

Old Growth Deferrals:

a meaningful approach.

D. Daust, R.F.Holt and K. Price.

May 2021

SUMMARY

The 2020 Old Growth Strategic Review (OGSR) Panel identified the need for **immediate deferrals of the highest value, most at risk old forest** in the province. **Deferrals are intended to retain options** during ongoing land-use planning discussions with First Nations and to allow time for the recommended paradigm shift in forest management that puts First Nations rights and interests, ecological integrity and long-term community stability as priorities over timber volume.

OGSR Recommendation 6 says: **Until a new strategy is implemented, defer development in old forest where ecosystems are at very high and near-term risk of irreversible loss.** The OGSR lists a series of criteria to identify the most important old forest for deferral.

In a continuation of our work on this issue (Price, Holt and Daust 2021¹), we created a map that identifies areas, distributed across BC's forested ecosystems, that best meet the criteria outlined in the OGSR report. Our map shows the location of these forests inside and outside protected zones², and we identify the ~1.3 million hectares that falls outside protected zones as **candidate options** for deferral.

Meaningful deferrals prevent harvest of areas that would otherwise be harvested. Candidate areas should be a) overlaid with existing proposed cut blocks and roads to identify the actual area for deferral, and b) be provided to decision-makers to ensure no new overlapping cutting or road permits are granted. No effort should be wasted on areas that are not at risk of harvest for this deferral process.

INTENT

A year after the OGSR panel delivered their report, our intent is to kickstart the urgent conversation about old forest deferrals by mapping candidates for deferral as identified in Recommendation 6.

Recommendation 6 criteria are conceptually straightforward, although known data issues require careful interpretation. The OGSR did not prioritise these deferral criteria. The criteria span a range of ecological concepts; each identifies a different, though somewhat overlapping, suite of old forest. Rare old forests are relatively straightforward to map, but may be the 'guts and feathers' of what was once present. Ancient forest is of very high value—irreplaceable in the true sense of the word—but poorly represented in provincial datasets, though often easy to spot on the ground. The 'most productive' forests are conceptually simple (most people know when they are in one), but are more complex to map

¹ Price, K., R.F.Holt and D.Daust. <https://veridianecological.files.wordpress.com/2020/05/bcs-old-growth-forest-report-web.pdf> and in a peer reviewed journal: <https://cdnsiencepub.com/doi/full/10.1139/cjfr-2020-0453>

² Protected zones include all areas designated as no-harvest, though in reality they span a wide range of actual protection and condition – from Protected Areas / Parks to no harvest Wildlife Habitat Areas. Note that legal OGMA's are not shown on the map product.

because they are not easily represented by a single variable, and because in different ecosystems the forests are visibly different from one another. We mapped the top 1%, 3%, 5% and 10% of **tallest, largest old forests** remaining in each ecosystem, inside and outside of protected zones. The area mapped outside protected zones provides the basis for a prioritised and robust set of candidate areas that meet the productive forest criterion. Resilient forests are also one of the OGSR criteria, and must be a long-term goal, but we have not included them in this version of our mapping. A candidate 'resilient forest' map will be made available shortly. Where insufficient old forest exists to meet any of the percent targets, we do not recruit younger forest in this process³.

How much area? The area identified by the OGSR for deferral priorities, **not including resilience areas**, totals approximately 1.1 million ha⁴. Our prioritised Candidate Options map therefore shows the top 3% tallest and largest trees in each ecosystem (including areas in already designated no harvest areas), plus mapped ancient forest, and covers 1.3 million ha⁵ (~2.6% of the forested landbase). In addition, the map shows the top 10% of tallest and largest old forests in each ecosystem for context⁶.

Where? Ecosystems inherently vary in their ability to grow large-treed forests. However, the largest remaining old forests within each ecosystem are important regionally. Our model used the ecological principle of **evenly representing** the top 1,3,5, and 10% of large old forests **within each biogeoclimatic variant** to look for potential candidate deferral areas spread across the province. The final Candidate Options map of 3% similarly shows the areas distributed across the range of ecosystems. In ecosystems with better protection levels, less area is identified as a candidate for deferral.

