

# The 2019/20 Fire Season: Context

## Impacts

*This fire season burnt 2.7m ha (37%) of NSW national park estate.*

NPWS manages  
320,656 ha of the  
905,000 ha  
Warragamba  
catchment

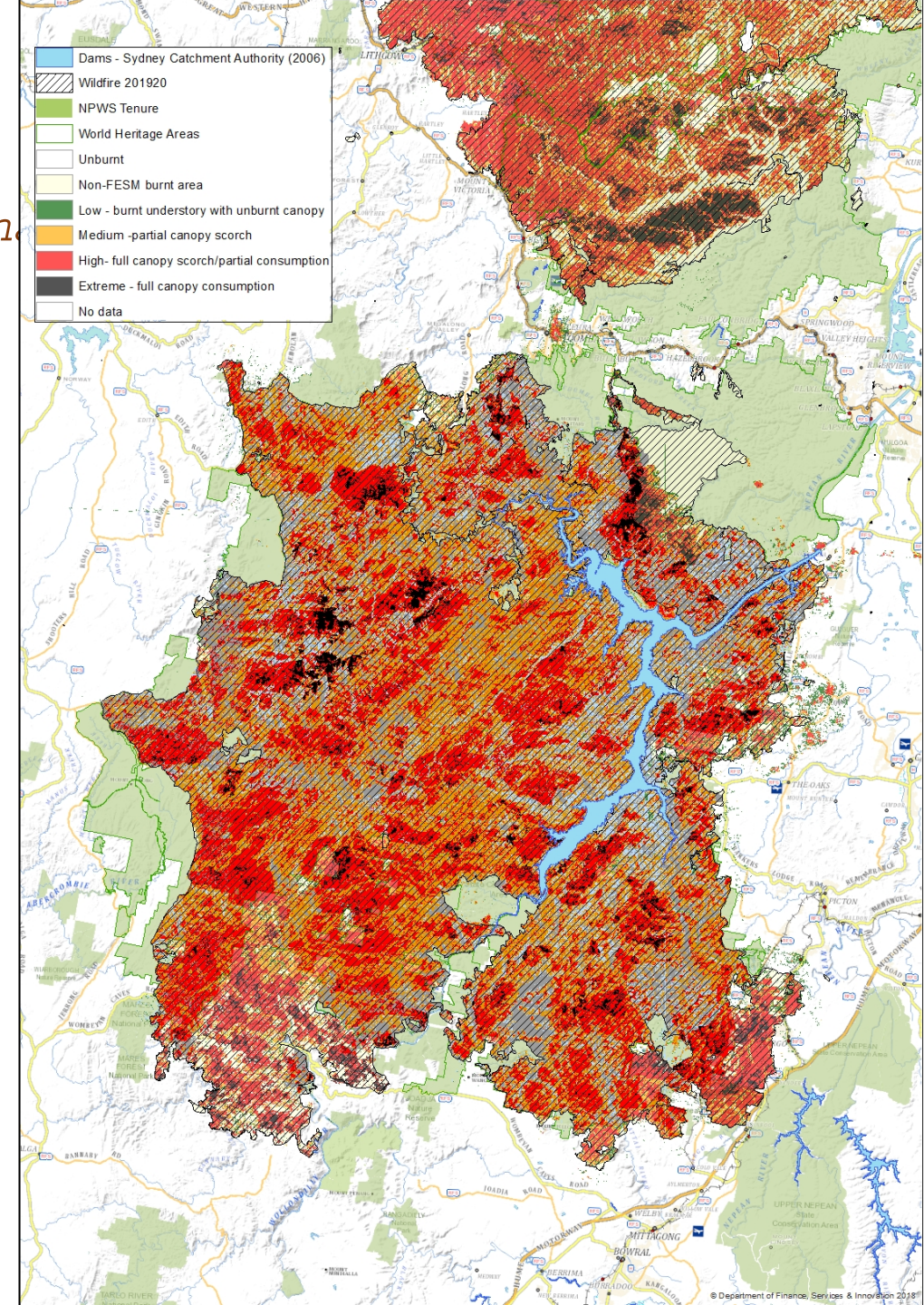
