

Independent Economic Analysis Board Meeting Notes

April 16, 2015

Members Present	Members Absent	Guests
Terry Morlan		Tony Grover
Bill Jaeger		Mark Fritsch
Roger Mann		Jim Ruff
JunJie Wu		Laura Robinson
Noelwah Netusil		

1. *Greetings and Introductions.*

Chair Terry Morlan welcomed everyone to today's meeting of the Independent Economic Analysis Board, held April 16, 2015. This was an in-person meeting at the Council offices. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Tony Grover at 503-222-5161.

The minutes from the IEAB's January 15, 2015 meeting were amended and approved.

2. *Working Session on Task 211.*

Morlan said that, by the end of today's meeting, he hoped to have a pretty good idea of how the IEAB will move forward on this task. He said he had distributed an outline of progress and discussion to date prior to today's meeting, and asked whether the other members had had an opportunity to look at it so far. Most of this is fundamental background information for the report, Mann said; I have done a little work on cost forecasting, which shows that, other than the current process, with the exception of settlement agreements, most cost forecasts focus on a two-year period. There has never been much incentive to do more long-term forecasts, said Mann, adding that he had had an opportunity to do some of the background work on screens and diversions.

One question: how much detail do we want to go into on these cost categories? Mann asked. There are a lot of other categories we could cover, especially on the reimbursable

side, he said. The Fish Screening Oversight Committee has been pulling together information on expected O&M costs for these facilities, he said, which may be useful, as may be the information in Pisces, which includes some historical cost share data.

Mann suggested that it may not make sense for the IEAB to devote significant time to developing this information, if the Fish Screening Oversight Committee and Council staff are already light years ahead in estimating future O&M costs. Fritsch noted that this information is still being developed and suggested that, if the IEAB has specific questions, now would be the time to pose them to the FSOC.

Morlan suggested that the IEAB put together a proposed approach regarding the type of O&M cost and asset information needed for budgetary and planning purposes. One question is how much we want to approach empirical work on our various cost categories, and how much we want to rely on the work of Council staff, said Mann. We need to know the extent to which the information is or will be there, and how much research and analysis we'll need to do to fill in any blanks. We just need to get a baseline regarding the quality of the information that's available now, in order to know what information needs to be developed in the future, Mann said. Grover noted that he has taken a preliminary stab, reflected in the spreadsheet he distributed prior to today's meeting. At least based on the information I was able to find, there's still a lot of work to be done, Grover noted – most of the currently-available information on O&M costs is highly-criticized, and far short of what we need to develop an accurate baseline. Jaeger suggested that the most logical approach would be for the IEAB to identify the information needed, and work with project managers to develop and provide this information in the future.

Fritsch then led the group through an O&M presentation he had recently provided to the Council, noting that fish and wildlife restoration efforts have been ongoing in the basin for 35 years. We have made major capital investments in fish passage facilities, hatcheries, land acquisitions and other measures, in that time, he said; each state does things a little differently when it comes to O&M. In some cases, these facilities have been well-maintained; in others, this is not necessarily the case. He noted that, for the most part, O&M budgets have been flat-lined over the past six fiscal years; the tightness of O&M budgets is starting to catch up to some of these facilities. Fritsch noted that one \$35,000 gantry-painting project in the Yakima Basin, initially identified in 2007, was only recently accomplished.

Fritsch said the cost categories identified by the O&M Subcommittee are screens, diversions, hatcheries, traps, and land. Fritsch noted that the hatchery category is interesting, because there are hatcheries that represent significant capital investments for the Fish & Wildlife Program, such as the Nez Perce and Cle Elum Tribal Hatcheries, and others, such as the Select Area Fisheries facilities, that are essentially rented

facilities. We could use some guidance from the IEAB regarding how to address O&M cost forecasting at the different types of hatchery facilities, he said.

The group discussed O&M costs related to water acquisitions and monitoring and evaluation – screw traps, wands, electronic equipment. It was agreed that this is an outstanding question about which little is known, at this point. At the moment we’re focused on the big-ticket items, Grover observed; I can foresee a sequenced approach to this task, in which we might look at equipment-related O&M in a future iteration of this task. Jaeger noted that there might be some value to the Council in capturing measures for which little or no O&M is required, such as in-stream water rights acquisitions.

The discussion moved on to fish screens; Mann noted that BPA-funded screens are only a small percentage of the total number of screens in the basin. Fritsch observed that screens were among the earliest and most important projects in the basin, preventing anadromous fish from being pumped out into the fields in Idaho, Oregon and Washington. He noted that only 1.9 percent of anadromous outmigrants are now being lost in the Lemhi Basin, down from more than 70 percent before these diversions were screened. In the Lemhi Basin alone, Idaho has 12 full-time employees and 29 temporary employees responsible for screen maintenance. Grover noted that a major component of the value of these projects is unquantified protection from ESA liability.

