

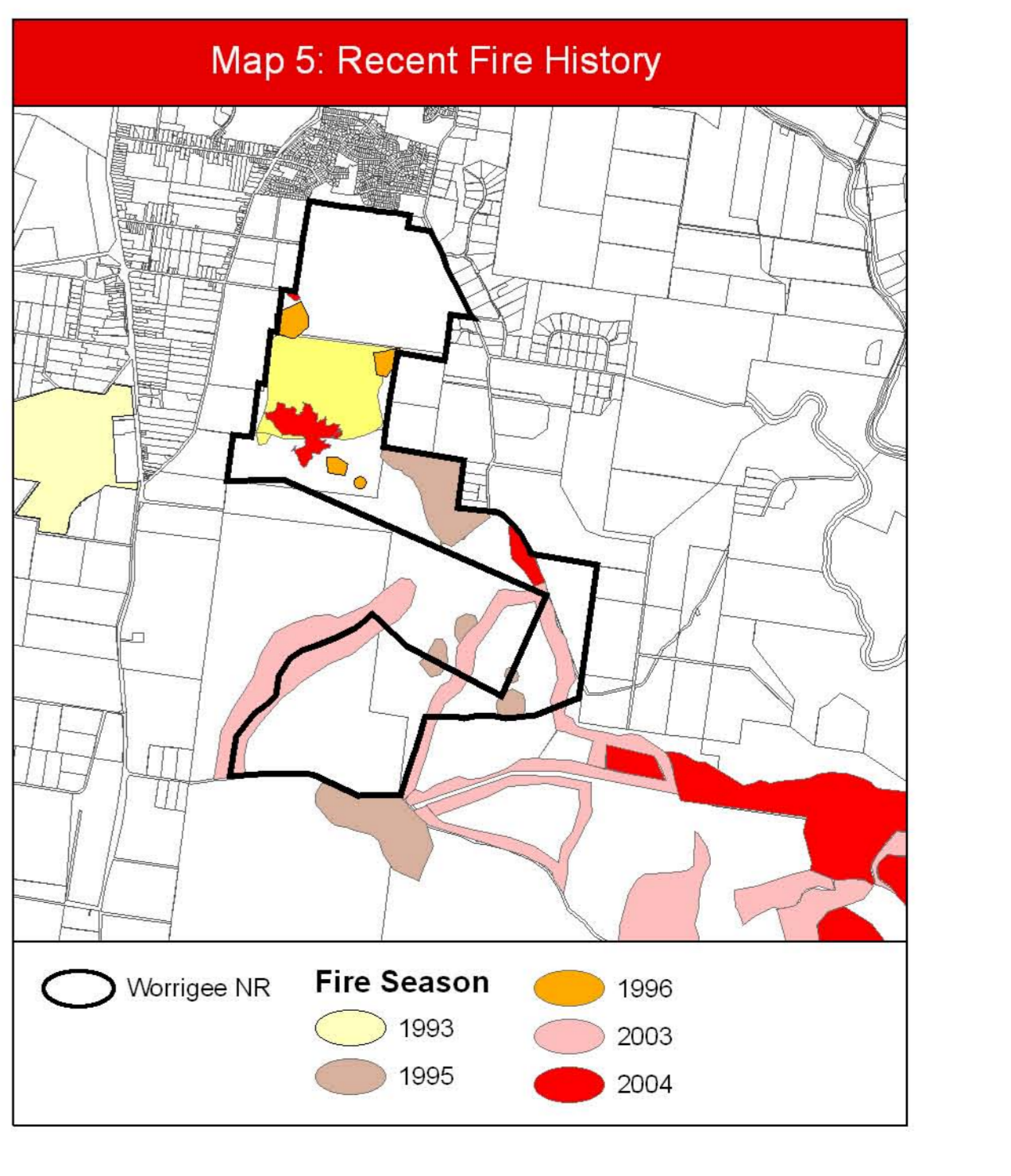
