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Biodiversity Offsets and the *Species at Risk Act* (Canada)

By: Shaun Fluker

Matter Commented On: Environment and Climate Change Canada Draft [Offsetting Policy for Biodiversity](#)

The federal government has a laudable objective of ‘no net loss’ for development projects that will harm biodiversity in Canada. For threatened species who will lose habitat because of development, the concept of ‘no net loss’ means either avoidance, mitigation, or offsets. Avoidance of habitat loss (e.g. no project) is rarely seriously considered – and is really nonsensical when a project footprint overlaps with habitat – and efforts aimed at mitigation of adverse effects on threatened species are widely known to be [pie-in-the-sky](#) measures with little or no effectiveness (see [here](#)). Thus, a ‘no net loss’ outcome in the context of choosing between development and protecting habitat necessarily means the use of biodiversity offsets. David Poulton has written extensively for ABlawg on the topic of biodiversity offsets and resource development (see e.g. [here](#)), and a constant theme in this topic is the legal and policy vacuum on biodiversity offsets. In 2016, the Public Interest Law Clinic submitted comments on a proposed offsets policy under section 73 of the *Species at Risk Act*, [SC 2002, c 29](#) (Drew Yewchuk and I posted that submission to ABlawg [here](#)). Environment and Climate Change Canada (ECCC) has recently issued a draft [Offsetting Policy for Biodiversity](#) which will replace its [2012 policy](#), and this post publishes my submission letter giving comments to ECCC on the Offsets Policy as it relates to threatened species, in response to the [public engagement](#) which closed on February 17, 2023.

The Offsets Policy confirms the mitigation hierarchy is the appropriate framework for addressing the adverse impacts of development on threatened species. The basics of the hierarchy is a 4-step approach in the following order of priority:

- step 1 – avoidance (re-locate the project or do not proceed with it)
- step 2 – minimization (mitigation measures)
- step 3 – on-site restoration (measures to restore/rehabilitate affected habitat)
- step 4 – offsetting

The key point under the mitigation hierarchy for offsets is that they are only used to address the residual impacts of development AFTER avoidance, mitigation, and restoration are implemented. The following diagram (taken from the Offsets Policy) provides a useful illustration of how biodiversity offsets fit within the mitigation framework and achieve no net loss:

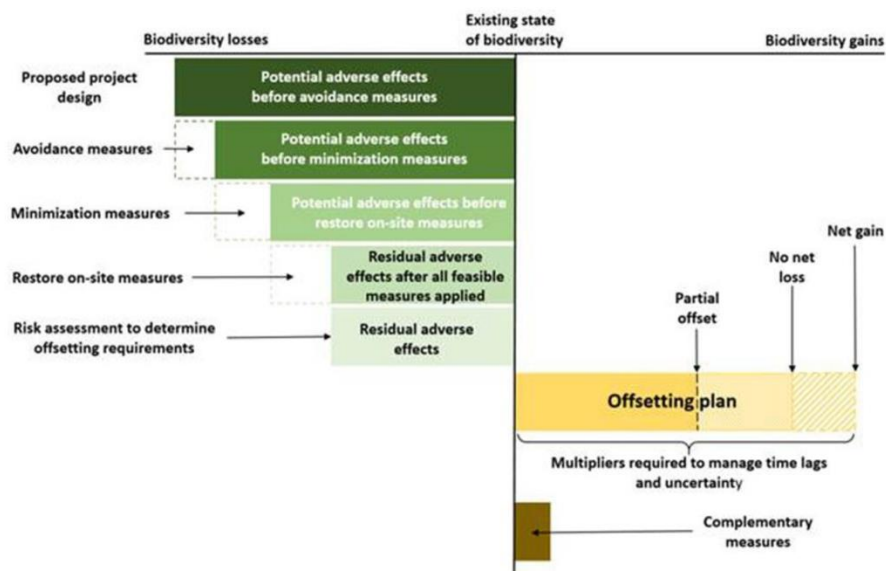


Figure 1: The mitigation hierarchy, showing the residual impact on biodiversity after the application of avoidance, minimization, and on-site rehabilitation/restoration measures. Biodiversity offsets aim to achieve no net loss (NNL) or net gain (Adapted from Barbé and Frascaria-Lacoste, 2021).

