



TIWI ISLANDS

FIRE MANAGEMENT PLAN

2016

Since 2006 discussions have been held in the Tiwi Land Council, and subsequently in the Tiwi Islands Fire Management Committee, about fire management for greenhouse gas abatement. There has been unwavering and unanimous resolve for the development and implementation of a fire management plan that reduces greenhouse gas emissions. These reduced emissions can subsequently be sold in carbon markets, potentially generating income that can be used for the continuing employment of Tiwi Rangers.

Greenhouse gas emissions can be reduced by burning earlier in the year, and by burning less area overall. Early season burning (before the end of July) results in cooler fires, and these fires give off less greenhouse gas. Late season fires (fires after the beginning of August) are hotter and create more greenhouse gas. In addition, cool fires burn more patchily, and are less destructive to Tiwi plants and animals.

The Tiwi Islands Fire Management Committee meets regularly to develop strategies to inform Tiwi people, and to reduce the area of the Tiwi Islands that is burnt in the late dry season. On the 26th April 2016, the Committee signed off on the Tiwi Islands Fire Management Plan for 2016. Learning from the 2014 and 2015 fire seasons, the management strategies being used to reduce late season fires in 2016 are:

- Creating firebreaks during the late wet season by spraying the grass with herbicide and then burning while the surrounding vegetation is still green (creating a spray break);
- Helicopter burning early in the dry season to reduce fuel loads and provide patches of burnt country that stop late fires from running (creating a helicopter break);
- Ground based burning along roadsides in the early dry season to reduce fuel loads and provide patches of burnt country that stop late fires from running (creating a road break);
- Grading firebreaks around assets such as plantations (plantation break) and outstations and burning off them early in the dry season (protection burning);
- Coastal burning along the banks of small creeks and rivers, accessed by boat, to reduce fuel loads and provide patches of burnt country that stop late fires from running (coastal burning).

The Tiwi Islands have been split into 8 areas for the purpose of fire management; shown on the the following maps. Areas are not based on Landowning boundaries - they are split up according to the landscape and natural features. This way each area can be treated as a separate unit, thereby reducing the likelihood of fires from one management area running into another management area.

Each map shows the 2015 fire scars laid over broad vegetation types. The overall aim for the 2016 program is to provide patches of burnt country in order to a) shift the majority of fires to the early dry season, and b) result in less area burnt overall throughout the year. This will be achieved by helicopter burning areas unbunt in 2015 to reduce and break up fuel loads; early helicopter spraying, roadside and coastal burning to provide additional firebreaks; and burning off firebreaks around assets such as plantations, outstations and sacred sites.

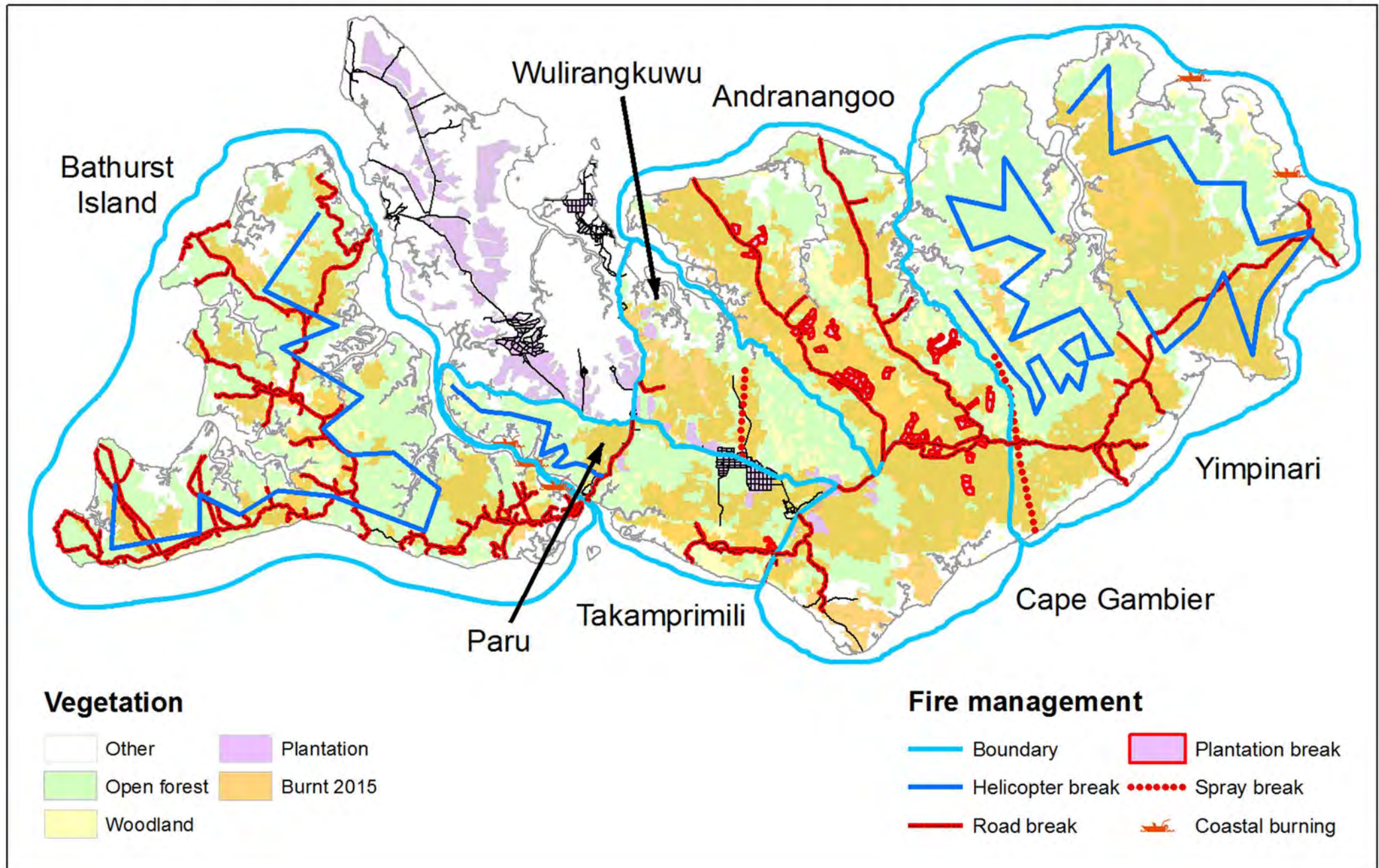
The timing of operations and resources required are listed in a table following the maps.

