



REVIEW OF SUMMIT GOALS

Deborah M. Finch
USDA Forest Service
Rocky Mountain Research Station
Albuquerque, NM



“The prairie, in all its expressions, is a massive, subtle place, with a long history of contradiction and misunderstanding. But it is worth the effort at comprehension. It is, after all, at the center of our national identity.”

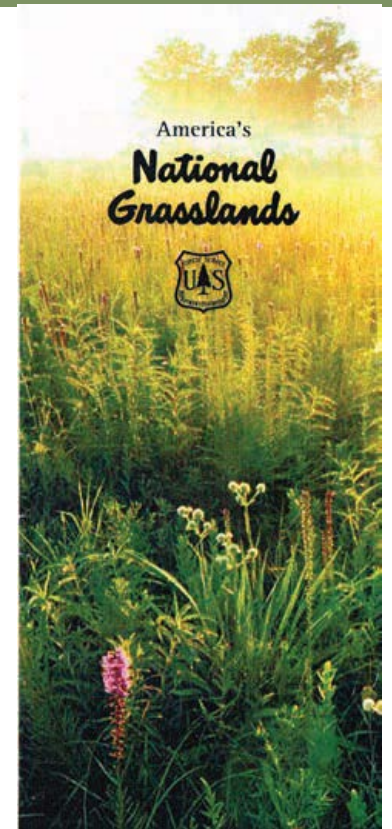
- Wayne Fields, “Lost Horizon” (1988)

“It is an environment where nothing comes between me, the sky, the horizons, and my dreams.”

--Ed Butterfield (1988, *The Shortgrass Prairie*)

Proposal to National Grassland Council – **Approved**

Proposal to FS Western Wildland Environmental Threats Assessment Center – **Funded**



US Department of Agriculture Goals



- OneUSDA: Involve other USDA agencies
- USDA Goals of Customer Service and Production

Forest Service Priorities

1. Uplift and empower employees.
2. Be good neighbors; serve customers.
3. Share stewardship; increase partnerships.
4. Improve the condition of forests and grasslands.
5. Enhance recreation opportunities.

“None of us is as smart as all of us”
– Ken Blanchard



Summit Hosts

Participating Organizations



WFCA Western Forestry and Conservation Association

Steering Committee

- **Chair, Deborah Finch**, PM, USDA FS, RMRS, Albuquerque, NM
- **Carolyn Baldwin**, Dir., Great Plains Fire Science Exch., KSU, Manhattan, KS
- **Dave Brown**, Dir., USDA ARS, Southern Plains Climate Hub, El Reno, OK
- **Nehalem Clark**, Science Delivery, USDA FS, RMRS, Fort Collins, CO
- **Justin Derner**, Program Manager, USDA ARS, Cheyenne, WY
- **Erica Fleischman**, CEMML Dir., Warner College NR, CSU, Fort Collins, CO
- **Patti Knupp**, Area 3 Biologist, USDA NRCS, Pueblo, CO
- **Amy Ormseth**, DR, Bighorn National Forest, Tongue RD, Sheridan, WY
- **Donna Shorrock**, Reg. Ecol., USDA FS, Rocky Mtn. Region, Lakewood, CO
- **Carol Spurrier**, Ecologist, USDA Forest Service, Washington Office, DC
- **Amy Symstad**, Scientist, USGS, No. Prairie Wildlife Res. Ctr., Hot Springs, SD
- **Bill Van Pelt**, Grassland Coordinator, WAFWA, Phoenix, AZ
- **Richard Zabel**, Dir., Western Forestry & Conservation Assoc., Portland, OR

Special Thanks

- Western Wildlands Environmental Threats Assessment Center
- National Grassland Council
- Western Forestry & Conservation Assoc.
- Steering Committee Members
- Invited Speakers
- Session Leaders, Facilitators, Notetakers
- Moderators
- Exhibitors and Poster Presenters



