

# FLOA and VEGETATION



## Spatial Gateway

### INTRODUCTION

Vegetation community information, floristic affiliations, species nomenclature and distributions form an essential part of biodiversity knowledge. This information is often used in the pastoral land management, biodiversity monitoring and conservation projects. Several divisions within the department are responsible for maintaining spatial datasets for flora and vegetation information across the Northern Territory.

The Northern Territory Herbarium of the Flora and Fauna Division is the primary authority on the identification, distribution and conservation status of Northern Territory plants. Information regarding the naming, taxonomy, status and distribution of plants in the Territory has been collected for over 100 years and is used for a variety of purposes.

The Rangelands Division is the primary provider of vegetation mapping in the Northern Territory. The division also provides advice and support to landholders on the management of weeds, conduct biocontrol programs for selected weeds and mitigate future weed issues.



## FLORA ATLAS NT

The Flora Atlas is a collection of all plant species records and their locations, stored in the Vegetation Site Database (VSD) and HOLTZE. The records include the species scientific and common name, recorded date, location of sighting, conservation status, introduced status and survey information. The Flora Atlas currently contains about one million plant records.

Technical Detail	
Source	Flora and Fauna Division
Coverage	Northern Territory
Currency	pre 1980 to 2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile and Oracle Spatial
Contact name	Damian Milne
Contact Phone	08 8995 5016

## Flora NT

Flora NT is the primary online resource for information on the Northern Territory's flora. Images, maps, species checklists, flora descriptions, conservation and weed status, ecological attributes, and ethnobotanical information are all available. Distribution maps contain records from both HOLTZE Herbarium specimen data and observations from the Vegetation Site Database (VSD). The Northern Territory has a distinctive flora of more than 5 000 species of native plants and 800 endemic species concentrated particularly on the Western Arnhem Land Plateau. While the Northern Territory flora is primarily Australian in origin and occurrence, it naturally includes many species also found in nearby New Guinea, Timor-Leste and eastern Indonesia.

Flora NT also provides access to the Northern Territory Herbarium specimen data which includes over 280 000 vascular plant specimens primarily from across northern Australia, but also Timor and Wetar.

Technical Detail	
Source	Flora and Fauna Division
Coverage	Northern Territory
Currency	2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	Web user interface (JAVA) data sourced from HOLTZE and VSD
Contact name	Donna Lewis
Contact phone	08 8999 4532

## HOLTZE

HOLTZE is the plant specimen and data information management system for the Northern Territory Herbarium. Data is accessible to registered users both within NTG and external clients. The primary dataset maintained in Holtze are the herbarium specimens which include the current taxon name, collector information, date of collection and locality information. Also maintained in HOLTZE are the loans. HOLTZE maintains an additional four modules which includes the maintenance of the Checklist for Vascular Plants in the Northern Territory. Flora descriptions, images, conservation and introduced status are also maintained in separate modules. Ecological attributes and ethnobotanical information are also stored in HOLTZE.

Technical Detail	
Source	Flora and Fauna Division
Coverage	Northern Territory
Currency	1890 to 2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	Oracle Spatial with web user interface (APEX)
Contact name	Ian Cowie
Contact phone	08 8999 4511

## VEGETATION SITE DATABASE - VSD

The Vegetation Site Database is an information management system for vegetation site data collected in the Northern Territory. It provides vegetation, floristic and structural information collected on a range of detail for a range of purposes, including land resource surveys, flora surveys, habitat assessments, species assessments (including threatened plant surveys) and vegetation monitoring, as well as presence/absence information for selected species. Data fields are compliant with the National Vegetation Information Systems (NVIS) guidelines (Brocklehurst et al, 2007) and are primarily used for vegetation and land resource mapping purposes. Data is accessible to registered both internal and external users.

Technical Detail	
Source	Flora and Fauna Division and Rangelands Division
Coverage	Northern Territory
Currency	1970 to 2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	Oracle Spatial with web user interface (APEX)
Contact names	Donna Lewis and Damian Milne
Contact phone	08 8999 4532 and 08 8995 5016

## SITES OF BOTANICAL SIGNIFICANCE

The Sites of Botanical Significance are areas considered to be important for plant conservation generally and specifically for conserving significant plant taxa. Sites are designated as either nationally significant (41 sites), bioregionally significant (79 sites) or of undetermined significance (33 sites). The criteria used to select the sites includes the conservation of plant biodiversity, populations and species of plants, the genetic resources they harbour, the plant communities which they form and the range of ecological and evolutionary processes operating in the landscape.

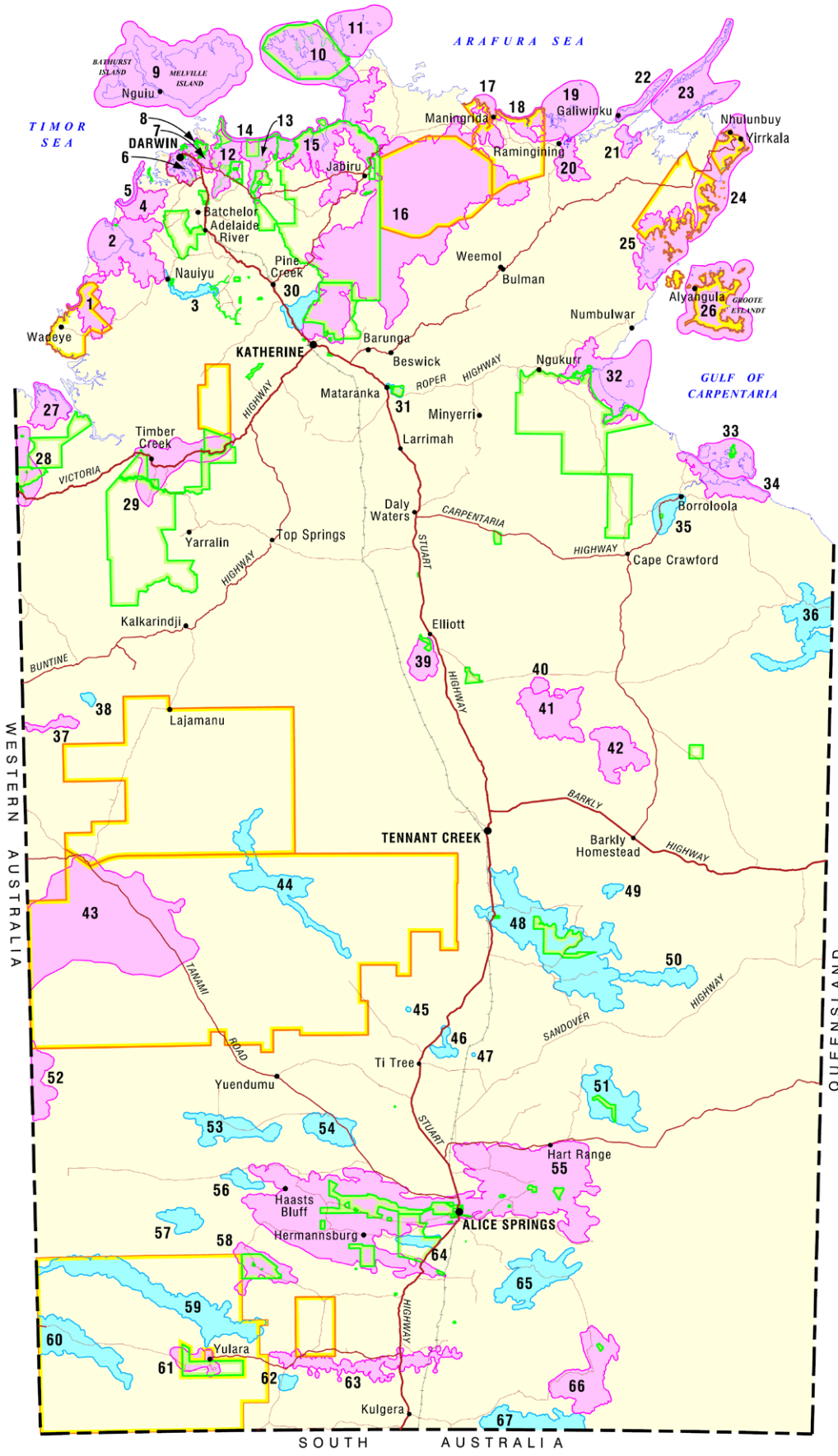
Technical Detail	
Source	Flora and Fauna Division
Coverage	Northern Territory - southern half
Currency	2000
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile and Oracle Spatial
Contact name	Brydie Hill
Contact phone	08 8955 5023

## SITES OF CONSERVATION SIGNIFICANCE

This dataset identifies 67 sites of significance for biodiversity conservation in the Northern Territory, of which 42 considered of International Conservation Significance and 25 sites of National Conservation Significance. 29 sites are in the Arid Centre, 12 in the Savannah Region and 26 in the Top End. Sites of conservation significance in the Northern Territory are shown in [Figure 2](#).