This letter sets out my comments on the Offsets Policy, in response to the public engagement which closed on February 17, 2023. The engagement asked that comments address: (1) how the Offsets Policy will affect my work; (2) risks inherent in the implementation of the Offsets Policy for threatened species; and (3) areas in need of clarification or modification in the Offsets Policy.

How the Offsets Policy Will Affect my Work

A significant portion of my research and teaching work as an Associate Professor with the Faculty of Law, and clinical work as the Director and legal counsel with the Public Interest Law Clinic at the University of Calgary, is on the legal protection for threatened species and their habitat in Canada. In particular, my research and clinical work over the past decade has focused legal protection for the Alberta population of westslope cutthroat trout, a species which was listed as threatened under the *Species at Risk Act*, [SC 2002, c 29](#) (SARA) in 2013. In 2020, I co-authored [Environmental Stewardship of Public Lands? The Decline of Westslope Cutthroat Trout Along the Eastern Slopes of the Rocky Mountains in Alberta](#) with David Mayhood, which documents how policy failure has led the Alberta population of westslope cutthroat trout to become a species threatened with extinction. The Public Interest Law Clinic has worked with several environmental non-governmental organizations in Alberta in efforts to protect what remains of critical habitat for westslope cutthroat trout. In 2015, the Clinic served as legal counsel on the commencement of judicial review proceedings in Federal Court seeking an order that the federal Minister of Fisheries and Oceans issue a critical habitat order under SARA. These proceedings led to the issuance of the *Westslope Cutthroat Trout Alberta Population Order*, [SOR/2015-241](#), which makes it an offence for any person to destroy any part of the critical habitat set out in the [Recovery Strategy](#) for westslope cutthroat trout. At the time of its issuance, this critical habitat order was only the second its kind to be issued under SARA. Since then, the Clinic has been retained as legal counsel

for a series of judicial review applications in Federal Court seeking orders that mandate compliance by the Minister on various SARA obligations with respect to recovery planning for westslope cutthroat trout. The Clinic has also filed numerous access to information requests with provincial and federal departments to obtain a more complete picture and understanding of action and inaction by responsible officials in relation to the protection of critical habitat. In short, offsets policy and its relationship to habitat protection for threatened species has a direct impact on my work.

Risks Inherent in the Implementation of the Offsets Policy for Threatened Species

The key legal provision for addressing the consideration and use of biodiversity offsets to address adverse impacts on threatened species from development is *SARA* section 73. This section grants discretionary power to the responsible federal Minister to authorize activity, notwithstanding its adverse impacts on critical habitat:

73(1) The competent minister may enter into an agreement with a person, or issue a permit to a person, authorizing the person to engage in an activity affecting a listed wildlife species, any part of its critical habitat or the residences of its individuals.

(2) The agreement may be entered into, or the permit issued, only if the competent minister is of the opinion that

(a) the activity is scientific research relating to the conservation of the species and conducted by qualified persons;

(b) the activity benefits the species or is required to enhance its chance of survival in the wild; or

(c) affecting the species is incidental to the carrying out of the activity.

(3) The agreement may be entered into, or the permit issued, only if the competent minister is of the opinion that

(a) all reasonable alternatives to the activity that would reduce the impact on the species have been considered and the best solution has been adopted;

(b) all feasible measures will be taken to minimize the impact of the activity on the species or its critical habitat or the residences of its individuals; and

(c) the activity will not jeopardize the survival or recovery of the species.

While section 73 sets out constraints on this power, department officials have been interpreting the scope of these provisions in a manner generous to approving harmful effects. For example, the 2016 interpretive guidance on section 73 proposed by Environment and Climate Change Canada suggested that industrial development projects would normally fall within the parameter of having affects “incidental to the carrying out of the activity.” This very questionable interpretation is the only basis for allowing industrial activity to harm critical habitat for listed species under *SARA* (see [here](#) for more discussion on this).

Thus far, section 73 has seen little judicial interpretation. However, in *David Suzuki Foundation v Canada (Fisheries and Oceans)*, [2012 FCA 40 \(CanLII\)](#), the Federal Court of Appeal suggested in obiter that section 73 powers be read as a limited circumstance where critical habitat can be lawfully destroyed under SARA (at paras 121 – 125).