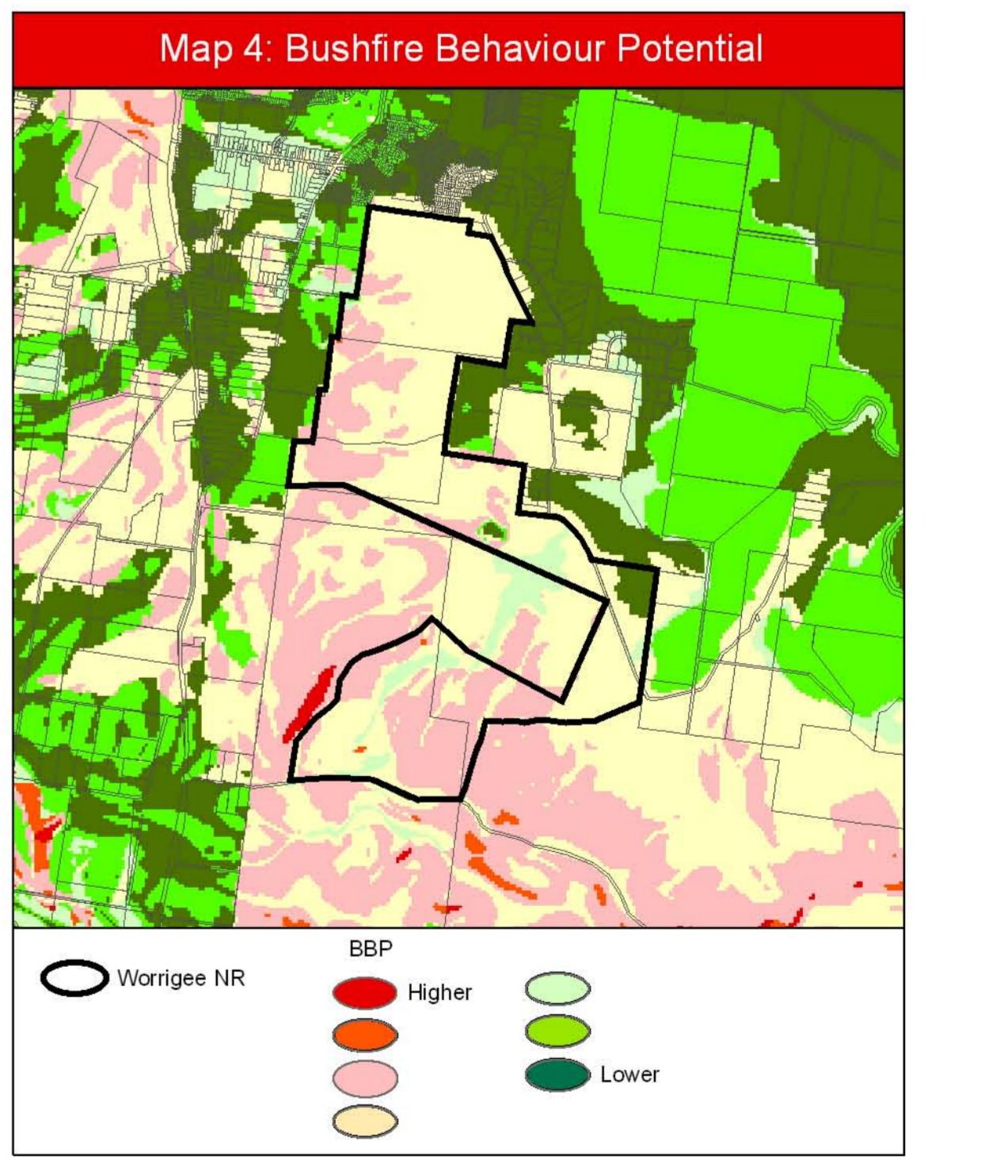
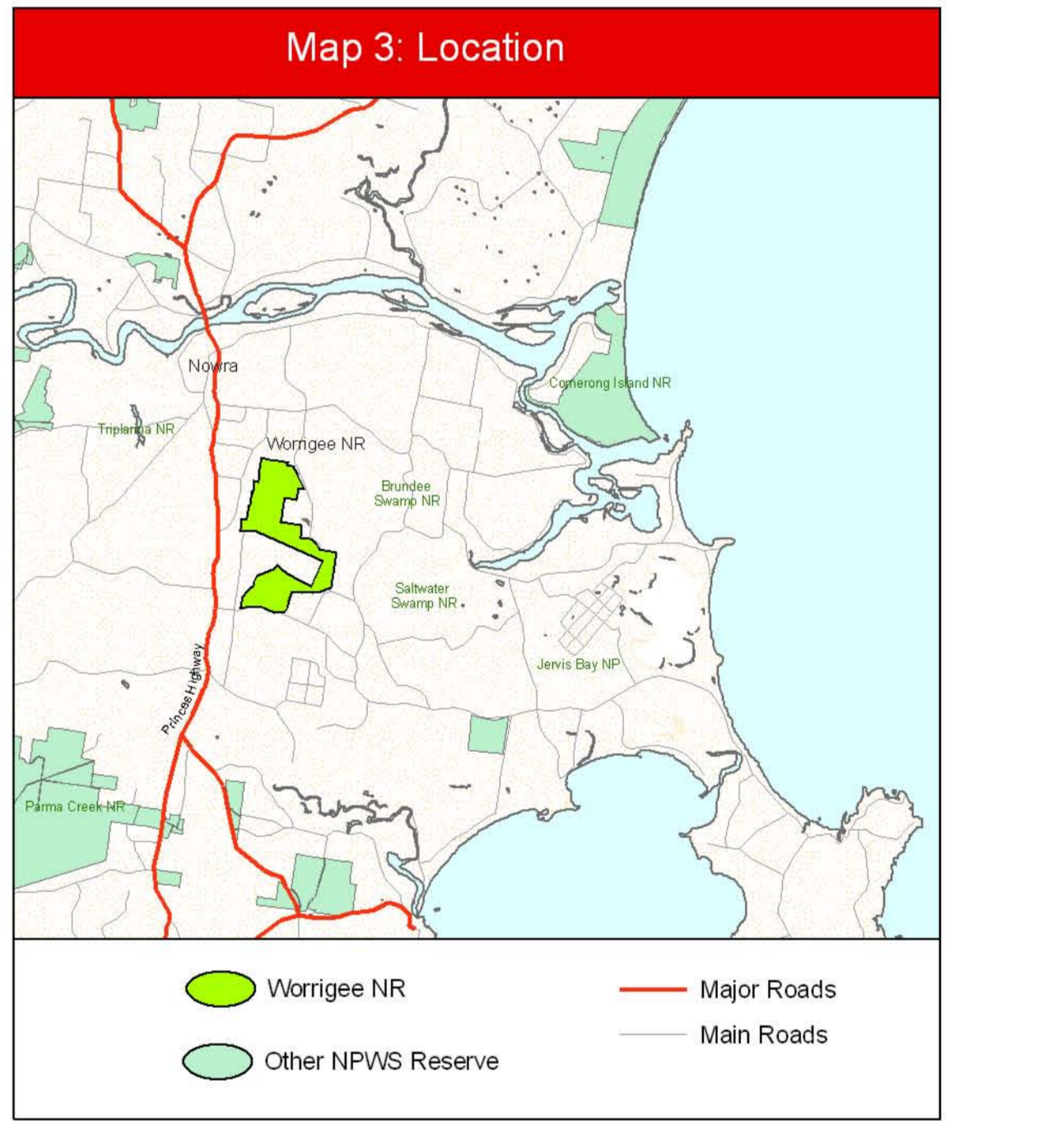