**71%**  
is dry  
sclerophyll  
forest

**267,149 ha**  
or  
**83%**  
of this area  
burnt in 2019/20

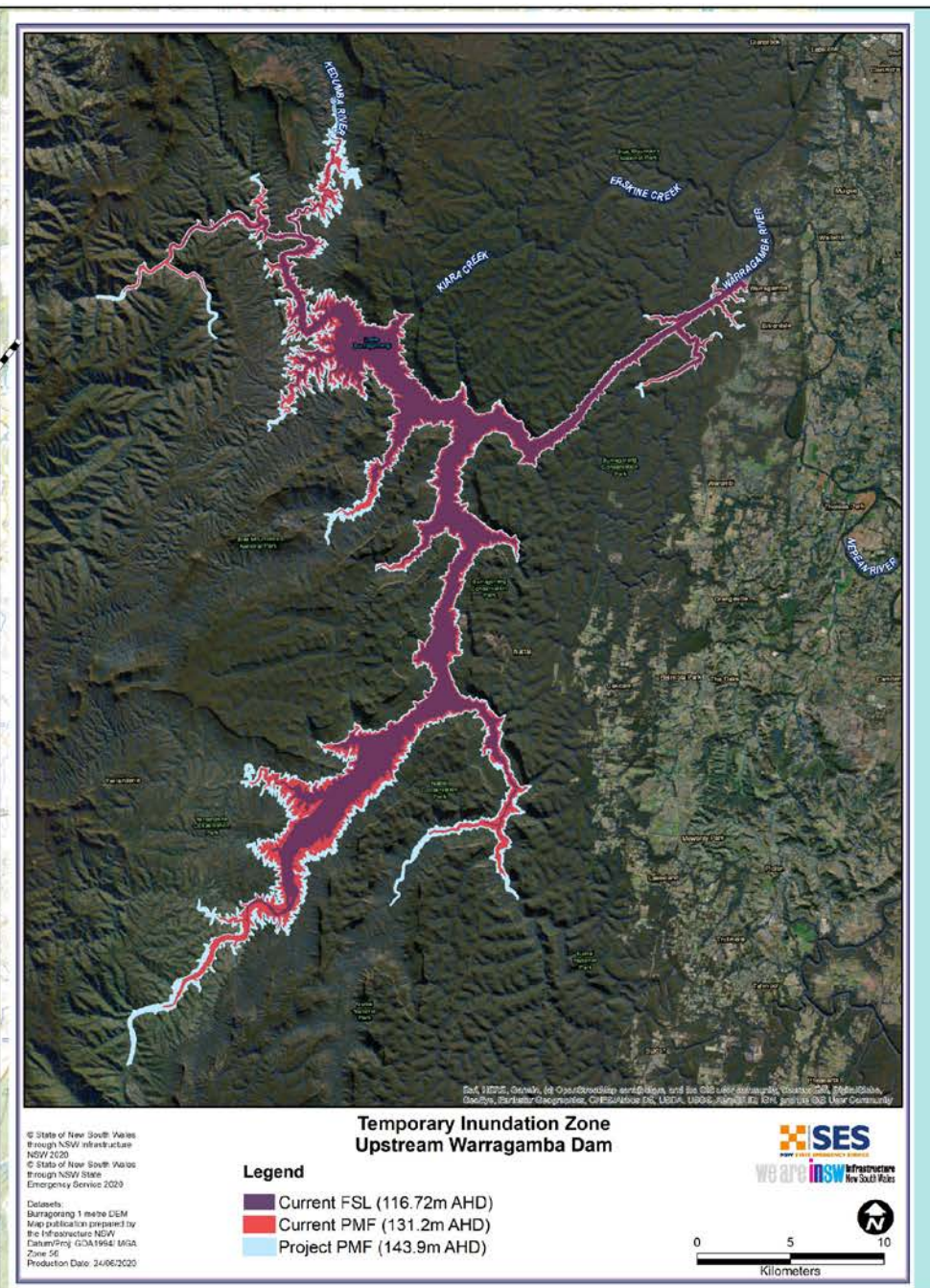
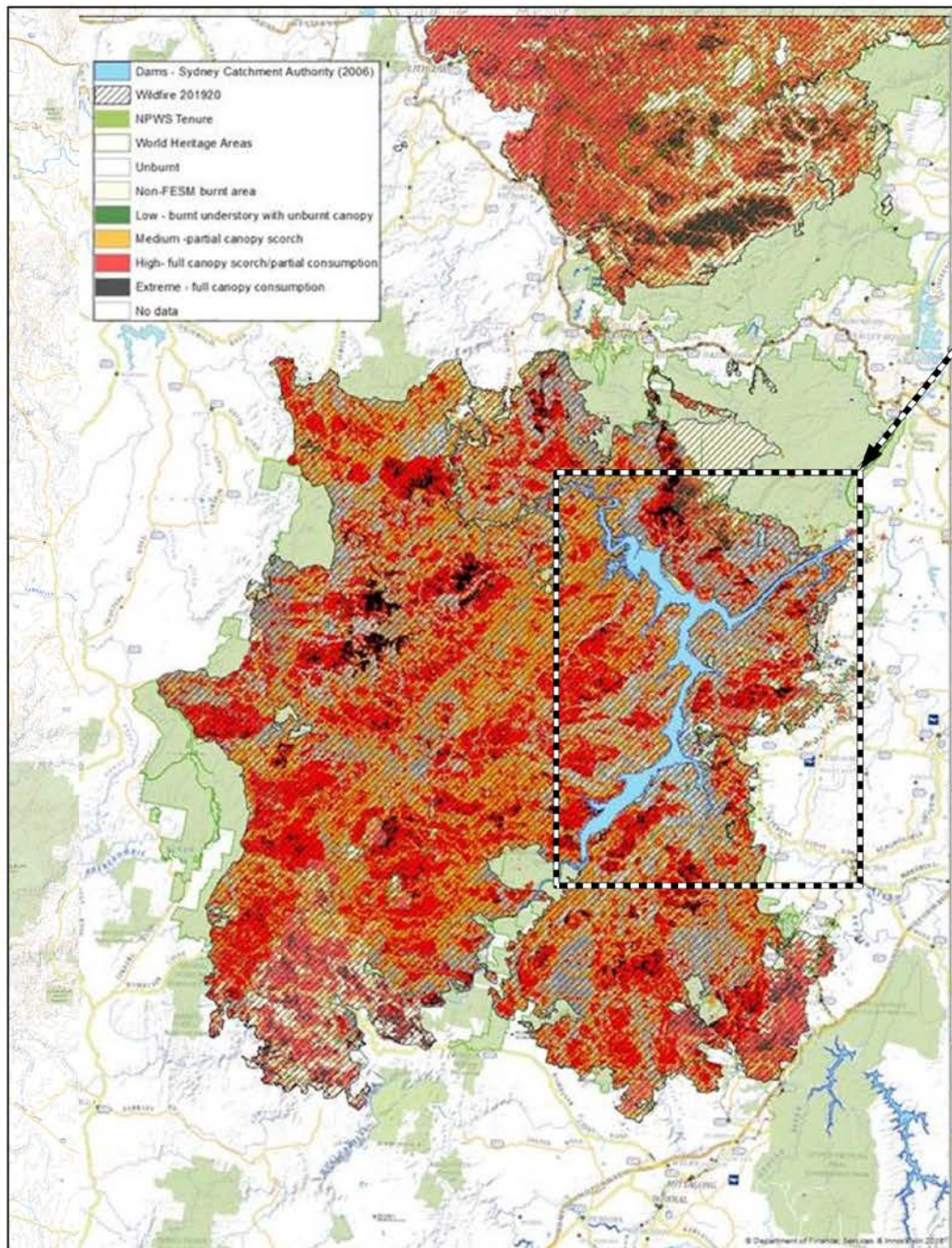
More than  
**100,000 ha**  
with high or  
extreme  
severity

**NB:** This presentation focusses on fire impacts on NPWS reserves across the catchment – and does not specifically deal with the potential upstream inundation areas associated with the proposed dam-raising.