Technical Detail	
Source	Flora and Fauna Division
Coverage	Northern Territory
Currency	2009
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile and Oracle Spatial
Contact name	Brydie Hill
Contact phone	08 8955 5023

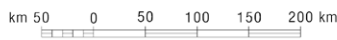
# SITES of CONSERVATION SIGNIFICANCE in the NT



## RECOGNISING SITES OF CONSERVATION SIGNIFICANCE FOR BIODIVERSITY VALUES IN THE NORTHERN TERRITORY

- Site of International Significance
- Site of National Significance

- 1 Hyland Bay and associated coastal floodplains
- 2 Anson Bay and associated coastal floodplains
- 3 Daly River middle reaches
- 4 Finniss River coastal floodplain
- 5 Fog Bay
- 6 Darwin Harbour
- 7 Howard sand plains
- 8 Shoal Bay
- 9 Tiwi Islands
- 10 Cobourg Peninsula
- 11 Croker Island group
- 12 Adelaide River coastal floodplain
- 13 Mary River coastal floodplain
- 14 Chambers Bay
- 15 Alligator Rivers coastal floodplains
- 16 Western Arnhem Plateau
- 17 Maningrida coastal habitats
- 18 Boucaut Bay and associated coastal floodplains
- 19 Castlereagh Bay and associated islands
- 20 Arafura Swamp
- 21 Buckingham Bay and associated coastal floodplains
- 22 Elcho Island group
- 23 Wessel and English Company island groups
- 24 Gove Peninsula and north-east Arnhem coast
- 25 Blue Mud Bay and associated coastal floodplains
- 26 Groote Eylandt group
- 27 Legune coastal floodplain
- 28 Keep River area
- 29 Victoria River middle reaches and Gregory area
- 30 Yinberrie Hills
- 31 Mataranka thermal pools
- 32 Limmen Bight and associated coastal floodplains
- 33 Sir Edward Pellew island group
- 34 McArthur River coastal floodplain
- 35 Borroloola area
- 36 Wollongorang and China Wall sandstone ranges
- 37 Birridudu wetlands
- 38 Nongra Lake
- 39 Lake Woods
- 40 Eva Downs Swamp
- 41 Tarrabool Lake
- 42 Lake Sylvester system
- 43 South-west Tanami Desert
- 44 Lake Surprise and the Lander River floodout swamps
- 45 Mud Hut Swamp
- 46 Anmatyerr North
- 47 Wood Duck Swamp
- 48 Davenport and Murchison Ranges
- 49 Frew River floodout swamps
- 50 Elkedra River floodout swamps
- 51 Dulcie Range and surrounds
- 52 Lake MacKay
- 53 Newhaven Lakes
- 54 Lake Lewis and surrounds
- 55 Greater MacDonnell Ranges
- 56 Mount Liebig and surrounds
- 57 Cleland Hills and surrounds
- 58 George Gill Range and surrounds
- 59 Lake Amadeus and Lake Neale
- 60 Petermann Ranges and surrounds
- 61 Uluru and surrounds
- 62 Mount Conner and surrounds
- 63 Karinga Creek paleodrainage system
- 64 Waterhouse Range
- 65 Rodinga Range and adjacent ranges
- 66 Andado and Snake Creek lakes
- 67 Beddome Range and Wilyunpa Tablelands



- Population centre  • Lajamanu
- Property boundary
- Road
- Railway



Figure 2: Sites of conservation significance in the Northern Territory.

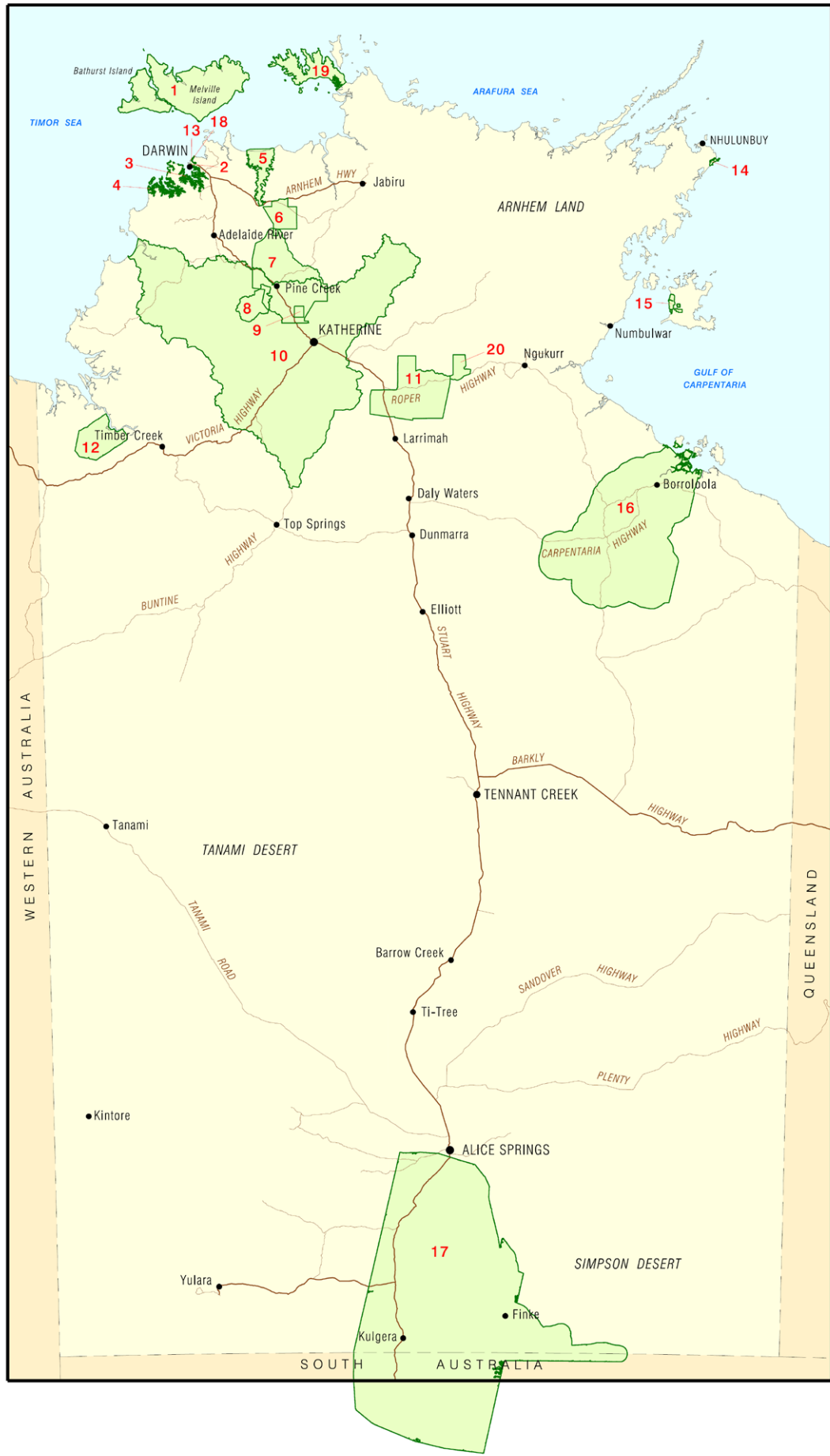
## VEGETATION RESOURCE INFORMATION

Vegetation mapping is carried out at different levels of detail and scale. Broad scale vegetation surveys describe vegetation from 1:250 000 to 1:100 000. Detailed local vegetation surveys are undertaken from 1:5 000 to 1:25 000 where specific detail is captured. Most vegetation surveys in the Northern Territory are done at 1:50 000 to 1:100 000 to describe vegetation in catchments, bioregions, national parks and pastoral properties and particular vegetation types such as Melaleuca or Lancewood surveys. Vegetation resource information is grouped into vegetation surveys, land cover surveys, native vegetation surveys and remnant vegetation surveys. Vegetation information is often collected with land unit and land system survey mapping. For more information on land resources mapping refer to the [LAND](#) section of this catalogue.

