Tactical Plan for Wildfire Risk Reduction

WILLIAMS LAKE AREA

Williams Lake
FIRST NATION

FORSITE
Forest Management Specialists

Outline

- Objectives of a Tactical Plan for WRR
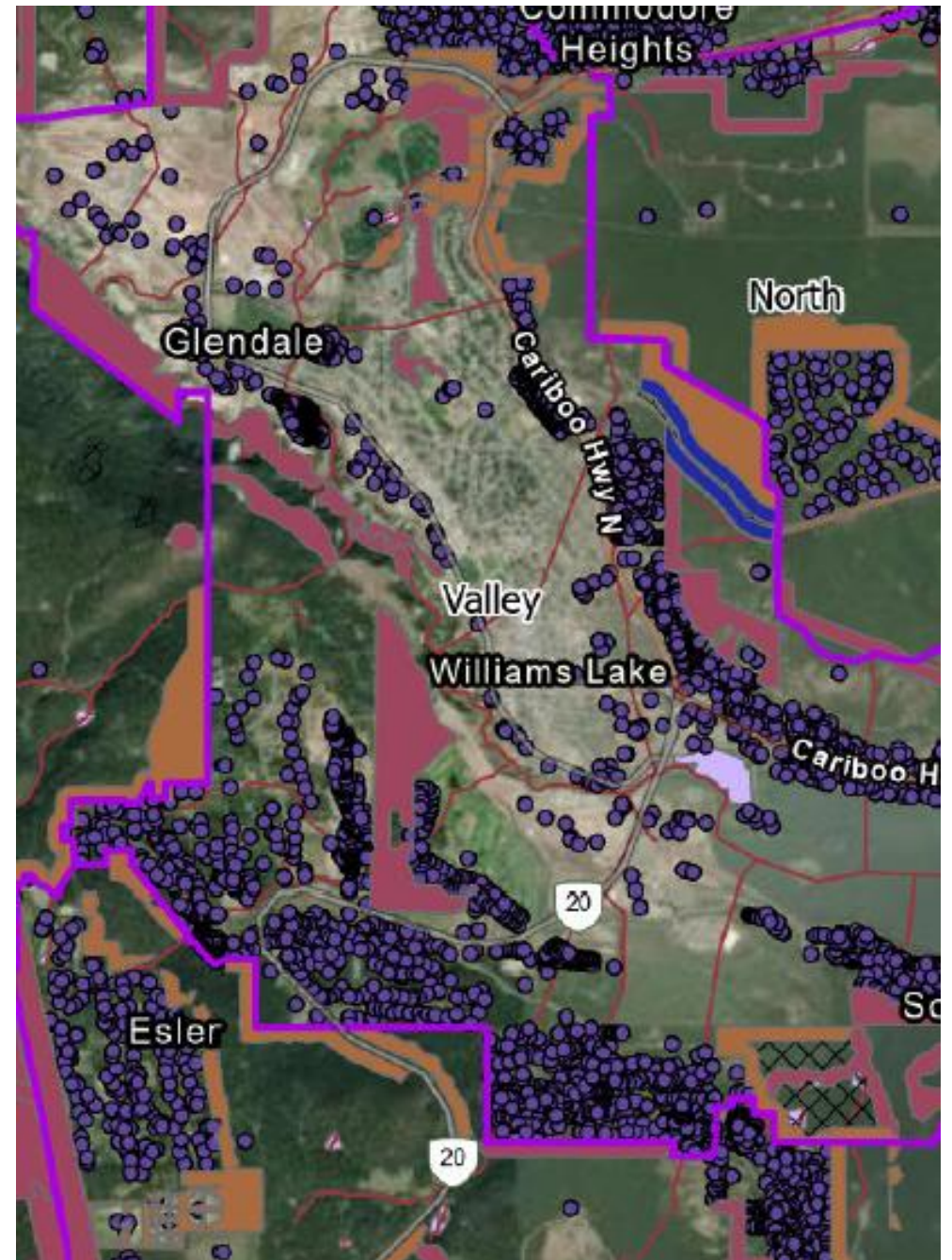
- Methods

