

Use of Fire Behaviour Tools in Planning

A Department of Conservation National Overview

NZ Rural Fire Research Workshop
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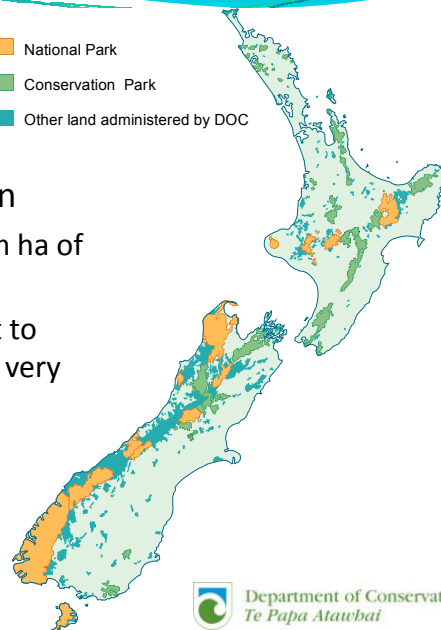


Context

- National Park
- Conservation Park
- Other land administered by DOC

Department of Conservation

- Manages \approx 30% of NZ (8.5m ha of land)
- Range of ecosystems (coast to mountain tops, very wet to very dry)



Context

Key drivers

- environmental degradation
- loss of habitat & biodiversity
- ecosystem services are finite
- soundly-based outcome measures
- accurate & efficient data collection (NHMS)



Context

Department of Conservation Fire Management costs (average/year of last 3 years)

Reduction	\$2m
Readiness	\$2.2m
Response	\$2.4m
Recovery	\$0.8m
Total	\$7.2m



Needs & Current work

Require

- robust measure of biodiversity enhancement
- change in focus from “loss” to “protection” from \$ spent



Current work

- Wildfire Threat Analysis
- fire behaviour simulation modelling
- fire management planning in Canterbury

Wildfire Threat Analysis - National

Conservancies working on WTA

- East Coast - Bay of Plenty
- Tongariro-Taupo (part)
- Wellington (part)
- Canterbury
- Otago (almost completed)
- Northland (just starting)



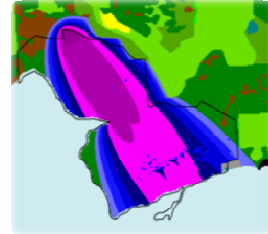
Needs

- specific data sets e.g. improved fuel type and fuel load maps
- standard approach to WTA

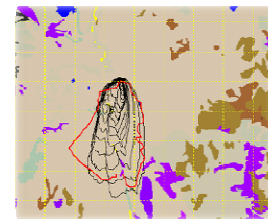
Fire Behaviour Simulation Models

Using simulation models as decision-support tools.

- aiding development of suppression strategies;
- planning tool prior to & during fire events;
- post-fire assessment tool

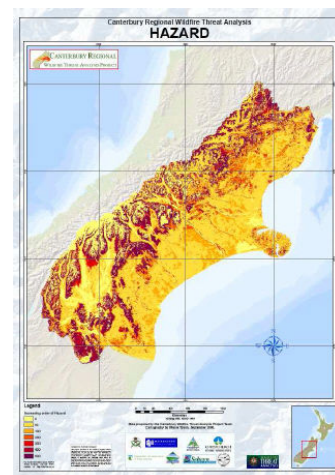


Process started - *Prometheus* Fire Growth Simulation Modelling course July 2010



Fire Management Planning in Canterbury Conservancy

- Updating the WTA
- Strategic and Tactical Fire Management Planning (STFMP) Project (underway)
 - provide an up to date “decision support tool” to plan and mitigate against fire on the landscape



Fire Management Planning in Canterbury Conservancy cont.

- Utilises a range of resources to prepare plans:
 - the Department's Natural Heritage & Monitoring System
 - WTA
 - NZ Fire Danger Rating System
 - key stakeholders &
 - *Prometheus*

The End