

SB202: Task Force on Independent Scientific Review for Natural Resources

High level summary of responses for Objective 1.2

Objective 1.2: Evaluate whether existing state, federal and academic resources for conducting independent scientific review are meeting the needs of natural resources agencies and other policymakers.

Introduction

As part of the SB202 Task Force for Independent Scientific Reviews for Natural Resources' objective to assess whether existing state, federal and academic resources for conducting independent scientific review are meeting the needs of natural resources agencies and other policymakers – and at the task force's direction – Institute for Natural Resources staff conducted interviews with state natural resource agency directors and/or key staff. The purpose of the interviews was to: (1) understand the agencies' scientific review processes and its need for independent scientific reviews; (2) learn if and how existing state, federal and academic resources are meeting agencies' scientific review needs; and (3) gain insights about the advantages and disadvantages of independent scientific reviews.

Thirteen agencies participated in the interview process. One agency responded in writing and 12 agencies participated in phone interviews which included a total of 26 people. Interviews lasted between 45 and 60 minutes.

All participants were sent a link to the SB202 enrolled bill, a three-page overview of the task force's work, and the interview questions that were developed by the task force (see appendix). At the beginning of the interview participants were also told that the task force is moving forward with its overall charge with the understanding that "independent scientific reviews are not intended to replace internal agency reviews of natural resources policy and program decisions" and that "agencies are not required to use an independent scientific review panel as recommended by the task force" (as indicated in SB202).

This document provides a high-level, snapshot summary of the responses. In some cases similar responses were said by more than one agency, in other cases, by only one agency. This document does not present an analysis of the responses. A more detailed report will be forthcoming.

Summary of Responses

Agencies' internal scientific review processes

Agencies indicated that on some level they engage in internal scientific reviews and/or reviews of their products. Most indicated that they do not have a formal agency-wide review process in the sense that it is written in policy or statute; however, a few noted that within certain agency programs written policies about conducting reviews existed. Respondent also discussed their agency review processes as part of the cultural practice of the agency, and described these reviews as formal in the sense that when they engage in reviews that they are as rigorous as possible. The internal review processes ranged from small groups

of internal staff getting together to review the science and/or product to a more distributed process of using qualified experts in other units to participate in a review to, in one case, where product reviews were dependent on one person.

Shortcomings to the current review processes used

- Not having the internal staff and/or not having the resources to conduct reviews as they would like.
- The time commitment of internal staff: sometimes agency staff are not able to stop their current workload to participate in a review, other times agencies try to redirect staff time to participate in a review.
- Product reviews dependent on one person and that person's knowing enough about the information.
- It can be a point of delay when timelines are short.
- Some agencies can't have all publications externally reviewed.
- No funds or a limited budget to conduct a review.

Agencies' external or independent scientific reviews

Use of independent scientific reviews

Agencies make use of external or independent scientific review processes for a number of reasons. Some of the most noted uses include:

- With topics of high controversy, when there is media attention, or when time allows
- When state of the science synthesis papers are needed
- To review management strategies
- For the design, implementation, and analysis of effectiveness and compliance monitoring
- For the development of predictive models.

Existing resources available to and used by agencies

All agencies noted that the natural resources community, and the natural resources science community, is small in the state of Oregon. Most felt that they were able to get their science reviews needs met in the state with the exception of two agencies that indicated that they routinely needed to go to sources outside of Oregon due to the specialized work of the agency. All agencies indicated, that in addition to Oregon-based sources of expertise, they routinely tap into their regional and national professional networks. In all cases, agencies noted that while there are existing state, federal, academic, non-governmental, and other professional networks that can meet their needs, the larger issue is whether the person(s) with the needed expertise is available at the time to work on a review.

Agencies' perspectives about independent scientific reviews

Many of the advantages and disadvantages of independent scientific reviews noted by the respondents align with those found in the benefits literature review document (objective 1.1; see "benefits" handout). Below are some of the advantages and disadvantages mentioned by the respondents.

Advantages and benefits of independent scientific reviews

If done well, independent scientific reviews have the following advantages:

- They can provide a level of credibility.
- They can allow “fresh eyes” to look at an approach or product, helping to point out things that have not been considered.
- They can improve quality, accuracy, and confidence in the work that is being produced.
- They can help build public trust by providing an open and transparent public process in the development and review of science in public policy processes.
- They can help keep agencies connected to the science and other experts in the field.
- They can help provide a scientific base that helps make a good decision.