The northwest area of Melville Island is not included in this fire management plan. This is the area where most of the plantation forestry is located, and forestry managers implement a separate fire protection plan for the plantations. The Tiwi fire crew will be working closely with forestry fire crews in this area, and may undertake additional burning once the plantations are adequately protected.

This year the Tiwi Fire Plan includes two dedicated weeks for community engagement. A special schools week will be held between the 18th and 22nd May to provide educational material about burning and greenhouse gases. It will include poster competitions with helicopter ride prizes. The 'Tiwi Fire Week Roadshow' will also travel to each community during August, and this year include innovative fire simulation displays and promotional material. It will involve the Tiwi Land Council, Tiwi Land Rangers, Tiwi Plantations, CSIRO, Bushfires NT and Charles Darwin University.

Tiwi Islands

0 10 20 40 Kilometers



Bathurst Island

0 5 10 20 Kilometers

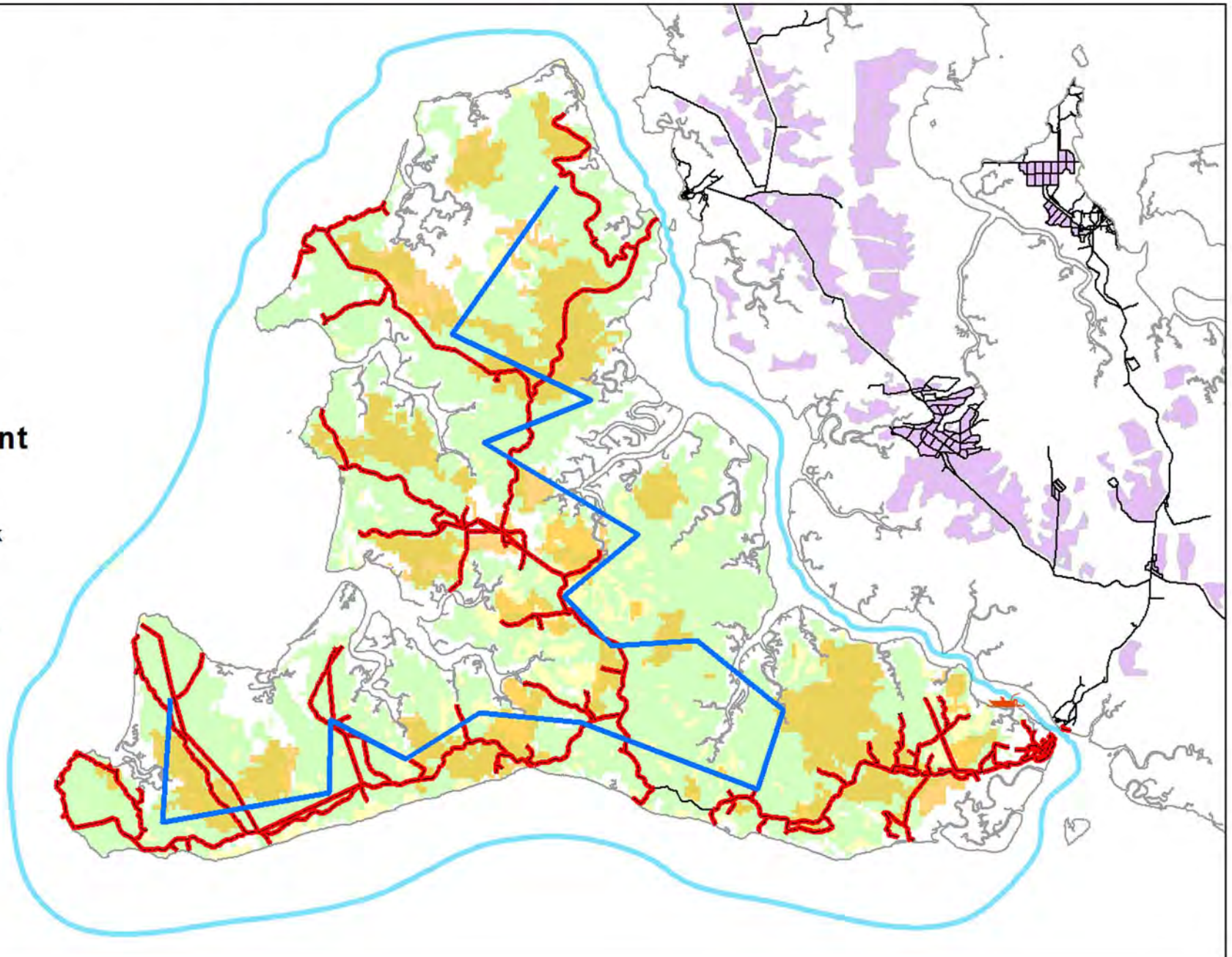


Vegetation

- Other
- Open forest
- Woodland
- Plantation
- Burnt 2015

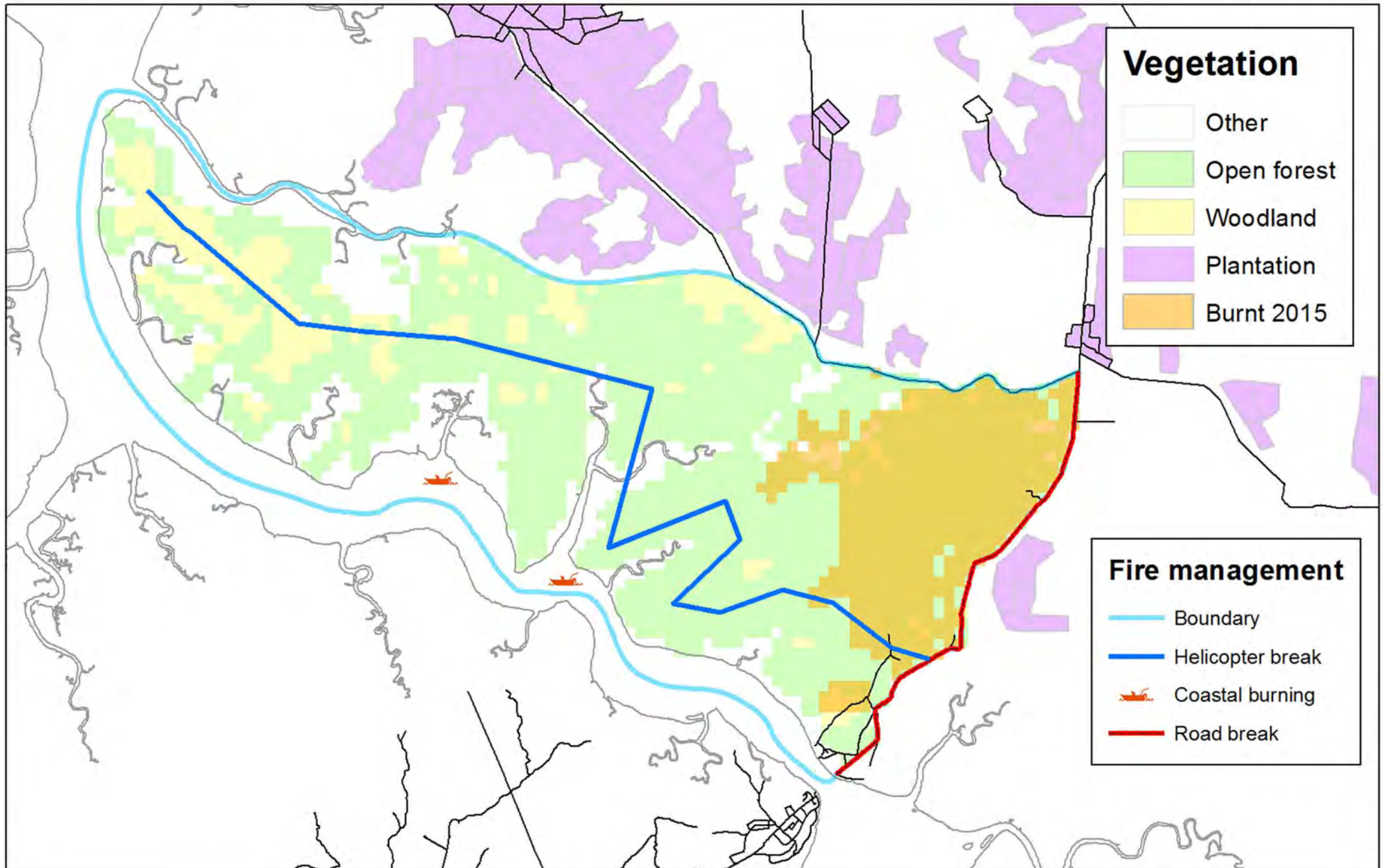
Fire management

- Boundary
- Helicopter break
- Road break