- Engagement/Collaboration

- Modelling
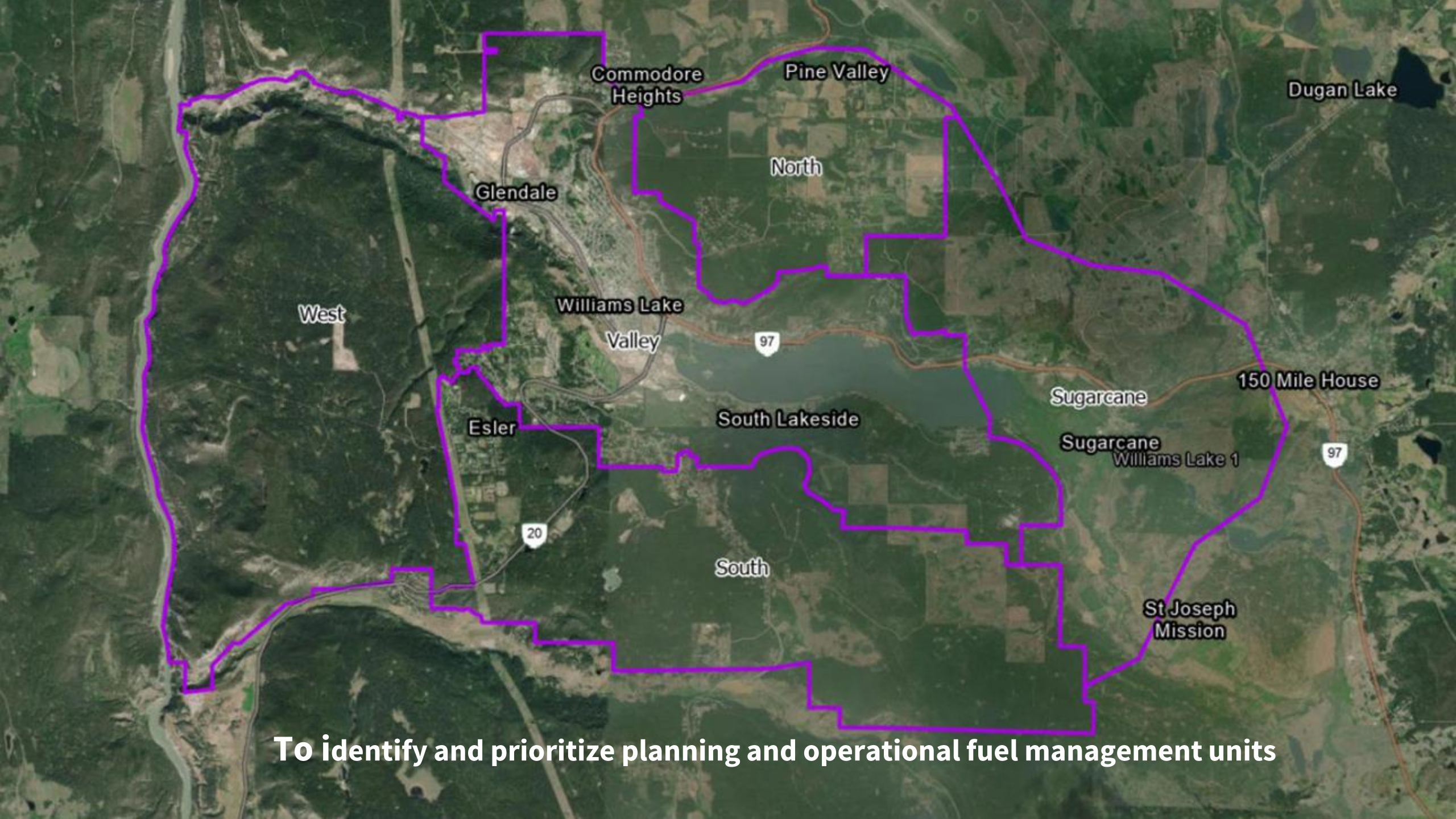
To identify and prioritize planning and operational fuel management units