Disadvantages and challenges of independent scientific reviews

Time, money, and resources

- *Time constraints:* Reviews tend to take a long time, and agencies tend to operate under shorter timelines and/or agencies are given short notice.
- *Funding:* Agencies often do not have the funds to pay for external reviews. Getting a good well-scoped project and product for the money is always difficult.
- *Resources:* The scientific natural resources community in Oregon is small; experts are not always available when needed.

Disconnect to management-relevance and feasibility of recommendations

- Reviews can come back with what were great ideas but are not practical and/or beyond what we have the capacity or scope to do.
- Reviews focus strictly on the natural sciences and do not incorporate the social science aspects.
- Reviews sometimes make recommendations that ultimately need legislative approval to make a change happen.
- Recommendations focus only on the science and do not take into account the management applications, capacity of the agency to take on the recommendation, or if the recommendation can be implemented based on the agency’s mandate.
- Recommendations are not monetarily infeasible.

Additional challenges

- If a review is agenda-driven.
- Framing the review question(s) in order to get appropriate feedback relevant to the actual issue at hand.
- Knowing at what point to bring in an external review.
- A panel is not always suited to review the science put before them.
- The lack of qualified experts that are not already involved.
- Making the decision is difficult when there is disagreeing/conflicting information; not all independent research or researchers agree with one another.
- Independent or external scientific reviews do not always eliminate the dueling science often used by stakeholders to try to sway the public policy decision in their favor. Public policy decisions involve the weighing of values, given scientific information and uncertainty. Stakeholders may use science as a surrogate for value discussions.
- If reviewers are unfamiliar with the specific place that the scientific review is oriented around,

there is learning curve that can delay the review.

- If the review process is clunky or inconsistent, it can become a workload issue.
- Pursuit of the perfect can get in the way of the application of the good.

Agency insights about independent scientific reviews and their role in the state

Would state agencies or the state benefit from a new ISR process or entity?

- One caution is the workload: it can bog down policy development and can take too long or can be used as a tool to stall policy development.
- I'm always torn – I like to value the input of the science community which can be valuable; on the other hand I saw things coming out of independent scientific reviews that were impractical from a policy, planning, or management perspective. I see the value in it but I also see the limitation.
- It depends on how long it would take to go through the review process.
- The data we use is generated by other agencies or OSU, so we'd have to see what the benefit would be from the increase in time and money.
- There are numerous interagency data needs. It feels to me as though the independent review capacity relates to the integrity of the scientific process. We are often in the position of needing something slightly less rigorous.
- Yes, depending on how it is structured. Not all natural resource agencies are collaborative in the development or review of science. A structured system could ensure that other agencies would meet some minimum standard before releasing gray literature. Alternatively, agencies would have an option of requesting an independent science review when there is disagreement about the methods or quality of the science. Where there are common issues and questions, there are also opportunities for natural resource agencies to collaborate on science synthesis or reviews. This approach would reduce the likelihood of dueling science among agencies.
- There is some value to having a standing system for a broader set of issues
- "There seems to be three reasons why independent scientific reviews would occur:
 1. What approach: Here are the problems, what is the right approach?
 2. Checking in on actions: Here is what we've done, did we get it right?
 3. Referee: Tomato vs. 'to-mah-to', decide what is right.We rarely get into #3, and I don't think Oregon or agencies would want an independent scientific review to do this. We've already got #2; however, not all agencies have #2. It would be nice if there was a resource for #1..."

If such a system were to be developed, what should it look like?

Below are some of the characteristics of an independent scientific review system mentioned during the interviews. Many of the respondents were unsure of what it should look like. As one respondent said, "that is the billion dollar question."

Multi-agency

- It would address pressing issues and/or anticipated future needs that go beyond any one agency. Perhaps these issues/needs would be identified by the Governor's Natural Resources Office, the Governor's Natural Resources Cabinet, or some other multi-agency mechanism.

Process

- Rather than building a formal structure or organization to provide independent science reviews,

Oregon should ask the task force to define what is meant by “independent science review,” and the criteria for implementing it. This approach would allow flexibility in implementation, but also create a minimum standard among agencies.