Participants/Partners/Stakeholders

- **US Department of Agriculture:** Forest Service, Natural Resources Conservation Service, Agricultural Research Service
- **Other Federal:** Army Corps of Engineers, Army – Fort Riley, US Fish and Wildlife Service, National Park Service, US Geological Survey, National Oceanic and Atmospheric Admin
- **Tribes**
- **City, County, State Agencies:** AZ, CO, KS, Western Assoc. Fish and Wildlife Agencies
- **Universities:** China AU, CSU, UC Davis, KSU, OkSU, SDSU, UCo, UMo, UNe, UWyo
- **Private:** Producers, Energy Industry, Seed Companies, Consulting Companies
- **Conservation:** American Bird Cons., Biohabitats, Botanic Gardens, Ducks Unlimited, Defenders, NFWFoundation, Native Plant Societies, TNC, World Wildlife Fund

Summit Objectives

The objectives of the 2018 Great Plains Grassland Summit are to engage managers, stakeholders and researchers in working sessions to learn more about and contribute science needs, ideas, and plans helpful for managing, conserving and restoring grasslands at landscape scales and across boundaries in the Great Plains.



Science-Management Syntheses

Invited experts will establish the context and stage the Working Sessions by identifying challenges and opportunities focused around six themes:

- **Working Lands**
- **Native Species and Biodiversity**
- **Invasive Species**
- **Wildland and Prescribed Fire**
- **Energy Development**
- **Weather, Water, and Climate**



Product: Published Syntheses

Synthesis papers by plenary speakers will be published.

Target Publication: *Rangeland Ecology and Management*

We invite additional synthesis papers to fill in gaps – if you are interested, talk to a Steering Committee Member



Working Sessions

Subsequent breakout working sessions on seven themes will allow workshop participants to contribute diverse ideas, issues, needs and steps towards an action plan to manage, conserve and restore Great Plains grasslands.



Poster Session and Social

- The April 10 poster session and social starts at 6 pm.
- This event will allow participants to network, learn and share ideas about grasslands.



Continuing Education Units (CEU)

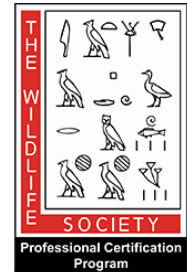
Society for Ecological Restoration

Society for Ecological Restoration has preapproved 8 CEUs under their Certified Ecological Restoration Practitioner (CERP) program.



The Wildlife Society

The Wildlife Society has preapproved 13.5 CEUs in Category I of the Certified Wildlife Biologist® Renewal/Professional Development Certificate Program.



Society for Range Management

Society for Range Management has preapproved 14 CEUs (Tues -6.5/ Wed 0 7.5) under the Certified Professional in Range Management (CPRM) program, though their Certified Range Management Consultants (CRMC's).



Opening Addresses

Brian Ferebee, Regional Forester, USDA Forest Service, Rocky Mountain Region, Lakewood, CO

Keith Sexson, First Vice-President, Western Association of Fish and Wildlife Agencies, Pratt, KS

Welcome. Letter from Senator Michael Bennet. Presented by James Thompson, Regional Director, Senator Bennet's Office, Fort Collins, CO

Staging Our Work - Science-Management Syntheses

What Do We Know and What Can We do About the Following Key Issues and Drivers in the Great Plains?

Tuesday, April 10

10:30 am *Working Lands* – [Ken Tate](#), UC, Davis

11:00 *Invasive Plants* – [John Gaskin](#), USDA ARS

11:30 *Native Species & Biodiversity* – [David Augustine](#), USDA ARS

12:00pm Lunch

1:00 *Fire* – [Sam Fuhlendorf](#), Oklahoma State University

1:30 *Weather, Water & Climate* – [Dennis Ojima](#), Colorado State Univ.

2:00 *Energy Development* – [Jackie Ott](#), USDA Forest Service RMRS

2:30 *Overview of Objectives for Working Sessions* – Deborah Finch

Tuesday afternoon, April 10

2:30 *Overview Working Sessions*

- Working Lands
- Invasive Species
- **Native Wildlife and Biodiversity**
- **Native Plants and Pollinators**
- Fire
- Weather, Water and Climate
- Energy Development



3:00 Break and Move to Working Groups

3:30 Continue in Breakout Groups

5:30 Adjourn



The Working Lands session has the highest number of participants.



There was something about the prairie for me—it wasn't where I had come from, but when I moved there it just took me in and I knew I couldn't ever stop living under that big sky.