Methods

- Identify Values at Risk (VAR)

- Identify current and desired level of risk to VAR

- Identify and design units (WMU, WRRU, FTU/AMU)

- Prioritize planning and operational units

Engagement & Collaboration

- Overlapping objectives and values
- Ensure tenure management objectives and operational plans are not obstructed
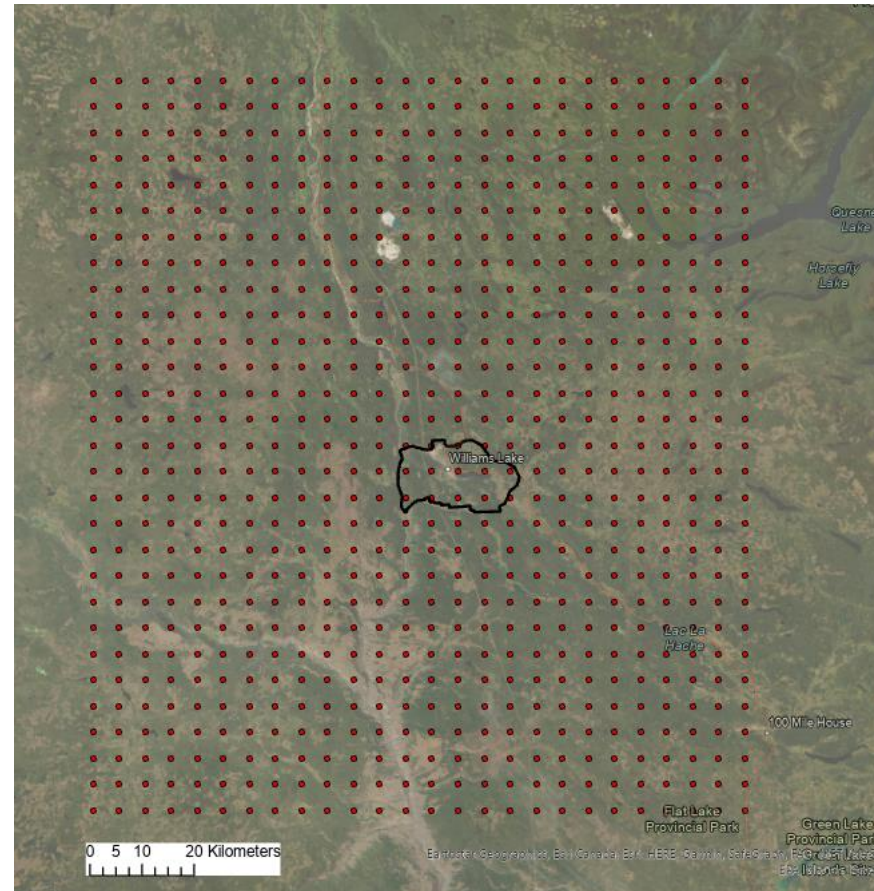
Wildfire Modelling

