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Shell Jackpine JRP Report: Would the Real "Adaptive Management" Please Stand Up?

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Decision commented on:

Shell Canada Energy, Jackpine Mine Expansion Project, Application to Amend Approval 9756, 2013 ABAER 011/Decision 2013-011 (*CEAA, 2012*).

On July 9, 2013, the Joint Review Panel (JRP) for Shell's Jackpine Mine Expansion Project released its long-awaited report (the Jackpine Report). Shell had applied to expand its existing Jackpine Mine, located roughly 70 km north of Fort McMurray, to increase bitumen production by 15,900 m^3/day and bring total production to 47,700 m^3/day. As further discussed below, the JRP concluded that the project, though likely to result in significant adverse environmental effects on several fronts, is nevertheless in the public interest.

New Federal and Provincial Regulatory Regimes

The Jackpine Report is noteworthy for several reasons. As a starting point, it is the first JRP report for an oil sands project issued under new regulatory regimes on both the provincial and federal fronts. The entry into force of Alberta's *Responsible Energy Development Act*, SA 2012, c R-17.3 [*REDA*] on June 17, 2013 repealed the *Energy Resources Conversation Act*, RSA 2000, c E-10 [*ERCA*] and replaced the Energy Resources Conservation Board with the Alberta Energy Regulator (AER) (a list of previous ABlawg posts about *REDA* can be found here). On the federal side, the first of two omnibus budget bills of 2012 repealed the previous *Canadian Environmental Assessment Act*, SC 1992, c 37 [*CEAA, 1992*] and replaced it with the *Canadian Environmental Assessment Act, 2012* SC 2012, c 19 [*CEAA, 2012*]. The Jackpine Report explicitly recognizes this shifting regulatory landscape (at paras 4 – 7) but asserts that the decision takes into account all new and prior responsibilities under the *REDA*, the *ERCA*, the *Oil Sands Conservation Act*, SA 2000, c O-7, and *CEAA, 2012* (at para 8). Whether or not it actually does so may well end up being the subject of litigation.

Significant Adverse Environmental Effects Likely

More substantively, the Jackpine Report is noteworthy because it is the first time that a JRP has concluded clearly and unequivocally that, although still in the public interest (under its authority as the AER), an oil sands project is likely to result in "significant adverse environmental effects" (SAEE) (pursuant to *CEAA, 2012*):

> [9] The Panel finds that the Project would likely have significant adverse environmental effects on wetlands, traditional plant potential areas, wetland-reliant species at risk, migratory birds that are wetland-reliant or species at risk,

> and biodiversity. There is also a lack of proposed mitigation measures that have been proven to be effective. The Panel also concludes that the Project, in combination with other existing, approved, and planned projects, would likely have significant adverse cumulative environmental effects on wetlands; traditional plant potential areas; old-growth forests; wetland-reliant species at risk and migratory birds; old-growth forest reliant species at risk and migratory birds; caribou; biodiversity; and Aboriginal traditional land use (TLU), rights, and culture. Further, there is a lack of proposed mitigation measures that have proven to be effective with respect to identified significant adverse cumulative environmental effects.

Bearing in mind that the Jackpine Report is over three hundred pages, a comprehensive assessment of its findings and conclusions will have to await a later time. At first glance, however, it does appear to continue a recent trend, perhaps best exemplified by the 2011 JRP Report for the Lower Churchill Hydro-Electric project (available here), of increasingly rigorous panel reviews (another example might be the 2010 Prosperity I panel review, available here). In Lower Churchill, as here, the JRP concluded that the project was likely to result in SAEE, forcing the federal cabinet to justify its decision to approve the project (which it did, here). Thus, while some may still not be satisfied with the ultimate result (see, *e.g.* the Pembina Institute's press release), they might at least find some comfort in the fact that the process has served one of its primary purposes, *i.e.*, ensuring public disclosure of the adverse environmental effects associated with resource development, which in turn enables political accountability. The Jackpine JRP's conclusion with respect to Aboriginal traditional land use (TLU) also sets the stage for the final round of Aboriginal consultation related to the project, aspects of which have been discussed by Nigel Bankes in a previous ABlawg post.

