

Weed Management Plan for Athel Pine 2017 – 2027

2021 Revision



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This plan can be downloaded from: nt.gov.au/athelpine

Acknowledgment

The Weed Management Branch acknowledges the time invested by land managers, landholders and all key stakeholders to inform and guide the development of this new plan.

1. Executive summary

The first statutory plan for athel pine was dated 2016 and gazetted on 22 March 2017. This 2021 review is the first review of the 2016 plan and will remain in force until 2027, 10 years from the commencement of the first athel pine plan. The next review of this weed management plan is required in 2024.

The aim of this plan is to mitigate the damage caused by athel pine (*Tamarix aphylla*) in relation to, environmental, cultural and agricultural production values. This aim is based on athel pine being both a Class A (to be eradicated) and Class B (growth and spread to be controlled) weed in the Northern Territory under the *Weeds Management Act 2001* (the Act). The Act is administered by authorised weed management officers in the Weed Management Branch, Department of Environment, Parks and Water Security (DEPWS). Objectives of this plan focus around achieving this aim.

This weed management plan for athel pine is a statutory plan under the Act. Weed management plans are legal documents designated under section 10 of the Act for high risk declared weeds in the Northern Territory. These plans establish the legal requirements and management actions to be undertaken by all owners and occupiers of land on which the declared weed is present in the Northern Territory.

Section 9(2) of the Act requires all owners and occupiers of land to comply with a weed management plan. Non-compliance is an environmental offence level 3 under the *Environmental Offences and Penalties Act 1996*. To achieve compliance with this plan under the Act, land owners and occupiers with athel pine on their land must comply with the requirements outlined in Table 1 to 4 of this plan.

Performance measures are included in the plan to track performance made against this plan.

2. Aim and objectives

2.1. Aim

To mitigate the damage caused by athel pine in relation to environmental, cultural and agricultural production values.

2.2. Objectives

All of the Territory – including Class A and Class B zones

1. All current distribution maps of athel pine are validated by field survey and data on the control of mature athel pine populations, to verify compliance with this plan.
2. The spread of athel pine from existing infestations is prevented.
3. Compliance and enforcement plans for athel pine are aligned with relevant regional weed strategies and priorities.

Class A zone (eradication zone)

4. To progress eradication of existing infestations in the zone A between 2017 and 2027.

Class B zone (growth and spread to be controlled zone)

5. To actively reduce athel pine in Horseshoe Bend Station in the main Finke River channel and for all areas outside of the main Finke River channel.
6. To actively reduce the density and extent of all athel pine infestations outside the main Finke River channel on Lilla Creek Station, New Crown Station and Andado Station.
7. To actively contain athel pine infestations in the main Finke River channel on Lilla Creek Station, New Crown Station and Andado Station to this area.

3. Background

3.1. Impact of athel pine

Athel pine is a large, spreading tree up to 18m tall. It is native to northern Africa, the Arabian Peninsula, Iran and India and has been assessed as a very high weed in the Northern Territory due to its impact (and potential for further impact) on the Northern Territory's natural environment, economy and cultural values (Northern Territory Government, 2014).

Athel pine can grow deep, woody root systems capable of penetrating up to 50 m underground, enabling establishment in semi-arid and arid rangelands. It is also tolerant of saline and alkaline soils. Athel pine tends to flourish in and around ephemeral river systems and wetlands. Trees do not tend to proliferate in upland areas due to their tendency to seek out groundwater rather than subsurface water.

Since its introduction, athel pine has demonstrated highly invasive tendencies, establishing across large areas of inland Australia, where it has been implicated in lowering water tables, draining waterholes and depriving native species of water and habitat. Athel pine can also change river flow patterns and cause overland flooding and bank erosion.

Significant areas of athel pine growing in the lower Finke River on Lilla Creek station were observed to be dying from apparently natural causes in 2007; where no control works had been administered. In early 2020, it was noted that naturally occurring dieback is continuing in the Finke River, Lower Finke Management Area.

3.2. Distribution in the Northern Territory

Athel pine is mainly found in the southern region of the Northern Territory, where it has been extensively planted on Aboriginal communities and at homesteads, bores and roadhouses.

Athel pine is well established throughout the Finke River Catchment Area.

Amenity athel pine plantings have been found as far north as Katherine however it is not common in this region. Naturalised athel pine is predominantly south of Tennant Creek, however numerous amenity athel pine plantings also exist in the Barkly Region (see Figure 1).