# VEGETATION RESOURCES

## Surveys

- 1. Tiwi Islands
- 2. Ludmilla Creek Mangrove
- 3. Darwin Harbour Mangrove
- 4. Bynoe Harbour Mangrove
- 5. Mary River Floodplain
- 6. Mount Bunday
- 7. Gouldian Finch Habitat
- 8. Stray Creek Catchment
- 9. Mount Todd
- 10. Daly Catchment
- 11. Eusey Station
- 12. Bullo River Station
- 13. Rapid Creek Catchment
- 14. Cape Arnhem
- 15. Western Groote Eylandt
- 16. McArthur River Catchment
- 17. Eastern and Southern Finke Bioregion
- 18. Casuarina Coastal Reserve
- 19. Cobourg Peninsula
- 20. Flying Fox




  
 km 0 100 200  
 Design File: LR-Vegetation-Surveys-A3\_L94

Figure 3: Vegetation surveys in the Northern Territory.






## VEGETATION SURVEYS

Vegetation surveys provide an inventory of the type and the extent of plant communities. These surveys are generally for specific areas in the Northern Territory. The vegetation survey locations are shown in [Figure 3](#).

<b>Source</b>	Rangelands Division
<b>Coverage</b>	Northern Territory - selected areas
<b>Currency</b>	1989 to 2018
<b>Data scale</b>	1:5 000 to 1:250 000
<b>Coordinates</b>	GDA94, Geographic (decimal degrees)
<b>Format</b>	ESRI Shapefile and File Geodatabase, Oracle Spatial and PDF maps
<b>Contact</b>	Jason Hill
<b>Contact phone</b>	08 8999 4443

MAP REF	SURVEY NAME	CODE	SCALE	YEAR	REPORT	DATA
1	Tiwi Islands generalised vegetation cover	TIWIV_250	250 000	1998		
2	Ludmilla Creek mangrove survey	LUDCK_5	5 000	1996		
3	Mangrove mapping of Darwin Harbour	MANGD_25	25 000	1996		
4	Mangrove survey Bynoe Harbour	MANGB_25	25 000	2003		
5	Mary River floodplain vegetation survey	MARYR_50	50 000	1996		
6	Mount Bunday vegetation survey, proposed training area for 2nd Cavalry Regiment	MTBUN_100	100 000	1989		
7	Gouldian Finch habitat vegetation survey	FINCH_250	250 000	1990		
8	Stray Creek catchment vegetation survey	SCCVS_25	25 000	2005		
9	Mount Todd vegetation survey	MTODD_50	50 000	1990		
10	Vegetation Daly Catchment	DALY_100	100 000	2011		
11	Eley Station vegetation survey, NT	ELSST_100	100 000	1993		
12	Bullo River Station flora and vegetation survey	BULLO_25	25 000	2010		
13	Rapid Creek Catchment vegetation survey	RAPCK_5	5 000	1994		
14	Cape Arnhem vegetation survey	CAPEA_5	5 000	1993		
15	Flora survey Western Groote Eylandt	GROOT_50	50 000	1992		
16	McArthur River catchment vegetation survey	MCART_100	100 000	2012		
17	Vegetation survey and mapping of the eastern and southern Finke Bioregion	FINKE_100	100 000	2011		

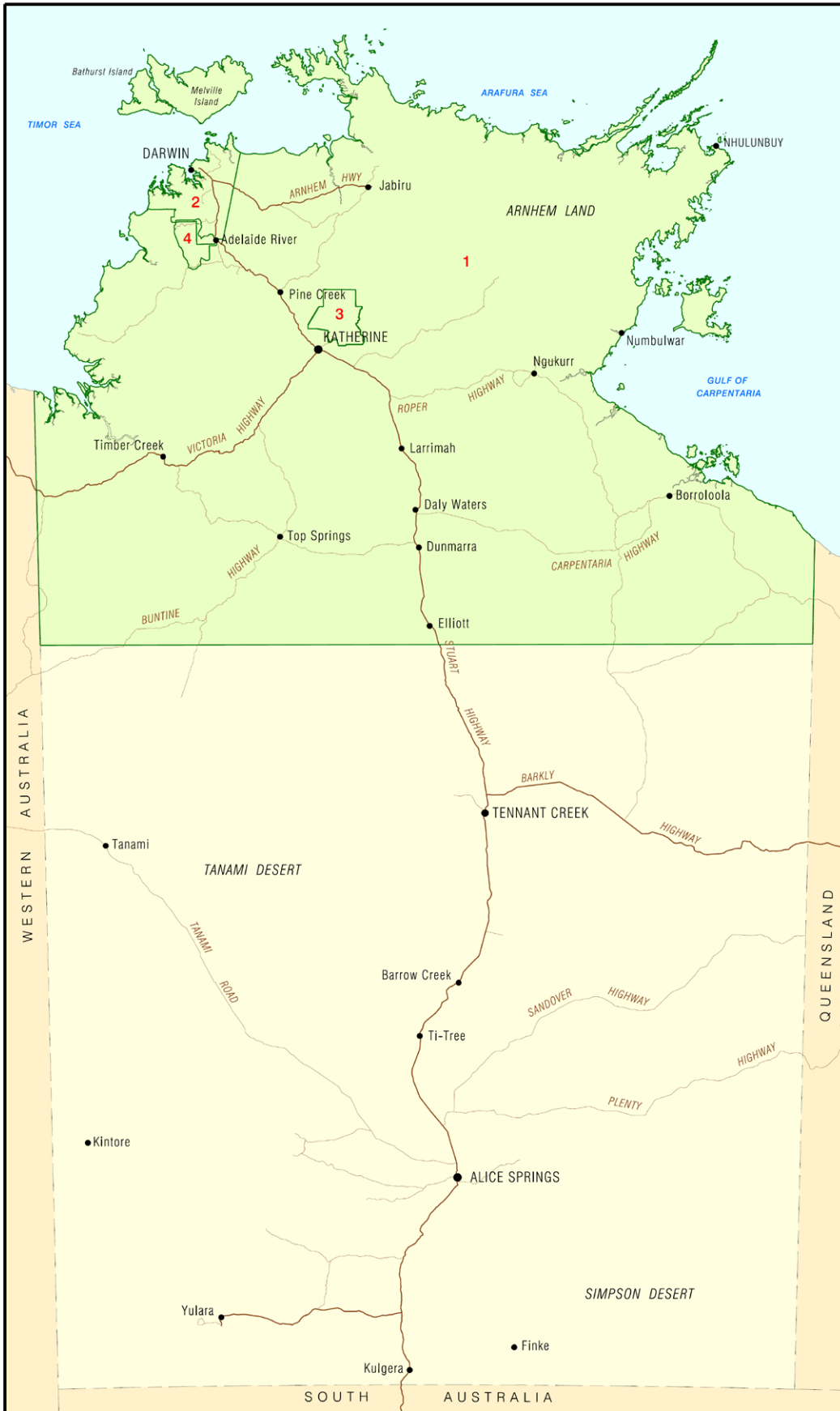


MAP REF	SURVEY NAME	CODE	SCALE	YEAR	REPORT	DATA
18	Casuarina Coastal Reserve vegetation survey	CASCR_5	5 000	1994		
19	Generalised vegetation communities of Coburg Peninsula	COBVG_100	100 000	2010		
20	Vegetation southern Flying Fox Station	ROPVM_100	100 000	2018		

## VEGETATION RESOURCES

### Land Cover

- 1. Northern Territory Forest Cover (NTNORFOR)
- 2. Greater Darwin Region
- 3. Nitmiluk
- 4. Litchfield National Park



km 0 100 200 km



Design File: LR-Vegetation-Cover-A3\_L94

Figure 4: Land cover surveys in the Northern Territory.