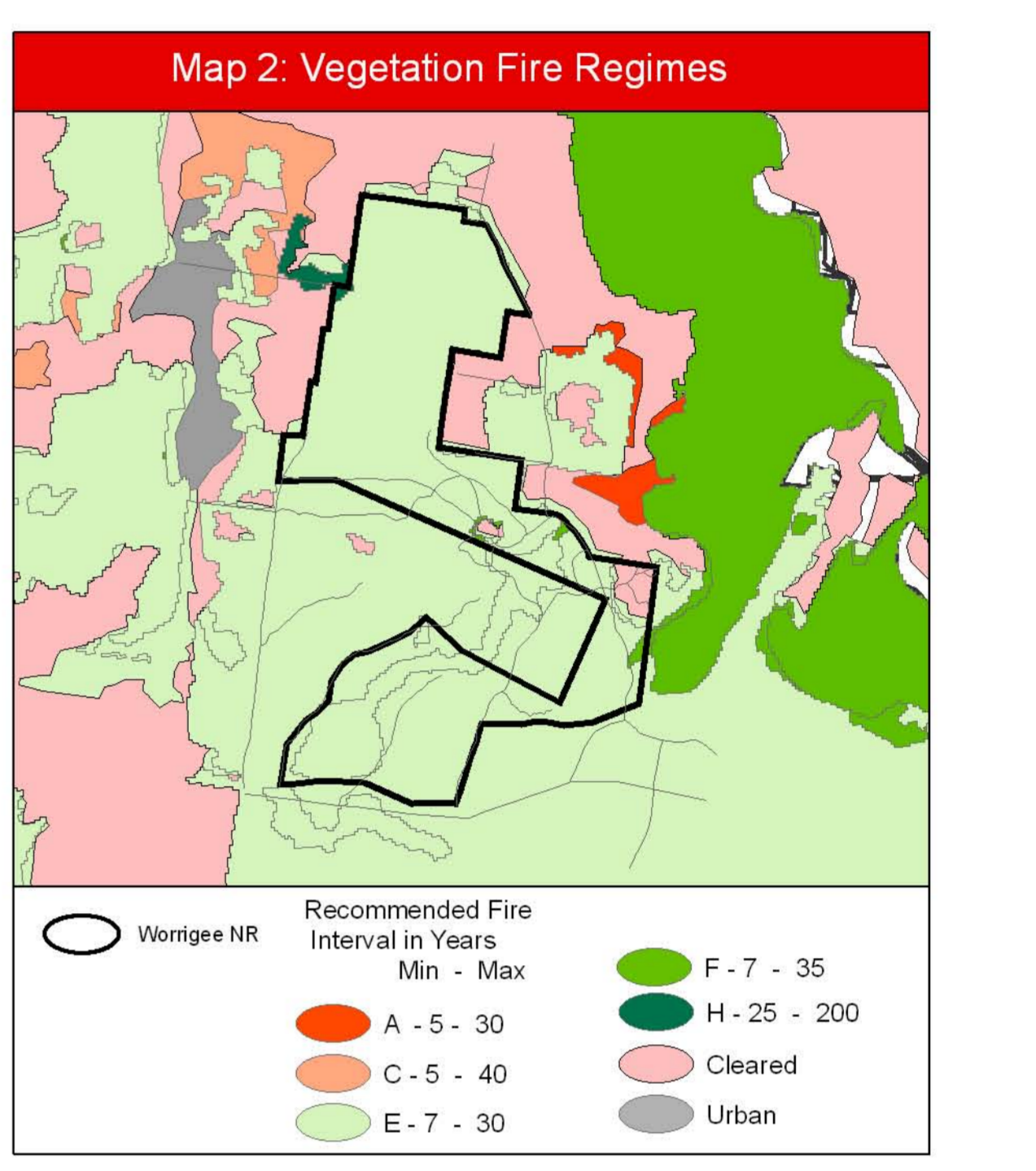