- Coastal burning



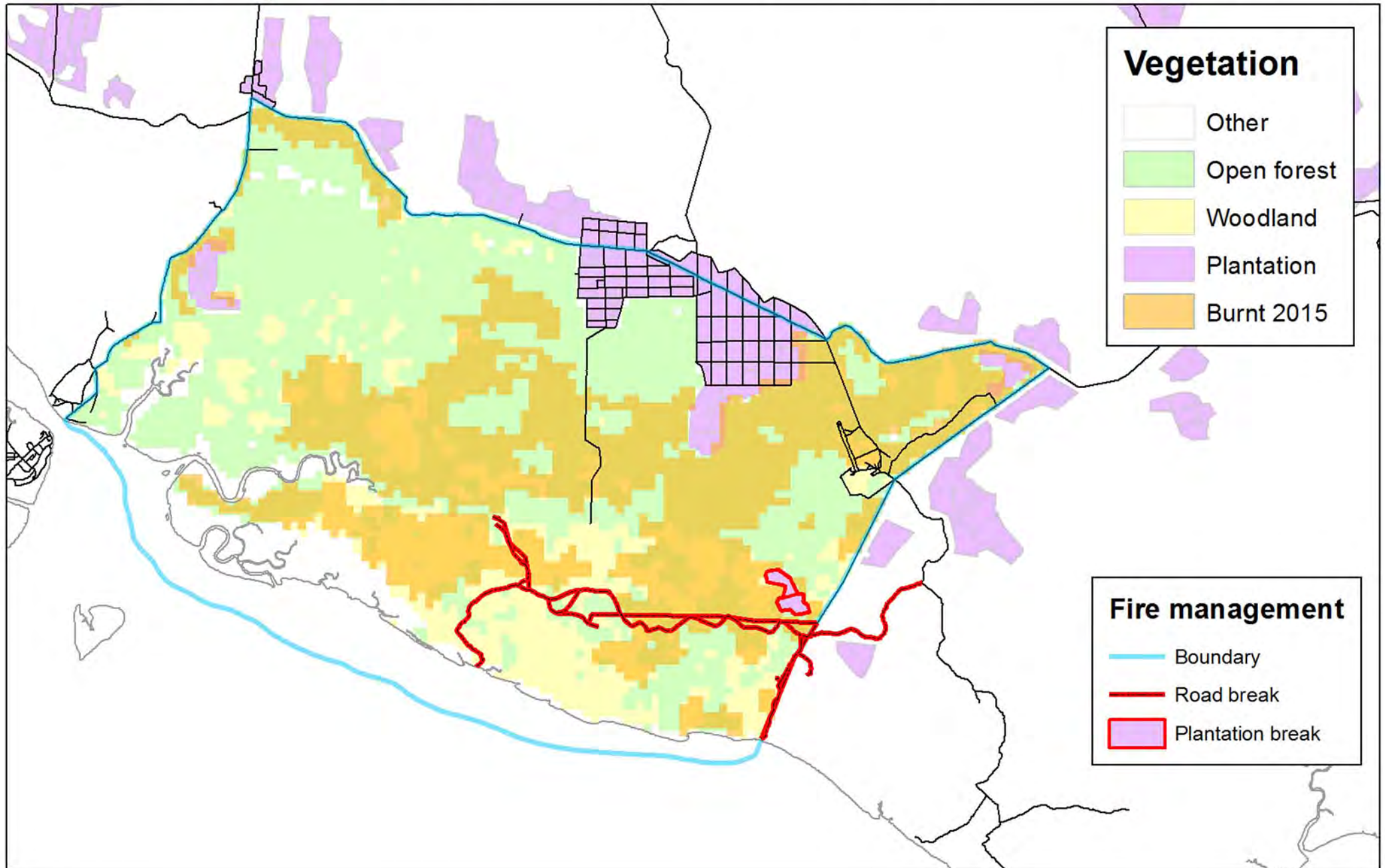
Paru

0 2.25 4.5 9 Kilometers



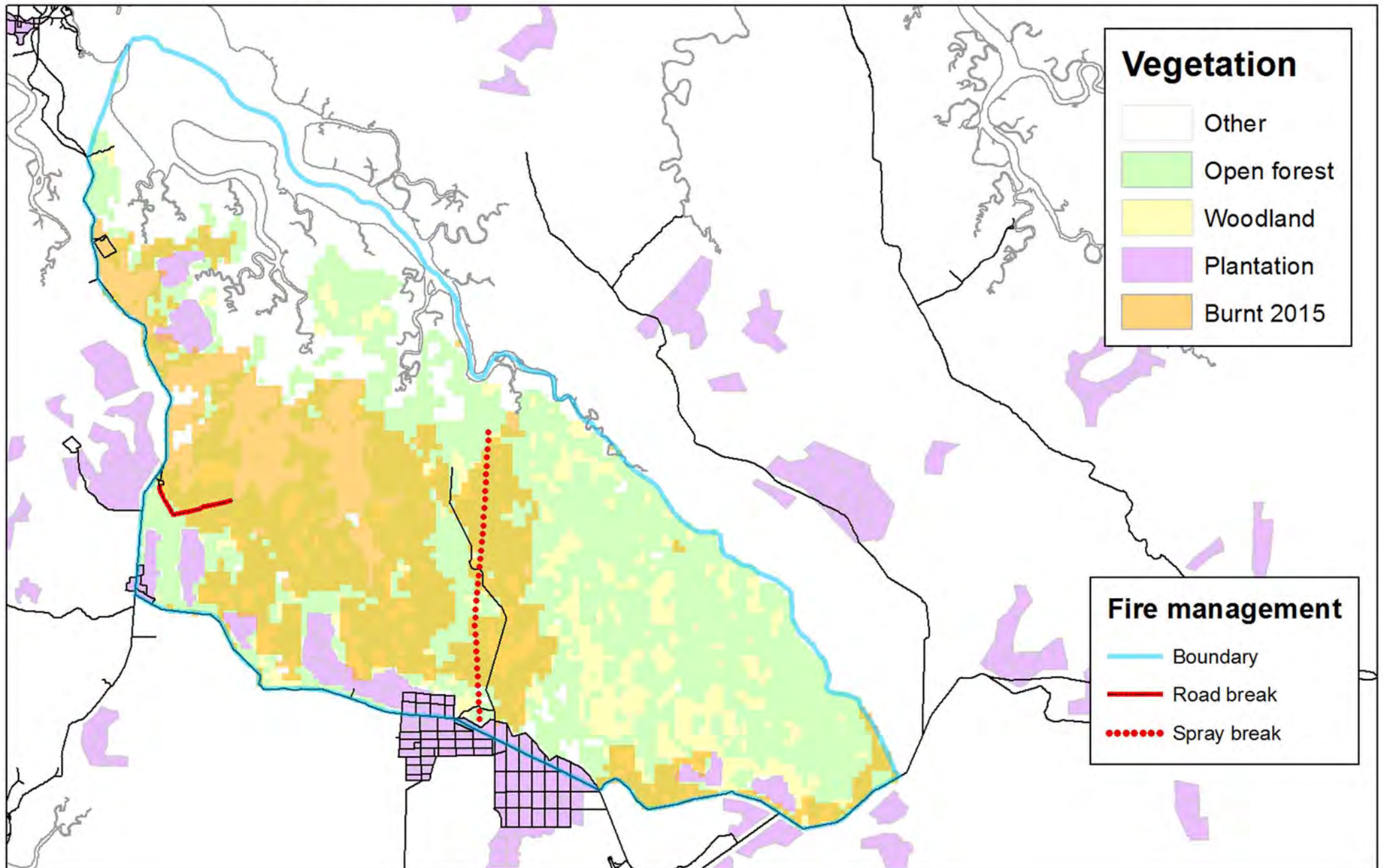
Takamprimili

0 3 6 12 Kilometers



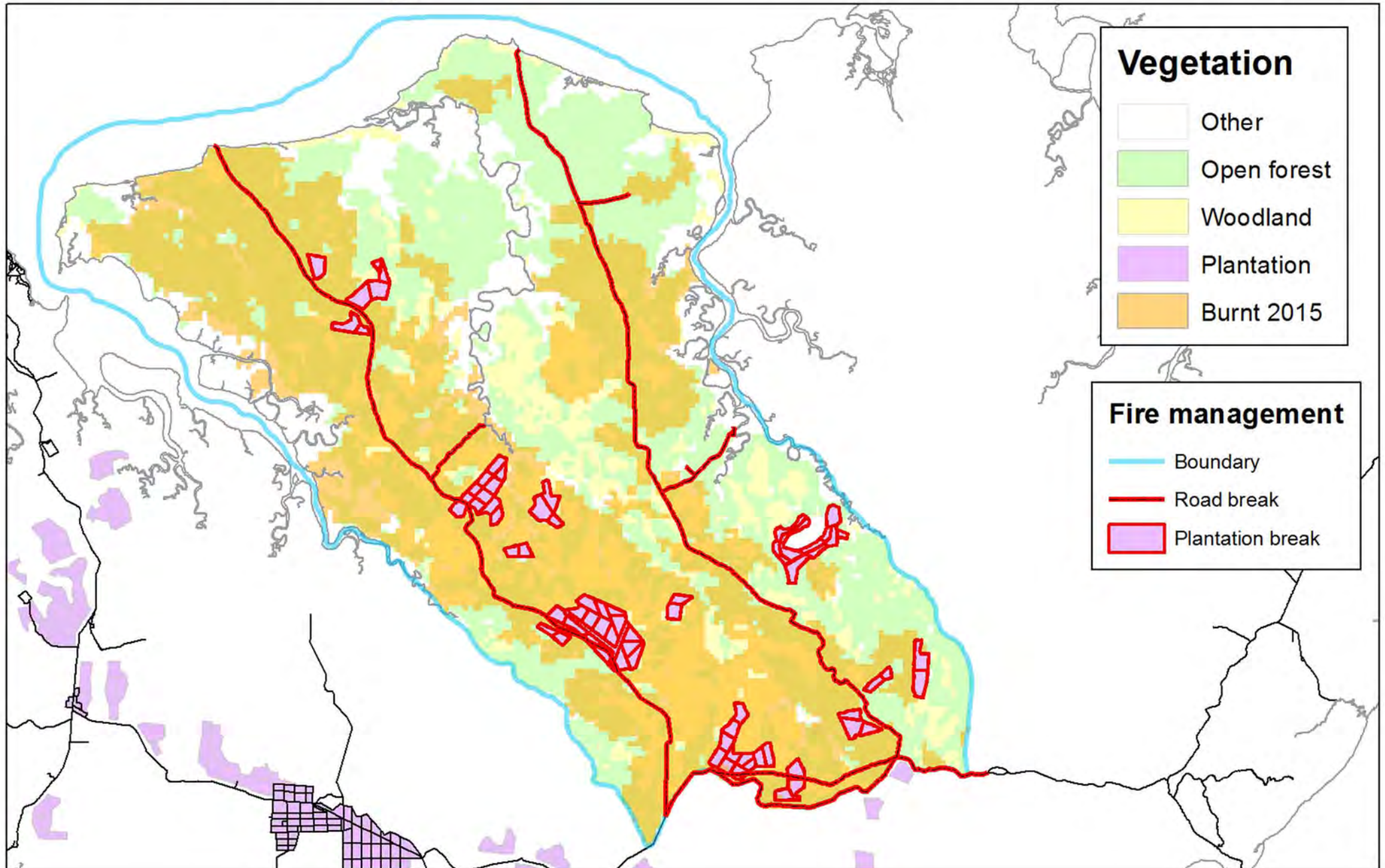
Wulirangkuwu

0 3.75 7.5 15 Kilometers



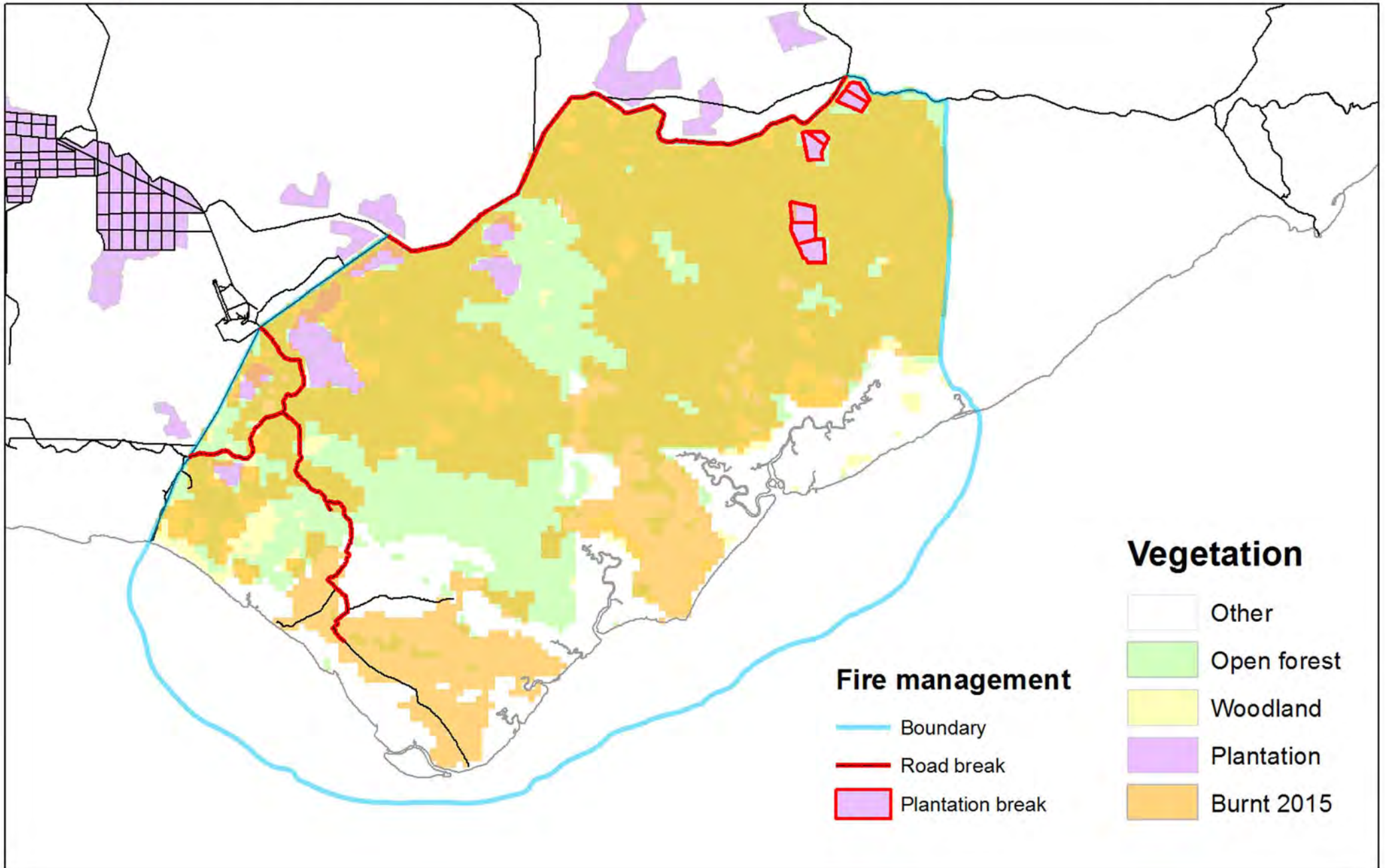
Andranangoo

0 5 10 20 Kilometers



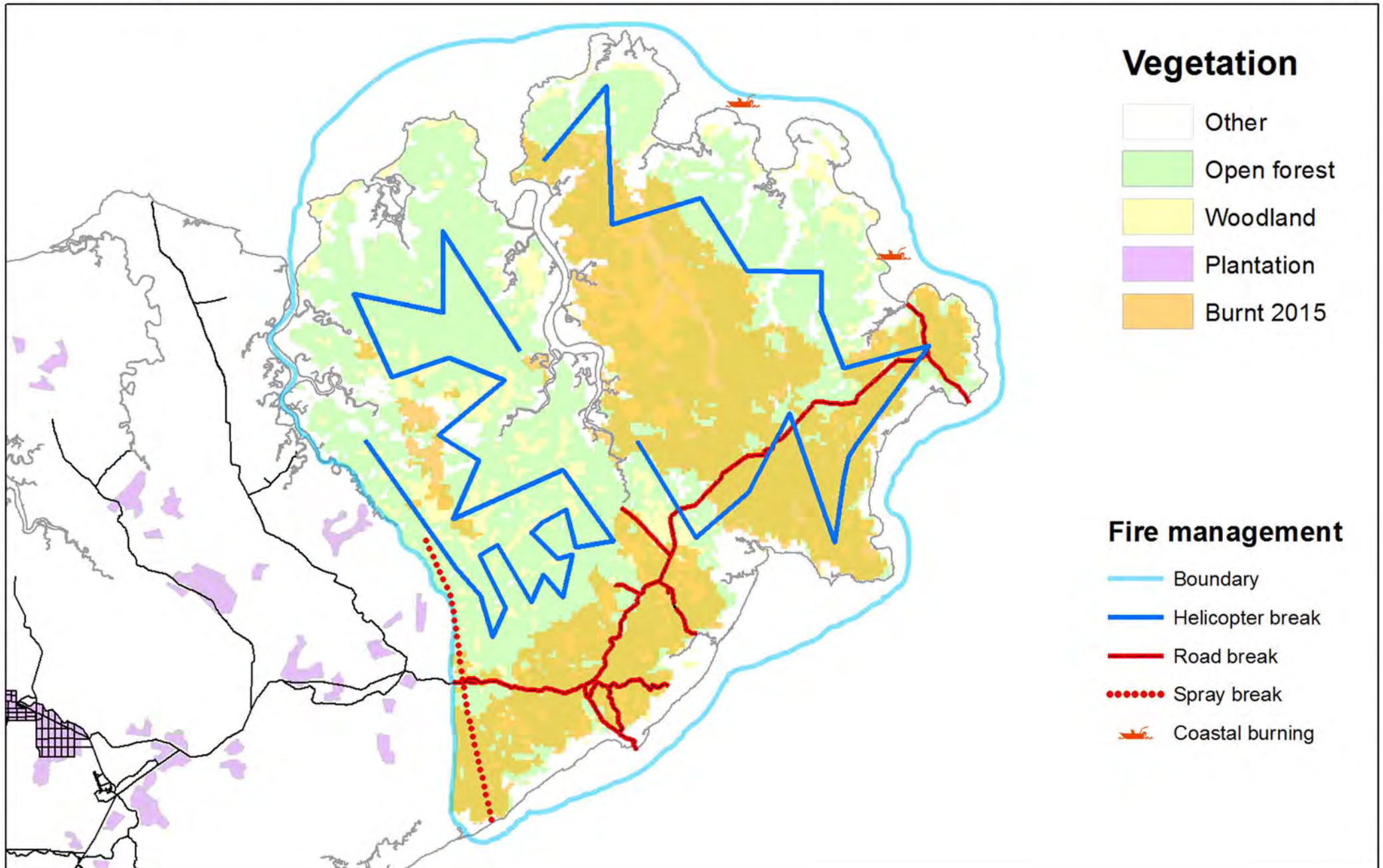
Cape Gambier

0 3.75 7.5 15 Kilometers



Yimpinari

0 5 10 20 Kilometers



TIMING

	Activity
1	Spray breaks in Yimpinari and Wulirangkuwu
2	Tiwi Fire Education Week - school visits & Clan Group meetings
3	Grade plantation breaks & burn sprayed breaks