## LAND COVER SURVEYS

Vegetation land cover surveys are derived from the classification of satellite imagery and are in raster format. The vegetation land cover survey locations are shown in [Figure 4](#).

<b>Source</b>	Rangelands Division
<b>Coverage</b>	Northern Territory - selected areas
<b>Currency</b>	2001 to 2014
<b>Data scale</b>	1:25 000 to 1:100 000
<b>Coordinates</b>	GDA94, Geographic (decimal degrees)
<b>Format</b>	ESRI Shapefile, ESRI File Geodatabase, ESRI Grid, Oracle Spatial and PDF maps
<b>Contact</b>	Jason Hill
<b>Contact Phone</b>	08 8999 4443

MAP REF	SURVEY NAME	CODE	SCALE	YEAR	REPORT	DATA
1	Northern forest assessment and mapping project	NTNORFOR	25 000 to 100 000	2001		ESRI Grid
2	Landcover vegetation mapping Greater Darwin region	GTRDWV_100	100 000	2003		
3	Vegetation survey Nitmiluk	NITNP_100	100 000	2004		
4	Provisional vegetation types over Litchfield National Park	LITCHV_100	100 000	2014		

## VEGETATION RESOURCES

### Native

- 1. Regional Mangrove Mapping, NT
- 2. Lancewood Survey NT
- 3. NVIS 1750 and 2007
- 4. Vegetation Survey of the NT
- 5. Mangroves of the Northern Territory
- 6. Rainforest Survey
- 7. Melaleuca Survey NT

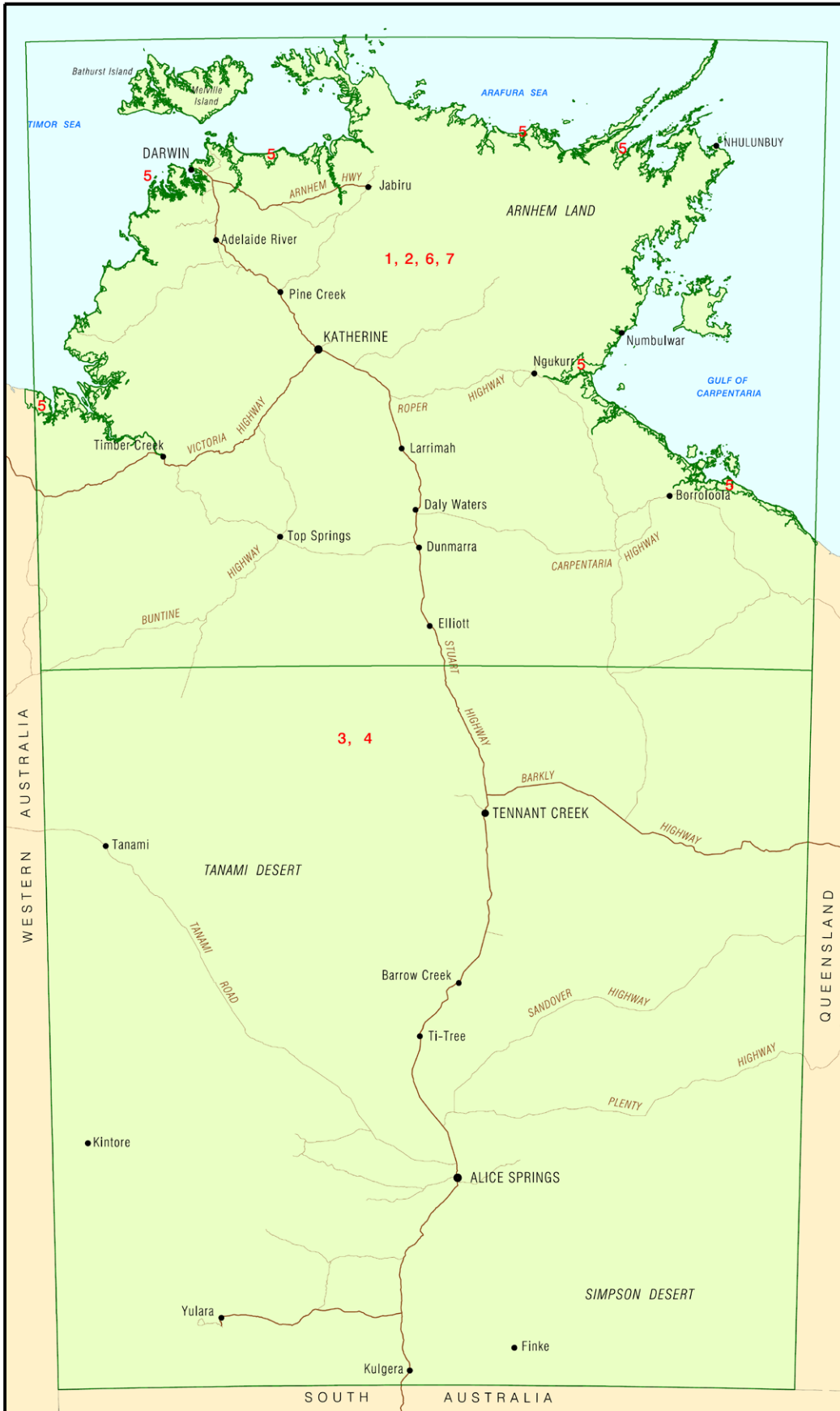
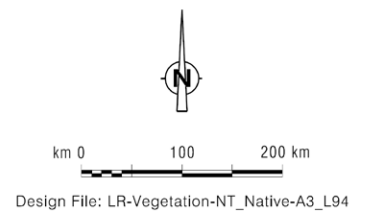











Figure 5: Native vegetation surveys in the Northern Territory.