- Pam Houston, *Cowboys are My Weakness* (1992)

Wednesday morning, April 11

8:00 am General Session: Review of Day 1 Session

8:30 Break into Concurrent Sessions

- Working Lands
- Invasive Species
- Native Wildlife and Biodiversity
- Native Plants and Pollinators
- Fire
- Weather, Water and Climate
- Energy Development



Wednesday afternoon, April 11



12:00 pm Lunch

1:00 General Session: Report-out of Breakout Groups

1:00 ○ Working Lands

1:15 ○ Invasive Species

1:30 ○ Native Wildlife and Biodiversity

1:45 ○ Native Plants and Pollinators

2:00 ○ Fire

2:15 ○ Weather, Water and Climate

2:30 ○ Energy Development

2:45 Break

3:15 Full Group Discussion of Action Plan

4:30 Review of Follow-up Plans

5:00 Close

Housekeeping:

Lunch is in the Aspen Ballroom

Poster Set-up 4-6 pm Colorado Ballroom

Breakout Working Sessions



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- During the break, assemble in your assigned breakout room.
- The back of your name tags identify which session you are in.
- Signs are posted at rooms, designating breakout session themes.
- Sessions with smaller groups may convene around one table and sessions with larger groups may use multiple tables.
- Leaders will initiate sessions by providing guidance and tips to participants.
- Recommendation: Do not move around among different sessions.

Session Leaders, Facilitators and Note-takers

Leader: Each session will have 2 or more leaders. This could be a manager with experience in the topic and/or a science or stakeholder expert who delivers knowledge via publishing, presentations, teaching. Number of leaders varies based on size of session. Leaders will assemble session results.

Facilitator: Someone who is trained in facilitation, keeps participants on track, resolves conflicts, unbiased, need not be an expert in the topic. Facilitators will move around to provide assistance.

Note-takers: Enters input of session participants in format that session leaders can work with. Leaders may need to take notes.

Working Session Questions



- Participants will be guided by leaders to address a series of questions.
- The questions are the same for each of the seven concurrent sessions.
- The themes are working lands, native wildlife and biodiversity, native plants and pollinators, invasive species, wildland and prescribed fire, energy development, and weather, water and climate.
- Be careful to monitor time spent on each question.
- Results of these sessions will be used to develop recommendations for management and research of Great Plains Grasslands, to be published and shared with federal and state agencies, partners and stakeholders.

April 10: Questions 1 and 2

- **Prior Management Actions (60 min)**

- Give examples of past decisions and actions that have been successful. Define success and how it was measured.
- Was monitoring or assessment used to evaluate the effectiveness of an action or plan, and if so, what kind of monitoring was applied? Was it helpful in assessing the action's outcome?

- **Current Challenges and Barriers (60 min)**

- Describe multi-disciplinary and cross-jurisdictional challenges.
- What actions, if any, can be taken to overcome barriers?



April 11: Questions 3 and 4



Current Opportunities and Future Management Actions (60 min)

- Describe current opportunities and future actions for making advancements in this focus area.
- What players and partnerships are needed to facilitate these actions?
- Describe potential sources of funding, levels needed, and necessary steps?

Research Needs and Actions (90 min)

- What syntheses, assessments, model and tools are needed, and is existing information sufficient to develop these?
- What new knowledge and/or data are needed by land managers to help solve problems?
- Describe potential sources of research funding, levels needed, and steps to obtain funds?

April 11: Question 5



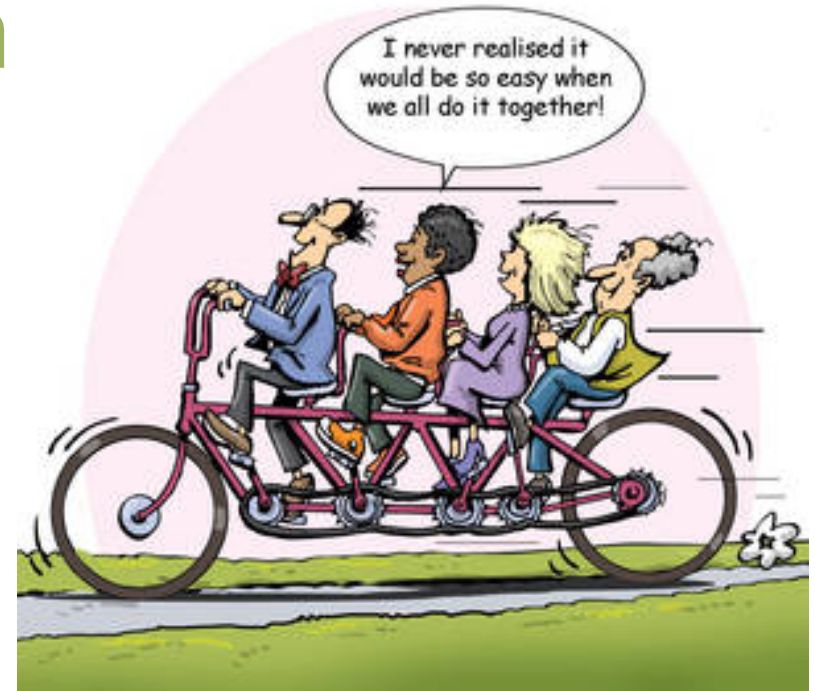
Bridging Science and Management through Co-Production of Actions and Results (60 min)