- Initial assessments indicate significant impacts to **the biodiversity and landscape** of the Warragamba catchment.
- The fires burned the high-altitude Kanangra-Boyd Plateau for which there is **no record of previous wildfire** since NPWS records began.
- The fires were followed by periods of high rainfall, which have created **erosion and sedimentation risks** within the catchment.
- Assessments of the impacts from bushfires, erosion and sedimentation are continuing.** It will be some time before a full picture emerges of the specific impacts.









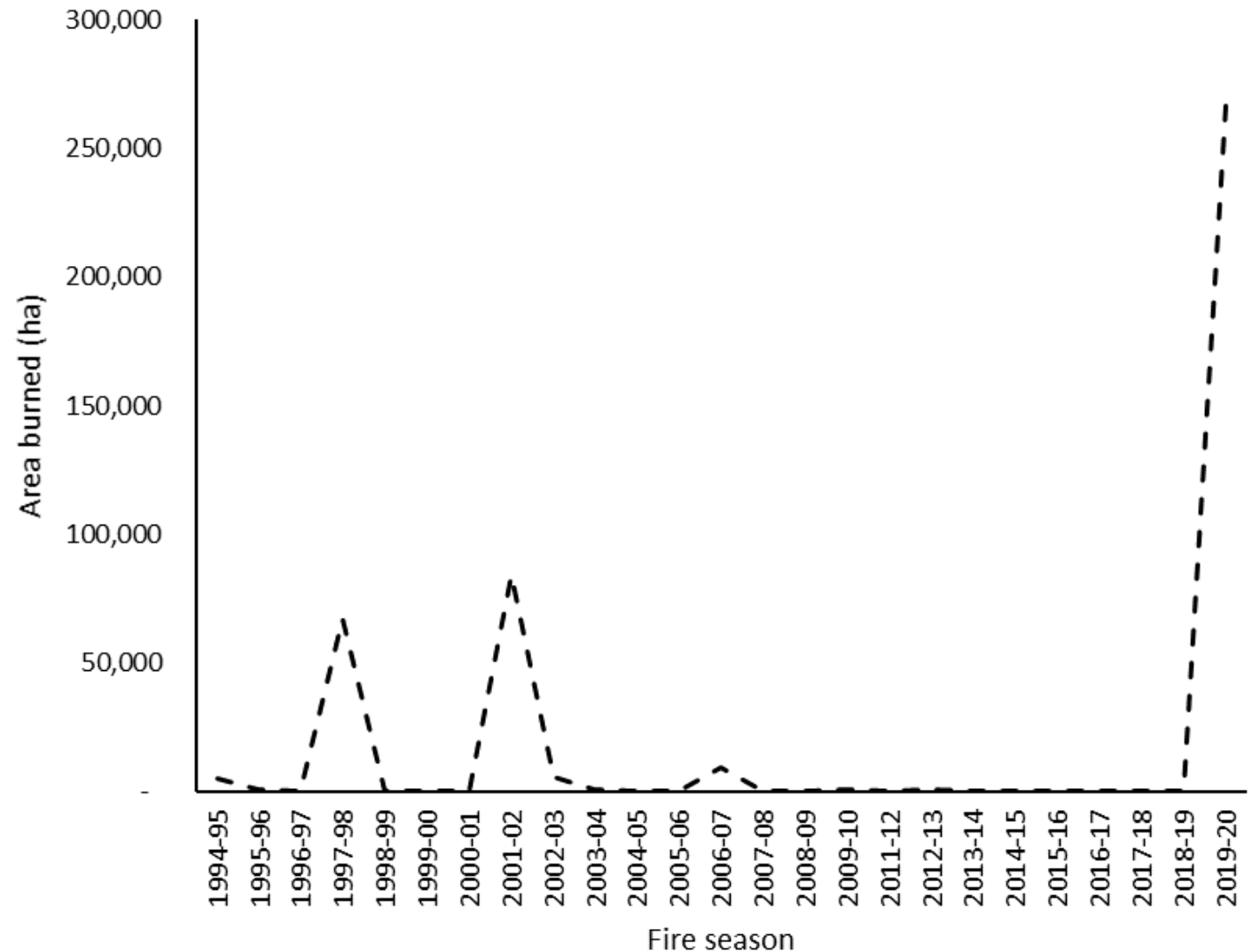
# Fire management: historic data



*This fire season followed  
**16 years of very limited fire  
activity.***

*A factor has been the effectiveness  
of the joint **NPWS/Water NSW  
Catchment Remote Area Fire  
Team (CRAFT) program.***

*The program was focussed on the  
**early detection and suppression  
of fires.***



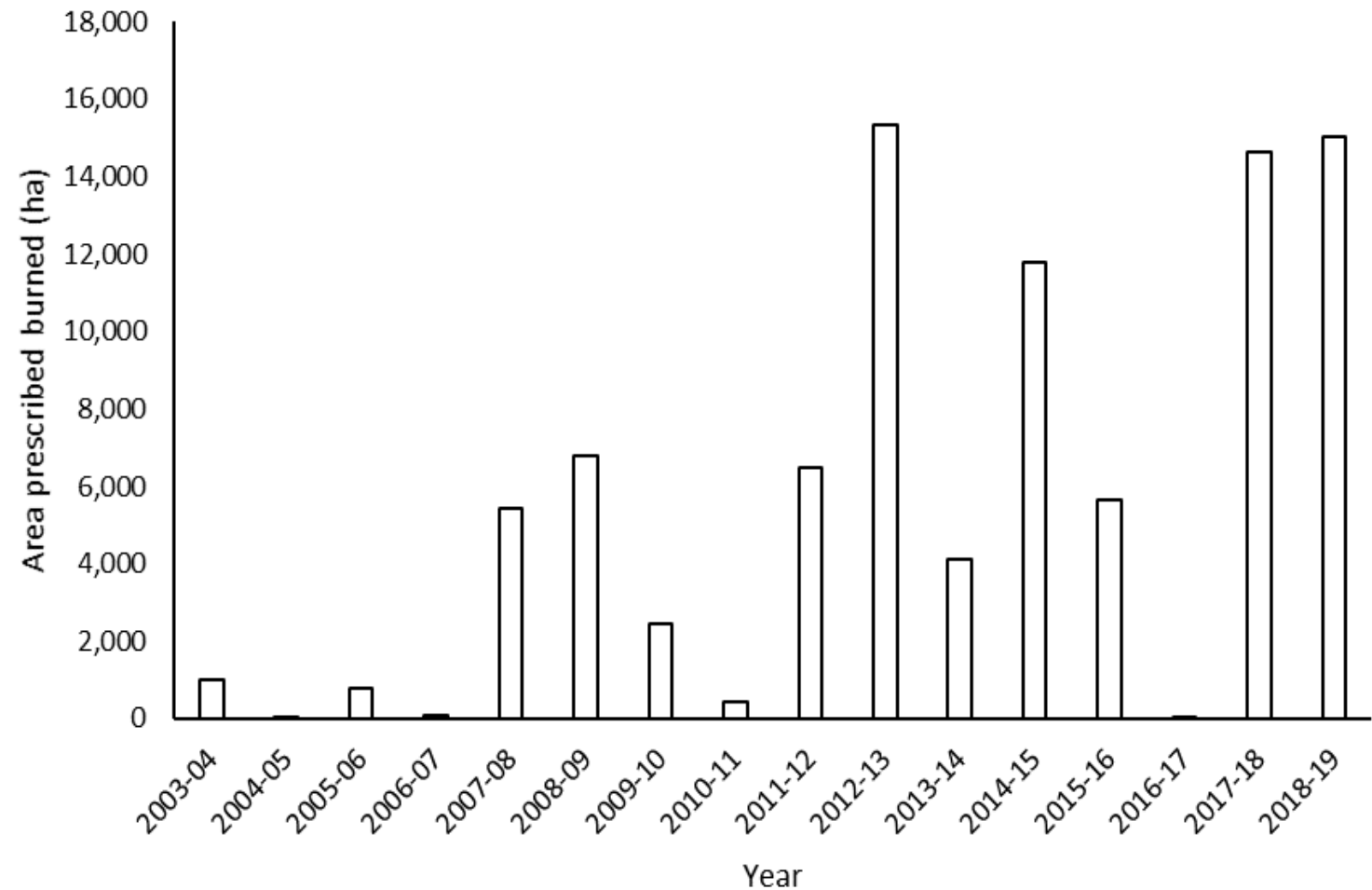
# Fire management history: hazard reduction



