

Indian & Northern Affairs Canada [INAC]

Detailed Comments on the Integration of the Policies, Conditions & Prohibitions from the Great Bear Lake Watershed Management Plan with the Draft Sahtu Land Use Plan

December 18th, 2009

Introduction:

Pursuant to the Department's previous submission of General Comments on November 24th regarding this topic, the following are more detailed comments organized by the key section and sub-sections of Chapter 4 of the Great Bear Lake Watershed Management Plan [GBLWMP]. Similar comments would apply to Chapter 5.

Section 4.5 POLICIES, CONDITIONS AND PROHIBITIONS:

It is important for the Sahtu Land Use Planning Board and the Parties to be aware of the following:

First: The authority to issue Land Use Permits and Water Licences in the Sahtu Settlement Area lies with the Sahtu Land and Water Board [SLWB], not INAC. INAC inspectors undertake compliance, based on the terms and conditions set by the aforementioned authorizations. As a general rule, no clean-up deposits have been required by Permits to date; however, this would likely depend on the type and scope of the operation involved. To the Department's knowledge, these deposits have not been requested, although the ability to do so exists under the MVRMA. The Sahtu Land Use Planning Board [the Board] should confirm with the SLWB whether they require deposits or not.

Second: INAC Land Administration is responsible for the issuance of surface leases, rights-of-way, and easements. Leases are only ever issued by the land owner. In this process, should an environmental assessment stipulate the need for reclamation and/or remediation security for a site, then a deposit would be held by INAC. The amount of security would be based on the scope of the operation, and stipulated in the lease covenants. The lease covenants would further identify the rules the lessee must abide by and INAC inspectors would ensure compliance of these.

Third: If an environmental assessment of a site was completed prior to the issuance of a lease or permit, then the information from this EA would in turn be utilized in determining what the covenants for a land use permit or lease would be. If no environmental assessment was done, then it is dependant on the purpose of the lease/permit to identify what covenants would be used. There is a standard set of covenants which are used in surface leases, as identified by Land Administration's legal team, and these are applied to every lease.

Fourth: The SLWB have a standard set of terms and conditions for Land Use Permits and Water Licences, as when INAC was responsible for issuing the permits, and these terms and conditions may change over time. **It is therefore recommended that the Board contact the SLWB to obtain the latest terms and conditions.**

Fifth: It should be noted that Land Administration’s policies have changed over the past few years with regards to the review process by the Mining Recorder's Office [MRO] for the issuance of Prospecting Permits; INAC does consult and request information from the Sahtu before issuing any Prospecting Permits in their area. This request for information is sent out to the pertinent District Corporation, along with SSI. However, the time-line for responses to these requests is extremely short [approximately 2-3 weeks] as prescribed in legislation. This is being changed in the next version of the Northwest Territories and Nunavut Mining Regulations.

Section 4.5.2 Policies:

- a. The term “ecological integrity” needs to be defined in terms that are measurable and enforceable. Given the interpretation in “Maintaining Ecological Integrity in Great Bear Lake and its Watershed” [Nesbitt and Nesbitt 2009]: “Ecological integrity refers to the maintenance of the ecological functions of natural systems, and their long-term persistence *without significant change to the ecosystem.*” Ecological integrity is further defined as *ecosystem health*, or the *natural condition* of an ecosystem. “Protecting ecological integrity means maintaining and protecting the various elements of an ecosystem such that the interactions between the abiotic and biotic elements of an ecosystem are *not disrupted*. An ecosystem that exhibits ecological integrity is able to recover from disturbance and return to a state that is “normal” for that ecosystem type” [italics added].

Further, it remains unclear how to assess, report on, and evaluate “significant change”. If the interactions between elements are not to be disrupted, does this allow any possibility for development? If the natural condition of an ecosystem changes, does it necessarily mean that it is unhealthy? For example, Niven Lake in Yellowknife was used as a sewage lagoon in the earlier days of the City. The addition of nitrogen and phosphorus to the Lake allowed for increased plant growth, which in turn allowed increased growth in biota further up the food chain; it is now the most productive Lake in the area. This Lake has arguably undergone significant change, and does not reflect its original natural condition, but is it unhealthy?

