doesn't belong at the end of the document.
- c) Lot of things were promised and not done.
- d) Yearly update-how we did about what we said we'd do.
- e) Will keep us on task.
- f) Need to make only one action under each objective.
- g) Things that are important to be funded and to spend time on.
- h) What to do first.
- i) Walls & roof.
- j) Time of 5 years, with budget constraints.
- k) Its all connected to other stuff.
- l) If funds are mentioned that must be sought.

21) Objective A

- a) Make sure our water indicators are integrated in the national system so it can be tested.
- b) Refining the indicators is important but also working with the FS as they broaden the meaning and use of the indicators, and changing them for their use.
- c) Indicators need to be part of NEST initiative...advocate, have someone at the meetings.

- d) We need to report out on the fragmentation workshop.
- e) Fragmentation indicators need to be refined.

22) Objective B-continuous

23) Objective C- climate change scenario

24) Goal #3-objective A-actions are in order

- a) Objective B- in order needed.....action 3 is equal to 2...outputs from workshop.
- b) Objective C- Action #1-small workshops to develop recommendations. NSF to develop databases, analyze databases. ½ day workshop that would be specific. Discoverable and accessible data. Repository, knowledge management system. Can be a list, even of links, data registries...medium high

25) Goal 4- priority is this...to articulate why we should be here.

- a) Objective B-in order.

26) NEXT STEPS FOR SRR

- a) Circulate Strategic Plan to meeting participants first, short review and then list serve.
- b) Will update the website within the next month, including meeting notes. Robin will send out a meeting summary.
- c) Generally when you receive communication from Robin & Kristie consider them as representing each other.
- d) Next SRR annual meeting will be funding dependent; it's the highest priority. We'd like to have the next meeting next June.
- e) Group photo to include with meeting summary....at ideal time in next meeting.
- f) Try to invite local folks, and identify them...like the ecology dept. We need to solicit nominations from members about who to invite to meetings.
- h) Is the annual meeting budget driven? Yes. The value of the group is getting together face to face and we'd benefit from more frequent session. More beneficial even if its not feasible. Maybe go to someplace cheap to get to or cheap to stay. Maybe use SRR time at the SRM meeting....hard to do. Don't want competing interests.
- i) Foundation supported possibilities. Government agencies can help negotiate low rates, at universities, lots of ways to save money. Can have just a business meeting.

27) Thoughts and Plans

- a) The strategic plan actions are over the level of funding we typically receive.
- b) Figure out priorities and funding requests.