- What is 'gridded wildfire modelling'
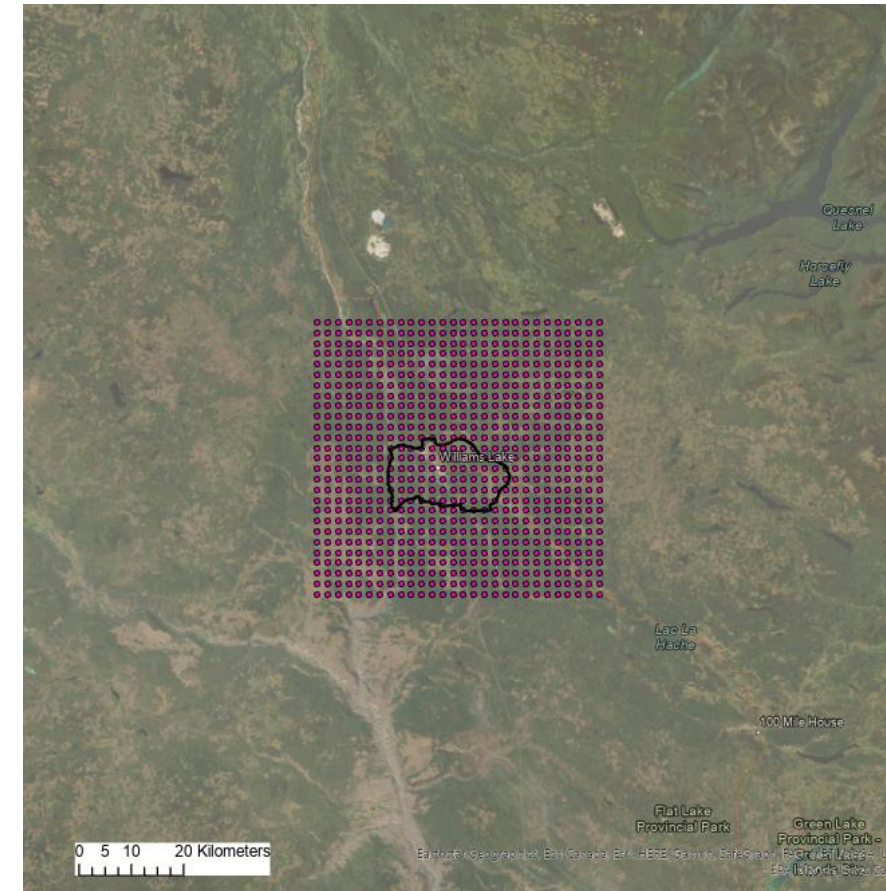
- Benefits

- Example results

Gridded Wildfire Modelling

1. Analyze local weather data and patterns

2. Model wildfires from each ignition point in the 5km grid to determine the fireshed
   - 7,540 fires

3. More detailed modelling within fire shed. (2km grid)
   - ~ 30,240 fires

5km ignition grid

Example 2km ignition grid

Provincial Strategic Threat Analysis

Strategic-level analysis of many different factors that contribute to wildfire threats, but it is not intended to represent absolute, site-specific values.

- Mapped wildfire hazards (radiant heat and embers) at 90th percentile weather*
- Considers historic wildfire ignition density
- Doesn't use wind direction or slope
- Doesn't consider impacts to specific assets

Gridded wildfire modelling

Landscape-level analysis that considers how fires behave in the area and **impact specific values** (e.g. homes).