- There should be an entity for the structuring and organization of the reviews – negotiate questions, “herd cats”, plan meetings, and do mediation.
- Have a transferable template or a set of guidelines that could be followed.
- Reviews should be complete in a defined amount of time.
- There should be a clear charter with different tracks for different areas of research.

Reviewers

- It should consist of recognized experts in their fields
- Reviewers should be drawn from outside of Oregon, if needed.
- Reviewers’ credentials should be vetted.
- There should be a website and database where the vetted credentials are accessible.
- When review teams are developed, there should also be applied scientists and management-focused researchers on the team.

Standing Group

- I like the idea of a core group because a lot of this is developing respect and relationships. But there needs to be an expanded group or individuals of expertise that they can tap into that are more specific to the topic material, based on scientists’ strength.
- Peer group and think of the core group as facilitation.

Possible Characteristics

- ISR review for the state should be a resource that can be tapped into but should not be bureaucratic.
- It should be developed as a resource to tap into, not a bureaucracy.
- It should be accessible.
- The teams of reviewers would need to be fluid.
- It should be multi-disciplinary, including the social and economic sciences.
- There are conundrums of putting pure science on the ground. Reviews should provide recommendations that are practical solutions and note which recommendations should really be considered and which could be safely set aside.
- “When we have unresolved science we just identify that transparently, make a call and move on. I would not want a tertiary process for those issues to roll into.”
- Conundrums of putting pure science on the ground, needs to have practical solutions

Questions and considerations for the task force

- Would it really need to be an independent system?
- Would an independent scientific review system provide *guaranteed* credibility to the process?
- Referring disputes: Is it going to be a group that is refereeing disputes? If so, how would they enforce decisions if they do not have to be followed per legislation?
- What would be an allowable trigger?
- Compensation of the reviewers: If you are not buying their time you may not get a lot of their

time.

- How much of an obligation will the agency have to follow through with the recommendations?
- Look at the IMST to identify beneficial aspects: understanding what went well and what did not go well.
- Debates around the vocabulary of science; the use of “science” and “scientist”, could the process be used as educational mechanism?
- Should this Task Force publish a definition of “independent”? [An agency] does not know how the Task Force interprets the term “independent;” it is our understanding that the task force has not defined the term. SB 202 does not define the term, nor does ORS 541.914, which established the Independent Multidisciplinary Science Team.
- Independence and funding: While SB202 does not define independent, some of the questions posed to the task force also raised the question of financial independence “(d) how the entity’s funding structure should be created, altered or supplemented to ensure that there is no perception of bias in the funding of independent scientific review panels.” This concept of funding bias independence raises real challenges as many of Academic institutions receive funding from donors or companies, who have a financial interest in the outcome of the science (e.g., the Oregon State University (OSU) Forest Research Laboratory receives harvest tax funds, the OSU Institute for Natural Resources can contract with natural resource agencies.

Appendix. Interview Questions

1. Does your agency have an internal scientific review process? If so,
 - a. When do you use it?
 - b. How does it affect decision making?
 - c. What shortcomings, if any, are there to this process?
2. When we use the term “independent scientific review” what does this mean to you or your agency?
3. Does your agency use independent or external scientific reviews? If so,
 - a. Under what circumstance do you use it?
 - b. Do you find it to be beneficial? If so, when?
 - c. How do independent or external scientific reviews typically affect decision making?
 - d. How do you accomplish this independent review?
 - e. What challenges do you currently face in getting independent reviews accomplished?
4. What existing resources (expertise, processes, etc.) are available to your agency to conduct independent or external scientific reviews?
5. What are the advantages of the scientific review processes (internal/external) that your agency uses? What are the disadvantages?
6. Please provide some examples of recent independent scientific reviews that your agency has used, and explain why you used it?
7. What value do you see in having independent scientific reviews available?
8. What is the relationship between the decision making that your agency is asked to do and the input/impact of scientific information to that decision-making process?
9. Would your agency or the state’s natural resource agencies benefit from a structured system for independent science reviews? Why or why not?
10. If such a system were to be developed, what should it look like?
11. Is there anything else we should have asked you but haven’t? Is there anything else you would like to add?
12. Is there anyone else from your agency we should contact to interview?
13. What stakeholders and/or NGOs should we contact to provide input into SB202 Task Force?