Fritsch noted that screening projects are complex, from an engineering and O&M perspective, because every site is unique, and maintenance needs vary significantly by location, season, flow and other variables. It’s very important not to underestimate O&M needs, he said. The underlying principal of these facilities is no contact, no impingement, no delay; if they are not properly maintained, and debris accumulates, that’s when problems occur, both for fish and, potentially, adjacent landowners. Grover noted that the Oregon state auditor’s report recommends elimination of state funding for screen maintenance in order to reduce a forecast \$32 million funding deficit, raising the question, who is going to pay for this work in the future? It was noted that the large irrigation districts are logical sources of funding for this work, since they receive the ESA-related liability benefits; however, the additional financial aid needed by “mom and pop” diversions also adds up over time.

Fritsch then moved on to hatchery maintenance. Grover noted that Mitchell Act funding, an appropriation, has been trending downward since the 1990s. Fritsch observed that hatchery funding is something of a “shell game,” and suggested that it may be beneficial for the IEAB to develop a thorough understanding of the various sources of hatchery funding before making its recommendations.

The group discussed the recent trend toward flat-lined O&M budgets, and the fact that it is probably unrealistic for BPA to expect to derive the same benefit, year after year, if O&M funding remains static. Morlan observed that there is an expectation that this

analysis will reduce regional O&M costs in the years to come. However, how realistic is that if budgets are already flat-lined? he asked.

The group discussed the importance of developing a system that can accurately capture and categorize O&M cost information as the first step in this analysis. Jaeger agreed, noting that the purpose of this analysis, at least initially, is not to revise the O&M prioritization process. It is to accurately quantify current and future O&M costs, in the various categories we ultimately identify. Better information on the cost side will help inform the currently-imperfect prioritization process, he said. First we need to understand how much O&M funding we need, by state, Wu observed. Most of these investments have already been made – how much is it going to cost to maintain them in the future?

Mann agreed, noting that there is also an opportunity to change the project proposal process so that future proponents are required to consider forecast O&M costs. Information about up-front costs vs. future O&M costs will help the region make informed decisions between competing projects, he said. True, but how the region can most effectively fund the ongoing O&M costs of the existing portfolio of projects is the most important question this analysis needs to answer, Wu observed.

After a few minutes of additional discussion, Grover observed that what he is hearing is that the IEAB sees a need to stimulate a culture change, in which these long-term costs are factored into the debate over which projects to fund, and the region develops a clear understanding of the magnitude of future O&M funding required. Then the question becomes, who would make those prioritization decisions, Netusil observed – the Council? We wouldn't do it in a vacuum, Grover replied – we would do it in collaboration with the fish and wildlife managers in the region.

Mann observed that another factor at work in this analysis is capital replacement – facilities will need to be replaced due to regulatory obsolescence, mechanical breakdown etc. Many of these screens are 20 years old or more, and will eventually need to be replaced. To me, he said, that's the real opportunity to apply what we learn through this analysis. You hit it right on the head -- if lamprey becomes the next listed species, that will be an opportunity to do it smartly, as many of the mainstem screening projects will need to be replaced, Grover noted. It could be a real opportunity to replace these facilities with equipment that might cost a little more up-front, but a lot less to maintain over time.

Morlan observed that the group should be able to make progress on defining the O&M cost categories, provide some idea of the kinds of questions that need to be asked to sort through the various project types, then provide good examples of how analysis of those costs could be used to guide future decision-making. I can see this task doing that

within the existing scope, he said. There was general agreement that this is a good starting-point for this analysis.

The discussion then moved on to the outline Morlan distributed prior to today's meeting. He noted that Jaeger had volunteered to help flesh out the cost categories. The group discussed ongoing projects that might help inform the IEAB's analysis, such as BPA's Asset Management Strategy and the Oregon Watershed Enhancement Board's O&M strategy. Ruff noted that the Corps of Engineers' Northwest District finally got a line-item specifically for O&M; however, at an annual appropriation of only \$5 million, it isn't enough to cover all of the district's O&M needs. It was noted that private entities such as the Mid-Columbia PUDs and the Nature Conservancy might also be useful sources of O&M information.

Jaeger noted that the available time he has to work on this task is somewhat limited until June. Morlan said he should be able to assist Jaeger over the next several months.

The discussion then moved on to potential modifications to the project proposal process. Mann said he has done some work on this topic, and suggested adding a field for "Long-term outlook and cost" to the proposal form. He said he has also given some thought to the decision tree that will ultimately be included in this analysis. The group also discussed the logistics and feasibility of a standalone survey of existing projects with O&M requirements, which could be sent out under a letter from the Council.

