

Supplementary Material for

Mapping smouldering fire potential in boreal peatlands and assessing interactions with the wildland–human interface in Alberta, Canada

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Table S1. Categorisation of Alberta’s surficial geology into hydrogeological settings and the distribution of treed peatlands between the hydrogeological settings.

Hydrogeological setting	Surficial geology categories	Percent of treed peatland area
Coarse	Glaciofluvial Deposits	3.5
	Eolian Deposits	
Coarse-Heterogeneous	Colluvial Deposits	3.3
	Fluvial Deposits	
	Preglacial Fluvial Deposits	
Moraine-Heterogeneous	Ice-thrust moraine	40.9
	Moraine	
	Stagnant Ice Moraine	
Moraine-Fine	Fluted Moraine	5.3
Fine	Glaciolacustrine Deposits	46.8
	Lacustrine Deposits	
	Organic Deposits	

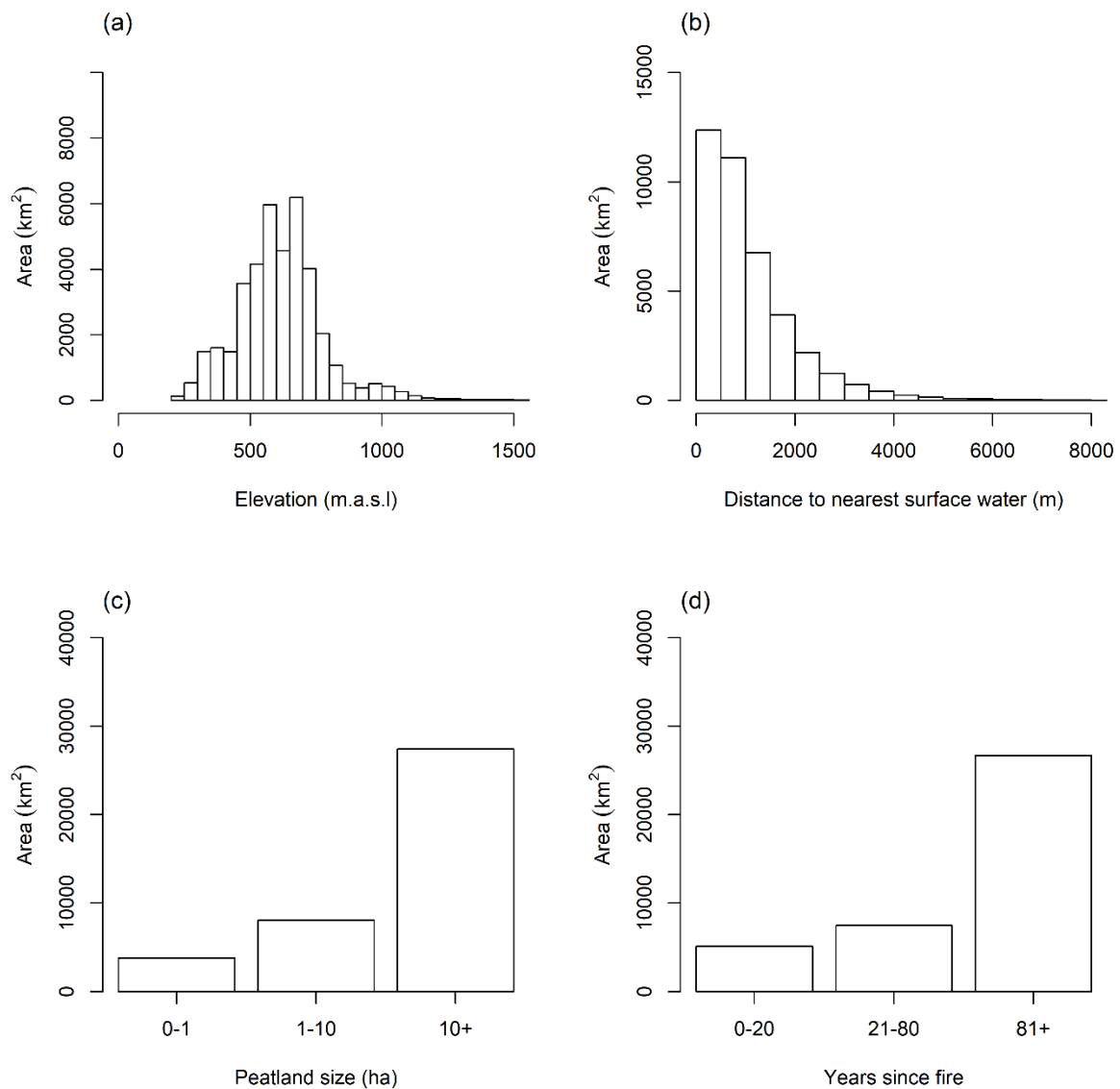


Figure S1. Distribution of treed peatland cells (30 × 30 m) by area (a) across elevation using Alberta’s provincial digital elevation model, (b) with distance to nearest surface water, (c) across size intervals used in the model and (d) with years since the previous fire, categorised based on major successional stages.