**Significant hazard reduction** has been undertaken by NPWS in the catchment

*Prior to the 2019/20 NPWS undertook both prescribed burning and mechanical treatments to strategically reduce fuel loads and bushfire risk to important assets within the Warragamba catchment area.*

- **89,973 ha** of prescribed burning on NPWS managed land **between 2003/04 and 2018/19**
- **More than 70% was completed in the seven years** leading up to the 2019/20 fire season (66,533 ha)





# Biodiversity impacts: flora



A significant number of **threatened plant species** exist within the burn area.

- 45 plants species listed as **vulnerable or endangered**.
- 9 have **sole or significant populations** in the catchment.



The **elevated severity of the fires** is likely to have affected these species.

- Direct mortality will have significant impacts on **species that rely on resprouting** to respond to bushfires.
- This, combined with **extremely low soil moistures**, will affect the likelihood of recovery.



## Other contributing factors

likely to lead to the decline of threatened species include:

- **pre-fire drought**  
*limits resprouting*
- **feral grazers**  
*damaging regrowth*
- **disease**  
*e.g. phytophthora cinnamomia*
- **weeds**  
*providing competition*
- a range of other **localised disturbances** affecting recovery.

*Plant species affected by the 2019/20 fires are likely to be sensitive to fire events occurring in the next seven to fifteen years.*

# Biodiversity impacts: fauna



NPWS records indicate **48 threatened animal species** occurred within the NPWS managed areas of the Warragamba catchment.

- 12 of these species have been identified for **urgent management intervention**.
- This is based on:
  - ability to escape death or injury during fire
  - short to medium term mortality risk post-fire
  - long term capacity for population recovery.
- Many of these species are susceptible to high severity fire, due to **both immediate survivability** and longer term **habitat impacts**.



## Key examples

- Giant burrowing frog
- Littlejohn's tree frog
- Stuttering frog
- Regent honeyeater
- Koala

*NPWS post fire conservation recovery actions are underway, including significant acceleration of aerial shooting programs for herbivores and aerial baiting for feral predators.*







# Erosion and tracks asset impacts



The 2019/20 fire season and subsequent rainfall events had significant impacts on **erosion potential and the catchment fire trail system.**

- Soil Conservation Service (SCS) has been engaged by NPWS and Water NSW to inspect and assess the Warragamba Catchment for **erosion risk as a result of the fire, periods of high rainfall, and fire suppression operations.**
- The contract **is jointly funded by the two organisations** and includes two tranches of work:
  - **Landscape scale erosion** risk assessment
  - **Fire trail and control line assessment**, including inspections of 1,300 km of trails, roads and control lines.

*SCS will provide recommendations to Water NSW and NPWS on potential repair and erosion mitigation actions.*

# Cultural heritage impacts



NPWS is working with Water NSW to facilitate access for Aboriginal community groups to **assess fire impacts on cultural sites**.

- Due to the **limited access within the catchment**, it has not yet been possible to assess fire impacts to Aboriginal cultural heritage.
- It is expected that a number of existing access routes will **remain closed and inaccessible for an extended period**.
- NPWS is working with Water NSW and Aboriginal stakeholders to progress **access opportunities for cultural purposes** and for assessment of cultural sites post-fire.

*A number of consent arrangements are currently being negotiated between Water NSW and Aboriginal groups.*