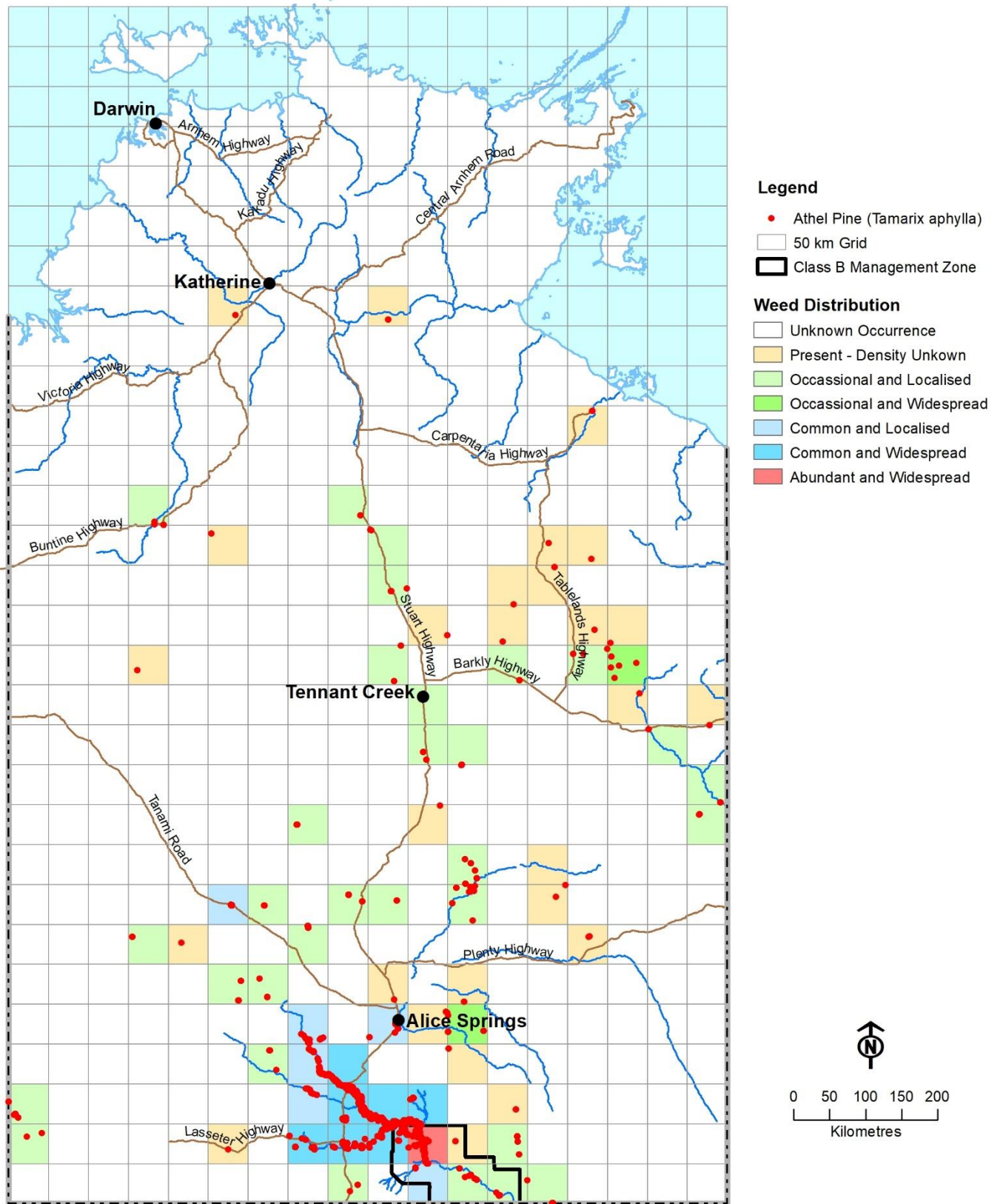


Figure 1 Recorded locations of athel pine in the Northern Territory (2021)

3.3. Legislative status

Athel pine is declared under the *Weeds Management Act 2001* as a Class A (to be eradicated) and Class B (growth and spread to be controlled) weed in different zones. Figure 2 shows the delineation of the Class A and Class B zones (declared in gazettal notice No. G1, 8 January 2014). The different zones represent a defensible balance between the prioritised requirements to eradicate infestations where the feasibility of eradication remains high (Class A) compared with infestations in the Northern Territory where eradication is not considered feasible (Class B). Refer to gazette No. G1, 8 January 2014 for boundaries.