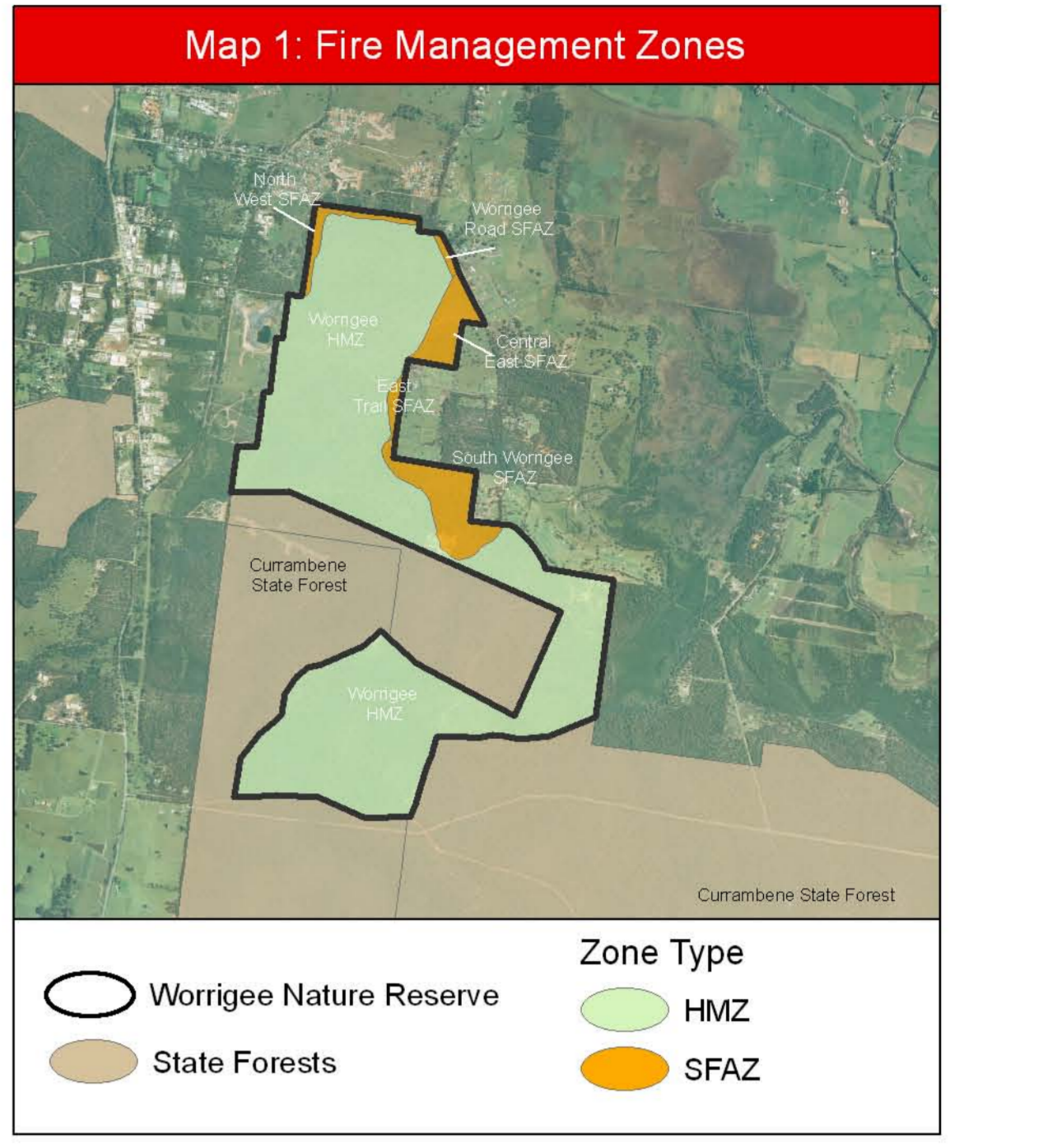
Worrigee Nature Reserve Fire Management Strategy March 2007

