

CAC Exhibit \_\_\_\_\_

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(Commission Secretary)

**Supporting Material to the Oral Evidence of Dr. Gunn and Dr. Noble:**

C.V. Excerpts and Excerpt from Gunn and Nobler, *Conceptual and methodological challenges to integrating SEA and cumulative effects assessment*

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November 12, 2013

## **Dr. Bram Noble - Short Statement of Qualifications**

### **SPECIALIZATIONS**

- Environmental assessment: cumulative effects, strategic environmental assessment;

### **ACADEMIC CREDENTIALS**

- Ph.D., Memorial University, 2002, Environmental Assessment;

### **CURRENT APPOINTMENTS**

- Professor, Environmental Assessment, Department of Geography & Planning, School of Environment and Sustainability, University of Saskatchewan;
- Associate Editor, Journal of Environmental Assessment Policy and Management, Editorial Board Member, Environmental Impact Assessment Review as well as Impact Assessment and Project Appraisal, 2007 – Current;

### **SELECTED PUBLICATIONS:**

- Noble, B.F. 2010. Introduction to Environmental Impact Assessment: Guide to Principles and Practice, 2nd edition. Toronto: Oxford University Press. 274 Pgs;
- Noble, B.F. 2012. Cumulative environmental effects: thinking beyond the project in environmental assessment. Guest Statement, in P. Dearden and B. Mitchell Environmental Change and Challenge: A Canadian Perspective, 4th Edition. Oxford University Press.
- Sheelanere, P., Noble, B.F, and Patrick, R. 2013. Institutional requirements for watershed cumulative effects assessment and management: lessons from a Canadian trans-boundary watershed. Land Use Policy, 30, 67-75.
- Ball, M., Noble, B.F., and Dube, M. 2012. Valued ecosystem components for watershed cumulative effects: an analysis of environmental impact assessments in the South Saskatchewan watershed, Canada. Integrated Environmental Assessment and Management. Accepted for publication.

- Seitz, N.E., Westbrook, C.J., and Noble, B.F. 2011. Bringing science into river systems cumulative effects assessment practice. *Environmental Impact Assessment Review*, 31: 180-186.
- Gunn, J. and Noble, B.F. 2011. Conceptual and Methodological Challenges to Integrating SEA and Cumulative Effects Assessment. *Environmental Impact Assessment Review*, 31: 154-160.

## **SELECTED REPORTS TO GOVERNMENT AND INDUSTRY**

- Review for Aboriginal Affairs and Northern Development Canada on cumulative effects assessment frameworks and practices (2013)
- Expert witness – Fort Nelson First Nation on the cumulative effects of a water license for Nexen (2013)
- Expert witness before the Manitoba Clean Environment Commission in the Bipole III hearing (2012)
- Noble, B.F. and Harriman, J. 2008. Strengthening the Foundation for Regional Scale Strategic Environmental Assessment in Canada. Research report prepared for the Canadian Council of Ministers of Environment Environmental Assessment Task Group under contract agreement.
- Scientific Advisory Committee 2007. Great Sand Hills Regional Environmental Study. Canada Plains Research Centre. 229 pp.
- Aura Environmental Research and Consulting Ltd. 2007. Lower Churchill Hydroelectric Generation Project: Community Health Baseline Study. Prepared Minaskuat Limited Partnership-Jacques Whitford. St. John's, NL.
- Noble, B.F. 2006. Screening for Significance in Saskatchewan Environmental Assessment. Regina, SK: Saskatchewan Environment, Environmental Assessment Branch RE0544.