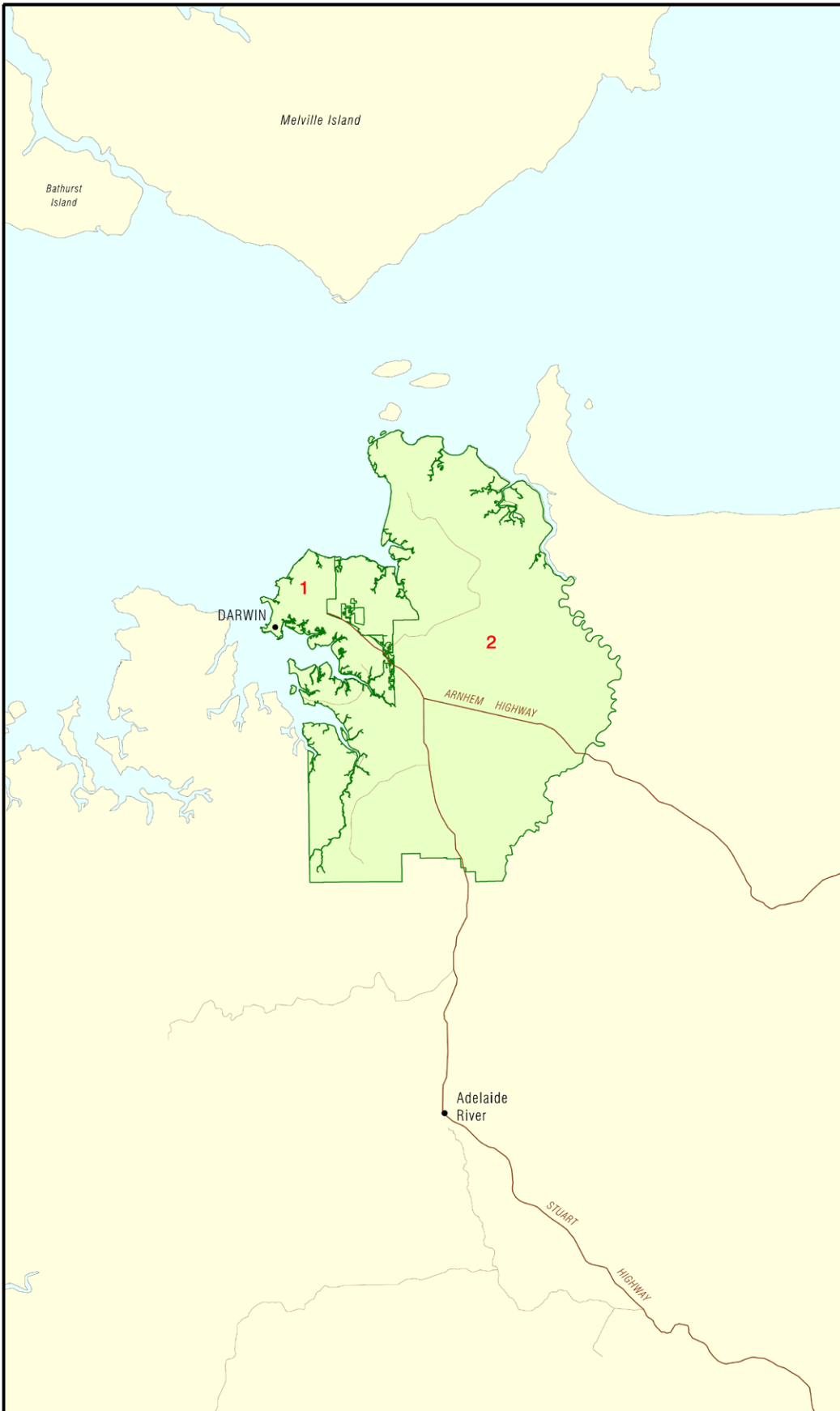


## NATIVE VEGETATION SURVEYS

Native vegetation surveys show the extent and distribution of the native vegetation types in the Northern Territory. Some of the surveys follow the extent of a particular vegetation community type. The native vegetation survey locations are shown in [Figure 5](#).

Technical Detail	
Source	Rangelands Division
Coverage	Northern Territory - selected areas
Currency	1990 to 2009
Coordinates	GDA94, Geographic (decimal degrees)
Data scale	1:80 000 to 1:1 000 000
Format	ESRI Shapefile, Oracle Spatial and PDF maps
Contact	Jason Hill
Contact Phone	08 8999 4443

MAP REF	SURVEY NAME	CODE	SCALE	YEAR	REPORT	DATA
1	Regional mangrove mapping, NT	NTMAN_250	250 000	1996		
2	Lancewood survey NT	LANCE_250	250 000	1993		
3	NVIS 1750 and NVIS 2007	NVIS_1M	1 000 000	2007		
4	Vegetation survey of the Northern Territory	NTVEG_1M	1 000 000	1990		
5	Mangroves of the Northern Territory	NTMANG_100	100 000	2002		
6	Rainforest survey	RAINFOREST	80 000	1991		
7	Melaleuca survey of the Northern Territory	NTMEL_100	100 000	2009		



## VEGETATION RESOURCES

### Remnant

1. Darwin to Palmerston
2. Litchfield Shire

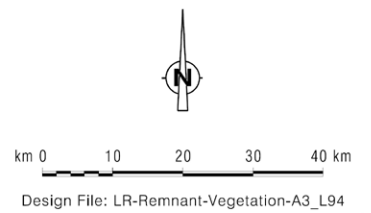






Figure 6: Remnant vegetation surveys in the Northern Territory.

## REMNANT VEGETATION SURVEYS

Remnant vegetation surveys of the Darwin, Palmerston and Litchfield Shire region, describes the dominant vegetation communities and floristic groups. The remnant vegetation survey locations are shown in [Figure 6](#).

Technical Detail	
Source	Rangelands Division
Coverage	Darwin, Palmerston and Litchfield Shire
Currency	1995 - 1998
Data scale	1:10 000 to 1:100 000
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile, ESRI File Geodatabase and Oracle Spatial
Contact	Jason Hill
Contact Phone	08 8999 4443

MAP REF	SURVEY NAME	CODE	SCALE	YEAR	REPORT	DATA
1	Darwin to Palmerston Region - remnant vegetation survey	DARPM_10	10 000	1995		
2	Litchfield Shire - remnant vegetation survey	LSHIR_100	100 000	1998		

## WEED MANAGEMENT INFORMATION

Weed locations information is collected by various agencies within the Northern Territory Government and external organisations (federal government agencies, community groups and land managers) using the Northern Territory weed data collection manual. This information assists in monitoring the distribution and location of weed species, detecting new weed incursions, support decision making strategies for control measures and reporting to funding bodies.

Data collected is compiled, verified and processed to improve quality and ensure the required core set of attributes is maintained. There are approximately 200 000 weed records, more information on weeds [here](#)

Technical Detail	
Source	Rangelands Division
Coverage	Northern Territory
Currency	2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile and Oracle Spatial
Contact name	Phil Hickey
Contact phone	08 8999 4452



# STATUTORY WEED MANAGEMENT ZONES

## ATHEL PINE

- 1. Athel Pine Declaration AC 2013
- 2. Athel Pine Declaration BC 2013

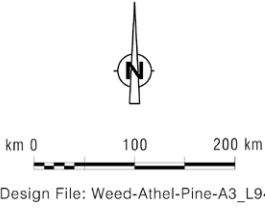
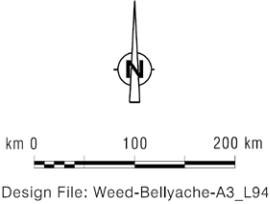
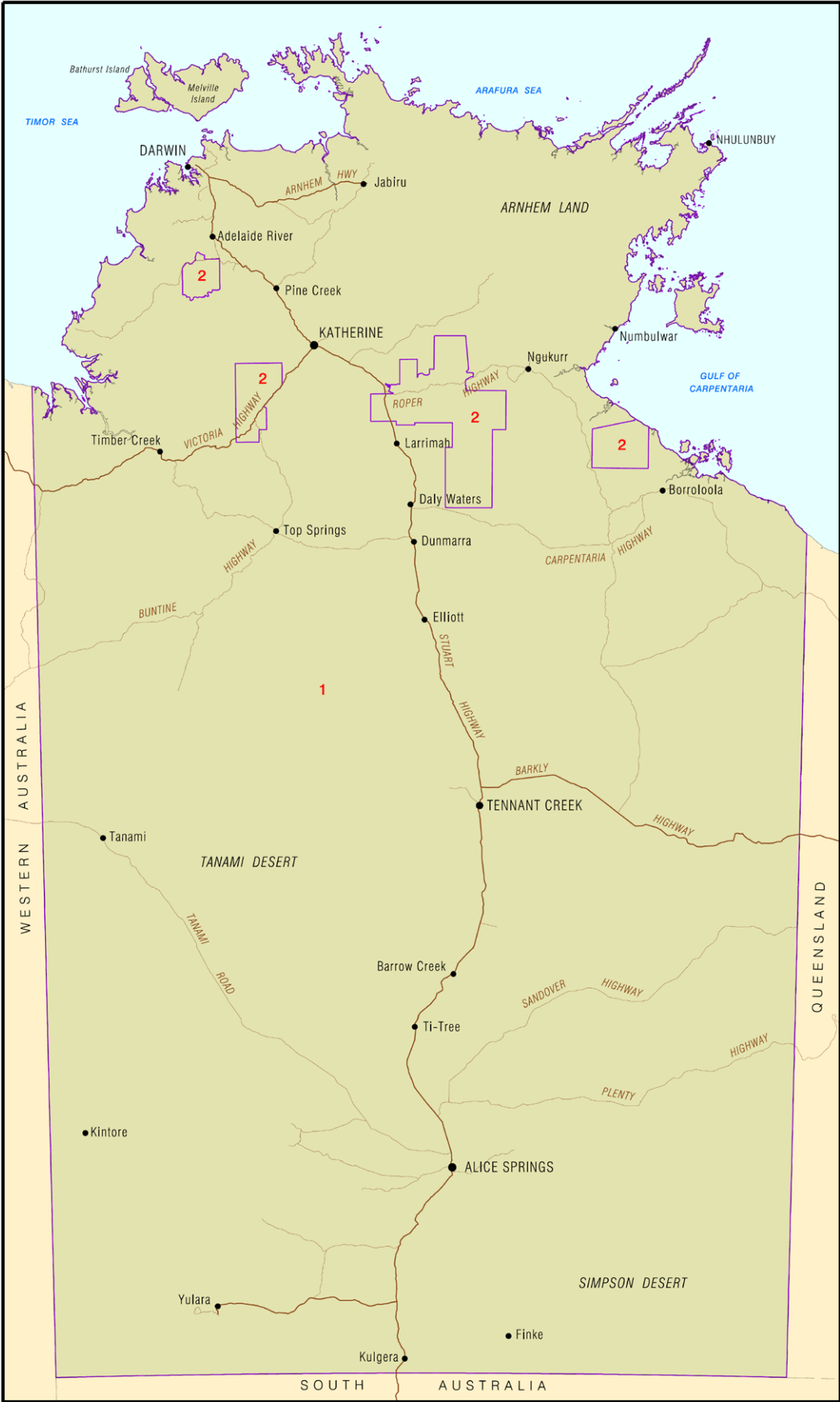