This legal and policy lacuna has not prevented project applicants from proposing biodiversity offsets to mitigate harm from proposed development on habitat for threatened species. A paradigm illustration was provided in the application by Benga Mining Limited under the *Coal Conservation Act*, [RSA 2000, c C-17](#) for approvals to construct, operate and reclaim an open-pit metallurgical coal mine (along with associated processing, transportation, and related infrastructure) on the montane and subalpine lands of Grassy Mountain in the Crowsnest Pass region of southwestern Alberta. The application was considered by a federal-provincial joint review panel governed by terms of reference which instructed the panel to exercise provincial and federal decision-making authority to assess the environmental, economic, and social impacts of the project. In [2021 ABAER 010](#) (June 2021), the panel concluded that the construction of the coal mine would not be in the public interest, and the impacts on westslope cutthroat trout figured prominently in the decision:

Overall, we conclude that the project is likely to result in significant adverse environmental effects on westslope cutthroat trout and surface water quality, and these negative impacts outweigh the low to moderate positive economic impacts of the project. Accordingly, we find that the project is not in the public interest. In making this determination, we understand that this means that the expected employment, related spending, and economic benefits for the region will not be realized. However, even if the positive economic impacts are as great as predicted by Benga, the character and severity of the environmental impacts are such that we must reach the conclusion that approval of the Coal Conservation Act applications are not in the public interest.

While we found the project is likely to result in additional significant adverse effects beyond those on surface water quality and westslope cutthroat trout and their habitat, we find that these effects, in and of themselves, would not have been sufficient to determine that the project is not in the public interest. It is the nature and magnitude of effects on surface water quality and westslope cutthroat trout and their habitat that drive our public interest determination. (at paras 3048—3049)

The geographic area impacted by the proposed coal mine included designated critical habitat for westslope cutthroat trout under SARA, and thus a section 73 SARA permit would be needed for construction to proceed. Notably, the panel rejected a plan to address this impact with a biodiversity offset proposal.

The offset proposal included the enhancement of *in situ* habitat within the Gold and Blairmore creek watersheds, as well as genetic research on these westslope cutthroat trout populations (at paras 1275—1278). The panel heard evidence that questioned some assumptions underlying the offsets plan, and the federal Department of Fisheries and Oceans submitted that the offset plan “did not demonstrate how the proposed offsetting would meet the population and distribution

objectives for WSCT (as stated in the 2019 Recovery Strategy-Action Plan) and not jeopardize the survival and recovery of this species.” (at para 1289)

A key discussion on offsets in the panel decision was in relation to the time gap between harm to critical habitat and the later implementation of an offset:

We note that DFO has clearly indicated that offsetting measures should be constructed and proven effective prior to project impacts occurring on WSCT habitat. This will support a determination that the survival and recovery of WSCT will not be jeopardized. DFO has stated that this is a precondition that must be met prior to issuing a permit under section 73 of SARA, which we understand is a requirement for the project to proceed. We also note that Benga has rejected this approach as untenable. Given the sensitivity of the species and habitat in question, we understand DFO’s position on this matter. However, we cannot base our decisions on what DFO or its minister may or may not decide in future regulatory applications. For our purposes, we must be persuaded on a balance of probabilities that Benga’s proposed offsetting plan is technically feasible and likely to be effective. We are not persuaded this is the case. (at para 1301)

Woodland caribou in Alberta are another threatened species facing extirpation in the province, and a species that clearly demonstrates how biodiversity offsets are factoring into project applications that harm critical habitat. The federal [Recovery Strategy](#) unequivocally confirms that the primary reason for the decline of caribou populations is the loss of old-growth forest habitat and the associated impacts on predator-prey dynamics. In northern Alberta, oil and gas exploration and forestry have cleared and fragmented old-growth habitat with linear disturbances, changing much of the landscape into early-seral forests which do not provide adequate food sources (lichen), or attract prey for wolves (ungulates such as moose and deer) thereby exposing caribou as secondary prey, and enable recreation access which displaces caribou. Research shows that the rate of caribou habitat loss is accelerating in Alberta despite recovery efforts, even in regions where no further loss is acceptable such as the Little Smoky range where caribou habitat is between 95% and 99% disturbed.

