

NPLCC S-TEK Meeting Notes Feb 4, 2015

Seattle, Old Federal Building

Attendees:

In Person: Mike Goldstein (USFS), Jill Hardiman (USGS), Jenni Hoffman, Meghan Kearney (NPLCC), Chris Lauver (NPS), Mary Mahaffy (NPLCC), John Mankowski (NPLCC), Tom Miewald (USFWS), Steve Morey (USFWS), Tim Quinn (WDFW), Frank Shipley (USGS), Jen Watkins (Conservation NW), Andrea Woodward (USGS), Tomas White (B.C. Climate Secretariat)

Phone: John Alexander (Klamath Bird Observatory), Allison Bidlack (AK Coastal Rainforest Center), Louise de Montigny (BC, FLNRO), Judy Gordon (USFWS), Preston Hardison (Tulalip Tribe), Peter Kiffney (NOAA), Eric Mielbrecht (EcoAdapt), Darrin Sharp (OCCRI), Phil van Mantgem (USGS)

Responded but had conflicts: Steve Brockmann (USFWS), Mike Cox (EPA), Nicole DeCrappeo (NW CSC), Joe Hostler (Tulalip Tribe), Frank Lake (USFS), Marcus Miller (NRCS), Regina Rochefort (NPS), Sue Rodman (ADFG), Brian Root (USFWS), Chris Tunnoch (BC FLNRO), Tory Stevens (BC Parks)

Updates

Presentation S-TEK Update available [here](#)

Science/TEK Strategy 2015-2016 Implementation Plan

General Discussion:

- Nice to see project tracking by agency and priority topics. Other potential ways to look at this would be geographically. Request for tracking funding across geographic regions (*note: this is available on the website*). Potential area for tracking in PTS.
- A request for better documentation of actions and management communication that is being used and/or is needed. Need to clearly understand what is relevant to whom and why.
- Tools become available, but they are not always as usable to the resource managers as planned. We need to have a feedback loop to get information from the people who the tool was made for or supposed to be most useful for. Information generated should be discussed at the S-TEK level and project levels and then communicated with the steering committee. We need to identify what is working and what is not? Is the direction towards my vulnerability assessments for example, and do managers need this, want this?
- Steering committee needs to be listening to managers and passing this information down to S-TEK and S-TEK needs to be looking at this and passing it back up.
- A post analysis on past projects may not always be the best approach. Yes, we are in that process and it is good to do and needed, but more forward thinking would be very helpful.

- The Steering committee, S-TEK, and NPLCC needs to know what is up and coming, big decisions to be made in the future and have this guide future projects and information needs? S-TEK would like the steering committee as well as this committee to get at that.
- What are the key types of decisions we want to inform? Conservation? Regulatory?
- How can we best inform policy?
- Metrics - did the information get used, was the information adequately made available, how was it used, who used, was the target audience identified correctly?

Steering Committee 5-Year NPLCC Vision and Goals

NPLCC Vision and Goals identified in Nov. 2014 Steering Committee Meeting available [here](#)

General Discussion:

- The visions and goals are inspiring and good to have but how do we move towards implementation? And when do we revisit and how do we track progress being made on these?
- Important to not forget to go the PIs who are doing the work as a resource.
- Question asked if all the agencies and organizations are at the table that should be and if their needs and concerns are being represented.
 - It was noted that a consideration needs to be given again about adding NGO groups to the Steering Committee.
 - John Mankowski said an assessment of partners is underway

Initial Development of Measurable NPLCC Conservation and Sustainable Resource Management Objectives

NPLCC Conservation and Sustainable Resource Management Goals – adopted by Steering Committee 2014 available [here](#)

Presentation on Measurable Objectives available [here](#)

Example ideas for Measurable Objectives available [here](#) – prepared for **discussion only to start brainstorming session (not proposed measurable objectives)**

Background on reasons for setting measurable objectives:

- Focusing on priority topics and measureable objectives within each of these:
 - to chart our progress
 - keep the direction as wanted
 - set targets
 - let us know when we are done
- How to put a quantitative expression on an objective? Ambiguity is an issue (less ambiguous the better). When they are too vague, they are interpreted differently by too many.
- Need to think about what we can measure – be creative about information already present.
- Careful to not leave information not addressed

- Stay close to your target, to the objective you really care about, the farther away from that the less you may know
- Perspectives and frames of reference are all different for everyone
- Measures may give some specifics life
- 3 types of measures:
 - 1) Direct natural attributes (i.e. number of reports, dollars spent)
 - 2) Construct a quantitative scale. (i.e. satisfaction 1-5 with product) a bit ambiguous, but commonly used and can be very useful)
 - 3) Indirect measures as proxy for what you really care about.

Brainstorming – Priority Topic C: Effects of changes in sea levels and storms on marine

shorelines/nearshore/estuaries – *Note: A and B are the supporting objectives included under the primary goal to “Inform policy, management decisions, and actions of resource managers to support ecosystem functions and provide for conservation and sustainable cultural, subsistence, recreational and commercial use of coastal resources in light of projected changes in sea level and storm conditions.”*

- A. *“Identify decision-relevant information needs associated with understanding how changes and regional variability in sea levels and coastal storms will affect marine shorelines, nearshore and estuarine processes, habitats, and species.”*
- Assessment needs to look at what the decisions are to be made for these resources/ climate pairings, made by whom, what is the time frame, and what information and what scale it is needed to address this. Measurements could include - what is the count of how many decisions have been made by this information, documents changed, number of land managers that have used the information, etc.
 - Decision critical information needs by category, until asymptotic. Relate this to the ability to want to or need to or be able to change policy. Who has the power to do something about this—not the managers often, but the policy makers this is critical to identify who and what level decisions will be made can be made and what information supports that.
 - Need validation of the assessment results/validation of results by on the ground managers – management relevant information. Need to assess what are the kinds of decisions being informed by the information provided (1-2 sentences). Evaluation of how we are linking science with management. Align info to needs, if not then how could it? What else is needed to get it there? Gap analyses, how to make the information that is available how can they be modified to be more useful.
 - Metrics can be a simple yes or no. Have we developed peer reviewed list of managers information needs? Need to answer the question - for what purpose and can this metric be more specific, i.e. linking information needs to management issues. Individuals may have different levels of detail they need to address the management needs; a researcher may have different needs. Who is the audience? Do we address all levels or at what level does the LCC address this i.e. what does a researcher need vs what a manager needs/collective LCC needs, etc.

- For assessments select a number of decisions (or decision types) - they can be divergent, (a variety is good, shared information needs, specific enough to be informative) and conduct a cross check with what information is needed to make the decisions (“expected value of information analysis” - if uncertainty can be reduced is it worth it before I make a decision.) Include a sensitivity analysis to determine at what level the information is needed and how much more is needed relevant to the decision. Target decisions to evaluate first. Local can be ok, as long as the method is in place such that we can learn from it and apply to others areas.
 - We could pick a handful of divergent decision types (new/upcoming ones). Identify what needs and formats are *shared across* those decisions?
 - What decision is needed to affect this resource, what information is needed to inform that decision? At what scale is that needed?
 - *Question* - Is the goal is to get everything into one decision category?
Answer – It is not about covering entire landscape - looking for repeatability. Show this within the LCC. Science was made tangible (organize by chart).