Figure 7: Athel pine declaration zones in the Northern Territory.

## STATUTORY WEED MANAGEMENT ZONES BELLYACHE BUSH

- 1. Bellyache Bush Declaration AC 2013
- 2. Bellyache Bush Declaration BC 2013



Design File: Weed-Bellyache-A3\_L94

Figure 8: Bellyache bush declaration zones in the Northern Territory.

## STATUTORY WEED MANAGEMENT ZONES BRAZILIAN PEPPER

- 1. Brazilian Pepper Declaration AC 2013
- 2. Brazilian Pepper Declaration BC 2013

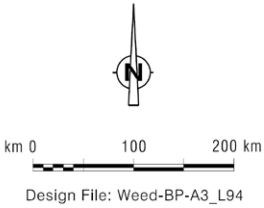
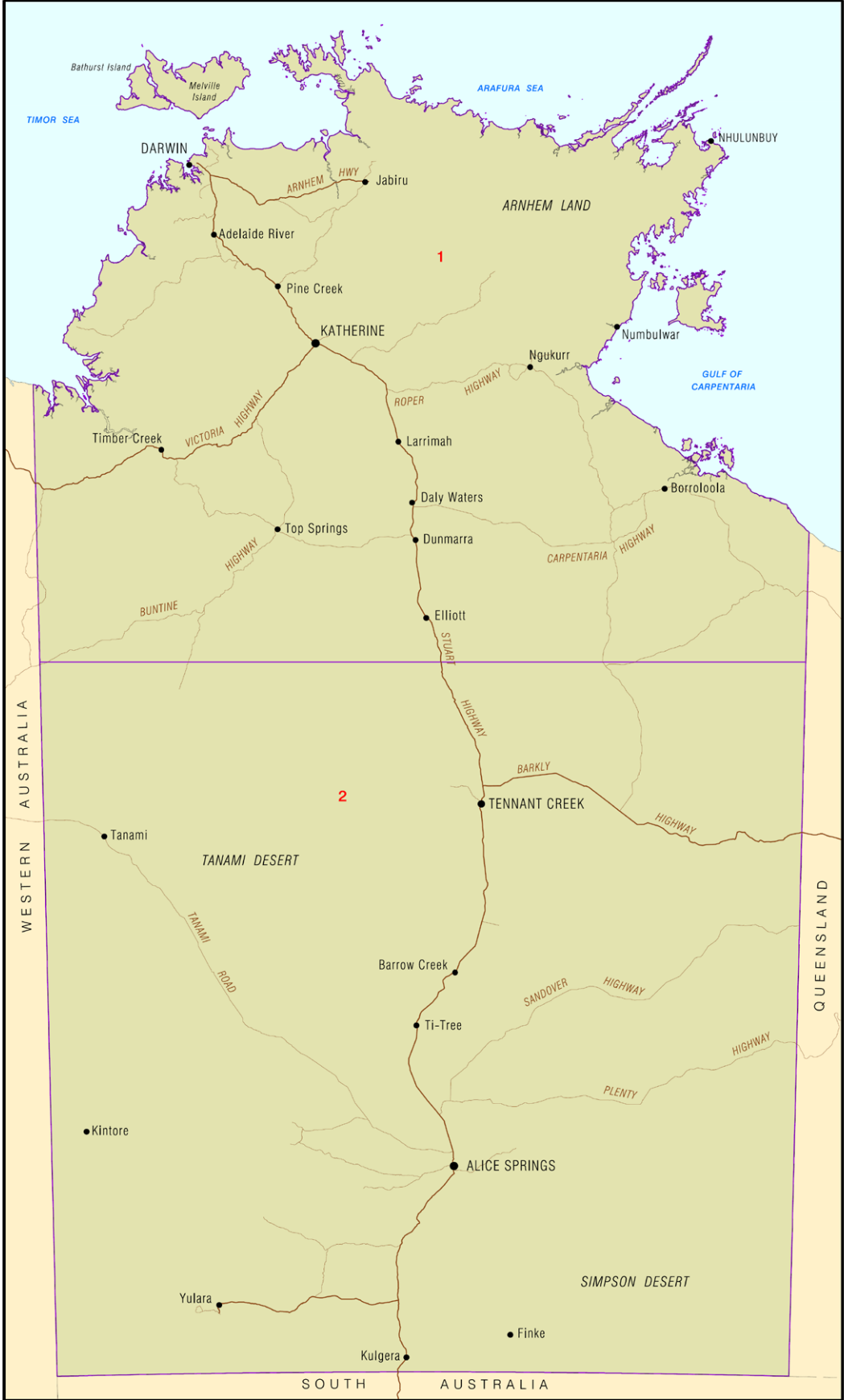


Figure 9: Brazilian pepper declaration zone locations in the Northern Territory.