Project applications are proposing biodiversity offsets as a solution to the problem of addressing the demise of woodland caribou while continuing to approve new resource development in critical habitat. As an example, the Canadian Energy Regulator held a public hearing on the Nova Gas pipeline project in 2019 and issued its hearing report [GH-003-2018](#) in February 2020 recommending that the Governor in Council approve the project. The Regulator acknowledged that the pipeline expansion would result in further habitat disturbances for caribou in the Little Smoky range, but nonetheless concluded that this disturbance would not be likely to cause significant adverse effects taking into account proposed mitigation measures. These measures included the usual collection of mitigation measures, such as wildlife surveys and avoiding construction activity during sensitive breeding seasons, and also included a biodiversity offset proposal.

The discussion in the Report on impacts specific to caribou habitat in the Little Smoky range revealed that alternative pipeline routing which would avoid the Little Smoky range was not

initially considered by the applicant. Moreover, the Regulator accepted this position while at the same time stating “that disturbances within caribou ranges should firstly be avoided and secondly minimized” (at 198).

The proposed Caribou Habitat Restoration and Offsets Measures Plan (CHR & OMP) accepted by the Regulator (described at 198 - 204) was essentially a ‘plan to plan’ with a commitment to restore on-site habitat disturbances but offset any residual impacts with restoration measures to be determined later. Environment and Climate Change Canada, along with Indigenous interveners in the hearing process, criticized the proposed CHR & OMP as inadequate, largely on the basis that any additional loss of habitat in the Little Smoky range is unacceptable (at 199 – 201).

Areas in Need of Clarification or Modification in the Offsets Policy

One of the most significant limitations for the effectiveness of offsets is that critical habitat is, by definition, rare, non-fungible, and extremely difficult to reclaim or recreate elsewhere. It would not be habitat critical to the survival and recovery of the species otherwise. Overall, the draft Policy fails to address this.

Mitigation hierarchy should be legislated in SARA

The mitigation hierarchy (avoid, minimize, restore, AND THEN offset residual adverse effects) must be strictly adhered to with respect to biodiversity offsets and harm to critical habitat. The draft Policy should reflect this and moreover the mitigation hierarchy should be legislated. Otherwise, biodiversity offsets are likely to be further institutionalized as just another proposed mitigation measure.

Timing and duration

A review by the Department of Fisheries and Oceans (DFO) in 2006 of their offsetting policy found that “temporal losses are exacerbated due to the time lag until compensatory habitats function ecologically in a manner comparable to pre-impact conditions. In many cases, the time lag may be considerable because some projects will likely never achieve equivalent functionality.” (Quigley and Harper. “Effectiveness of Fish Habitat Compensation in Canada in Achieving No Net Loss” (2006) *Environmental Management* 37(3): 351-356, DOI: [10.1007/s00267-004-0263-y](https://doi.org/10.1007/s00267-004-0263-y)) Accordingly, a requirement that the offset be proven effective and implemented prior to project impacts is crucial to ensuring the use of offsets does not undermine the overall purpose of SARA. The use of multipliers referenced in the draft Policy is fully inadequate to address the well-known and understood time-lag limitations of biodiversity offsets for damage to habitat.

Compliance

Monitoring and accountability is a serious concern with biodiversity offsets and harm to critical habitat. A review of Policy for the Management of Fish Habitat (1986) compliance found that:

noncompliance with HADD and compensation areas contributed to substantial losses of habitat. The prevalence and magnitude of larger HADD areas and smaller compensatory works far exceeded gains in fish habitat due to authorizations with smaller HADD areas or larger compensation. Habitat loss as a result of improperly installed or designed compensatory structures (e.g., perched culverts, impassable weirs, dry channels) was also

considerable. In many cases, these habitat losses exceeded the original HADD that necessitated the compensation habitat. (Quigley and Harper. “Compliance with Canada’s Fisheries Act: A field audit of habitat compensation projects” (2005) *Environmental Management* 37(3): 336-350, see [here](#)).

Legal mechanisms under *SARA* for compliance and enforcement, as well as resources to implement such mechanisms, are currently woefully inadequate to meet the level needed to ensure a biodiversity offset meets its objective on habitat harms. Much more legislative and policy attention must be directed to compliance and enforcement prior to the implementation of the draft Policy.

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