4	Check country for dryness in Yimpinari, Andranangoo and Bathurst
5	Roadside burns Bathurst and Yimpinari
6	Helicopter breaks Bathurst and Yimpinari
7	Coastal burning along southern Apsley Strait & northern Melville Island
8	Protection burn around Paru and Taracumbi outstations: Wulirangkuwu spray break and Three Ways roadside burning
9	Protection burns around Telstra tower, Tiwi College, Takamprimili outstation and Pickataramoor plantations. Roadside burns Takamprimili
10	Protections burns around Bathurst Island bush camps & Point Fawcett Radar Facility
11	Helicopter breaks Paru and Cape Gambier. Roadside burning Paru
12	Redo helicopter burning where required in Bathurst and Yimpinari
13	Protection burning around plantation boundaries in Andranangoo and Jessie plantations
14	Roadside burns Andranangoo
15	Burn roadsides in Cape Gambier – include any missing main road areas
16	Tiwi Fire Community Week - Tiwi Fire Roadshow
17	CSIRO carbon plot annual burns

Activity	Responsibilities/resources	Week starting															
		28 th March	16 th May	23 rd May	30 th May	6 th June	13 th June	20 th June	27 th June	4 th July	11 th July	18 th July	25 th July	8 th August			
1	Tiwi Fire Crew & helicopter															N	
2	Tiwi Fire Crew, TLC, CSIRO																O
3	Forestry																
