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# *ACT Parks and Conservation Service Fire Management Unit Parkcare Presentation 30 July 2024*



South Brandy 19 May 2019



# Outline

- What the RFMP Project is
- How it nests with the SBMP
- Concept of Residual Risk
- How the RFMP leads towards the EPSDD/PCS BOP
- Urban Interface development approaches (Grantley)
- Bushfire Operations Plan (BOP) Schedule
- Prescribed Burn scheduling for 2024/25 (Kirsty)



# Fire in the landscape

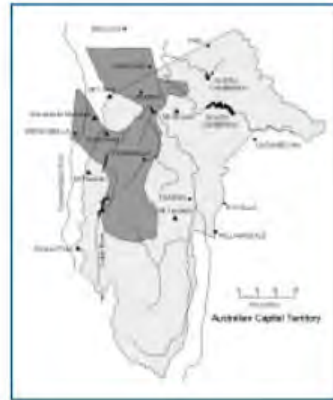
- Bushfires have been a fundamental part of the ACT landscape over time
- Last 100 years has seen many fires, grassland as well as forest, varying in size and intensity and impact on human assets as the population increases
- The ACT now has the shortest interfire major bushfire interval of all States – down from 70+ years to 18 years according to research (Canadell et al 2021)
- Fire behaviour has three drivers: Fuel – Weather – Topography. the management lever we can apply that will affect fire behaviour is fuel



# History of fire in the ACT



1919-20



1925-26



1978-79



1982-83



1938-39



1951-52

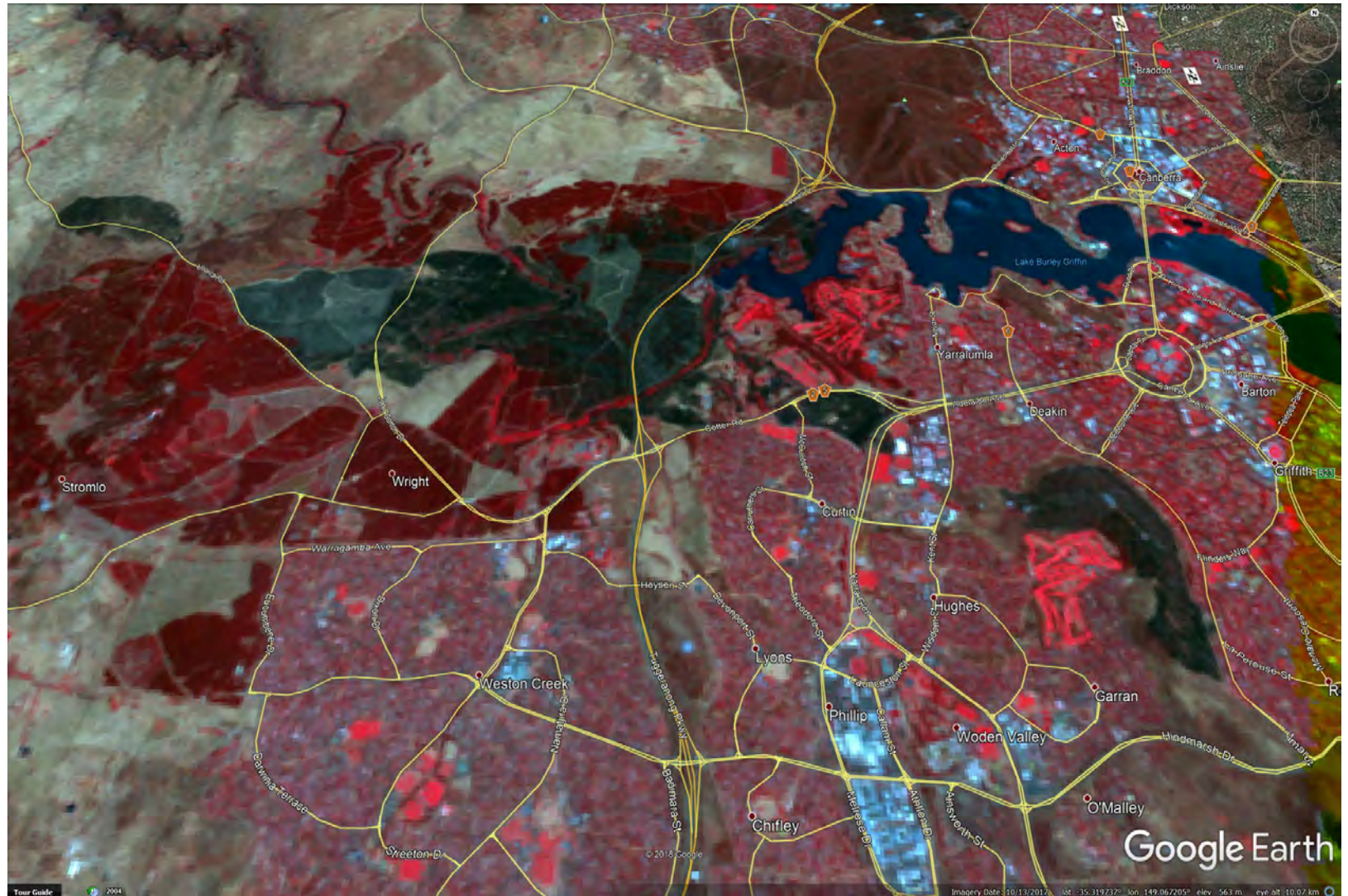


1984-85



2001

2001





# Fire in the landscape

- All jurisdictions use prescribed burning as a fuel management tool, to deliver ecological outcomes and to support cultural outcomes
- When designed and implemented well, avoids the detrimental impacts of too frequent intense fire on forest ecosystems
- Renewed focus on management practice since 2019-20 fire season with the emergence of alternative views on prescribed burning
- Most areas are unlikely to reach 40+ years of fuel age without bushfire impact under climate change scenarios
- The review of the SBMP and RFMP provide the opportunity to confirm ACT approach to fire management