Adaptive Management

One area in which the Jackpine Report differs from the Lower Churchill Report, however, is in its treatment of adaptive management (AM), reliance on which has become ubiquitous in the context of major resource development throughout Canada, including in the oil sands (for two previous examples, see the JRP reports for Total's Joslyn North and Imperial Oil's Kearl projects). Indeed, in the litigation that followed the release of the Kearl JRP Report, AM was described as a "guiding tenet" in the interpretation of *CEAA, 1992* (see *Pembina Institute for Appropriate Development v. Canada (Attorney General)* (2008), 323 FTR 297 at para 33 [*Pembina*]).

First coined by Canadian ecologist Carl "Buzz" Holling, AM can be described as an experimental approach to resource management that acknowledges the inherent uncertainty characteristic of many human-ecosystem interactions. The goal of AM is to reduce this uncertainty by learning, which is made possible through careful experimental design, implementation, monitoring and analysis. In what is a classic example, there might be uncertainty as to the maximum sustainable yield of a fishery. This uncertainty can be reduced by implementing various catch regimes over time as *in situ* experiments, monitoring the results and learning from them. Importantly, especially where AM is being invoked in the context of project mitigation, reducing uncertainty and learning are not the same as reducing or mitigating adverse environmental effects. Provided that it is rigorously implemented, AM will always "resolve uncertainties" (to borrow the words of the Federal Court in *Pembina*, *supra*, at para. 60) and allow for learning because managers will have acquired new information. However, what they learn may be that none of their proposed actions or mitigation measures are effective, such that

adverse environmental effects, including potentially significant ones, may well result. Simply put, reliance on AM is not a guarantee or warranty of successful environmental outcomes in the mitigation context.

Numerous scholars have written about AM in the past decade, both in Canada and in the United States (the white paper *Making Good Use of AM* provides a good overview of the various issues). When one considers the totality of the scholarship, the general impression is that AM is largely being misused and even abused. From a legal perspective, two of the most significant deficiencies are inappropriate use and enforceability.

The first is a matter of statutory interpretation. Under the U.S. *Endangered Species Act*, 16 USC §1531, for example, federal agencies have occasionally relied on AM to satisfy themselves that the issuance of an "incidental take permit" will not jeopardize the continued existence of a listed species. Reliance on AM is arguably inappropriate in this statutory context because its very invocation implies uncertainty, whereas the statutory standard is a higher one (*Making Good Use of AM*, *supra* at p 6). Similarly, several Canadian commentators have suggested that it is inappropriate to rely on AM when determining whether a project is likely to result in SAEE under the *CEAA* (see *e.g.* Professor Arlene Kwasniak, "Use and Abuse of Adaptive Management in Environmental Assessment Law and Practice: A Canadian Example and General Lessons," (2010) *12* Journal of Environmental Assessment Policy and Management 425), a position that is arguably now stronger given that Parliament did not carry over to *CEAA, 2012* the singular reference to AM from *CEAA, 1992* (in subs. 38(5)). It is also worth nothing that the Lower Churchill JRP, while still advocating for its use, concluded that "[AM], unlike mitigation, cannot reduce an otherwise significant effect" (Lower Churchill Report, *supra* at p 14).

As used here, the term "enforceability" is intended to capture a range of inter-related issues, including misconceptions of what AM is and what it requires (amounting to "trial and error" or *ad hoc* contingency planning as opposed to a rigorous scientific process), and a corresponding failure by regulators to ensure that AM plans or strategies (including objectives, indicators for measuring progress towards those objectives, and thresholds for triggering alternative measures) are included in authorizations and permits. Coupled with the administrative law principles of certainty and finality in governmental decision-making, a failure to include clear conditions with respect to AM could thwart a regulator's ability to ensure that AM is actually carried out. Clearly alive to these issues, the Lower Churchill JRP set out explicitly its view of what AM requires and recommended that any AM strategies be included in an overarching authorizing regulation for the project (see Lower Churchill Report, *supra*, Recommendations 15.7 and 15.1 respectively).