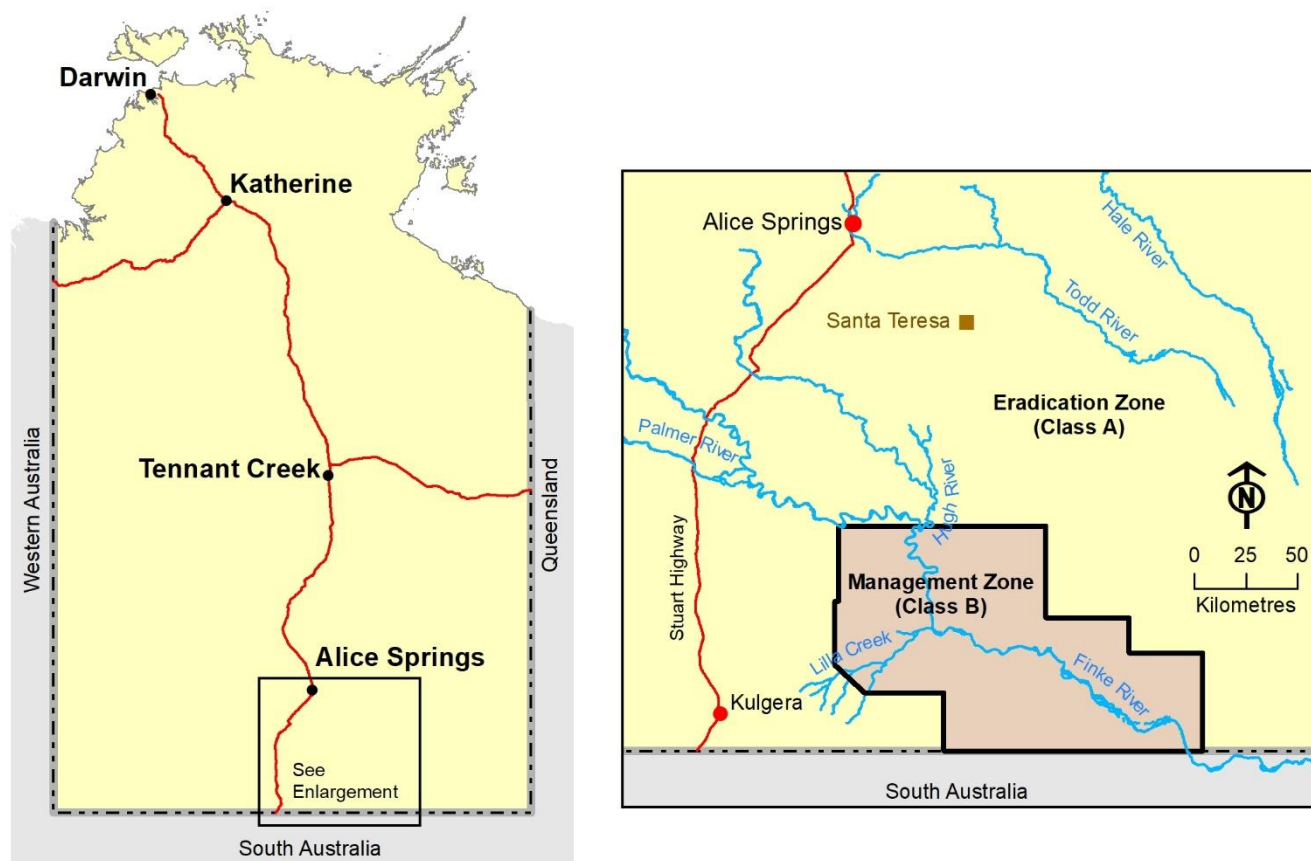


Figure 2 Athel pine declaration map showing Class A (eradication) and Class B (growth and spread to be controlled) zones

3.4. General legislative duties

All land owners and occupiers must comply with all general duties for the management of declared weeds as stipulated under the *Weeds Management Act 2001* including responsibilities under Section 9 of the Act.

All persons must comply with all general duties for the management of declared weeds as stipulated under the Act including responsibilities under Section 9, 31 and 32.

3.5. Permits

Under Section 30 of the Act, a person may apply to the Minister for a permit to use a declared weed. The Minister may refuse or grant a permit subject to a range of conditions. Permit applications can take up to 6 weeks to process, depending on the proposed activity. All athel pine amenity plantings must have a permit to be retained.

4. Defined management areas

For the purpose of outlining management requirements for landowners and occupiers the following management areas have been defined in the Class A zone and Class B zone.

4.1. Class A - Eradication zone

1. Outside Intensive Management Area

This area consists of the Class A eradication zone (see Figure 2) excluding the Intensive Management Area (described below).