- B. Where appropriate, develop, support, and/or provide that information to decision-makers in a manner that will be useful for promoting and informing management decisions that: 1) consider projected future sea levels, coastal storms, and coastal erosion changes; and 2) reduce risks to, increase adaptive capacity of, and increase the resilience of coastal marine environments to those changes.
 - X number of case studies of to inform real decisions - include what , how, lessons learned and challenges
 - Webinars - needs to fulfill a *real management decision*, information that is relevant to decision making and qualitative around decisions- that should be the goal of webinars.
 - We need an evaluation after webinars (how many people + asking: did this meet your needs?). Include a quick survey or 1 question! Concern was expressed about having too many questions.
 - Confidence intervals for surveys, quick to read & answer using related questions rather than only 1 question. We could incorporate social science techniques like stacking 5 questions, for example, that get at being able to put some science behind the evaluation. We could use a two-tiered questioning process (Did it meet your needs?) then an evaluation process with multiple questions (applicable to A & B). We would need to assess if this met our needs
 - We need to have evaluations that are meaningful
 - What proportion of those questions have we addressed - assessment of quality of those responses.
 - We need to measure how well we address landscape component and clauses 1 & 2 of B.
 - Integrating science into x number of plans, policies, decisions, programs, documents, etc.
 - Include (1) Conduct science-management webinars for at least 75 percent of the NPLCC funded projects related to this priority resource and (2) Provide adaptive learning opportunities by supporting demonstration projects to fully/effectively incorporate current

SLR information into management actions (how many and where?) – both from original document with initial ideas to start the discussion.

- Info provided on management needs and what proportion of those have we addressed.
- Combine A1 (*Conduct a review of literature and synthesis of information throughout the entire LCC to assess where and how sea level rise will affect NPLCC coastal ecosystems.*) +B3 (*Work with federal, state and tribal land managers and other natural/cultural resource managers in a targeted geographic area on a climate smart landscape conservation design that includes impacts and resource vulnerabilities to sea level rise and/or coastal storms.*) + communication - Documentation of projects at many scales – how to get that information to local, regional, policy makers (*question – is the information getting to the local level?*) . We have SLR info on a number of scales, why don't we support a team to get to an actionable list of priorities and implications to the communities. This needs to be a feedback process - Landscape science taken to the community level and shared at many different communities across the broader landscape. Synthesize info, ask what's missing, ask where their policies could move forward from there? A count of communities as a measurable objective?

General Discussion:

- Need to evaluate when decision critical information is needed and what impacts or consequences are there if associated decisions are not informed or made at all.
- Effective decision support is starting with the decision
- Challenge is - we know what components will change w/ SLR but it is never a bad idea to ask decision relevant questions about what we fund. Start with decision and challenge the info we assemble, people we are asking for RFPs - how critical/urgent are their decisions.
- Decisions AND communities need to be clear on the WHY? for projects.
- Important to have customer reviews – question asked about how do you buy a hammer that will last? You read the customer reviews. Simple feedback, *open measurements, no criteria*. If this is a 2 star product - we're not done. How can we implement?
- We could develop a 1-5 scale evaluation for reports/ data sets/ tools (i.e. if someone was to download our products, they could rate them).
- The CPA is set up to allow evaluation of data sets there – people can give comments (*note: not sure if there is a star rating*)
- We need to conduct a synthesis of management related questions in addition to the impacts if they don't have the information. We could tally decision-critical information needs by category related to people's ability or desire to change policy. We need finer grain information.
- Decision sensitivity analyses – would action change the decisions.
- What do we know about the decisions we are informing? We need to know the scale of the decisions.
- We could pick some decisions coming up – a handful of divergent decisions: a) what information needs are shared across the decisions, b) what aren't (i.e. more specific). At what level can we frame decisions so they can be relevant? Need to look for decisions that are repeatable. Come up with general/broad categories where the decisions types fall within. Decision-critical decision types.