This Map should be used in conjunction with topographic maps and ground reconnaissance during incidents and the development of incident action plans.

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Grid Interval 500m
Australian Map Grid Zone 56
Topographic Map for Worrigee Is. Nowra 802835

Please forward comments on this strategy to:
so_fireplans@environment.nsw.gov.au
or NPWS Nowra Area Office, PO Box 707, Nowra NSW 2541



Fire Regime - Vegetation

For fire management planning the reserve is divided into two main types of fire management zones each with strategies to address fire management in the particular area. Other strategies apply to the whole reserve (e.g. fire access network) or address fire management for particular values found in the reserve (e.g. threatened species). These strategies guide the fire management and related works within this reserve. Guidelines are also provided to assist with operational matters - see table.

Map ID	Vegetation type	Minimum fire interval	Maximum fire interval
A	Coastal complex, Woodland, Grassy dry forest	5	30
B	Wetland	5	30
C	Open forest, Woodland	5	30
D	Grassy forest, Riparian forest, Coastal Plains forest, Coastal Dry forest, Coastal Sand forest, Coastal Dry forest, Heathland	5	30
E	Coastal Dry forest, Coastal Sand forest, Coastal Dry forest, Heathland	7	30
F	Riparian forest, Dry forest, Swamp forest, Mixed forest	7	35
G	Acacia forest, Shrubland, Grassland	5	30
H	Mixed forest, Coppodia forest	20	30
I	Riparian forest, Mangrove, Marsh	Excludes fire where possible	Excludes fire where possible
No	Rural Urban, Wetlands	NA	NA

Overall Fire Response and Management Strategies

Fire Detection: The NPWS maintains and contributes to cooperative fire detection and response arrangements across the Shoalhaven Fire District. This includes lookouts, surveillance flights, lightning detection and communications systems. During periods of higher fire danger this reserve may be patrolled and restrictions placed on visitor access and the use of fire.

Fire Response: Apart from any specific conditions indicated in the Operational Guidelines, the NPWS as a NSW fire authority prepares and maintains personnel and equipment to undertake fire management and response within the reserve. These resources are also provided under cooperative control, cabinet and incident management arrangements within the Shoalhaven Fire District and across NSW.

Fire Suppression: As this reserve is close to built-up areas, unplanned fire will require a prompt response aimed at containing the fire, access and options for containing the spread of fire. Fire suppression tactics in all areas will primarily consider immediate visitor and firefighter safety, protection of nearby property, minimising unnecessary disturbance and will have regard to constraints defined within the reserve Plan of Management when appropriate.

Prescribed Fire: May be introduced to maintain biodiversity or meet protection obligations as identified within the fire management zones as assessed. The NPWS maintains a record of known fire history and will annually review the need to undertake prescribed burning. Each proposal is subject to environmental assessment and operational safety planning. All burning proposals for the coming season (July-June) are listed with the Shoalhaven Bush Fire Management Committee. For details or enquiries contact the NPWS Area Office (see Contacts) or Shoalhaven Fire Control.

Fire Management Access: Management tracks will be maintained as required for reserve management operations or to limit environmental effects and should always be assessed before being used for fire operations. Any fire management access problems should be immediately notified to the NPWS Area office (see Contacts). Also refer to operational guidelines.

Community Information: The NPWS will participate in cooperative community information programs in the Shoalhaven Fire District. For this reserve this will focus on fire management works and bushfire maintenance, personal safety and the safe use of fire, property preparation and protection near the reserve and the NPWS role in cooperative fire management and response.

Slashing or other bush fire management works: The NPWS will maintain slashed areas as indicated within the reserve. For information on other slashed areas or fire management works contact NPWS Nowra Area or Shoalhaven Fire Control.

Fire Works Program

The works program arising from the above strategies is prepared and reviewed annually. This program is prepared from the post fire season assessment of each of the zones as above. Also considered are seasonal weather trends, available resources and cooperative arrangements with neighbours, other fire authorities and land management agencies. Fire related works for the reserve are summarised and presented to the local District Bush Fire Management Committee annually, usually before the bushfire danger period. Some works indicated may not be completed due to prevailing weather patterns, or the necessary reduction of effort resources or other priority tasks such as bushfire control and rehabilitation. In most cases, such deferred works are carried forward into subsequent programs. Information on the works to be undertaken is available from local NPWS offices and the Shoalhaven District Bush Fire Management Committee at the district RFS headquarters.

Fire Management Strategy Information

For fire management planning the reserve is divided into two main types of fire management zones each with strategies to address fire management in the particular area. Other strategies apply to the whole reserve (e.g. fire access network) or address fire management for particular values found in the reserve (e.g. threatened species). These strategies guide the fire management and related works within this reserve. Guidelines are also provided to assist with operational matters - see table.

