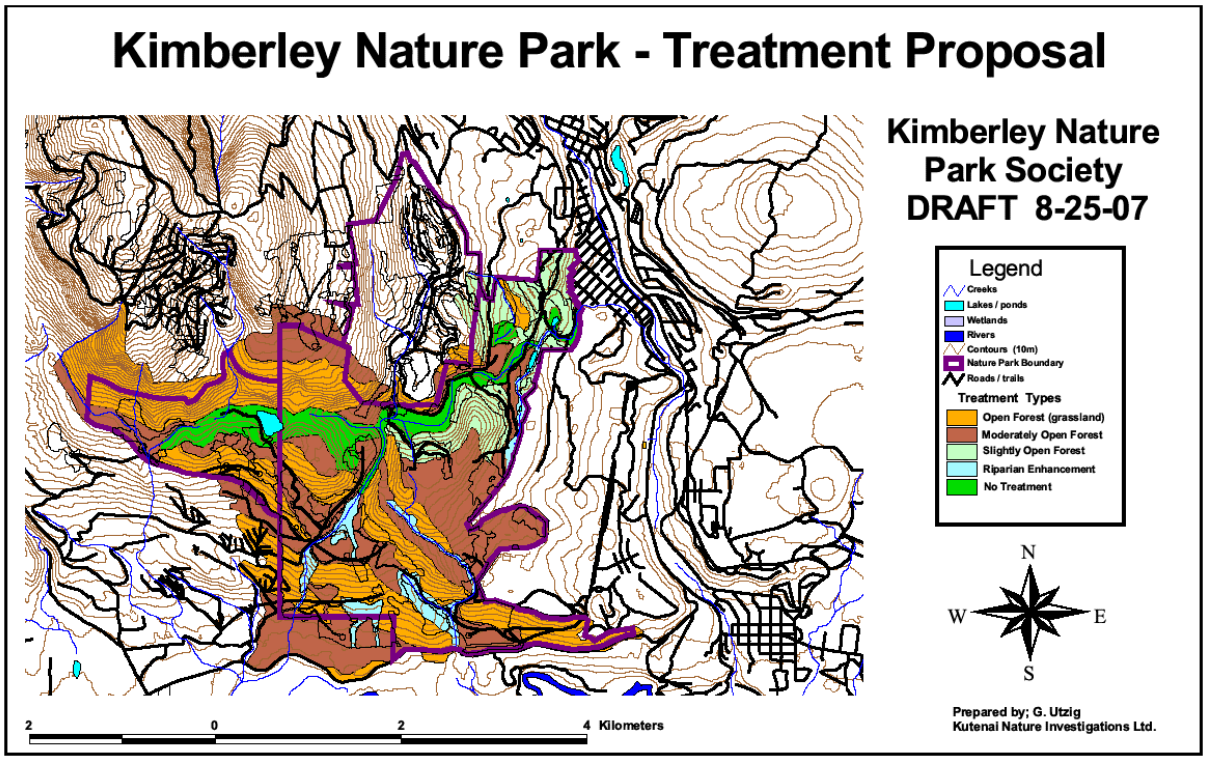
Appendix E: Ecosystem Restoration/ Fuel Management Plan

Introduction:

Through a series of multi-stakeholder workshops organized by the City of Kimberley in 2007 a consensus was reached that any tree removal in the Park for pine beetle control, fuel reduction or economic return should only be considered in the context of ecosystem restoration. With the help of ecologists, Greg Utzig and Bob Gray a broad overview plan for treatments in the Park was developed. Specific plans for treatments in various parts of the Park have since been developed in accordance with that overview plan. You can find details of all the work that has been done on the KNPS webpage at https://www.kimberleynaturepark.ca/interface-fire

1. Overview Ecosystem Restoration Plan

The following map and treatment prescriptions provide an overview of the approach that will be taken in the Nature Park. Double click on the map to see an expandable .pdf version.



Treatment Prescriptions

No Treatment (generally moist riparian areas and north aspects - and previously identified WTPs)
Generally no treatment of any kind. Site-specific manual removal of small infill trees and brush and fuel reductions may be appropriate in some situations - especially to protect large trees where low intensity fire it being reintroduced. The Wildlife Tree Patches (WTP's) will need manual treatments to protect key trees and snags where fire is re-introduced - this may be problematic with Worksafe B.C. regulations - may need to be creative in applying the treatments (e.g., snag/ danger tree assessments, using machines with operator protection, using volunteers...).

All Other Areas
Manual treatments to remove small infill trees (i.e. trees <10 cm in diameter) everywhere except in the no treatment areas, and potentially the riparian enhancement areas. Where aspen and cottonwood occur, and the site is appropriate, apply treatments to encourage deciduous stands.

Riparian Enhancement
Site specific assessments to define the riparian zone on the ground and design a treatment regime that will remove infill stems - especially lodgepole pine, and encourage the regrowth of deciduous components - wet site trees such as cedar and spruce would be retained. Other trees and snags >25cm diameter will also be retained.

Open Forest Grassland (generally southern aspects with slopes >20%)
Remove infill trees. Thin overstory to 75-150 stems/ ha - retention of largest stems, with species preference for retaining ponderosa pine and western larch, and removing lodgepole pine. Reduce fuel loading and reintroduce low intensity burning.

Moderately Open Forest (generally southern slopes <20% and neutral aspects)
Remove infill trees and shrubs. Thin overstory to 150-400 stems/ ha - retention of largest stems, with species preference for retaining ponderosa pine and western larch, and removing lodgepole pine. Reduce fuel loading and reintroduce low intensity burning.

Slightly Open Forest
Remove infill trees. Thin overstory to 400-1200 stems/ ha - retention of largest stems, with species preference for retaining ponderosa pine and western larch, and removing lodgepole pine. Reduce fuel loading, remove ladder fuels, raise canopy base height, and generally reduce canopy bulk density, while retaining sufficient shade to retard regeneration and understory re-growth. The results should be similar to the treatments on City of Kimberley lands near the gravel pit.