# ACT Bushfire Management Planning Framework

## Strategic Bushfire Management Plan (SBMP)

- requirement of the *Emergencies Act 2004*.
- reviewed every 5 years
- Responsibility of Minister for Emergency Services

## Strategic Bushfire Management Plan

## EPSDD Regional Fire Management Plan (RFMP)

- bridges the gap between broad planning and specific operations
- planning of prescribed burns
- 5 Year Plan with a 10 year outlook

## Regional Fire Management Plan

## Bushfire Operational Plans (BOPs)

- operational annual plans - detail fire and fuel mitigation activities

## Bushfire Operational Plans BOP

BOP Year 1

BOP Year 2

BOP Year 5

BOP Year 4



Click to toggle time slider animation.

1/18/2003 8:00 am

8 am 7 pm

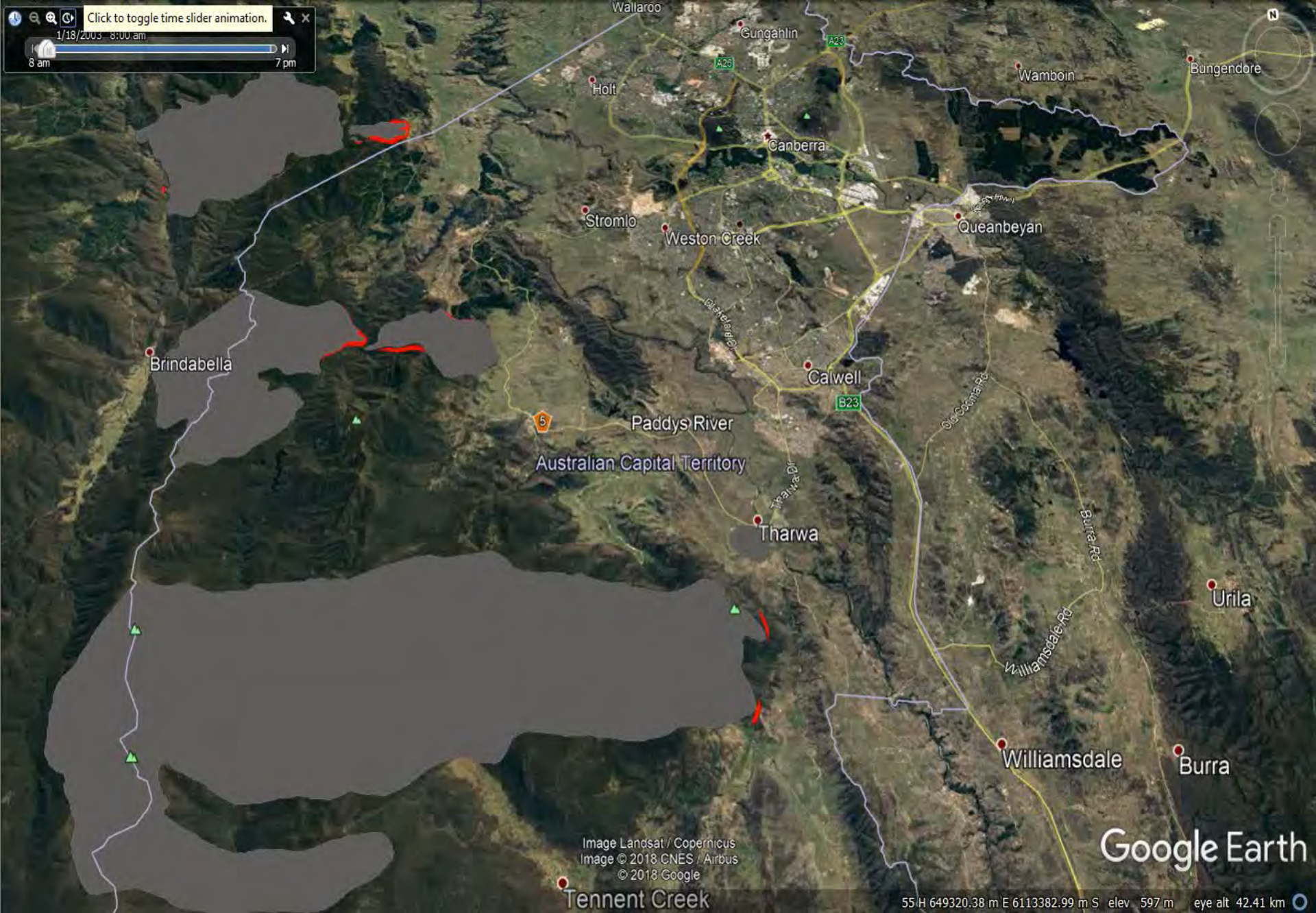


Image Landsat / Copernicus  
Image © 2018 CNES / Airbus  
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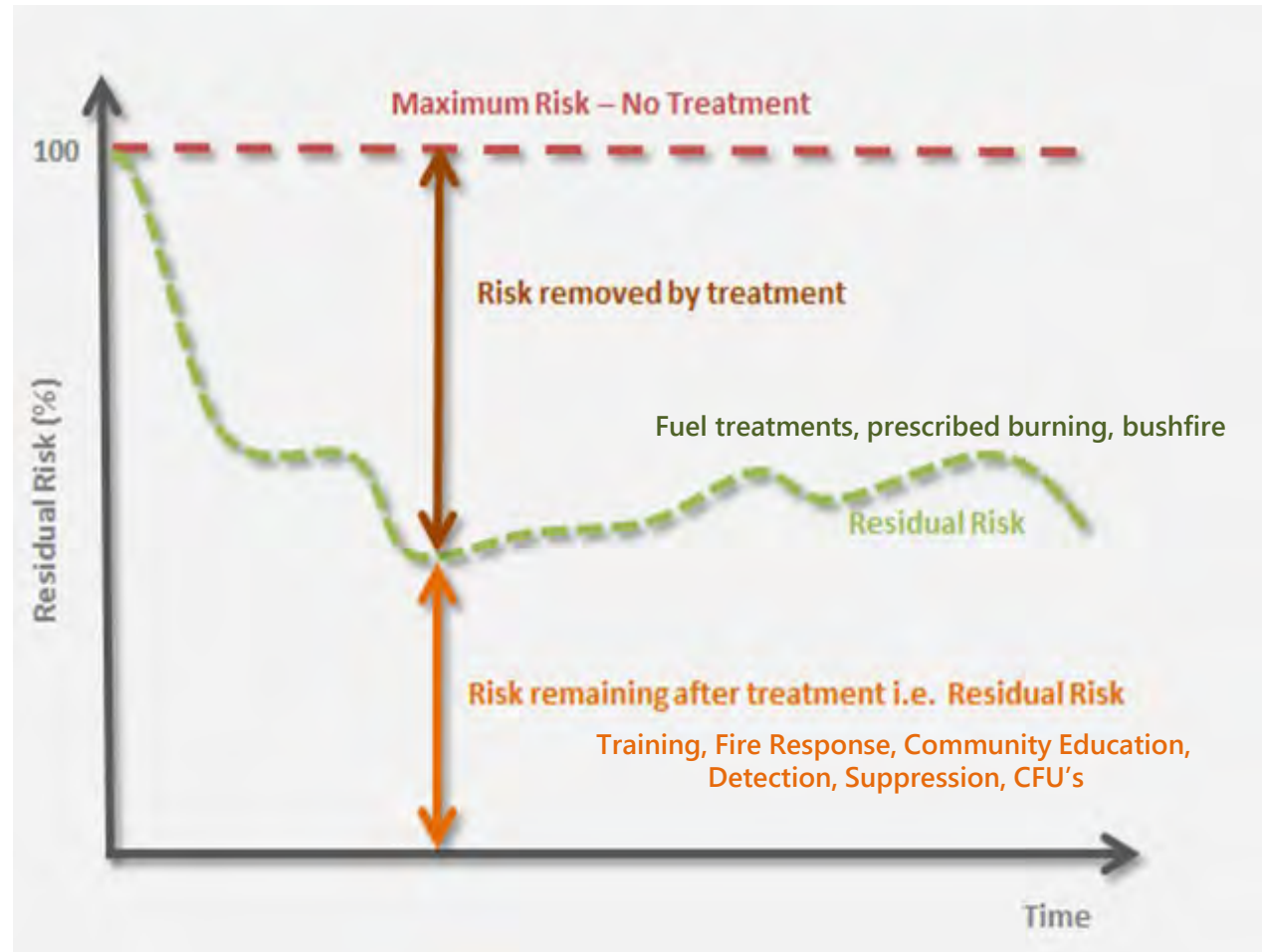
Google Earth