## **CURRENT PROJECTS**

- Consultant on the development of a cumulative effects framework for the Elk Valley, BC (Teck Coal & Swanson Environmental Services)
- Consultant to the BC Auditor on cumulative effects practice for an upcoming provincial performance audit

## **Dr. Jill Gunn - Short Statement of Qualifications**

### **SPECIALIZATIONS**

- Environmental assessment: cumulative effects, strategic environmental assessment;

### **ACADEMIC CREDENTIALS**

2009 Doctor of Philosophy (Environmental Assessment) (U of S)

### **RESEARCH GRANTS AND CONTRACTS**

- Noble, B. (PI), Jaeger, J. (Co-I), Gunn, J. (Co-I). "Speak No Evil, Hear No Evil? Uncertainty Analysis and Communication in Canadian Environmental Impact Assessment Practice and Decision Making." \$292,000, Insight Grant, Social Sciences and Humanities Research Council of Canada, 2012-2016.
- Gunn, J. (PI). 'Are All Effects Cumulative?' \$63,044, Insight Development Grant, Social Sciences and Humanities Research Council of Canada, 2011-2013.

### **PUBLICATIONS**

- Gunn, J. 2010. Integrating Strategic Environmental Assessment and Cumulative Effects Assessment in Canada. Saskatoon: University of Saskatchewan, 187 pp. (Ph.D. Thesis)
- Harriman, J. 2000. Toward a Conceptual Framework for Integrated Resource Management on Electric Utility Transmission Rights-of-Way. Prince George: University of Northern British Columbia, 312 pp. (M.A. Thesis)
- Noble, B. and Gunn J. 2010. "Regional strategic environmental assessment for integrated land management." *Horizons*, 10(4): 106-112.
- Noble, B. and Harriman Gunn, J. 2009. "Chapter 6: strategic environmental assessment." In K. Hanna (ed.) *Environmental Impact Assessment: Practice and Participation*, 2nd ed. Don Mills, ON: Oxford University Press.
- Gunn, J. and B. Noble. 2009. "A conceptual basis and methodological

framework for regional strategic environmental assessment (R-SEA).” *Impact Assessment and Project Appraisal*, 27(4): 258-270. Nominated for “Paper of the Year 2009-10” by the International Association for Impact Assessment.

- Harriman, J. and B. Noble 2008. Characterizing project and strategic approaches to regional cumulative effects assessment in Canada. *Journal of Environmental Assessment Policy & Management*, 10(1): 25-50.
- Harriman, J. and D. Baker 2003. Applying integrated resource and environmental management to transmission right-of-way maintenance. *Journal of Environmental Planning and Management*, 46(2): 199-218.
- Harriman, J. 1998. Wildlife Habitat Management on British Columbia Hydro’s Northern Transmission Rights-of-Way. Research report prepared for BC Hydro under contract agreement. Prince George: BC Hydro, 182 pp.

## **SELECTED REPORTS TO GOVERNMENT AND INDUSTRY**

- Consultant on cumulative effects scoping practices for Pape Salter Teillet LLP Barristers and Solicitors concerning the Bruce Nuclear Fuel Waste Deep Geological Disposal project (2013)
- Expert witness before the Manitoba Clean Environment Commission in the Bipole III hearing (2012)
- Bronson, J., B. Noble, and J. Gunn. 2009. Strategic Environmental Assessment Toolkit and Methodological Guidance. Research report prepared for the Canadian Environmental Assessment Agency under contract agreement. CEAA: Ottawa, ON.
- Noble, B. and J. Harriman. 2008. Regional strategic environmental assessment (R-SEA): methodological guidance and good practice. Research report prepared for the Canadian Council of Ministers of Environment Environmental Assessment Task Group under contract agreement with Alberta Environment. Ottawa, ON.

## Excerpt

The very notion of a cumulative effect is predicated on the idea that the complex nature of environmental systems precludes a reductionist approach. Yet, as one interviewee explained, speaking to an example of interdependence in an ecological system, we still tend to frame CEA problems in this matter:

What we tend to do is list the species that are there, and . . . say here are the effects on the individual species. And we don't look at them as an ecosystem of interdependent parts where one thing will ripple through the system. (A)t the project level and any other level, you need to have it looked at as a system – because that's (the interconnected system) what the effects will be received by, translated by, magnified by and so forth.

Gunn, Noble, *Conceptual and methodological challenges to integrating SEA and cumulative effects assessment*, Environmental Impact Assessment Review 31 (2011) 154 – 160, p. 156.

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