- What steps can managers, scientists and stakeholders take to work more effectively together?
- Making sound management decisions increasingly depends on co-development of knowledge, decisions and actions by managers, scientists and stakeholders. What can be done to encourage co-production*?
- Give examples of how science and client input were used in adaptive management and “structured decision-making”**.

Defining Co-Production

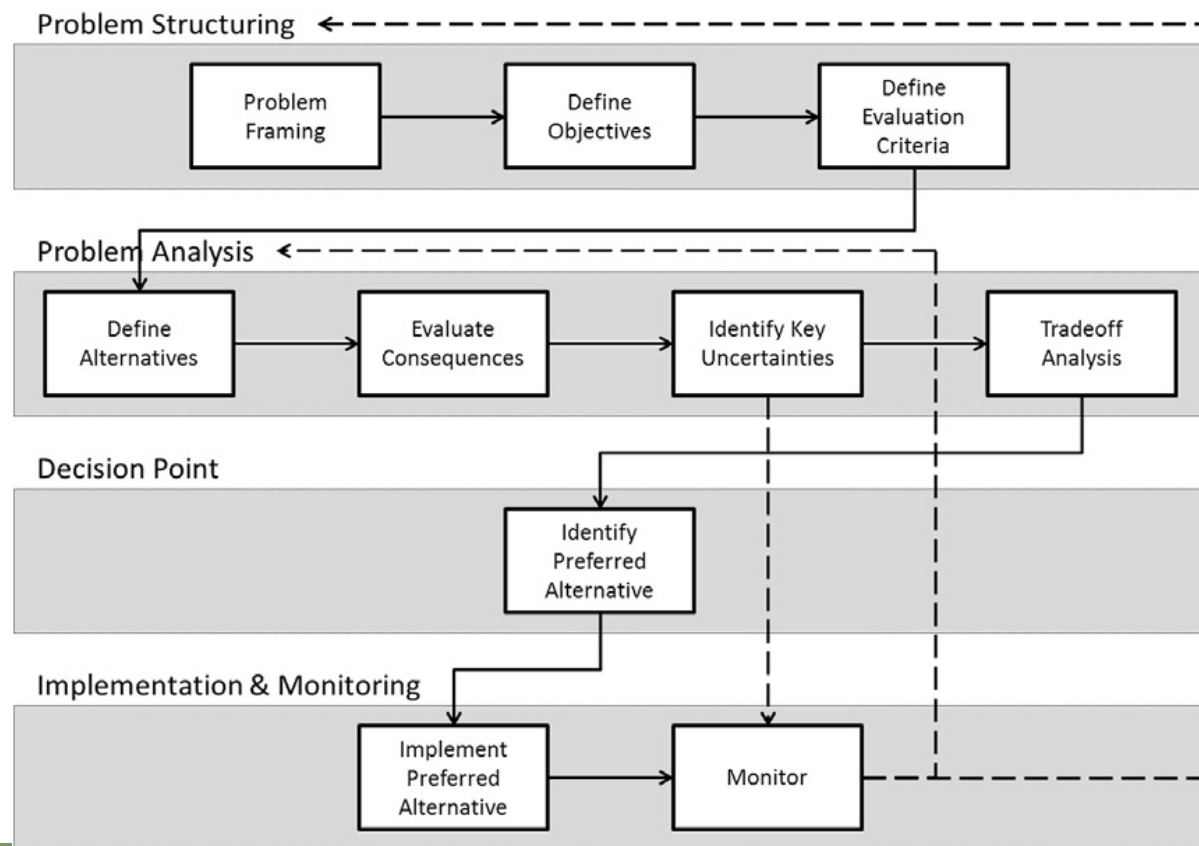
“Collaboration among managers, scientists, and other stakeholders, who, after identifying specific decisions to be informed by science, jointly define the scope and context of the problem, research questions, methods, and outputs, make scientific inferences, and develop strategies for the appropriate use of science.”