Fire Management Zones - Worrigee Nature Reserve

SFAZ Strategic Fire Advantage Zones: These zones are strategically placed and managed to provide an advantage for fire fighters in containing and suppressing wildfires. Here, fire frequency may occur towards the lower thresholds necessary to conserve biodiversity, in more often.

HMZ Heritage Management Zones: Within these zones fire is managed towards a range of intensities and frequencies required in order to conserve natural processes (biodiversity) and cultural assets. Fire authorities continue to aim at containing wildfires in these areas.

- For more information on the strategies and purposes of these zones refer to the NPWS NPWS Strategy for Fire Management - see sub-sections below.
- NA: Some zones may extend beyond the boundaries of the Reserve to a logical fire break or boundary for the zone. Where these are outside the Reserve the owners/managers need to be contacted for details of fire management options for these areas.
- These zones will form part of the overall District Bush Fire Management Plan for the Shoalhaven Fire District.

Strategic Fire Advantage Zone Strategies - SFAZs

Map ID	Zone Name
SFAZ1	Central East, North West, East Trail, Worrigee Road, Worrigee South SFAZs

Strategies

Review fire management works program for the zone annually, post fire season. This assessment includes bushfire fuel, fire history, biodiversity maintenance and the condition of fire control facilities within the zone such as fire access tracks, slashed areas, gates, information signs, identified water points etc. Fire related works for reserve declared and reported to District Bush Fire Management Committee. Annually - fire season.

Undertake burning under prescribed conditions where indicated by above fire fuel assessments and biodiversity maintenance requirements - as required.

Maintain cooperative management and communication with adjoining landholders so that effective fire risk management is maintained across the zone and adjoining bushlands.

Seek cooperation of local RFS brigades in the monitoring of SFAZ fuel and access conditions.

Heritage Management Zones - HMZs

Map ID	Zone Name
HMZ1	Worrigee HMZ

Strategies

Review fire management works program for the zone annually, post fire season. This assessment includes fire history, biodiversity maintenance and the condition of fire control facilities within the zone such as fire access tracks, slashed areas, gates, information signs, identified water points etc.

Undertake burning under prescribed conditions where indicated by above assessment for biodiversity maintenance requirements - as required.

Operational Guidelines - Worrigee Nature Reserve

These guidelines are provided to assist fire management activities within the reserve. They are framed by current cooperative arrangements with other fire authorities, NPWS strategies for fire management, reserve management plans, neighbours and other specific issues that need to be considered. Feedback on these matters is always appreciated and should be directed to NPWS Nowra Area, PO Box 707, Nowra NSW 2541.

Command and Control: The NPWS is responsible for fire management within the reserve. Any fire authority may initiate set-up and attack with advice to the NPWS upon initial fire sighting or report. See Contacts section to advise fire reports in or within 2km of the reserve. Class 1 fire suppression operations may remain under command of the initial attack agency following assessment and advice by NPWS.

Visitor Safety: No visitor use areas are provided in the reserve but tracks are frequently used by the public. Consider public safety within initial response operations, (ie warnings and information, on-site protection, closures or evacuation where instructed by Police, also beware of sightlines in areas).

Fire Suppression: Firefighter safety is paramount. Containment options should consider using existing roads, trails, walking tracks and recently burnt areas. Where possible to limit unnecessary damage, earthmoving equipment should be limited to brushing up existing tracks. Trails exist to break the reserve into compartments. If safe to do so, fire suppression should be limited to the protection of adjacent urban areas.

Earthmoving Equipment: Except for immediate initial attack, the use of earthmoving equipment for fire suppression within the reserve requires NPWS consent. There are significant natural values at unnecessary risk from unplanned use of earthmoving equipment. Contact the NPWS if earthworks are required. ALL use of earthmoving equipment will be consistent with NPWS safety, operational and environmental guidelines.