**STATUTORY WEED  
MANAGEMENT ZONE  
DALBERGIA SISSOO**

1. Dalbergia Sissoo Declaration AC 2006

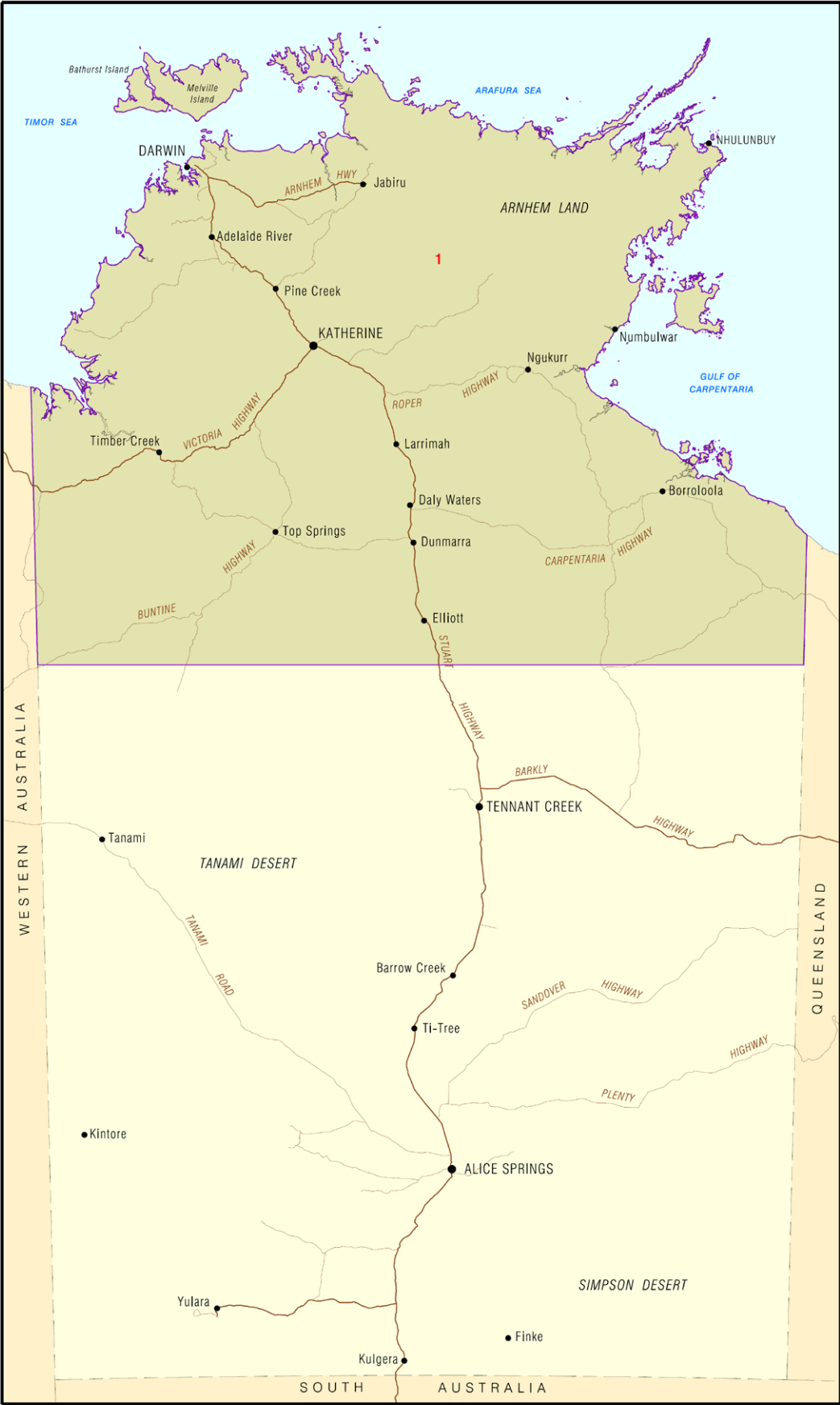


Figure 10: Dalbergia sissoo declaration zones in the Northern Territory.

## STATUTORY WEED MANAGEMENT ZONES GAMBA GRASS

- 1. Gamba Grass Declaration AC 2013
- 2. Gamba Grass Declaration BC 2013

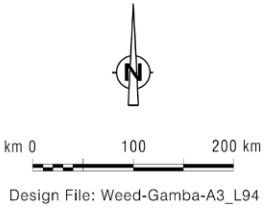
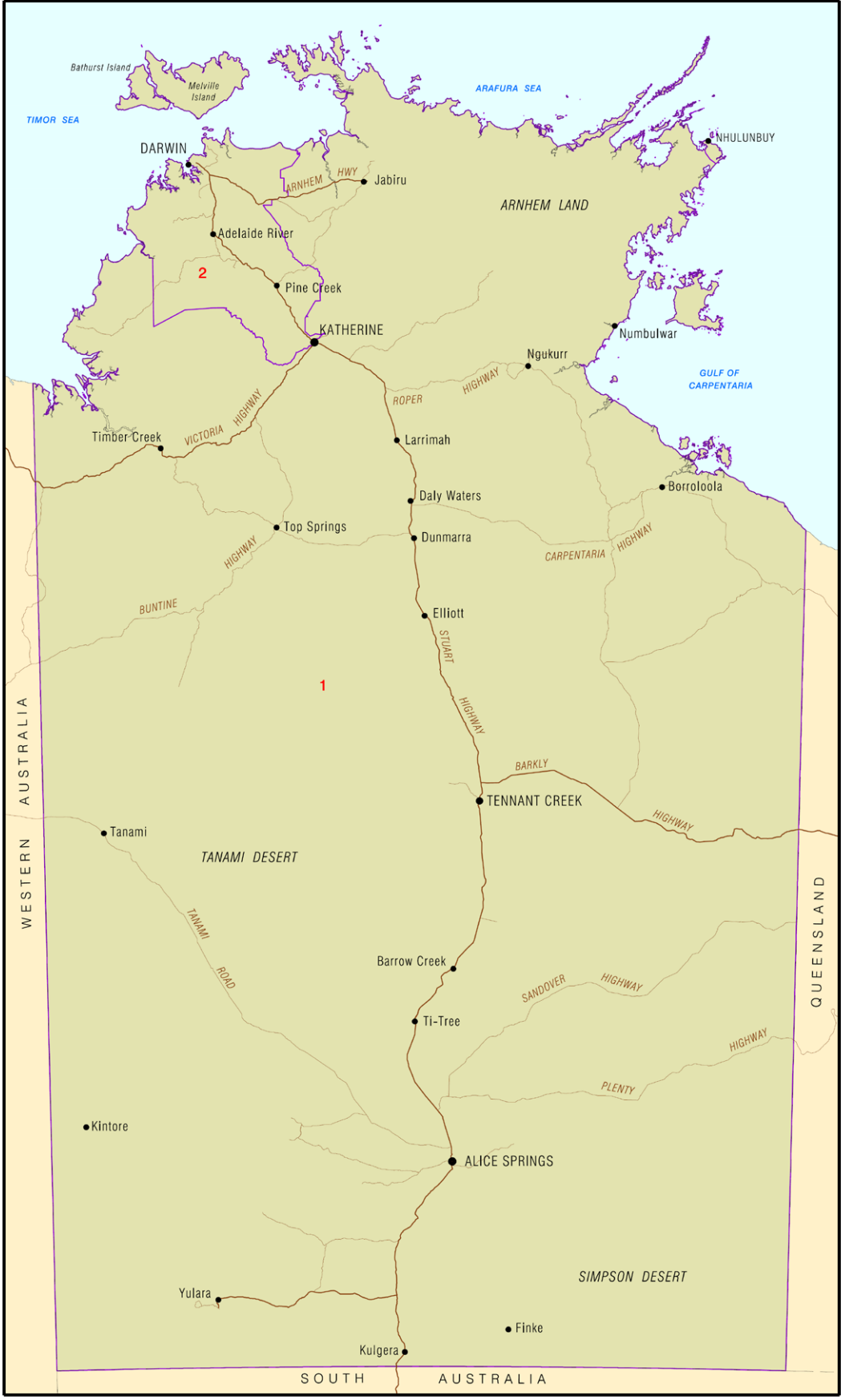


Figure 11: Gamba grass declaration zones in the Northern Territory.

