

**Charge Question 4. Communication of ecological assessment issues and results to decision-makers and stakeholders.**

- **Please comment on whether the RAF's planned project is an appropriate way to proceed, and what obstacles might exist to either interpreting or utilizing ecological information in risk assessment.**

I feel that the plan appears to be taking a very general approach to exploring the problem and therefore is not likely to achieve the stated goals of raising the confidence and full use of ERA in the agency and especially in meeting the manager's needs for useable ERA information in the proper context.

The use of surveys/interview of both risk assessor and decision-makers (i.e. risk managers) asking high level questions such as "is ERA information being used for.....?" will likely lead to a lot of yes , no and maybe answers. For that matter the SAB just did a similar survey focused on the question "Is Science Integrated into decisions". **Recommend that you look at SAB "Integrating Science into Decision-Making" website**

**([http://yosemite.epa.gov/sab/sabproduct.nsf/fedrgstr\\_activites/Science%20Integration?OpenDocument](http://yosemite.epa.gov/sab/sabproduct.nsf/fedrgstr_activites/Science%20Integration?OpenDocument) )**. Those results were informative about the interface of Assessors and managers as well as the trouble with bringing science to bear on agency decisions. Since ERA and associated science are a subset of the study there may be information that can be extrapolated.

As I am sure you are more aware of than I am, that the decisions the agency makes are based on a range of decision and management processes and that the risk or hazard assessment methods and their resulting data outputs are also varied. To me that suggests that for ERA to be used more fully and have maximum impact on agency decisions the question of how to improve that outcome must be addressed at the level of the specific decision process. Also, we recognize that even within program offices or for a given regulatory category different management processes and supporting assessment processes are used.

So with this variability in mind then I think there should be a focus on develop guidance/ support tools that are customized to the need of specific decisions. So I would recommend a more aggressive approach to explore how to improve ERA information impact on decisions through better communication. Suggest you take a targeted approach that selects specific decisions processes for a range or matrix of agency activities from the level of the Programmatic policy making to permit decisions in the regions. **Recommend that the following approach will more likely get you guidance that can affect decision outcomes than a survey approach or may be a deeper dive which can build on a preliminary approach based on the proposed survey's, interviews and group discussions.**

1. **Create a matrix of decision types**, Identify those where you or those you interview feel ERA is having the correct impact and one where there is clear belief that ERA is being grossly under-utilized.

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2. **Create a work team with representation of all staff and technical responsibilities involved in the specific decision process** including especially assessors and decision-makers.
3. **Provide the team with a detailed case study problem and have them table top the decisions while fully discussing how ERA information or more broadly "science" can support a better decisions and how and when ERA can be better communicated.** Use this to discuss the manager's information needs, useable format and the importance of context both in communicating the ERA output but more importantly in shaping the ERA assessment through the problem formulation. The exercise should include all aspects of the decision process including the selection of the technology or remedy and communicating the decision. Suggest that the exercise be facilitated by a non-participant in the assessment-decision exercise. The team charge package should have clear charge, information reporting requirements and sets of questions that need to be addressed at each stage of the decision process.
4. After running a couple of these exercises evaluate the results and **see if you can come up with a protocol/process template that can be used by others (e.g. program offices, regions) , independently.** If not run a couple addition "exercise sessions" with different decisions. At the end your goal is to create a self-assessment tool that can be used by a program or regulatory group to apply to their specific process and identify how ERA can have more impact on their specific decision and how better communication of ERA information and science can facilitate those results.
5. Finally, if you still want to build some general guidance suggest you target a document built in these learnings and also **create a "go-by" tool that risk assessors can use as they are participating in the process to better communicate.** The tool could be simply a check-list of considerations and questions that are clustered according to the typical steps in most decision processes, including problem formulation, assessment design, risk analysis, options selection and decision communication. If senior management would strongly suggest that such a self-guided process be developed and used to improve performance it would go a long way to elevate both consistency and alignment of decisions and science.

Additionally, such a deeper dive will be more labor intensive for a few but could prevent a broader burden on agency staff than a significant effort on surveys, interviews and focus group meetings.