55°H 649320.38 m E 6113382.99 m S elev 597 m eye alt 42.41 km

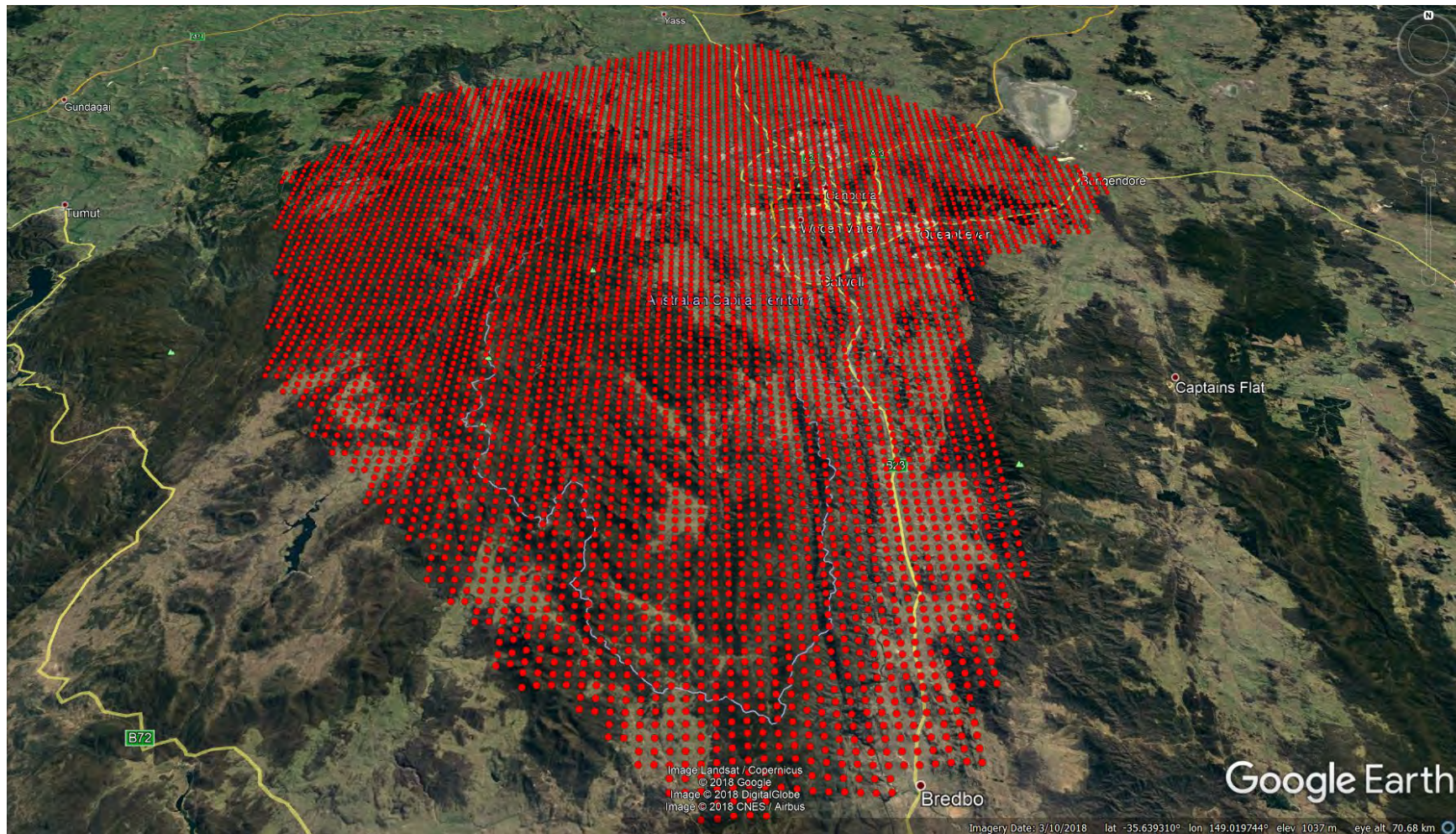


# Residual Risk

- Measures the effect fuel treatments such as planned burning
- Also incorporates stochastic fire events 2003, 2020
- Risk can be calculated for houses, water quality, ecological assets
- Assumptions:
  - APZs treated
  - Assumes grazing
  - Grass 2 tonne/ha
  - Fuel accumulation
  - No suppression