At-Risk? In this context, forest is at immediate risk if it has been identified to be harvested i.e., in a harvest plan and has a cutting permit. However, because this is a rolling window (more areas are identified every day for harvest), a two-pronged deferral approach is needed. A) defer harvest for existing permits that overlap with the top 1.3 million hectares identified, and B) avoid approving new permits in the top 1.3 million hectares until land-use planning is completed. The final distribution of **deferrals** may be uneven across different ecosystems, because the pattern of harvest pressure is also uneven.

HOW TO USE THIS PRODUCT

Step 1: Use the map provided – the best 3%, plus ancient forest and some of the rare - as the Candidate deferral options. Augment our map with locally known important old growth areas that are not represented adequately in VRI, or have local value (e.g., culturally important old growth).

³ Our maps do not show recruitment. This is a potential flaw as recruitment of non-old is at least as pressing as protecting the last scraps of old in some ecosystems. For example, old stands in coastal ecosystems dominated by Douglas-fir are largely extirpated in relation to their former extent and majesty.

⁴ 307,000 ha of productive forest, plus 508,000 of forest in units with <10% old remaining, plus 278,000 ha of ancient forest. All classes incremental and outside no-harvest zone.

⁵ Areas such as wildlife tree patches are identified in some areas because there is no old forest remaining, and we expect some 'false positives', areas without actual values on the ground. These should be removed and replaced with real known on the ground old forest that the strategic mapping has not identified.

⁶ Most rare is included in the 10% map, and some proportion of rare is included in the 3% map.

Step 2: Overlay Options Map with any permitted and planned cut blocks and roads to identify areas which should be deferred from logging immediately. Apply the two-pronged approach above to identify actual areas that require deferral now, and ongoing during land-use planning.

Step 3: Revise the candidate deferral map as needed, and re-iterate deferral process:

- The OGSR outlines the need for immediate action. An imperfect map should not slow that process. After Steps 1 and 2 are finalised, revise the map as needed. Fill data gaps for areas that are currently missing forest cover/VRI data (e.g., much of Vancouver Island and other TFLs).
- Further augment the deferral options with locally known areas that are not represented adequately in VRI, or have local value (e.g., culturally important old growth). Remove areas that are already harvested or clearly lack attributes.

Step 4: Move towards resilience mapping. Additional variables as outlined could be examined to determine whether the model's approach can be improved. This process will be useful to feed this work into longer term land use planning processes. This work, combined with Resilience and Carbon maps (in preparation) should be used to guide longer term planning, in concert with First Nations and others.

NEXT STEPS: SHORT-TERM

This is not a resilience map. Forest resilience requires 30-50% of the landscape to be identified, considering intactness, patch size, representation, climate refugia, old forest and old-forest recruitment and other values. We are currently developing an approach to resilience mapping for the province.

This is not a recruitment map. Because most low elevation areas of the province do not have 3% or even 10% old forest remaining, our old forest candidate deferral map identifies significantly less than the stated percent in many areas. We did not 'fill' the target with non-old because this work is focused on informing the old forest deferral process. However, in some areas the remaining areas of old may be extremely small, or have poor values on the ground. In these ecosystems, recruitment of productive younger forest in important places is likely the most important strategy.

It cannot be over-stated – deferrals are a means to an end. But they are not the end goal!

Immediate appropriate deferrals are critical to create space for conversation; moving rapidly towards identifying adequate forest for protection, recruitment and long-term resilience is of utmost urgency. Many of the steps required are outlined in the OGSR report.

We hope the information we provide may be useful to First Nations who want an improved understanding of the condition of ecosystems in their territories. We are willing to provide support and explanation to anyone who would like additional information.

Resilience and carbon storage maps (in preparation) in combination with this candidate deferral map could be used to guide longer term planning, in collaboration with First Nations and others.

CANDIDATE DEFERRAL MAP AND GUIDANCE DOCUMENTS

Available at: www.veridianecological.ca/old-growth-resilience