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# HABITAT GUIDELINES: ARE THEY ENOUGH?

# A FUNDAMENTAL FLAW

- ⦿ A basic problem with the existing guidelines is use of the term “habitat” as opposed to natural cover.
- ⦿ The existing wetland and riparian guidelines are more function-based, thus “habitat” is not really the focus, though it may be an outcome.
- ⦿ The forest guidelines are based on “habitat” for *species*, which is only one level of biodiversity. They do not consider what is needed to support genetic or ecosystem diversity or other ecological functions.
- ⦿ They are based on *representation* of the species and do not consider population viability.

- With the guideline approach maintaining habitat is like preserving species in a zoo. The habitat becomes the cage that the individuals representing the species are preserved in.

# DIVERSITY ISN'T EVERYTHING

- Because of the terminology people using the guidelines are thinking in terms of maintaining habitat for species diversity.
- The assumption is that having enough habitat for species is all one needs for natural cover.
- Other ecological functions are not addressed or emphasized adequately.

# Some Things to Consider When Setting Natural Cover Targets

- The scale of the landscape in question
- The geophysical conditions of the landscape (determining vegetation types)
- Regional and local conservation concerns
- The habitat requirements of any target species
- How much habitat is required to support breeding demographics and behaviour
- If it is a single species or a suite of species target
- If the goal is representation versus a viable populations
- The viable population size for the species

# More Things to Consider When Setting Natural Cover Targets

- To what degree ecological integrity is a goal
- Whether or not all ecological functions are to be protected or restored (hydrology, nutrient cycling, soil development etc.)
- If climate change response is important
- How heavily existing or restored habitat will be used for resource extraction or recreation
- The type and extent of land use in the surrounding matrix

# PROBLEMS

- Even when guidelines are promoted as minimum target, that is what planners will go with, which leaves no buffer against error. Not a precautionary approach.
- The guidelines do not consider *the condition* of the habitat, which could affect species presence or ecological function.
- They do not consider the landscape matrix surrounding the habitat and the ability of the habitat to withstand negative external threats, or the “habitat” composition of any buffer areas.

# PROBLEMS

- ⦿ Some landscapes will never be able to achieve cover targets, or more importantly some may have more than the target, leaving them open to loss.
- ⦿ The guidelines do not consider the evenness of natural cover in the landscape.
- ⦿ Guidelines inevitably get used out of the context or scale for which they were developed, e.g. 30 percent forest gets advocated for both small and large watersheds, for CA or municipal boundaries. This is not defensible, which is important.

# ALTERNATIVE APPROACH

- Look at each landscape context individually.
- Consider how the existing cover is structured and distributed in the landscape and how it may support species and ecological functions.
- Use GIS models to determine opportunities for improving conditions based on ecological function, conservation priorities and land use constraints.
- Set targets based on thresholds.