– Beier et al. 2017. Conservation Letters 10: 288–296.



*Structured decision-making (SDM):

- An approach used to identify alternatives, evaluate tradeoffs, and make decisions in complicated situations. The sequential steps of SDM are problem framing, elicitation of objectives, development of alternatives, evaluation of consequences and tradeoffs, and deciding on and taking action.
- Scientist and client knowledge and input are integrated into the decision-making.
- Risk, uncertainty, and linked decisions are included as appropriate in the process.

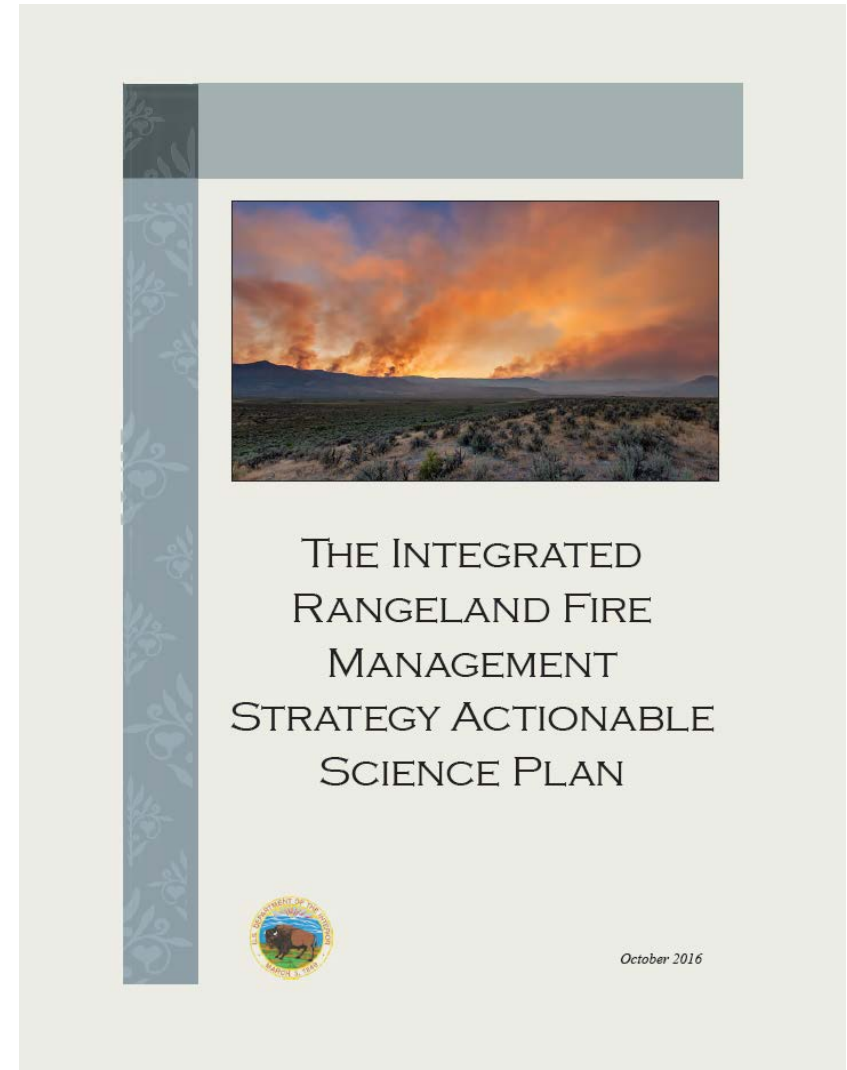
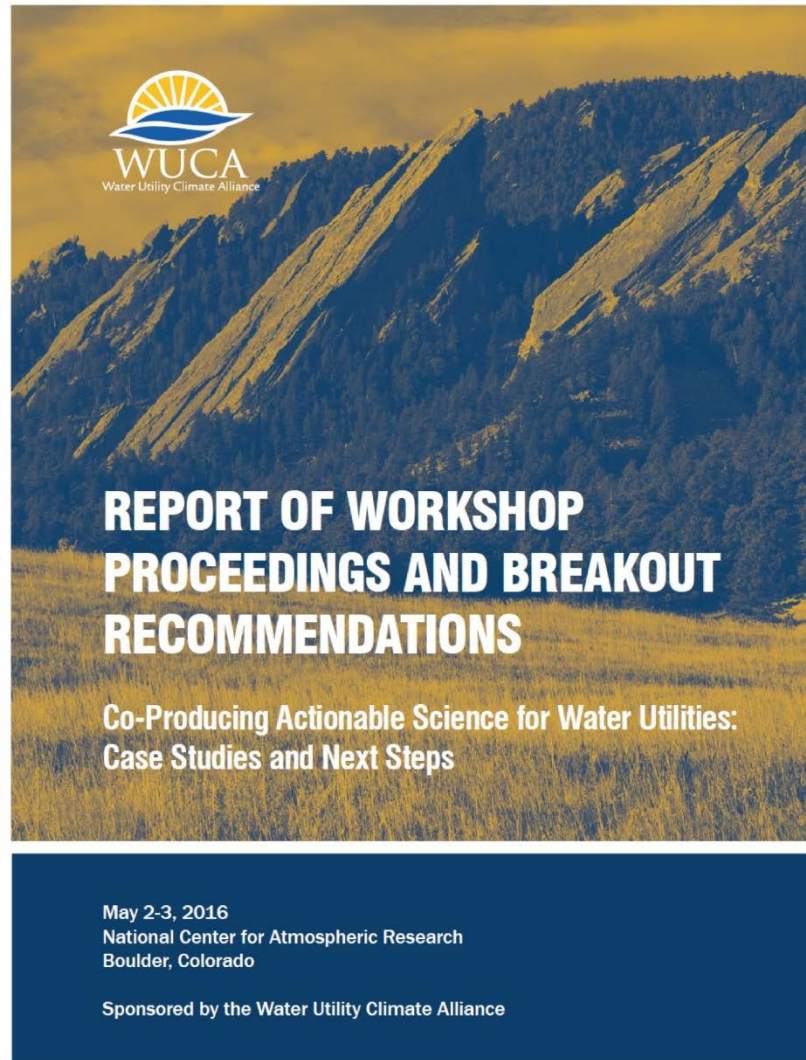


