



Meeting Summary

Science and Traditional Ecological Knowledge (S-TEK)

Working Group: Webinar #3

August 13, 2014

Participants

Working Group Members:

- Stan Johnson, National Center for Food and Agricultural Policy
- Maureen McCarthy, University of Nevada, Reno
- Raul Morales, Great Basin LCC
- Jennifer Newmark, Nevada Natural Heritage Program
- Mike Pellant, Bureau of Land Management, Idaho SO

GB LCC Staff:

- Todd Hopkins, USFWS, Great Basin LCC Science Coordinator
- Matt Germino, USGS, Great Basin LCC
- Ryan Orth, EnviroIssues, facilitator
- Bridger Wineman, EnviroIssues, facilitation support

Key Discussion Points

Welcome and agenda overview

Ryan welcomed attendees, led a roll call and explained how meeting participants can raise their hand or use the chat feature in AdobeConnect.

Todd welcomed attendees and introduced the meeting topics which included the long list of science and management needs discussed at the last meeting, decision-critical factors and the impact matrix exercise.

Committee updates

Review and approve TEK guiding principle/LCC goal

Todd Hopkins, Great Basin Landscape Conservation Cooperative (GBLCC) Science Coordinator, said the workgroup will request a new goal and objectives be added to the LCC's charter concerning Traditional Ecological Knowledge (TEK). This new goal was drawn from a TEK-focused guiding principle discussion at the July S-TEK workshop, where members reviewed the Department of the Interior Advisory Committee on Climate Change and Natural Resource

Science, Guidelines for Considering Traditional Knowledges in Climate Change Initiatives. The workgroup agreed that Steering Committee liaison Raul Morales should carry this recommendation to the next Steering Committee meeting for their consideration. Todd asked participants to review the proposed goal and objectives and asked for any further comments or suggestions. The suggested goal and objectives are as follows:

Goal: Support the exchange of western and traditional science to further basin conservation priorities and directly benefit tribal issues and circumstances.

- ❑ **Objective:** Encourage dialogue on shared conservation goals between indigenous communities, local peoples and other practitioners, informed by best practices for considering traditional knowledges.
- ❑ **Objective:** Develop models for engagement of tribal membership and traditional practitioners of TEK.
- ❑ **Objective:** Apply Protocols to ensure protection of TEK and strategies to protect treaty rights and trust resources.

Mike Pellant, BLM, said the proposed language hits the mark. There were no other comments.

Raul will suggest this language is added as a goal at the next Steering Committee meeting, expected in December 2014.

Funding review request

Todd said the GBLCC FY 2014 Request for Proposals resulted in 51 proposals received, including four for TEK. There is \$600,000 available and \$4.5 million was requested in total. Matt Germino, Todd and EnviroIssues staff are categorizing the proposals by topic and recruiting proposal reviewers. Todd asked for volunteers to help review proposals. All of the materials are online. Reviewers must complete a confidentiality and conflict of interest agreement. Review must be complete by Aug. 29 and there will be a science review panel call on Sept 11.

The LCC is discussing an approach to reviewing the TEK project proposals, as the online form used for other proposals is not necessarily applicable. After the review period closes, Todd will review the comments to tally scores for the proposals. The review panel will help create a portfolio of proposals for the Steering Committee's consideration in December. Stan McDonald and Matt Germino have already volunteered to help with the review. Any additional volunteers should contact Todd.

Maureen McCarthy suggested using a core group of reviewers to perform an initial assessment of all of the proposals to eliminate those which do not meet the RFP requirements. Todd said the GBLCC would like to take a similar approach. Maureen volunteered to help develop the procedure for screening proposals and language for responding to proposals which do not go through the full technical review.

Long list of Great Basin science and management needs and impact matrix

Todd said the S-TEK working group exercise at the last meeting helped develop a long list of science and management needs. At the previous meeting, the group discussed valued resources including ecosystems and abiotic resources, and talked about focal species and cultural resources. The group also discussed drivers of change and management actions. Several members weighed in after the meeting and added clarifications and additional information.

The current long list was displayed on screen for meeting participants and was also distributed in advance of the meeting. The comments which were added since the last meeting were shown in tracked changes. Todd said the next step is to use the list to create an impact matrix for evaluation of pairs of resources and drivers. The resources will be down the side of the matrix (y-axis) and drivers will be across the top (x-axis). The impact matrix exercise will be distributed to working group members along with instructions. Each evaluator will distribute a limited number of points to determine the most important pairs. The results will be summed and presented to the group for discussion.