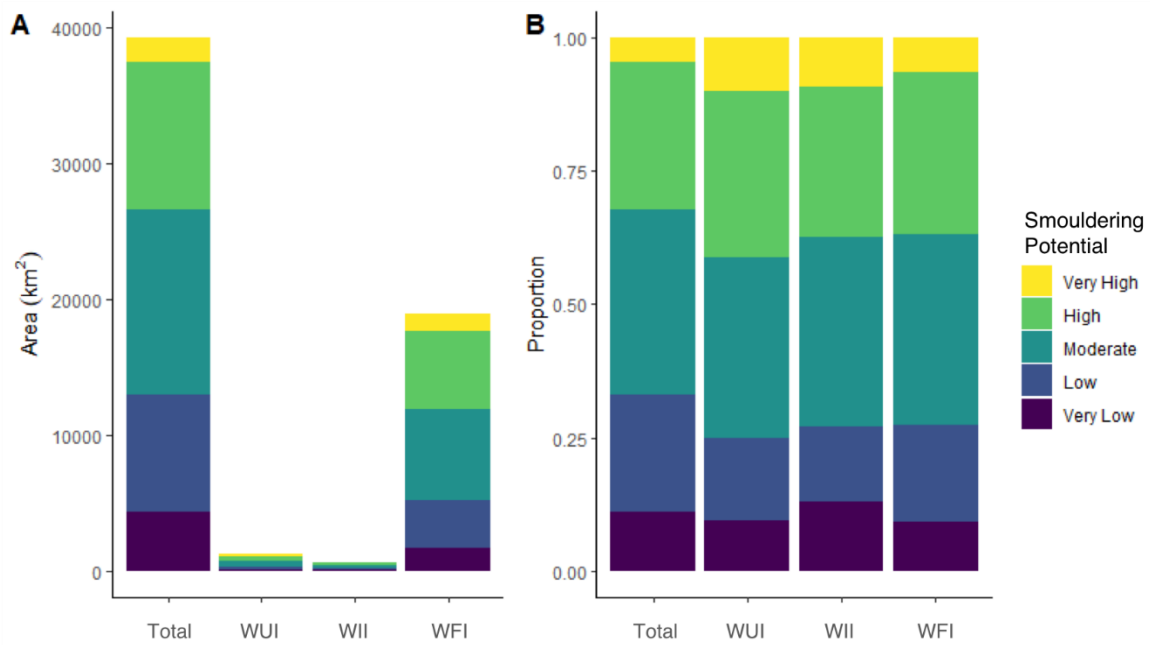


Figure S2. (a) Treed peatland area by smouldering potential category for the total study region and in each WHI category, and (b) proportion of the total treed peatland area by smouldering potential category for the total study region and in each WHI category.

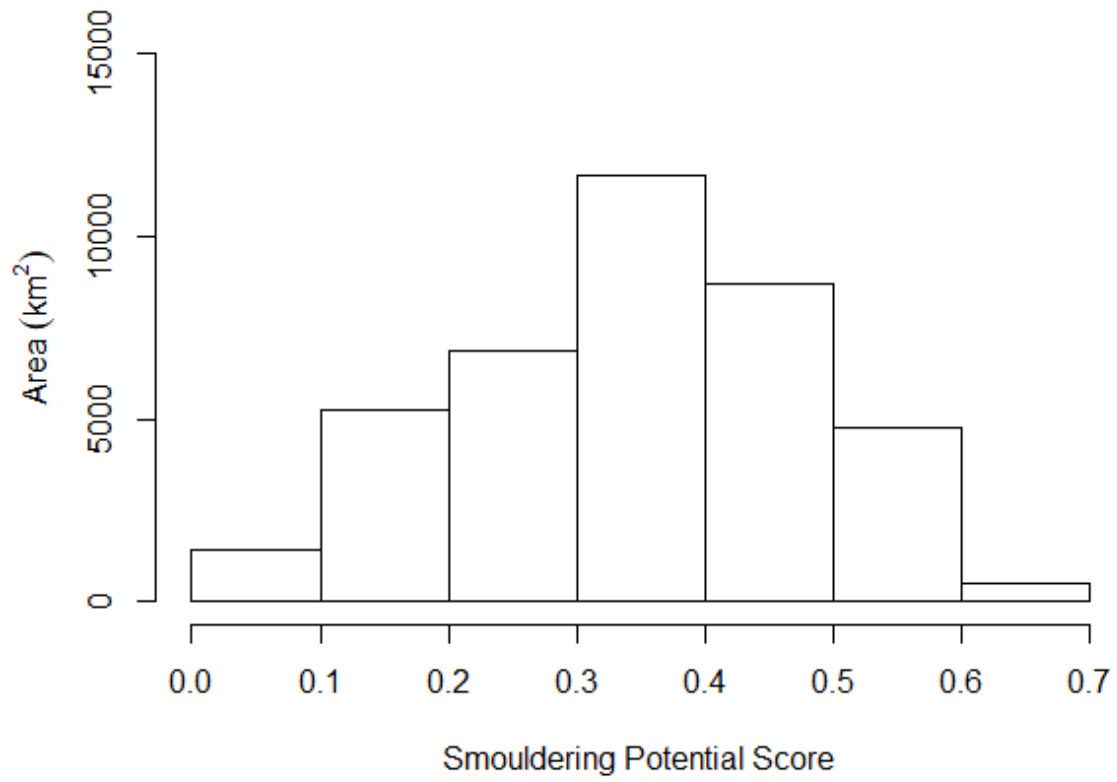


Figure S3. Distribution of tree peatland smouldering potential score with final model output. Cells are 30 × 30 m.