ANOTHER SUMMIT PRODUCT



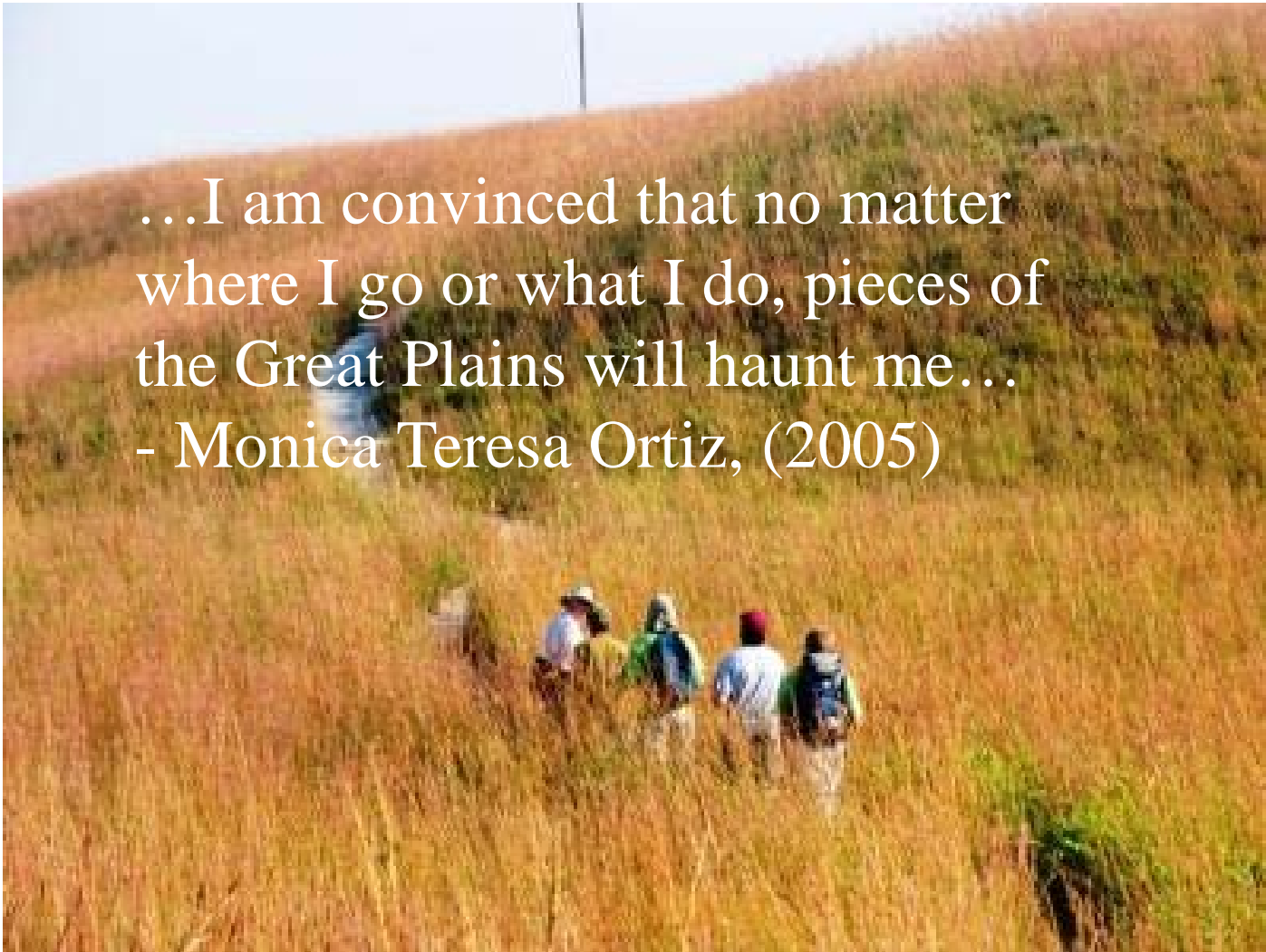
A Summit report will be produced, based on feedback received during the breakout sessions. The report will be reviewed, revised and shared with stakeholders

EXAMPLES OF CO-PRODUCTION PRODUCTS



Thank You for Participating!

...I am convinced that no matter
where I go or what I do, pieces of
the Great Plains will haunt me...
- Monica Teresa Ortiz, (2005)