## STATUTORY WEED MANAGEMENT ZONES MIMOSA

- 1. Mimosa Declaration AC 2013
- 2. Mimosa Declaration BC 2013

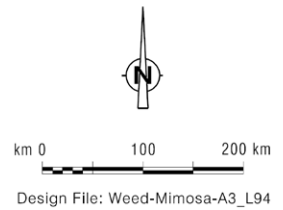
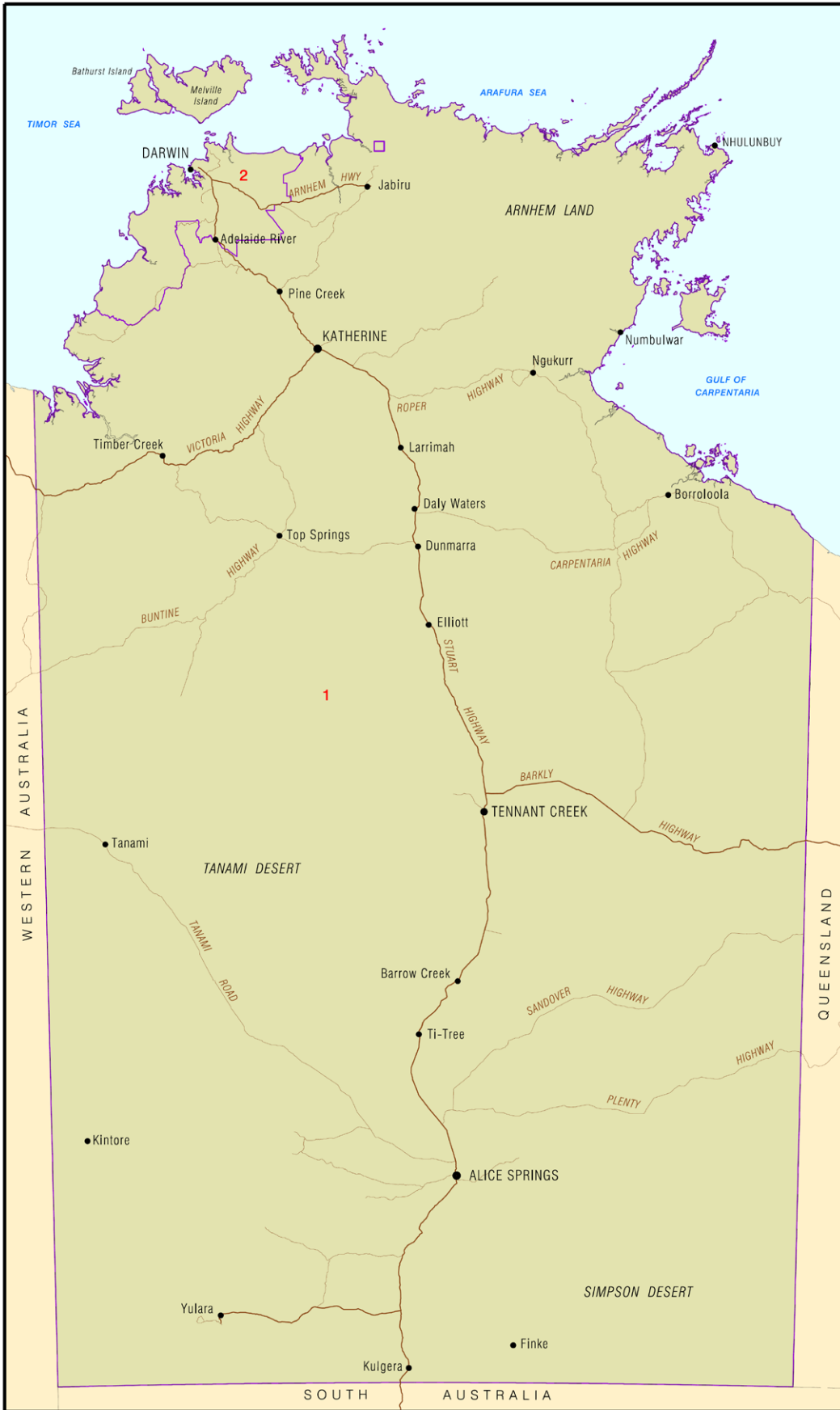


Figure 12: Mimosa pigra declaration zones in the Northern Territory.

# STATUTORY WEED MANAGEMENT ZONE

## RUBBER BUSH

1. Rubber Bush Declaration BC 2013

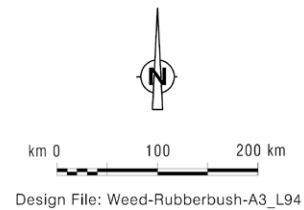
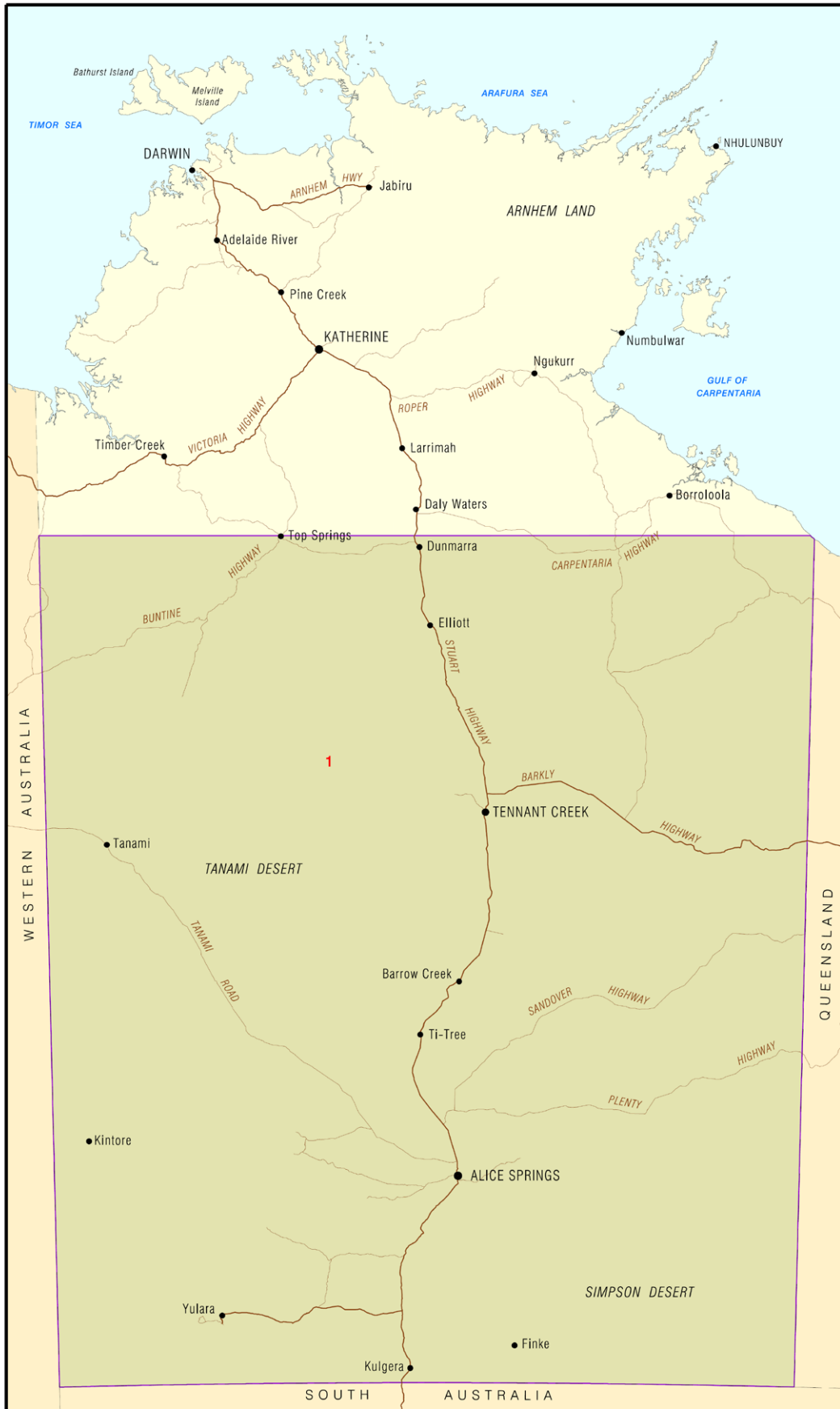


Figure 13: Rubber bush declaration zones in the Northern Territory.

## STATUTORY WEED MANAGEMENT ZONES FOR WEEDS WITH SPLIT ZONE DECLARATION

In the Northern Territory weeds can be declared under the *Weed Management Act 2001* as Class A, B or C. Factors such as the threat a weed poses, the existing spread and the desired management outcome are considered when determining the weed class or classes. For some weed species, factors vary by region and thus the declaration class is 'split' into different geographical zones. Maps defining the area of different class or classes are provided with the declaration. Further information discussing the rationale for the split management zones are available for weeds with a statutory management plan. The location of the declared weeds with split zone declarations are shown in [Figures 7 to 13](#).

Declared weeds - schedule of classes

- A To be eradicated
- B Growth and spread to be controlled
- C Not to be introduced to the Territory

All Class A and Class B weeds are also Class C weeds.

Declared weeds with split zone declarations

- [Athel pine](#)
- [Bellyache bush](#)
- [Brazilian pepper](#)
- [Dalvergia sissoo](#)
- [Gamba grass](#)
- [Mimosa pigra](#)
- [Rubber bush](#)

Technical Detail	
Source	Rangelands Division
Coverage	Northern Territory
Currency	2018
Coordinates	GDA94, Geographic (decimal degrees)
Format	ESRI Shapefile and Oracle Spatial
Contact name	Phil Hickey
Contact phone	08 8999 4452