- Chicken before the egg issue - science informs management decisions that were maybe unknown before the science was done. Important to not only focus on current decisions because how often do you have science that gives you a new decision - i.e. didn't have a decision about a hatchery until it had a problem.
- Could evaluate the management relevance – 1 or 2 sentences on each project about decisions being informed (linking mission of NPLCC with priorities). Question as to how we create evaluation tools that provide statistically significant evaluations about the management relevance
- We could also add to evaluations if it isn't meeting needs, how could information available be modified to make it more useful? i.e. Gaps analyses
- Social science is critical, social ranking, constructive scales, ideas from managers are desired in how you approach problems. Science quantitative moving to management or tribal usefulness is more intangible for the decision making process. There is a difference between measurement and quantification. Intangible values, including cultural ecosystem services & what people want out of their landscapes, are particularly important for example to tribes, so can be hard to get at in attributes and ranking systems.
- Ranking system is good but be aware of law of small #s. If you have small numbers responding, it may not be useful or appropriate.
 - Small # of responses may mean something in itself - i.e managers not using it or not have interest in the project. Hard to interpret this, so many other factors outside of the project that could influence this. The small numbers may be because of a time issue for managers. Ranking is often a volunteer effort and many choose not to participate for other reasons beyond the product itself. Comparing across competing products would show more for small response
- Evaluation is complicated if the objectives don't have a management purpose associated with them. Important to have what is the purpose of developing the information.
- With constructive scales sometimes you just have to start somewhere and the acceptance and more common use of them will grow.
- Too vague at the info level - force people to be specific with what they need for decisions. Tally decision critical info needs by category until we understand what they are. Need to relate it to ability or want to change policy. Address specific policy questions.
- Important to provide different levels of information based on the audience – 1) exec summaries for higher level folks who don't have the time to read full report and 2) full reports for managers who will read the full reports and needing information at that level. Include what managers are concerned about - resilience/risk assessments
- Develop/establish metrics to measure customers who use the information/products. For example for the programs that are doing landscape level programs - how much info/data is NPLCC supplying to these planning efforts and is it being used. What percentage are we hitting (are they using the data at some level) of those? Using CPA metrics, are & what people downloading, high level picture of what people are using. Hits/web analytics. A direct

measurement of who uses NPLCC info. What other sites are they using, who is downloading data from where

Next Steps:

- 1) Start to identify up and coming decisions, impacts of decisions, and look at other ideas identified during brainstorming
- 2) We need to organize these ideas (diagram of where these ideas fit) – develop a conceptual framework for this
- 3) Identify which fit best into our measurable objective goals
- 4) Vote was taken whether people wanted another group discussion (majority voted here) or only have a small group work on this (smaller number voted for this). Proposed first meeting with a small group (refine what we have) and then bring results to discussion with big group. This was supported by the group.

Round Robin:

- Frank Shipley: Current evaluation at the DOI level of climate initiatives (LCC and CSCs). After serving as S-TEK Subcommittee Chair for 4 years, Frank needs to step down. He will continue to serve as a Steering Committee member. **Note: *We all greatly appreciate Frank's leadership of this subcommittee and overall expertise and direction he provided with development of the Science/TEK Strategy, associated implementation plans and the Project Management and Accountability document. The NPLCC partnership and has greatly benefited from Frank serving as chair of this subcommittee.***
- Tom Miewald: Landscape planning with refuges looking to engage with NPLCC on the lower Columbia River
- Chris Lauver: NPS centennial next year- theme is to create and connect with the next generation of visitors. NPS Pacific West Region Climate Change Action Plan is out; several tasks relate to LCCs. Nice outreach article on CC and Mount Rainier NP available online at: <http://www.thenewstribune.com/static/pages/rainier/>
- Andrea Woodward: Working with EcoAdapt on project funded by NW CSC and Region 1 USFS - developing region-wide vulnerability assessments and adaptation plan. Looking at how to downscale this information so it is useful at forest level and by managers.
- Jennie Hoffman: Involved with integrating climate change into habitat conservation plans in Region 8 – this is an LCC funded project (including the NPLCC) and the USFWS National Training Center's structured decision making course.
- Mike Goldstein: Chugach NF is currently revising forest plan, working with Defenders of Wildlife to add forest vulnerability assessment to the plan. Tongass NF has a recent amendment narrowing their focus from old growth to second growth forest and strategy for renewables. Working with Ecoadapt on vulnerability assessment which has an aquatic side but no terrestrial side. Is author on recent climatic change publication – synthesized expert review.
- Thomas White: Pacific Climate Impacts Consortium is midway through updating a 5-year climate plan for hydrology. Lot of work on the Fraser and small drainages on Vancouver Island.