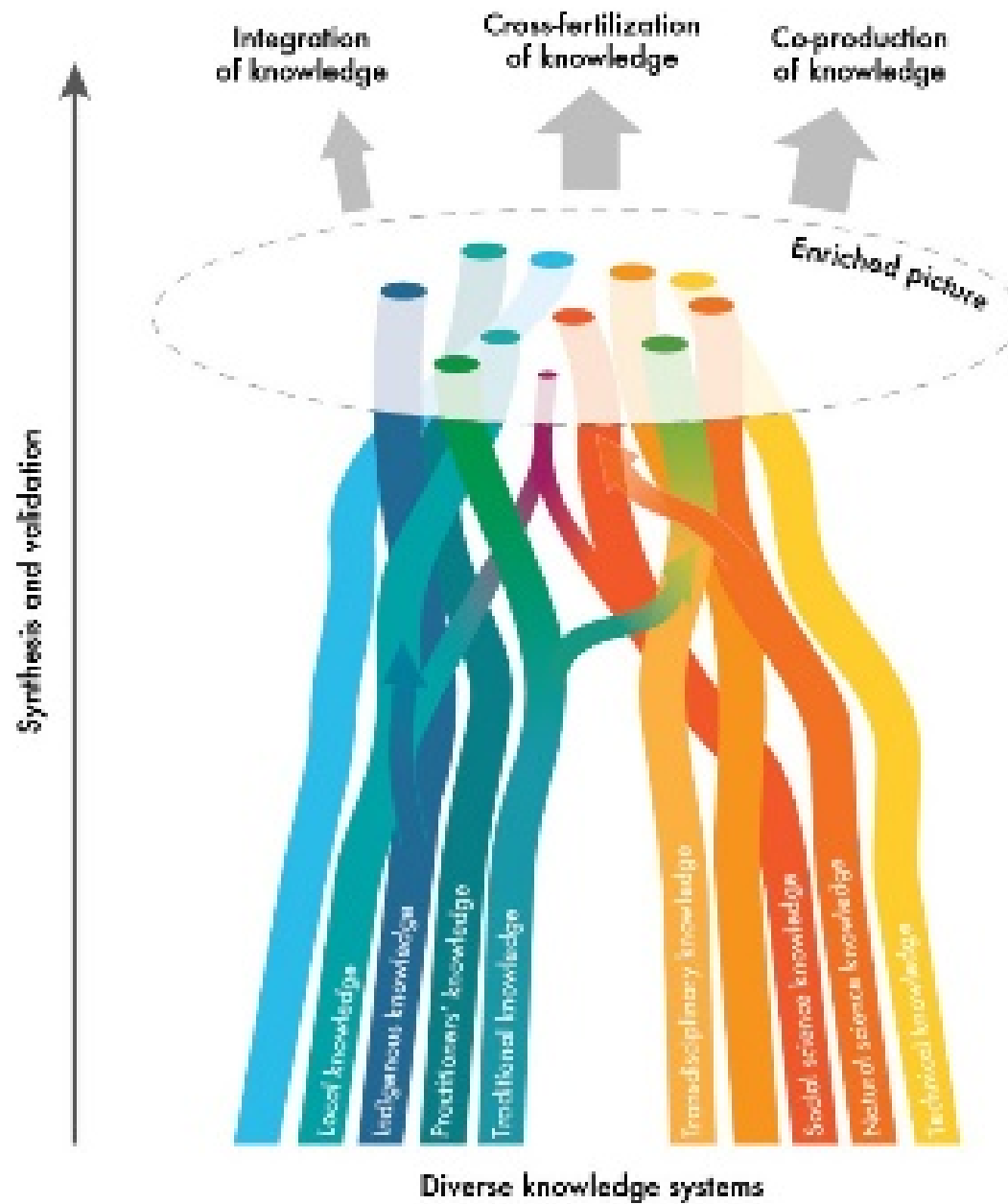
3 p.m. Go to Rooms for Breakout Sessions

1. Energy - Mt. Wilson 3rd Fl.
2. Native plants - Mt. Columbia 3rd Fl.
3. Climate - Mt. Princeton 3rd Fl.
4. Invasives - Mt. Oxford 3rd Fl.
5. Fire - Mt. Yale 3rd Fl
6. Native Wildlife - Mt. Sopris A, lobby level
7. Working lands - Mt. Sopris B, lobby level

April 11: Start in Aspen Room at 8:30 am

Questions that could be used as agenda items at a Goal-Defining Meeting for a coproduction project

1. What is the issue? What questions are being addressed?
2. What topics are included or excluded?
3. What decisions are being made? Are they flexible or limited in scope?
4. Who will use the scientific information and how?
5. In what form, process, or product will the data be most useful?
6. What is a realistic expectation of what is possible and useful within the available time and budget?
7. What is necessary to make data accessible to all projected users?
8. What would success look like for all parties?
9. What alternatives are available to achieve success?
10. What variables does the decision maker care about? Resolution of data, spatial extent, level of precision?
11. What is the planning time horizon and its appropriateness?
12. How will uncertainty be addressed?
13. Is a technical advisory group needed and who should serve?



Questions to use for evaluating projects to co-produce actionable science

- How well did scientists and managers specify the problem?
- Would different science and processes have been more useful?
- Did the project give appropriate priority to process and products?
- Was the process collaborative, communicative, and positive for both scientists, managers, stakeholders?
- Was continuing engagement properly budgeted for, if needed?
- Were the scientists appropriately rewarded by employers, and by the satisfaction of contributing to better decisions?
- What is recommended for appropriate use of the scientific products?
- Did the scientific information and process lead to better decisions?
- What obstacles to collaboration were encountered?
- Is the product being used as envisioned? If not, why not?
- Was a mechanism created to insert new results and learning from the outcomes of decisions made using the products?