The paper mentioned above goes on to recommend that assessment of ecological integrity be done on a case-by-case basis, essentially developing site-specific plans for each proposed development. The plans would include the identification of specific objectives for maintaining ecological integrity at each site. INAC will provide further comments on the use of this concept in land use planning at a later date.

However, to use the term “ecological integrity” in a policy statement without supporting conditions leaves it open to interpretation. Would it be possible to add something to the effect that ecological integrity needs to be defined on a case-by-case basis?

Finally, mining companies are fully aware of the requirement to minimize their footprint on the environment. Should they be told they have to maintain the

ecological and cultural integrity of the GBLW, they are going to ask for specific guidelines i.e. “when encountering ‘X’, the proponent must ‘Y’”. Given that there are many layers of legislation already existing in the Northwest Territories, some companies are being discouraged from working in the North, so clear and consistent instructions that make sense are needed.

- b.** Same sentiments as above re ecological integrity. Also, who enforces this? In order for proponents to understand and demonstrate to the appropriate authorities that all aspects of their activities are consistent with the maintenance of the ecological and cultural integrity of the GBLW, the Board should work with the SLWB to come up with a list of “conditions” that could be included in the land use permits and/or water licences for proponent activities if they are not already in the existing covenants. This would also help the INAC Inspectors when it comes to verifying that the proponent is indeed attempting to maintain the ecological and cultural integrity.
- c.** As the holders of traditional knowledge in the area, the community of Deline would be in the best position to maintain these records. Deline knows the Lake, the habitat, and are the keepers of the Lake and the land. Part of this responsibility could include maintaining a central database of “best available scientific and traditional knowledge” via the Deline Knowledge Centre. Also, if this policy could not be enforced, the Department suggests changing “must” to “should”. Re the last sentence, perhaps in a broader context, the traditional knowledge beyond a specific site development could be relevant.

Section 4.5.3 CONDITIONS:

- a.permits, licences and other authorizations.....**
 - i.** This would be a good opportunity for the Board to indicate what a site-specific research and monitoring program should look like, and again, it all hinges on the definition of ecological integrity. The best way to ensure standard reporting on behalf of all of the proponents is if they are given a standard template that could be scaled to the size of their activities.
 - ii.** Any development will cause some change from the “natural condition”, and the best restoration plans are unlikely to be able to restore the area to where it was before. Equating change with “bad” is unfortunate when it comes to the environment.
 - iii.** Re security, see comments above.
- b.** Would this be enforced through the SLWB’s terms and conditions in a land use permit and water licenses?
- c.** Who decides what a negative effect is? Is any change negative by definition?
- f.** Parts i through iv – responsibility of other organizations to comment.

Section 4.5.4 PROHIBITIONS

- a. Bulk water removal – should be acceptable, provided clarification in the footnote is included.
- b. Again, hinges on definition of ecological integrity.
- c. Another way of saying this is, it's OK to deposit wastes in the water as long as the concentration is sufficiently diluted by the time it gets to GBL.
- g. Responsibility of other organizations to comment.
- h. Looks straight-forward, but partly the responsibility of other organizations to comment.

In summary, the Department believes that a comprehensive definition or description of “ecological integrity” should be included in the document. This should eliminate some of the current ambiguity in the document.

In this regard, included herein is a portion of the Wikipedia reference on **Ecological health**:

“Measures of ecological health, like measures of the more specific principle of [biodiversity](#), tend to be specific to an [ecoregion](#) or even to an [ecosystem](#). Measures that depend on [biodiversity](#) are valid indicators of ecological health as stability and productivity (good indicators of ecological health) are two [ecological effects of biodiversity](#). Dependencies between species vary so much as to be difficult to express abstractly. However, there are a few universal symptoms of poor health or damage to system integrity:

- The buildup of [waste](#) material and the proliferation of simpler life forms ([bacteria](#), [insects](#)) that thrive on it - but no consequent population growth in those species that normally prey on them;
- The loss of [keystone species](#), often a top [predator](#), causing smaller [carnivores](#) to proliferate, very often overstressing [herbivore](#) populations;
- A higher rate of species mortality due to [disease](#) rather than predation, climate, or food scarcity;
- The migration of whole species into or out of a region, contrary to established or historical patterns;
- The proliferation of a [bioinvader](#) or even a [monoculture](#) where previously a more biodiverse species range existed.”