# Canberra “fire catchment” and 1km ignition grid – 6599 points

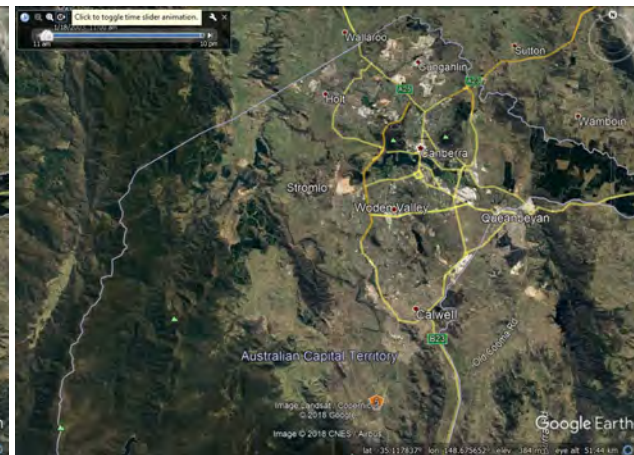
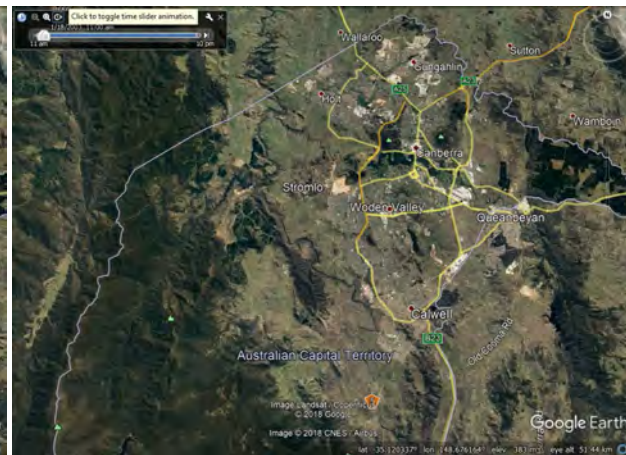
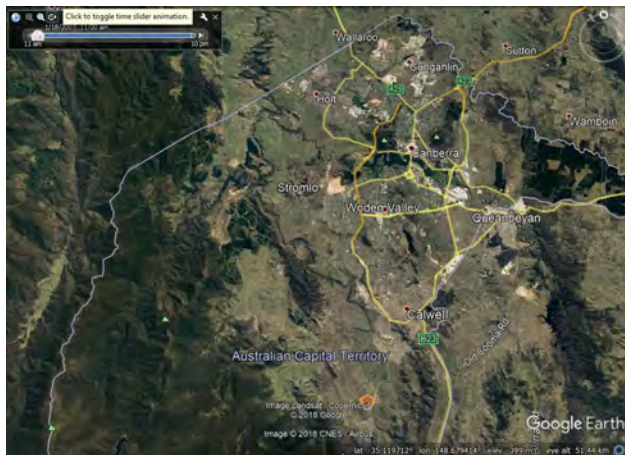
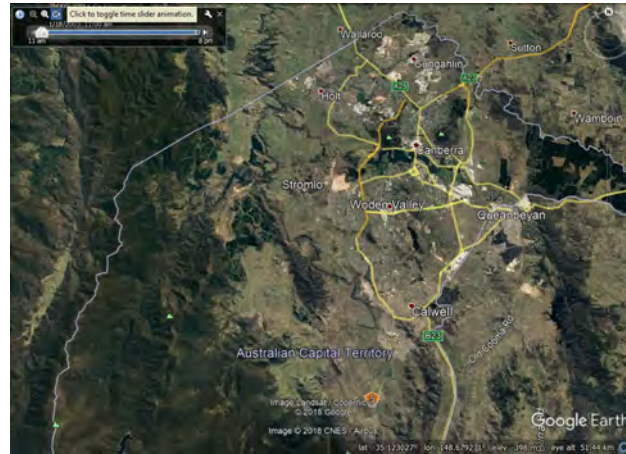




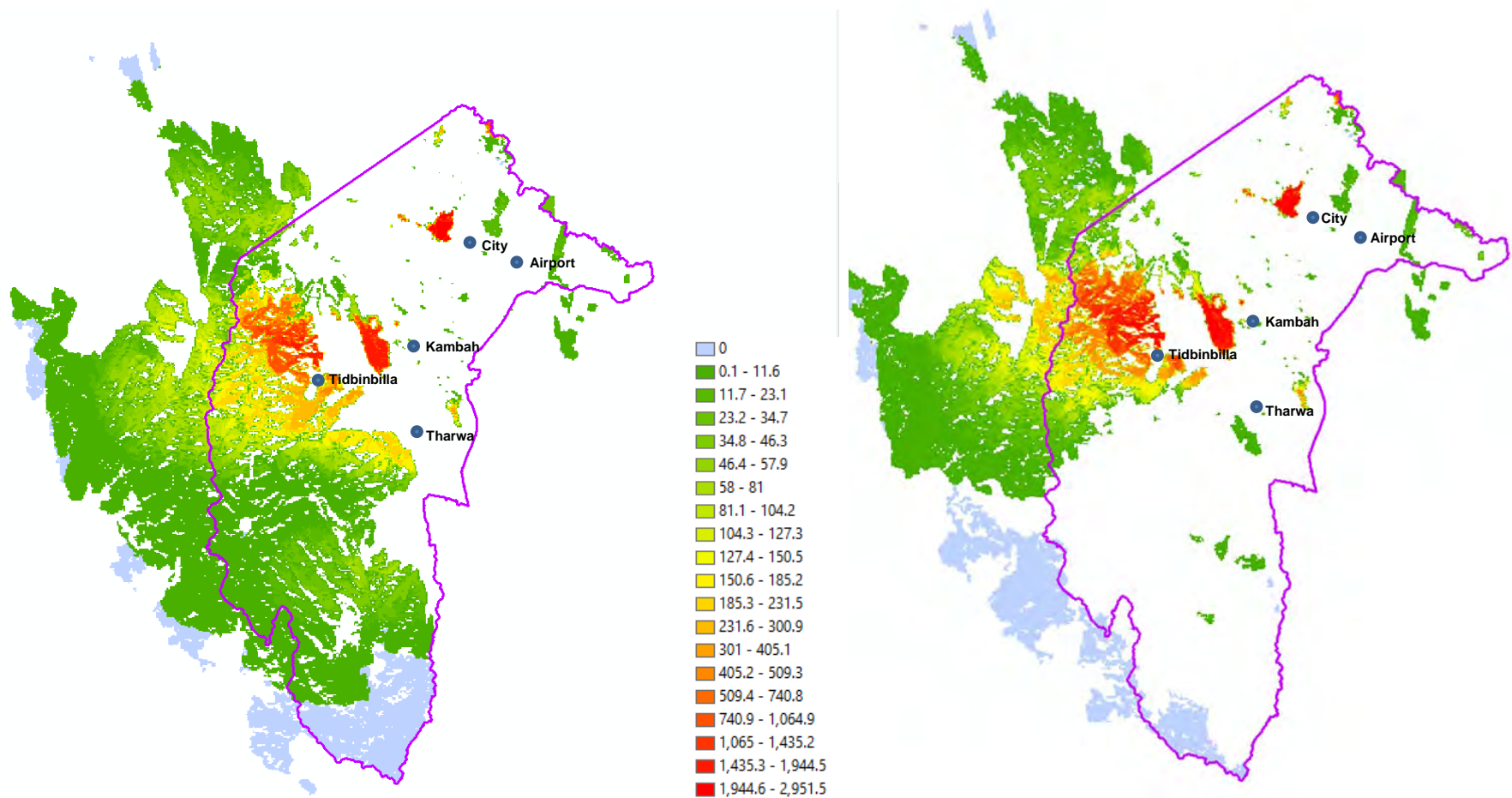
# Individual Phoenix fire ignition runs - examples

