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## What the ELA Tells Us About Alberta's New Monitoring Agency

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**Developments commented on:** [Government of Canada announces that a new operator for the Experimental Lakes Area has been secured](#); [Appointment of Chair and Vice-Chair of Alberta's Environmental Monitoring, Evaluation and Reporting Agency's Board](#)

This past Tuesday, the Canadian and Ontario governments, together with the Winnipeg-based [International Institute for Sustainable Development](#) (IISD) announced that an agreement had been reached to transfer responsibility for the [Experimental Lakes Area](#) (ELA) from the federal Department of Fisheries and Oceans (DFO) to the IISD. Many readers will know that the ELA is the world-renowned research facility located in [northern Ontario](#) where since 1968 freshwater ecologists and other scientists have conducted numerous important and unique whole-lake experiments, including one by a then-recent Rhodes Scholar named [David Schindler](#) that resulted in the phasing out of phosphorus additives in cleaning products. These same readers will also likely know that DFO's funding for the ELA, a whopping \$2 million per year, was cut as part of the (in)famous 2012 federal budget (which also took an axe to the [National Roundtable on the Environment and Economy](#)). What readers might not know, however, is what these events tell us about the potential success of Alberta's new independent monitoring agency, the [Alberta Environmental Monitoring, Evaluation and Reporting Agency](#) (AEMERA).

My colleague Professor Shaun Fluker previously wrote about AEMERA [here](#), wherein he rightly raised concerns about its implementing legislation, and specifically the failure to ensure AEMERA's independence from Cabinet and other line departments (see also [here](#)). This post steps back a bit from the legislative details and focuses instead on some of the institutional challenges and dynamics that AEMERA will face, and in particular those similar to the ones faced by the ELA.

There is actually a burgeoning literature on environmental monitoring in the environmental law scholarship. In one relatively recent article (2011), American law professor Eric Biber observes that there are several features of effective ambient environmental monitoring – precisely the kind of monitoring AEMERA will be carrying out – that make it different from conventional compliance monitoring:

- There is a need to measure environmental variables for an extended period of time (think decades), which requires continuity in both sampling and sampling protocols, and longevity;
- There is a need to ensure that the right kind of data is being collected, which in turn requires considerable technical expertise in choosing the appropriate indicators (i.e. the environmental features, such as population levels of a given species, which can act as proxies for ecosystem status and change). At the same time, this complexity makes it very difficult – if not impossible – for the average person to assess whether a given monitoring program is in fact effective;
- There is a need to ensure adequate funding. The long-term nature of environmental monitoring, coupled with its technicality, means that it is generally very costly to implement. At the most

basic and practical level, continuity and longevity require safe and secure data collection and storage facilities, and systems and personnel to analyze and identify trends.

(Eric Biber, “The Problem of Environmental Monitoring” (2011) 83 U Colo L Rev 1 at 8 – 33)

The remainder of this post will consider each of these features in further detail, drawing on lessons from the ELA. It is worth noting, however, that many of the features were also discussed in the two expert monitoring reports (one [federal](#) and one [provincial](#)) that preceded the creation of the [Canada-Alberta Joint Oil Sands Monitoring Plan](#) (JOSMP) in 2012, and that they can also be used to explain why previous monitoring efforts, such as the [Regional Aquatics Monitoring Program](#) (RAMP), failed. As noted in those reports, there was inconsistency in sampling protocols and insufficient spatial and temporal sampling coverage, while the inherent complexity and opacity of the various programs allowed industry and governments “[to claim for a decade that monitoring was fully under control.](#)”

### **The Need for Continuity and Longevity**

Anyone following events with respect to the ELA would have noted that there was [considerable anxiety](#) preceding Tuesday’s announcement. The main reason for this is that many of the experiments being conducted in the ELA are multi-year projects that, like the monitoring of ambient air, land or water conditions, require continuity of data. A gap of even one month, let alone of a year, can be fatal to the reliability of any results and their interpretation.