Expanding to Columbia River at a macro scale –interest in treaty negotiations. Currently there isn't a comprehensive stream temperature database in BC – i.e. who has what. Pacific Institute for Climate Solutions is looking at forests – carbon sequestration, adaptation for fire regimes, air temperature and precipitation changes on forests (timber and beyond). How they will change forest productivity.

- Tim Quinn: Working on culvert design project funded by the NPLCC – in first stages of project. Also working on incorporate climate change and impacts on fish and wildlife in the Chehalis dam project.
- Jen Watkins: Washington Wildlife Habitat Connectivity Working Group has a new effort looking at key connections in Olympic Peninsula and south Cascades. What are the issues for habitat connectivity - large and smaller regional areas. Skagit Environmental Endowment Commission's 5-year strategic plan includes looking climate change impacts in the Skagit and how to help managers integrate climate science into decisions. Cascadia Partner Forum, Nov. 2014 Wildlinks Forum - management needs were identified in a panel, including that BC Parks/FLNRO needs better direct connection to scientists and capacity to interpret what is available currently. Mt Baker Snoqualmie National Forest will have minimum roads capacity plan by end of year and want to add in climate change (they would like assistance from climate scientists). Issues in the future for watersheds, forests, and road segments - good product report from this work. Restoration and resiliency - what does that mean for the forest.
- Judy Gordon: National Fish Hatchery Climate Change Vulnerability Assessments: Winthrop NFH complete. Draft in place for Quilcene NFH and meeting date to brief partners is being developed. Assessments for other Olympic Peninsula NFHs soon to be started. One result of the Winthrop NFH assessment is evidence in support of the NFHs request for additional water rights
- Louise de Montigny: Diane Nichols, FLNRO, will become more involved in NPLCC. Chair for research – 6 priorities and all have climate change related to them. Surveyed staff – focusing on knowledge gaps in information, research needs, and how to publish this and get out to partners, universities, etc.
- Darren Sharp: Offered his assistance with climate projection and modeling questions.
- Preston Hardison: Tulalip Tribe will hire a climate position in the next 6 months. Working on guidelines for incorporating TKs into adaptation measures. Preston's large scale database has over 60,000 adaptation records and climate change impacts on regional, national, and global levels. Large list of TKs that have been used for climate change adaptation.
- Eric Mielbrecht: Just finished vulnerability assessment for Tongass NF. Puget Sound regional open space initiative and managing it in the face of climate change in the region – working with county, city other NGOs looking at climate change incorporation. Working with OSU and NW CSC feasibility for needs assessment in the region. Sounds like overlap with some of NPLCC issues. National Adaptation Forum is May 12-14, 2015 in St. Louis and EcoAdapt has a series of webinars as preparation. Next webinar is Feb 12 – Social equity issues, info on their website about this (will be recorded too).
- Peter Kiffney: NMFS draft climate science strategy out for public review. Recent climate related papers from NW and SW Fisheries Science Center:

- Cheung, WL, R. Brodeur, T. Okey, and D. Pauley. 2015. Projecting future changes in distributions of pelagic fish species of Northeast Pacific shelf seas. *Progress in Oceanography* 130: 19-31
- Pinsky, M.L., and N.J. Mantua. 2014. Emerging adaptation approaches for climate ready fisheries management. *Oceanography* 27(4):146–159.
- Ward, E., J. Anderson, T. Beechie, G. Pess, M. Ford. 2015 (preprint). Increasing hydrologic variability threatens depleted anadromous fish populations. *Global Change Biology* doi: 10.1111/gcb.12847 P (Puget Sound Chinook strong focus in this paper)

[Project Tracking and Discussion](#)

Presentation on Project Tracking available [here](#)

Jill walked the group through the Project Tracking System (PTS) and showed what information is included. The PTS is still a work in progress and Jill is filling in information for the various projects (i.e. deliverable due dates and received dates). Prior to the meeting, Jill generated reports for each project which we categorized as follows for discussion sake:

1. Completed projects (n=17) that delivered final products and either have publications with peer review or not considered appropriate type of projects (i.e. workshops, TEK project, etc.) to require peer review.
2. Completed projects (n=5) that have delivered final products but do not have a peer reviewed publication so may need additional work by the NPLCC
3. Projects with past due reports or will have final reports/deliverables completed by 3/31/15 (n=10)
4. Projects with an end date of 9/30/15 (n=5)
5. Projects with an end date 12/31/15 or later (n=10)

General Discussion Notes:

General PTS:

- Looking at projects post mortem with PTS as a tool, important to look at relative successes and failures, what worked and what didn't, feedback to PIs or to managers, or just information so we know better how to proceed in the future. Show/evaluate our funding strategies. Important to keep learning and take this extra time with reevaluation.
- Links to project data need to be added for all projects if not there already also need to add other funded projects (i.e. workshops, training, etc.) to PTS.
- Question asked about what level of peer review have been done and what follow up is needed?
- Question about who the PTS was designed for. If it was made for Refuges for tracking their projects – were they happy with it? (*answer is that we adopted the GNLCC's PTS which is based on the Arctic LCC's PTS*)
- Need to clarify the terminology "partners"
- Should we require scientists to use [ResearchGate](#) and post products? If NPLCC follows these researchers on this site, we can see number of visits to the products, citations, and downloads.

- We need to add all workshops held into the PTS and on the website. We can include a website category to help distinguish this type of a project (sharing primarily) from projects that produced different types of products.
- In selecting projects, it is key to know what/who is being informed by different tools and who has the authority to make a decision based on the information provided. If no one has the authority to make decisions then the tool is not useful.
- Need to be careful with tools because looking at scale at which something can be used is critical. Scale is an issue for open source decision support tools that can meet today's needs and can be modified to address future decisions scenarios and needs. At what scale is it useful and for each scale who are the users and they do have the associated authority at the scale to make decisions.
- Need to look at project proposals carefully – make sure they focus on things we want to produce in terms of management implications. Focus on why someone needs it, what decision will it inform, who will use the information/product (not just that “managers will use it” – need to be more specific).
- Problem is we fund DSTs at scales where we don't work. Regulatory authorization is not always available on the scale of some mapping exercises and caution needs to be taken with identifying private lands for potential conservation/protection. Need to move towards being able to plan across jurisdictions. In order to conduct landscape planning, you need to pull together all partners, stakeholders up front. Need to identify who are the customers for large-scale DSTs. Identify X people make decisions at this scale and they will use in in Y manner.
- We need to consider shelf-life of projects - when do they need to be revisited and re-assessed. Some information should be included in the metadata from these projects and the maintenance of datasets.
- Maintenance is a problem with decision support tools. They are funded but if not maintained, they go away and die. Need to ensure need and develop use cases if providing funding.

Prior to awarding funds:

- Need to clearly determine target audiences from the start

Request from PIs

- Have PIs produce an abstract that discusses management application in addition to project description
- Question should we add in a requirement for POs to promote their products – post on Facebook, other promotion. It was mentioned that people tend to not post their own work but having others post their work is beneficial.
- We need to understand how citations are being used, self-promotion vs NPLCC communication modes
- Ask them to notify us if there is new information like a publication so we can add it to our project files and on our website so people can easily access the most current information from the project.

- Need to have a 6 month check in with all projects during the project and again after the project has ended to see if any new products / outcomes from the project.
- Need to require all that funding sources are identified in products produced.