Grover noted that another meeting of the Fish Screening Oversight Committee is scheduled for later this month. Mann said he had downloaded their spreadsheet, which appears to include some useful information regarding annual O&M costs. Grover noted that the spreadsheet will need to be significantly refined; he suggested that Mann work with Fritsch to interface with the Fish Screening Oversight Committee.

With respect to the decision tree, Morlan cautioned that limiting it to three branches might impose an overly restrictive structure. I would prefer that this analysis have the flexibility to look at any type of project, and not just screens, hatcheries, and land projects, he said. Mann suggested that a methodology section, explaining basic methods of long-term cost calculation, might be useful. That's second nature for us, but the people who will be providing this information are not economists, he observed.

The group discussed the concept of "in perpetuity" projects such as land purchases and fishways. In response to a question, Morlan said that, from an economic standpoint, "in perpetuity" can be effectively defined as any project expected to last 50 years or more. The discussion then turned to the challenges associated with collecting the data the IEAB will need to produce an accurate and robust analysis; there was general agreement that a baseline approach, based on recent history, may be the most useful.

Jaeger suggested that it may be useful for the group to produce a typical O&M example for each major project type – these are typical O&M costs for projects of this type, these are the costs that need to be factored in, and if you anticipate that the costs for your project will be significantly higher or lower than the costs shown here, please justify them. A template, in other words, he said. There was general agreement that this may be a useful approach.

The group discussed the feasibility of asking BPA to establish a long-term O&M trust fund, either at the project level or the regional level. The question is, who has a long-term interest in addressing this issue? Jaeger said. The Council does, Fritsch replied. The Power Act calls for long-term mitigation of the effects of the hydrosystem on anadromous fish and wildlife. In theory, BPA does as well, but may not have the culture required to sustain that commitment,” Grover observed.

The point of this exercise is that we don’t want O&M to eat our lunch, and steal our future, when it comes to future mitigation opportunities, Grover said. To me, that’s the point of this analysis. Fritsch suggested that even a relatively small endowment – say, \$3 million per year – that could be used on a prioritized basis for screen-related O&M projects, such as gantry repainting, that would be hugely beneficial in terms of avoiding catastrophic replacement costs down the road.

Mann noted that how the decision tree might be used is an outstanding question. It was agreed that the survey letter will go out from the Council, as the survey sponsor. Who will then analyze the data we get back from the surveys? Mann asked. We’ll need to talk about that further, Grover replied. Ideally it will be captured in Pisces, at a minimum, Grover replied; there is probably a role for Council staff to capture and organize that data. I think that information could be interesting to a broad cross-section of people, Grover added.

3. Cost Savings and Future Projects Review.

This topic was not discussed at today’s meeting.

4. Briefing on the Reintroduction Process.

Robinson provided an overview of the Council’s feasibility study of anadromous fish mitigation in blocked areas, noting that various reintroduction projects are expected to be proposed, perhaps by as soon as the end of this year. Reintroduction is being considered above Grand Coulee and Chief Joseph Dams, as well as other blocked areas in the Columbia Basin. A coalition of 15 tribes, states and federal fishery agencies has called on the Council to increase the focus on reintroduction in its Fish and Wildlife

Plan. The Council is exploring the economic, cultural, and logistical aspects of this issue, in an effort to assess its overall feasibility.

The Council is calling for a three-phase, science-based approach to reintroduction above Chief Joseph and Grand Coulee Dams. Phase 1 is feasibility study, phased two is designing and testing reintroduction strategies, and phase 3 would be funding and implementation of the strategy selected. It's a big item for the Council, Robinson said.

Robinson noted that the UCU tribes have produced a reintroduction work plan, which is expected to result in project proposals at some point in the future. One of the key questions is the donor stock, Ruff observed; the thinking at this point is to use a non-listed donor stock, to avoid ESA-related take issues. Robinson noted that a new technology, based on the vacuum tubes similar to those used at banks and department stores, is showing some promise as a potential means of safely passing fish at these dams at a lower cost than traditional passage facilities.

What's the IEAB's role in all of this? Grover asked. There are an enormous number of studies that need to be done before a go/no go decision can be made; it's possible that the IEAB may be asked to weigh in on some of the economic aspects of this potential strategy which is, to put it mildly, politically sensitive. In response to a question from Mann, Grover said there are 150 miles of habitat between Grand Coulee and the Canadian border.

Ultimately, it was agreed that Robinson will provide further updates as more information becomes available. There's a great deal of interest in this topic, up to the Congressional level, Grover noted – fair warning that this issue may be just over the horizon.

5. *Next IEAB Meeting Date.*

The next meeting of the Independent Economic Analysis Board was set for July 29 (a conference call). Meeting summary prepared by Jeff Kuechle, NWPPC contractor.

Certified by: Signed T.Morlan/July 29, 2015