4	Tiwi Fire Crew and TOs																
5	Tiwi Fire Crew																
6	Tiwi Fire Crew & helicopter																
7	Tiwi Land & Marine Rangers																
8	Tiwi Fire Crew																
9	Tiwi Fire Crew & forestry																
10 & 11	Tiwi Fire Crew & helicopter																
12	Tiwi Fire Crew																
13	Tiwi Fire Crew & forestry																
14	Tiwi Fire Crew																
15	Tiwi Fire Crew																
16	Tiwi Fire Crew, TLC, forestry, CSIRO, Bushfires NT																
17	Tiwi Fire Crew & forestry	Timing will depend on curing															

TIWI ISLANDS FIRE COMMITTEE

Chair and Arnhem Regional Bushfires Committee member	Willie Rioli
TLC Chairman	Gibson F Illortaminni
Landowner delegate and Arnhem Regional Bushfires Committee member	Connell Tipiloura
Landowner delegates	Christopher Burak David Guy Vivian Kerinaia Jack Long Vincent Mungatopi Danny Munkara Jose Puruntatameri Willie Roberts Dennis Tipakalippa Brian Tipungwuti John Wilson Kim Wommatakimmi Pedro Wonaeamirri
Tiwi Islands Fire Coordinator	Bruce Holland
TLC Manager for Land & Resources	Kate Hadden
Tiwi Plantations	Jodie Millsom Alistair Emslie
Technical and operational support: Bushfires NT CSIRO	Mark Desailly Barbara McKaige Anna Richards Adam Liedloff Alan Andersen