- Mapped wildfire hazards (radiant heat and embers) under a range of weather conditions
- Considers as many possible ignition locations as possible
- Incorporates wind direction
- Direct assessment of how fires spread and impact assets (structures and homes)
- Creates **firesheds** to help with planning fuel treatments around assets
- Produces **ignition threat maps** to determine where the most impactful wildfires can start
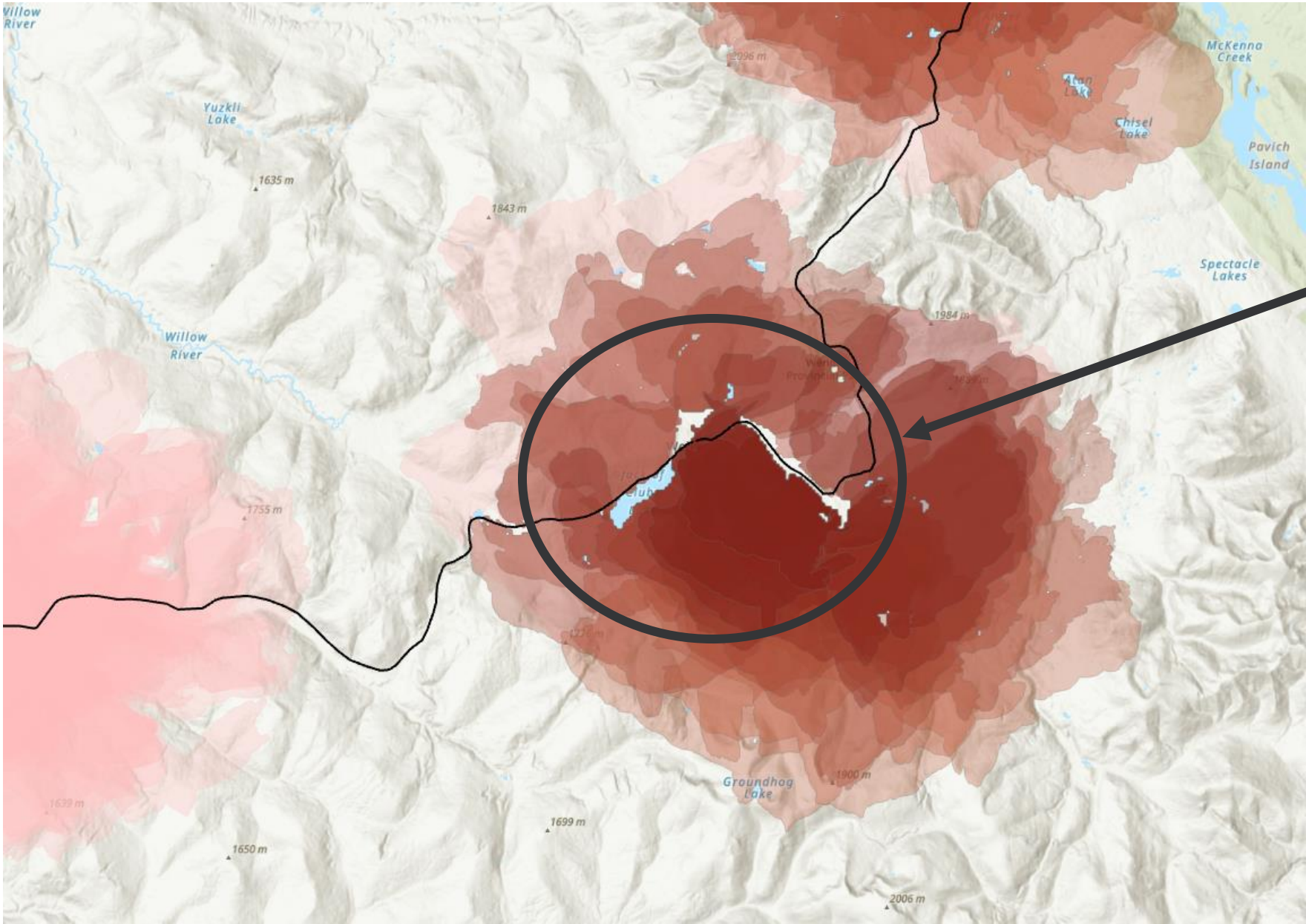
Example modelling results: PSTA
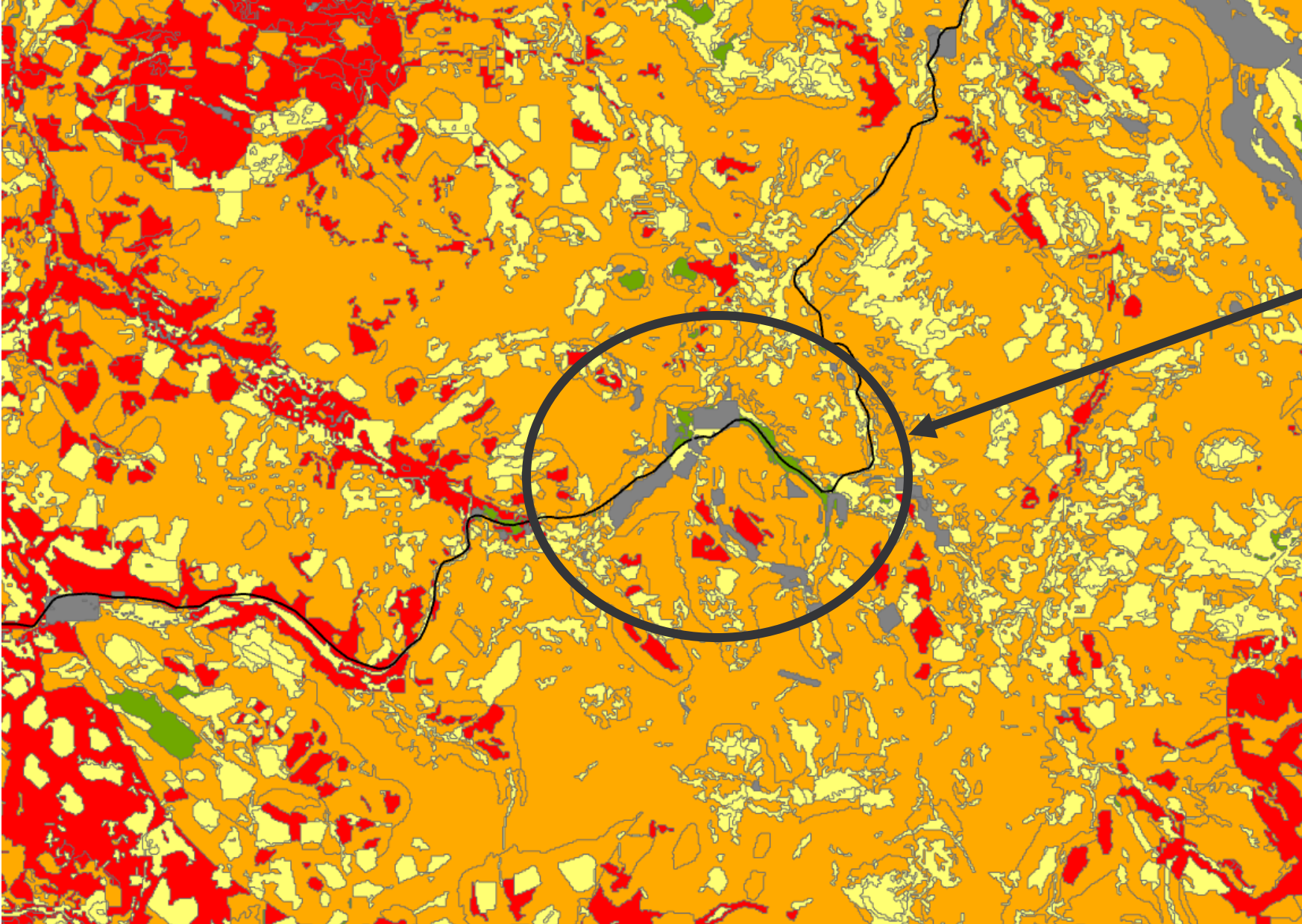
PSTA Threat Class