**Note:** Think it is a bit obvious but want to explicitly state that I believe there is a strong linkage between risk communication and some of the other policy areas such as Ecosystem services and integrated assessment framework

- **Please include any observations on why ERA has or has not been well incorporated into decision making in general.**

There are likely many reasons why the ERA output doesn't have the impact on the decision that the Risk assessor believes it should. Focusing on principally the aspect of improving success through better communication, I would suggest the committee working this task think more broadly about communication in the decision process.

The communication of the risk output is not the only point of communication that could be improved. The risk assessor and the manager overseeing the decision process need to clearly understand what data the decision needs or from which it could benefit and how that data informs the selection of alternatives. **Recommend you develop a robust communication process that leads to a clear understanding of the context for the decisions and how various data or ecological risk analysis improve or support the decision at hand. Such a process will go a long way to better alignment of assessment and decision.** The risk assessor needs to understate all aspects of the context of the problem and decision to help the manager do the balancing act required in a specific context. (see section 7.1.3 on page 7-2 of the Integrating Ecological Risk Assessment and Decision-Making: A path Forward, 2010)

*Charge Question 5. Incorporation of ecosystem services into ecological risk assessment methods.*

- **Please consider Appendix B (page 52) of the generic ecological assessment endpoints guidance document and the project description of the RAF Technical Panel on Ecological Services Assessment Endpoints and comment on whether they capture the full range of opportunities to incorporate ecosystem services into EPA's ecological risk assessment methods.**

Obviously this effort is already down the road and that implies some degree of priority among the other proposed policy areas. I feel that commitment to explore the use of ecosystem services in the Ecological Risk Assessment process that feeds various decisions is appropriate. Ecosystem Services afford the opportunity to bridge ERA from identifying what is at risk when to why if that risk is actually express it matters to us. This will help EPA managers understand the trade-offs in their decisions better and also helps help them communicate outcomes in terms of benefits/values from ecosystem attributes protected and support why they made the decision they did.

It clearly would help to have a copy of the "white paper" in hand at this time to really evaluate the direction this effort will take the agency. **I recommend that as soon as possible that the workgroup engage EPEC even in an informal way to make suggestions on where their guidance is going.**

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One concern that might be assuaged by having the white paper for background is the limited view implied by the statement (on page 1 of presentation slide) that the value to EPA from integrating ESS into ERA is *Improved means of communicating risk and informing risk management decisions*. Integrating the ESS concept with Agency decisions does more than just help communicate the relevance of risk it can also help in designing an ERA that is well aligned with the decision context and those aspects of the decision that matter to the public. It can also be used to inform the selection of technologies and remedies in putting the reduction of risk in terms of benefits that can potentially be valued in monetary terms. Finally tying the ERA to ESS should help the managers with their communication with stakeholders. You may have implied that in your statement but not clear without the details likely provided in the "White Paper". So if you do not already have it in your plans, **I recommend you need to incorporate in your task evaluation of the use of ESS endpoints or translation of traditional ERA assessment endpoints throughout the entire management decision.** By working the entire range of process steps you may find that ESS will help achieve the goals defined in Charge question 4 as well which is to make the ERA more frequently used and from a managers perspective more useful to the their decisions.

With regards to the proposed GEAE Addendum, The table is an interesting prop but hard to judge how this will build on the previous GEAE guidance. Once again If I Knew what was in the "White Paper" on this subject could better understand how this table will be supported by text. If you have not already considered and rejected revising the original GEAE **guidance I would recommend you evaluate how much additional work this might take to update the original GEAE guidance.** Having the original and an addendum floating around so someone could mistakenly only use one could lead to errors.

I liked the conceptual model for Nitrogen very much (even if some found fault in some of the + / - signs). It's a strong visual for communicating relationships stressor, attribute or function and the ecosystem service value. **Recommend you consider the creation of a catalogue of basic stressor / habitat type systems** to help assessors see the broader systems implication, or at least catalogue them as they occur in agency decisions.

I support the development of case studies both hypothetical as well deconstructing former assessments.

Finally, although it is not currently part of this task groups charge, **I recommend that when this workgroup finishes its listed objectives at the end of fiscal 2012. That they take on the task of looking at the other Policy focus areas in the Ecological Assessment Action Plan and see where ESS information should be built into those other topics.** The linkage with Communications is obvious, but other important linkages with topics like strengthening agencies protective goals, applying systems and integrated approaches may be uncovered. This group could act as a cross review group with expertise in ESS that can contribute to the other tasks.