Each of the 6599 fires is run individually.

Metrics (fire size, house loss, area of plantation burnt, kms of powerline, biodiversity values etc) are calculated for each fire.

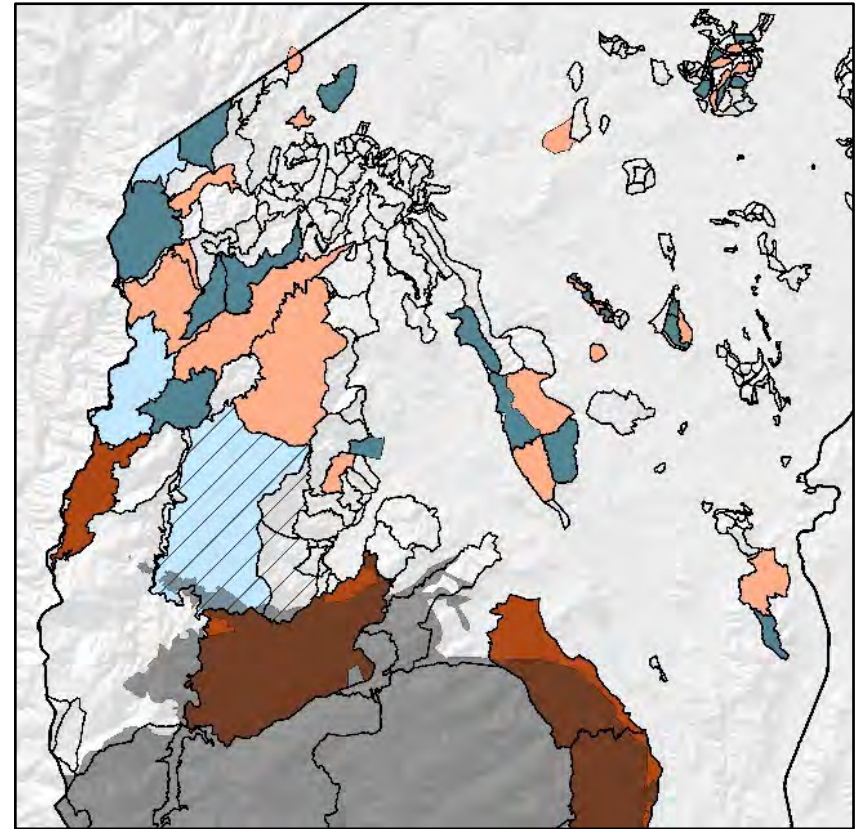
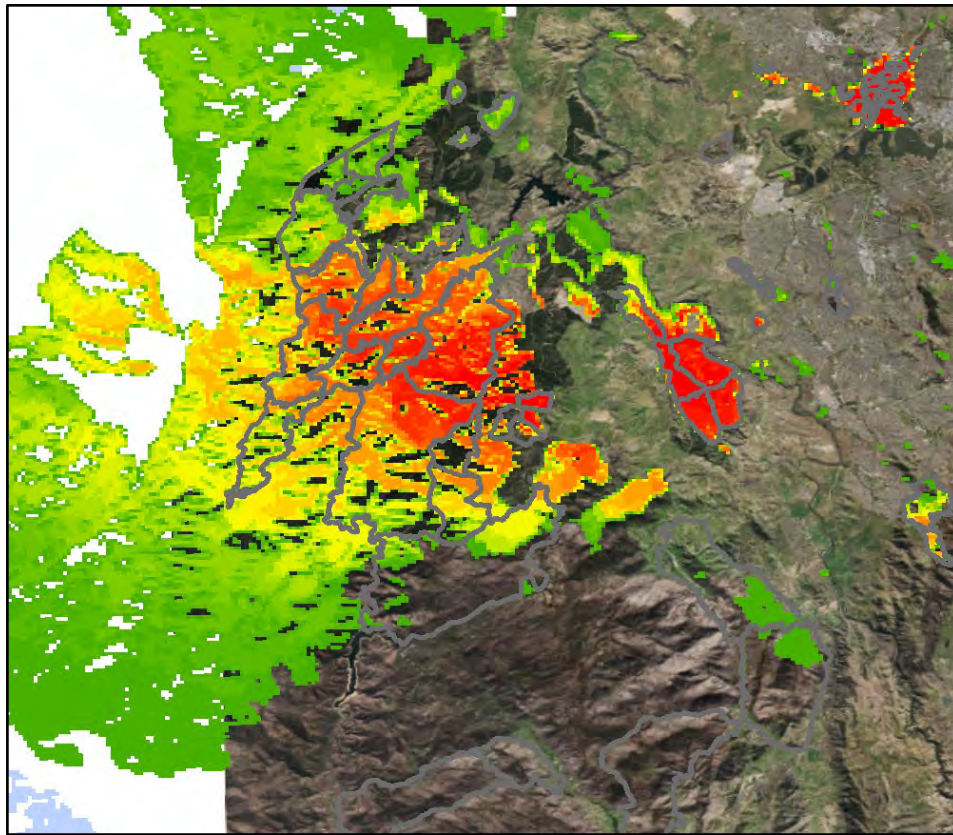