Evaluations:

- Evaluations are a balancing act – everything we want to know versus a fact find. How do we know we are achieving our objectives as a LCC.
- We need to bring in evaluation skills and social science skills. Need to ask “What do we want to achieve?, “How will we achieve it?” than go out and get the data. What information will allow us to know what we need to do?
- Need to evaluate who received the products and were they satisfied / was it what they needed. Need to use tack but need to follow up if it does not appear to be useful and evaluate what would make it useful. Important to assess how this goes out to the public. The project may have been completed as specified; however, it may not be what was really needed.
- Evaluate project benefits, if methods proposed were used, use of deliverables and lessons learned, relevance of deliverables to managers/decision-makers, feedback from PIs, etc.
- We need to go back and evaluate the initial proposal framework and see if it was for a high level climate change priority – is this management relevant, were objectives related to this met and are they still relevant. Moving towards the why – decision relevant process, danger of not doing this is drifting, wandering not knowing where we are going or where we have been.
- Evaluate types of products being produced. Develop a survey methodology that could be used and compared.
- We have to know our objectives of the evaluation before we could do a RFP - currently too vague of an idea. Need to separate out clear objectives and clear products - need to take ambiguity out.
- We need to consider the timeframe for evaluation. Often publications and products take a while to be fully received by the users. We need to evaluate at an appropriate time which may not be the project end date – maybe 6 months or 1 year out.
- In order to manage the cost for evaluation we could focus on a few projects or a type of product or project and dial in the process/methodology that can be used in the future for new projects. One approach is to have a variety of products in order to get the range and variety of what does work and for where and whom.
- Evaluate what went right and why. If we highlighted a smaller number we could identify that these projects worked well for these reasons – what can be replicated. With a smaller select set of projects we could get positive/constructive reviews versus potential negative reviews. Have showcases we can document.
- Need to look at analysis versus process. Need enough evaluation to get to process.
- Evaluation of workshops and webinars – need to compile information about who will attend/ attended – specific agencies or types of agencies (i.e. state wildlife vs state planning), organizations, etc. along with type of position so we better understand the audience and who has interest in the project or has been reached out to.

- Most workshops have an evaluation at the end. Ask participants if the workshop was useful. Can NPLCC have a model for this to be included to get at the usefulness? This could become a requirement of all NPLCC webinars and workshops, trainings.
- Is there a set criteria for evaluating workshops? Is there separate criteria for reports and/or publications or for tools? We should have a decision analyst help to format surveys to get at these questions and answers.
- Tribal peer review process can get sticky, doing that would water down the messaging
- Create a 5 star rating where people can give their ratings.
- EcoAdapt does short term follow up on workshops and products and also 6 month follow up. Five star rating system available on CAKE, but does not seem to be used very often. Stats available from users of CAKE- Eric will look into this and get back to STEK.
- (Eric noted that CAKE has a 5 star evaluation system on their site and it doesn't really work)
- When evaluating products we need to assess if they are useful
- We need to follow up with target audience of information/products produced – ask did they receive the results/products, did they use them, what type of decisions were informed by the information/products.
- We need to capture is something is useful – why/how (i.e. response of we thought it was useful because of X, Y and Z)
- Co-production of knowledge/products critical
- Tom Miewald said he receives a lot of anecdotal information about models that do and don't work. Issues come up as to what scale something is usable and sometimes they are perfect for certain applications but not appropriate or useful for others.
- We need to go back to project scope of work or proposal submitted since PIs identified the critical needs and management issues that they would address. We can use these to evaluate the products.
- Evaluate will it inform decisions people are making now versus decisions that aren't happening now but who would it inform so they could make the decisions.

Closed Projects:

- Change so the descriptions in the PTS (and the website and in Science Base) match the abstracts in final reports versus what is in the proposal.
- Need to change descriptions in PTS so tenses of verbs are correct (i.e. conducted vs. will conduct).
- Evaluate the funding strategy and continue to learn from outcomes of past projects – help us determine the success of funding
- Provide feedback we receive to the PIs

Project Specific Comments:

- 2011 – USGS/ Takekawa: Follow up on who is using the data and do we have all the data sets in hand. We need to capture that the managers were happy with the product provided by USGS.
- 2011 – CBI/Bachelet: *Question asked – how is the soils data being used, who is using it and how?* Is this information available to forest managers involved with timber sales?