Returning to the Jackpine Report, there are at least 5 different contexts in which AM is invoked, including air quality (para 278), climate change considerations (paras 318 and 324), end-pit lake (EPL) remediation (paras 432 – 462), surface water quality (para 489), and loss of fish habitat (paras 547 and 552). Considered in total, these passages suggest an erroneous view of AM as a guarantee of effective mitigation, a kind of panacea for all environmental problems.

The discussion and conclusion regarding EPLs are illustrative. According to Shell, AM "is not about having fully developed lists of alternatives at all times; it is about having a plan that can be delivered and a way of tracking and measuring progress towards the company's objectives" (at para 433). For its part, the Oil Sands Environmental Coalition (OSEC) argued that "[AM] has proven to be a failure" and that it is not "the answer" where there is potential for SAEE (at para

437). (See also para 1366 for concerns expressed by the Athabasca Chipewyan First Nation that AM "is often no more than a general commitment to do something if it becomes necessary").

Unfortunately, while acknowledging "interested parties' concerns" about AM (at para 456), the JRP never squarely addresses them, but rather simply endorses AM's application and concludes that, "with the implementation of Shell's proposed mitigation measures and commitments and with the Panel's requirements, expectations, and recommendations, it is unlikely that significant environmental effects would result from the use of…EPLs" (at para 462).

That being said, it does appear that the Jackpine JRP was at least alive to the issues surrounding enforceability, and for this aspect alone its report is a significant improvement on previous ones in the oil sands context. Recommendations 4, 11, and 20 are illustrative:

> 4. ...that the Governments of Canada and Alberta ensure that Shell monitors environmental changes that result from climate change and undertakes adaptive management, as required... (Change to the Project Caused by the Environment)
>
> 11. ...that ESRD include in any EPEA approval a requirement for Shell to report on adverse effects identified through monitoring and the corresponding mitigation measures implemented by Shell in accordance with its adaptive management plans. (Use of End Pit Lakes)
>
> 20. ...that the Government of Canada provide specific benchmarks or thresholds for assessing significant effects to individual target fish species and...that the Government of Canada ensure Shell incorporates these benchmarks or thresholds into its proposed adaptive management strategy. (No Net Loss Plan)
>
> (Emphasis added)

These recommendations – and the references to "benchmarks or thresholds" in particular – suggest that the JRP does not consider AM to be simply "trial and error" but rather a rigorous scientific process that requires the setting of objectives, indicators, thresholds, monitoring etc. This is perhaps to be expected, bearing in mind that the environmental management frameworks for air and surface water quality contained in the *Lower Athabasca Regional Plan* (*LARP*), considered by the JRP throughout its report, have many of the hallmarks of an effective AM regime. Whatever the case, these recommendations should address some of the concerns related to enforceability and accountability with respect to AM.

Conclusion

Ultimately, that the Jackpine JRP appears to have misconstrued what AM can and cannot accomplish may be of little practical consequence in this particular instance. The finding of numerous SAEEs means that the federal government is already in a justification scenario pursuant to s 52(4) of *CEAA, 2012*, and it is likely that whatever justification it provides (no doubt similar to that provided by the JRP in its capacity as AER at para 18, which is to say an economic one) would be little affected by the addition of one or two more SAEEs, *e.g.* with respect to EPLs. Opposing parties may be able to secure some delay but, as the events surrounding the *Pembina* litigation demonstrated, JRPs are quite capable of quickly correcting any deficiencies in their reports (in that case, the Panel took roughly two months to issue the necessary addendum).

More generally, however, misconceptions about what AM means undermine what I suggested above is one of the primary purposes of the environmental assessment process, namely, enabling political accountability through the full disclosure of adverse environmental effects. As the Jackpine Report stands, elected officials (and their delegates) could not be faulted for believing – based on what is supposed to be expert advice (see *Pembina, supra* at para 75) – that EPLs are not likely to pose an environmental threat, when in fact their remediation is currently the subject of a grand experiment, the results of which cannot be known with any certainty.