The lesson for AEMERA, or perhaps more accurately Albertans, is that there is no such thing as “close enough” when it comes to ambient environmental monitoring. AEMERA will need to ensure that its monitoring activities, whether for air, land or water, are run continuously and with rigor not just this year or the next, but rather *for decades to come*; a gap in monitoring data five or six years down the road could easily lay waste to the preceding five years of robust monitoring, essentially leaving Albertans in the dark as to the state of their environment.

### **Technical Complexity, Obscurity and the Role of Trust**

Many commentators have wondered why, if the ELA was so successful, the Conservative government would choose to terminate its funding in its 2012 budget. While I consider this question further below, it is equally important to ask how, i.e., how did the Conservative government come to the conclusion that it was politically safe to do so.

One answer lies in the relative complexity and obscurity of the ELA. The unfortunate reality is that most Canadians probably still don’t know anything about it, let alone enough to determine whether it is providing a valuable service to society worth voting about. AEMERA runs the risk of suffering a similar fate; anyone who has visited the [Joint Oils Sands Monitoring Portal](#) will know that the data displayed there is largely meaningless to a lay person (see e.g. the [data for enhanced monitoring of total gaseous mercury](#)).

Fortunately, there is one powerful “shortcut” to the question of efficacy (at least), one with which Canadians have considerable experience in other monitoring contexts: trust. As noted by Professor Biber, if we trust the institutions implementing monitoring programs, we can more or less “ignore the ‘technical’ questions of the statistical power, scale and frequency...” (Biber, above at 33). With respect to the Canadian experience, UBC Professor Natasha Affolder has observed that the emergence of several [independent monitoring agencies](#) in the Northwest Territories, in conjunction with the approval of several diamond mines, was driven by “a lack of trust on the part of the local, predominantly First Nations communities, that either government or the project proponent would live up to their commitments.” (Natasha Affolder, “Why Study Large Projects? Environmental Regulation’s Neglected Frontier” (2011) 44:3 UBC L Rev 521 at 549).

It is precisely for this reason that Professor Fluker and the Pembina Institute expressed concerns about

AEMERA's implementing legislation, and why [eyebrows were again raised](#) by the recent announcement of former Environment Minister and Progressive Conservative MLA Dr. Lorne Taylor as its first Chair. While I am personally inclined to give Dr. Taylor the benefit of the doubt, there is very little in AEMERA's institutional and legal structure to instill trust on any objective basis.

### **Costliness: Financial and Political**

As noted above, the ELA's budget was relatively small (\$2 million/year), nowhere near the \$50 million that industry was expected to pay in the initial stages of the JOSMP. Nevertheless, the ELA was axed. One [theory](#) is that no amount was deemed too trivial in the government's quest to balance the budget before the next election, in which case the ELA was just another casualty – no ill-will intended. An alternative theory, however, is that the decision to terminate the ELA was precisely that – a carefully calibrated one intended to stem the flow of bad environmental news, including with respect to the [oil sands](#).

Both possibilities offer a lesson for AEMERA. The first theory, entirely plausible because of the weight given to balanced budgets in electoral politics, suggests that AEMERA's budget – even if supplemented significantly by industry – may never be totally secure, and will be especially vulnerable during leaner economic times. This is why most commentators recommend “dedicated funding streams that are more resistant to political whims” (Biber, above at 55). The second theory is also plausible; there is no shortage of examples of monitoring programs both in Canada and the U.S. that were terminated or weakened because their results were inconvenient to governments or private interests. Without wanting to pre-judge the matter, it is entirely foreseeable that at some point AEMERA will start to deliver some bad news (indeed, to some extent it [already has](#)). At that time, Albertans will have to be vigilant if they don't want it to be weakened or scrapped altogether.

In sum, when considering AEMERA's potential effectiveness there is much that can be learned from the ELA's trials and tribulations. For those readers interested in environmental monitoring – and in the oil sands context specifically – my most recent article, “Environmental Monitoring and Ecosystem Management in the Oil Sands: Spaceship Earth or Escort Tugboat?” is set to be published in the [McGill International Journal of Sustainable Development Law and Policy](#) (JSDLP) next month.

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