- 2011 – PRBO/Ballard: Question about when and how are datasets updated. There is a technical report online and datasets have been added into the CPA. The interactive tool can be accessed on Avian Knowledge Network. They have given countless webinars with states and others. A publication is in press. There appears to be confusion by a user on the scale at which the model can be used. The interactive tool is applicable at the watershed level versus pixel level.
- 2011 – Ecotrust/Mertens: This tool and associated datasets built upon an existing tool (aquatic) to expanded existing tool and have application across the NPLCC geography with terrestrial ecosystems included. This tool has not been used by NPLCC as initially envisioned but it had other values. Important to ask who will use it and how. We need to check back in and follow up on getting the word out about this tool and the outcomes leveraged with the work that was done with this tool, such as the FWS aquatic prioritization tool.
- 2012 – Tulalip/Hardison: Preston noted that they did not work did not go through a formal advisory review process, because they did not want to have the information watered down. They combined working with an advisory committee and natural resource managers. There were 14 different authors and they reviewed over 20 existing protocols for use of TEK when creating their document. Presented in forums, on website, and metrics available for that website, also will be presented at the adaptation forum.
- 2012- Heilksuk/Whitehead: Has this information/ methods been shared with other Tribes/First Nations?
- 2012 – CCHITA/Paddock: Need to update description so includes what was done since there were some changes from what was originally proposed.
- 2013 – NatureServe/Carr: We need to evaluate who was the target audience for this project and how useful was it to them – an evaluation of the use.
- 2013 – UW/Krosby : Scale issue and who is making decisions at that scale. Can do planning at a landscape scale, but need to think about who can do this. Have to start with who is making the decision and what decisions can and can't they do. Important to bring groups together and work with partners in real time. Convene to make decisions together (need to ensure you don't alienate landowners on maps).

Implementation Plan Actions – from USGS Workshops

Andrea provided feedback from the Hydrology Workshop which was the 3rd workshop USGS led in support of the NPLCC. This workshop was the best because they learned how to do each one better as they held workshops. First workshop focused on NPLCC forests and second workshop on forage fish.

- In planning the workshop, the NPLCC was divided in four sub-regions based on climate, geology and the resulting hydrologic regime. This workshop (report is available [here](#)) covered the NPLCC from mid-Washington to the northern end of the Klamath Mountains.
- It worked well to define the region into similar hydrologic conditions so it was not too much to cover in a 1 or 2 day workshop.
- Workshop focused on land manager needs to make decisions and what information is needed to support them.

- The need for a stream tool for evaluating restoration and conservation was discussed.
- A summary of information needs identified in the forest and hydrology workshops are available [here](#)

Next Steps

- **Summarize information/discussion from today's meeting**
- **Begin with a small group to start discussing a framework/conceptual model (call or two) then provide information to the full S-TEK for discussion**
- **Convene calls every 2 months**

Additional Notes (thank you Jennie)

Jennie sent me her thoughts for evaluation of workshops, projects:

1. Create a set of questions/standardized workshop evaluation template that we ask people to use for any NPLCC-funded workshop (trainings as well?).
 - a. Think about time frames for eval: immediate, 6 months, a year out?
 - b. Make it sufficiently flexible that folks can include alternative definitions of success.
2. Evaluate on at least 3 levels: context (e.g. existing partnerships, institutional structure), process (e.g. when and how decision-makers engaged), and science/analysis (e.g. used existing analysis).
3. For all projects, be clear ahead of time about why we funded the project, who we thought would use/benefit from the results, and what we thought would happen as a result of the project.
4. For project evaluations, ask:
 - a. Was there a target audience or decision?
 - b. Who/what was it, and how specific was it?
 - c. Did the target audience "receive" the results?
 - d. Did the target audience use/benefit from the project? How? What affected the utility of the results? Could be having used data in a specific decision, but could also include having changed the approach to a problem, become more comfortable with uncertainty, etc.
 - e. Who else "received" the results, and to what effect?