Looking at the list of primary and secondary drivers, Todd asked if anything is noticeably missing or in need of change.

- Maureen said it is important to get an insight from the tribal partners. Todd said the LCC plans to meet separately with tribal members to see how and if their priorities fit into the prioritization approach the LCC is taking. The LCC needs to know what is important to them on the landscape. Todd is hopeful that the TEK projects the LCC will fund will help build capacity for further involvement by tribes as well. Cultural resources are currently included with the other valued resources in the long list and matrix.
- Mike said biological soils crusts, which are included in the list, are important but are only a component part of the ecosystems listed above. They may not fit in the list.
 - Todd said additional brief descriptions can be added to the resources in the matrix to help reviewers during the ranking process. The biological soil crusts can be added as a descriptor to ecosystems in an appropriate place in the impact matrix.
- Mike said there may be confusion with fire and invasive species listed as secondary drivers in the matrix. Todd said definitions of primary and secondary will be included to help avoid any confusion.
- Matt said invasive species are also focal species in some cases should be included as both a row and a column in the impact matrix. A similar example is some biological soil crusts which are both drivers and resources.
 - Stan said drivers are subject to the endowment of natural resources and other attributes, like elevation types, will be important to determining impact as well. Todd said elevation could be included as a new category.

- Mike agreed with Stan's suggestion. For most ecosystems vegetation is a product of soils, rainfall, precipitation and elevation. A surrogate for all of these attributes is provided by vegetation type. One approach is to include those as a row.
- Todd said the primary driver of water includes a number of attributes like precipitation timing and duration, magnitude and transpiration. Todd asked if this approach encompasses too much.
 - Maureen said to separate the supply of surface water versus ground water.
 - Mike said water is a resource for many ecosystems. By separating some of its attributes we can more accurately depict it in the impact matrix. The resources should be soil moisture, ground water and surface water. All of the other attributes are drivers. Todd said splitting water in this way may be helpful. He will review the approach further.
- Todd said fire is also listed as a single category and asked if wildfire and prescribed fire should be split out. Mike said they should be split out because wildfire is a natural process and prescribed fire is a management tool.
- Todd asked if albedo and solar radiation should be split out. Maureen said they are different, but could be combined for the purposes of this exercise.
- Maureen said variability is not accurately reflected in the impact matrix. It is not an independent driver but a characteristic of drivers. She suggested combining variability with extreme events. Mike said extreme events are different than those within the natural range of variability.
- Todd noted the impact matrix does not list all of the likely focal species. Sagebrush dependant species should be listed and the team may need to look at the state wildlife action plans to develop the list further.
- The group discussed how to address human impacts in the impact matrix and Todd asked if climate adaptation measures should be listed under human impacts.
 - Matt said it is useful to separate undesired impacts from desired impacts in two columns. These might be development or extractive activities versus restoration and rehabilitation activities.
 - Stan said such as approach may be too subjective as some of the impacts one might consider negative might be considered positive by others. Todd said he will consider this further and asked group members to send him any further thoughts. He would like to revisit this subject with the group.

- Todd said he will look at the impact matrix used by the North Pacific LCC as an example. It may be useful to test a draft exercise using different levels of detail for the resources to see if the results vary.

Discuss and confirm prioritization criteria

Todd introduced the subject of determining decision-relevant factors and the group reviewed the example impact matrix used by the North Pacific LCC. The impact matrix from the North Pacific LCC shows how they used the results to arrive a short list which was winnowed down for further evaluation. Ryan said there will be instructions for how to assign points when the impact matrix exercise is released to the working group. Ryan showed the prioritization criteria used for the North Pacific LCC which include:

- The degree to which information or support related to a topic is needed to support natural resource management decisions in the LCC
- The magnitude or importance of the effect of the driver on the resource
- The level of uncertainty about those impacts
- The necessity and ability of resource management agencies to mitigate, adapt, or respond to the anticipated changes

Todd said the degree to which the information is needed for natural resource management provides a filter the LCC uses to focus on what can reasonably be accomplished. Weighting factors will also be used later in the prioritization process. These are used to create a balanced portfolio of projects across the ecoregions of the Great Basin. Weighting factors will be used in a separate exercise after the impact matrix scoring.

Review and next steps

Todd said an additional call may be needed before the impact matrix exercise is distributed. The staff team will contact participants to schedule a call if needed. The next call is currently scheduled for Sept. 19.