Feam and Retardant Use: Avoid foam and retardant use within the reserve unless there is a significant necessary operational advantage. DO NOT use on or near watercourses. DO NOT use foam or retardants near water storages or supply infrastructure. Unless under emergency conditions always obtain permission before using retardant water supplies/sources. Take care when tank filling not to contaminate water sources.

Aerial operations: Aerial operations should be limited on location of transmission lines in the area. Consider safety implications where aerials will operate over adjacent urban areas or dwellings, or operate from publicly accessible regional sites. Aerial operations should be postponed or abandoned if there is a high risk of a storm moving through the area, or there is a significant wind change anticipated. This area is within a controlled airspace. Advise NSW Military (RMS) (Subclass) of any scope of operations required. (02 4424 1257).

Smoke Management: This reserve is adjacent to built-up areas and busy roads. Consider prompt advice to communities downwind and consider traffic management during the suppression operations. Consider safety and health implications during prescribed burning operations. Notify nearby highway and airspace management agencies if a smoke hazard to traffic is likely.

Road Safety: Earthmoving equipment and other resources should be allocated to soil erosion control works and reinstatement before standing down from fire operations.

Arson: Report ALL fires of unknown cause or suspected arson to Police via Fire Control. Report ALL fire ignition points or evidence. Report any suspicious activity on or near the Reserve.

Locked Gates: Any NPWS locked gates within the reserve are filled with standard key held by the landholders and available from Fire Control. Report any missing or damaged locks via Fire Control or to NPWS. For public safety during fire operations, some gates may need to be left in closed position but not locked. Check that NPWS gates after operations. Where safe, leave gates closed.

Map Grid: (zone 56) Datum for map grid shown is AGD 66. This will remain in use until the majority of map sheets covering the area are revised to the revised GDA datum. To approximately locate a map reference given in GDA to this map (AGD 66) move approximately 200 metres to the southwest from the given grid reference. Conversely, to relay a grid reference from this map (AGD 66) to someone with a GDA map, give the reference of a point approximately 200m to the northeast of the position shown on this map.

Emergency Call Numbers

Emergency Calls - Fire, Ambulance, Police
Call 000 - standard service required

National Parks & Wildlife Service NSW (Dept of Environment & Conservation)

Emergency Contact	Business Hours - 0830-1630 Mon-Fri	After Hours / All areas
Local NPWS Area Office	4428 6300	4428 6300
Nowra Office	4428 6300	4428 2170
South Coast Regional Office	4428 2170	4428 2170

Rural Fire Service

Shoalhaven Fire Control Centre	Emergency Calls	Business Hours
For Brigade Contact No.s - Contact Fire Control	000	4424 4424

NSW Fire Brigades

Brigade	Nowra Fire Station	4421 4754
Forces NSW	Hardwood Forests	4421 4754
Police	Batemans Bay office	4472 6211
Police	Nowra Police Station	4421 9699

State Emergency Services (SES)

Service	Channel	Location and Comments
NPWS - VHF	31	Red Rocks - reserve
NPWS - VHF (Frangrant Corral)	4344	17.18 - 5.00K Channels
NPWS - VHF (Pristine Reservoir)	14	Stored at Nowra Area depot (transportable)
NPWS - VHF (Vand Repeller)	14	Stored at Nowra / transportable. Full range of both simplex & duplex (NPWS VHF - SES) P4 channels.
RFS - FMR - UHF	CH 08	Red Rocks
CH 09	Nowra	
CH 29	Warrigora Valley	
Emergency	00	Edwards Hwy (limited coverage)
CH - UHF	28	Forestry use
Aircraft - VHF	123	As advised by State Ops
Mobile Phone - CIMA		Fire coverage available - Tetra
Mobile Phone - GSM		Fire coverage
Landline Phone		Available for equipment to Warrigora and Nowra Area offices

Communications Information - Worrigee Nature Reserve

Map ID	Threatened Flora	Species	Common Name	Species status
FL 1	No fire, No slashing, hitting or tree removal.	Pterodytes gibbosa	Blawarra Greenhood Orchid	Endangered1