# Areas of highest 'Residual Risk' 2019 versus 2020 (ACT Address points)





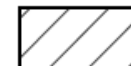
# RFMP Areas versus Risk Analysis



Burns for period 2019 - 2023



Optional (if other burns can't be implemented)



Mt Domian: maximum burnable area



Possible burns for period 2024 - 2028



Remove



Orroral Fire



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# RFMP Version 2023-2028 Review

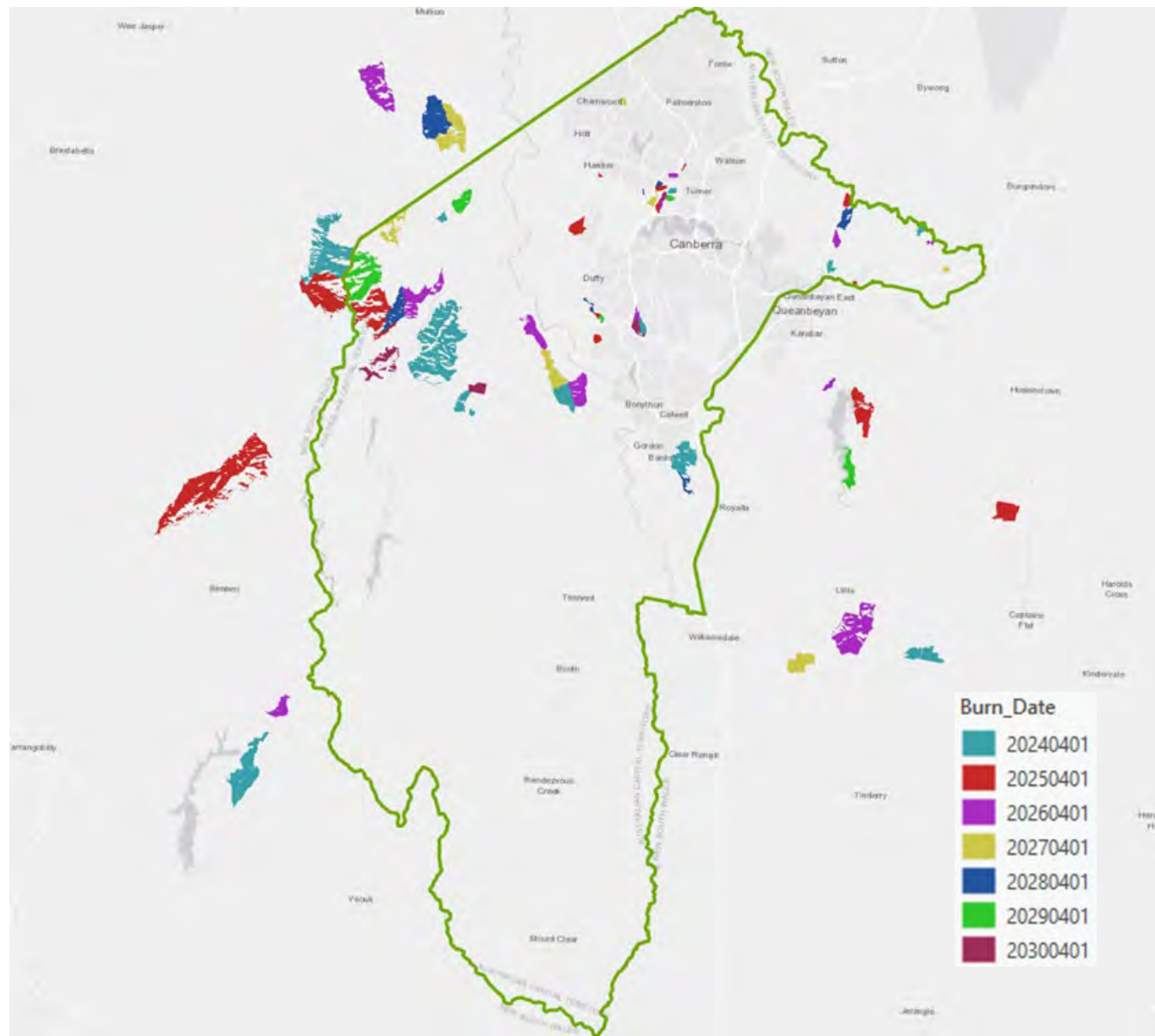
## Main Changes:

- 'Tenure-blind' analysis and treatments proposals
- Incorporate Climate Change Adaptation and impacts
- Improved Phoenix modelling approaches
- Incorporate 'Residual Risk' for Ecological Assets and Water Assets
- Work through Orroral Valley Fire footprint future treatments
- Bring modelling capacity 'in-house'
- Work closely with SBMP Team at ESA on Zoning changes in ACT Parks and Reserves
- Incorporate planning and development into EPSDD annual operational plans



# Scheduling RFMP areas

- Residual Risk calculations rerun after each Autumn burn program and any major bushfire events
- Include NSW proposed burn schedule

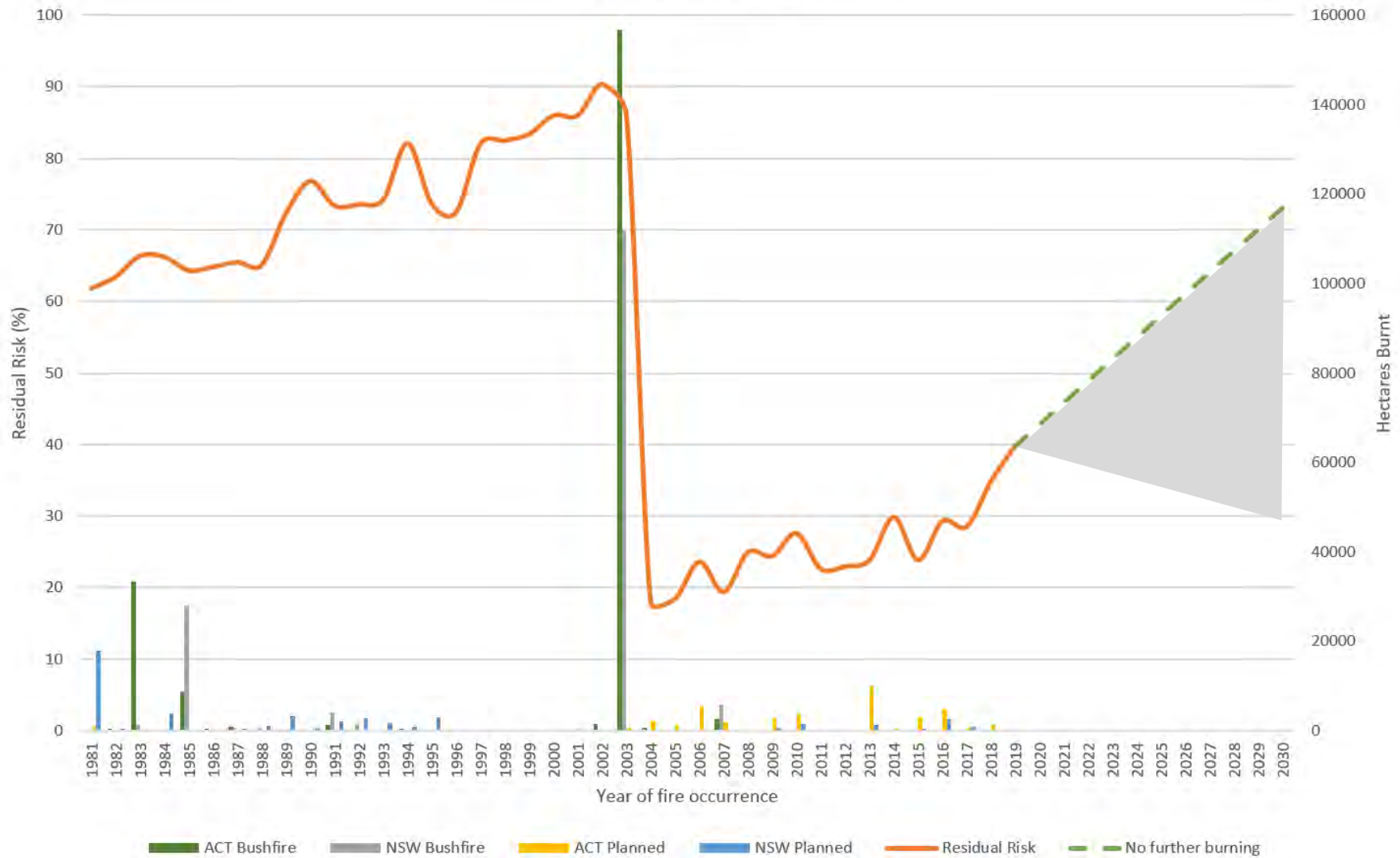


# Prescribed Burning

- PCS implement prescribed burning for a range of 3 broad objectives – fuel/hazard reduction, ecological and cultural burning, or a combination of the above
- To achieve the stated objectives - all PCS prescribed burns are subject to prescriptions
- We implement lighting patterns designed to reduce the fuel for the site –We employ “cool burns” . We retain around 30-50% of the area as unburnt (patchiness), creating havens and age diversity within the burn site
- We work to assist local Ngunnawal community and are partnering in achieving their objectives
- PCS subscribes to literature, research and practices adopted, supported and endorsed by AFAC, the Bushfire and Natural Hazards CRC and the National Centre for Prescribed Burning Excellence



## Residual Risk for ACT



# Residual Risk (ACT Address points) 2024