- 🟥 Extreme
- 🟧 High
- 🟩 Low
- 🟨 Moderate

AOI

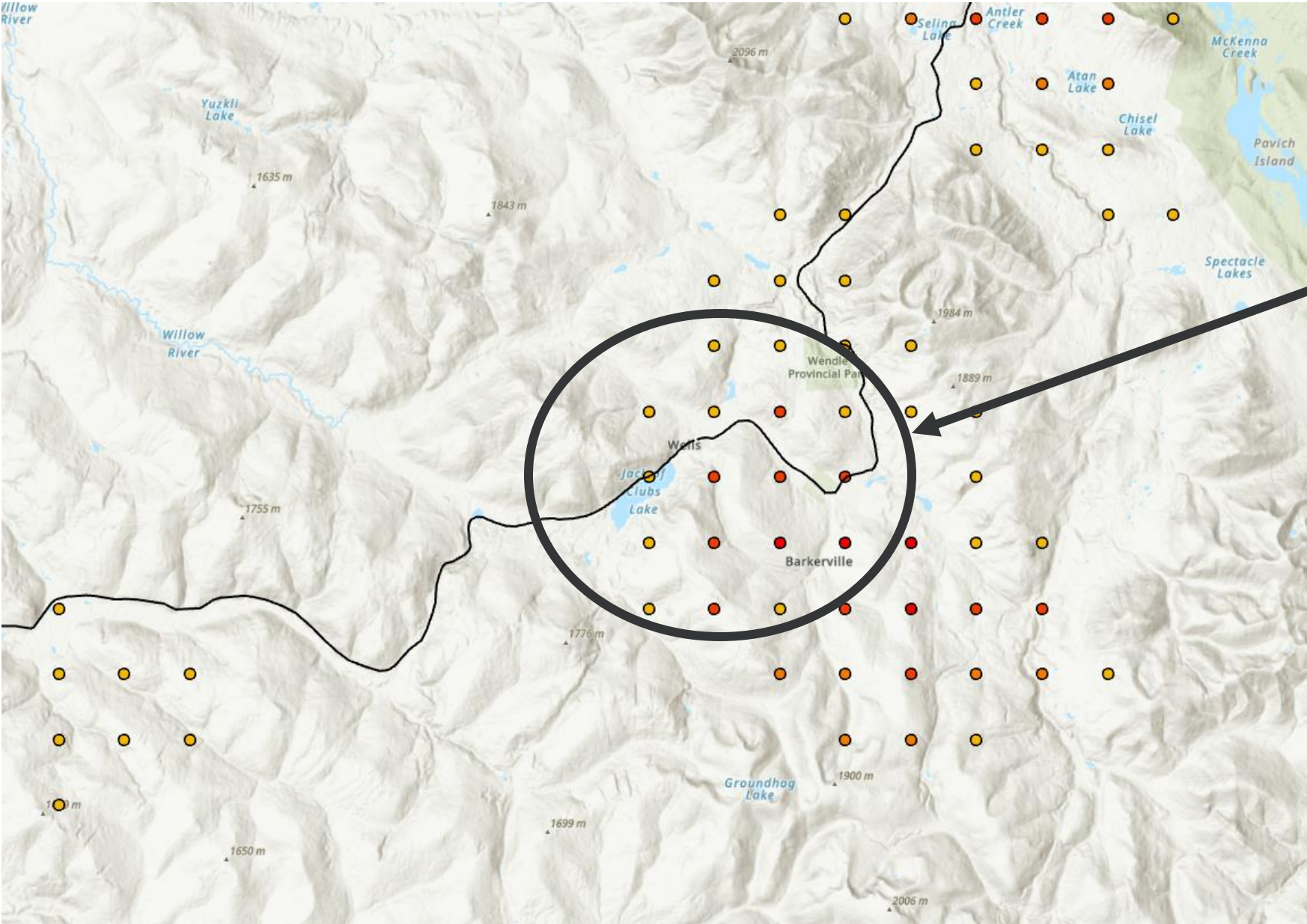# Example modelling results: Gridded modelling

AOI

Fireshed

Structures impacted

- 0 - 12
- 13 - 39
- 40 - 78
- 79 - 130
- 131 - 203

Example modelling results: Gridded modelling

AOI

Ignition Threat Map

Structures impacted
- 0 - 5
- 6 - 39
- 40 - 75
- 76 - 130
- 131 - 203

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