Project Knowledge Report

This Knowledge Report draft documents existing knowledge about fire regimes, wildland fire, and potential wildfire mitigation strategies, while identifying knowledge gaps.

It serves as an initial step towards developing a foundational document for the Bulkley Morice Wildfire Resilience Project.

The project is based on the premise that addressing the wildfire problem requires planning at both the local and landscape scale. Planning should be grounded in a comprehensive understanding of the area's fire regime and ecology, drawing on the latest scientific research while also incorporating local and Indigenous knowledge.

This is a preliminary draft for which we are seeking feedback and comments. A final version of the project report will be released in 2027.

Share Your Feedback

Comments on the Knowledge Report can be sent to BuMoWildfire@BVCentre.ca. The review period for the Knowledge Report is open until October 30, 2026.

Please read here:

Knowledge Report Draft June2026

Overview of Topic Areas

The report contains ten chapters, which include the following topics:

Ch. 2 – Resilience and Wildfire Risk: Defines wildfire resilience and breaks risk into hazard vs. vulnerability — setting the conceptual foundation for the whole project

Ch. 3 – Fire Ecology: Describes the fire ecology of the area, how fire has shaped the forest and plant communities, and explores the historical fire record

Ch. 4 – Wildfire Behaviour: Explains how fuel, weather, and topography drive fire behaviour, the wildfire rank system (1–6), and the prediction tools used by managers

Ch. 5 – Fire Effects: Covers burn severity, species responses, and how wildfire shapes landscapes over time — including both harmful and beneficial effects

Ch. 6 – Indigenous Fire Stewardship: Documents the deep history of cultural burning by First Nations in the area

Ch. 7 – Stand-Level Fuel Management: Reviews treatment options (thinning, burning, mastication, planting), their effectiveness, and limitations in the local forest context

Ch. 8 – Forest Practices and Fuel Management: Looks at how commercial logging intersects with fire risk — including what's working (young dense plantations) and gaps in current regulation

Ch. 9 – Wildfire Response: Brief overview of suppression agencies, managed wildfire, and the ecological downsides of a century of fire exclusion

Ch. 10 – Landscape Fire Management: Scales up to the whole landscape — fuel breaks, PODs, strategic placement, and how forestry and fire management can be integrated

What's Next

- **Climate Change and Wildfire Hazard:** A chapter examining the possible climate changes anticipated in the Bulkley Morice study area and estimating their influence on wildfires is being prepared and will be released as an addendum to this report in the Fall of 2026.
- **Fire Regime Description and Current Conditions**: A key project outcome is to describe the fire regimes in the project area and an analysis of key metrics that describe the attributes of the fire regime such as fire size, frequency and severity. The Current Conditions Report is planned for release in Fall 2026.

- **Fire Modelling and Scenarios:** Landscape fire models assess fire risk to communities and valuable resources, like timber and wildlife habitat, and evaluate potential hazard reduction through mitigation treatments. The TEF (Time-based Empirical Fire) model is being developed to aid land managers in exploring key questions about mitigation approaches, including the necessary treatment for significant wildfire hazard reduction, the impact of land use objectives on mitigation effectiveness, and the influence of treatment design and placement.

  Modelling work will be completed over the summer and fall, leading to a workshop in November 2026.