2. Intensive Management Area

The Class A Intensive Management Area is a part of the Class A - eradication zone. This area of the Finke River has been subject to historical ongoing control in the Class A zone (see Figure 3).

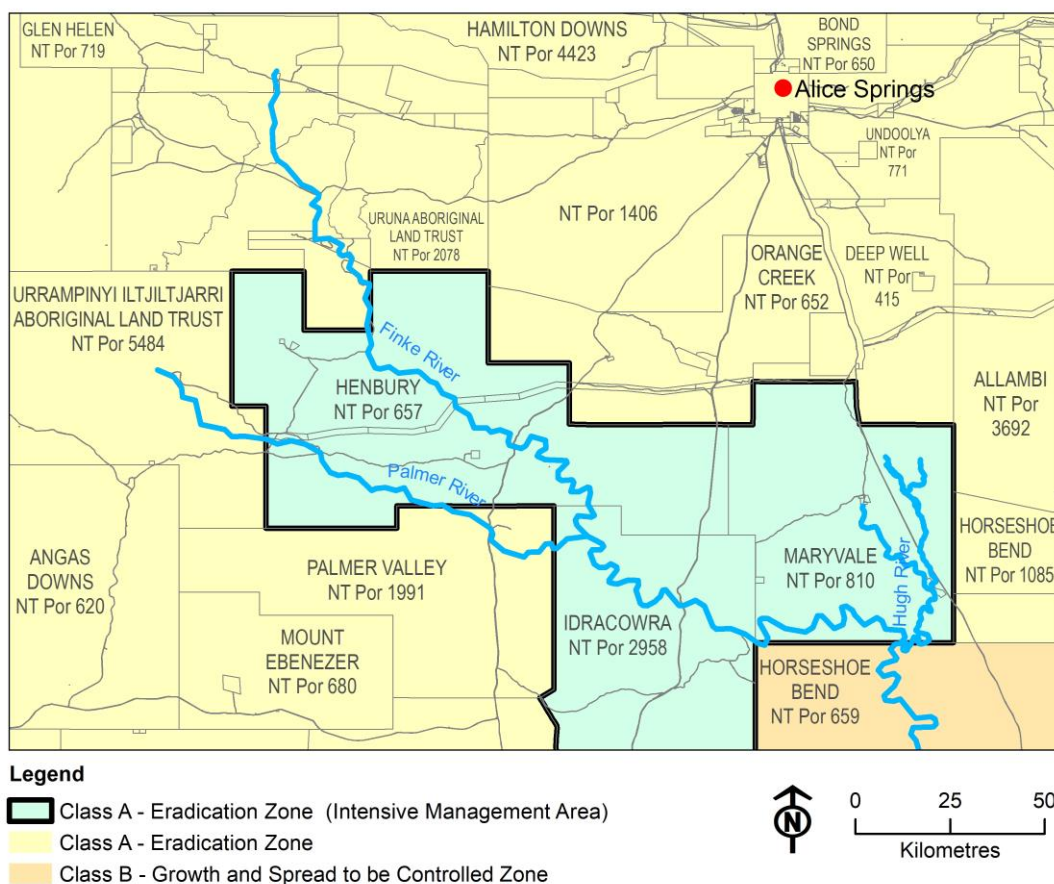


Figure 3 - Class A Eradication Zone - Intensive Management Area

4.2. Class B - Growth and spread to be controlled zone

This plan further divides the Class B zone into two management areas. These management areas reflect differences in the progress being made towards athel pine management since gazettal of the Class A and B zones in 2014 (gazette No. G1, 8 January 2014). The management area is shown in Figure 4 and are described as follows:

1. Class B Horseshoe Bend Management Area

This Class B management area includes Horseshoe Bend Station and the section of the Finke River that traverses Horseshoe Bend Station.

Due to extensive control works undertaken since 1992 in the main Finke River channel through Horseshoe Bend Station, the feasibility of eradication of athel pine has significantly increased in this area. If eradication is considered feasible on Horseshoe Bend Station during the next review of this plan, Horseshoe Bend Station may be included in the Class A zone.

2. Class B Lower Finke Management Area

This area incorporates the Lilla Creek Station, New Crown Station and Andado Station. The Finke River traverses all three of these properties. Due to large and dense infestations along the main Finke River channel through this management zone, it is not expected for landholders to control existing large infestations in this area. Containment of athel pine infestations to the main Finke River channel is required. It is considered that eradication of smaller infestations outside of the main Finke River channel is feasible in this management area.

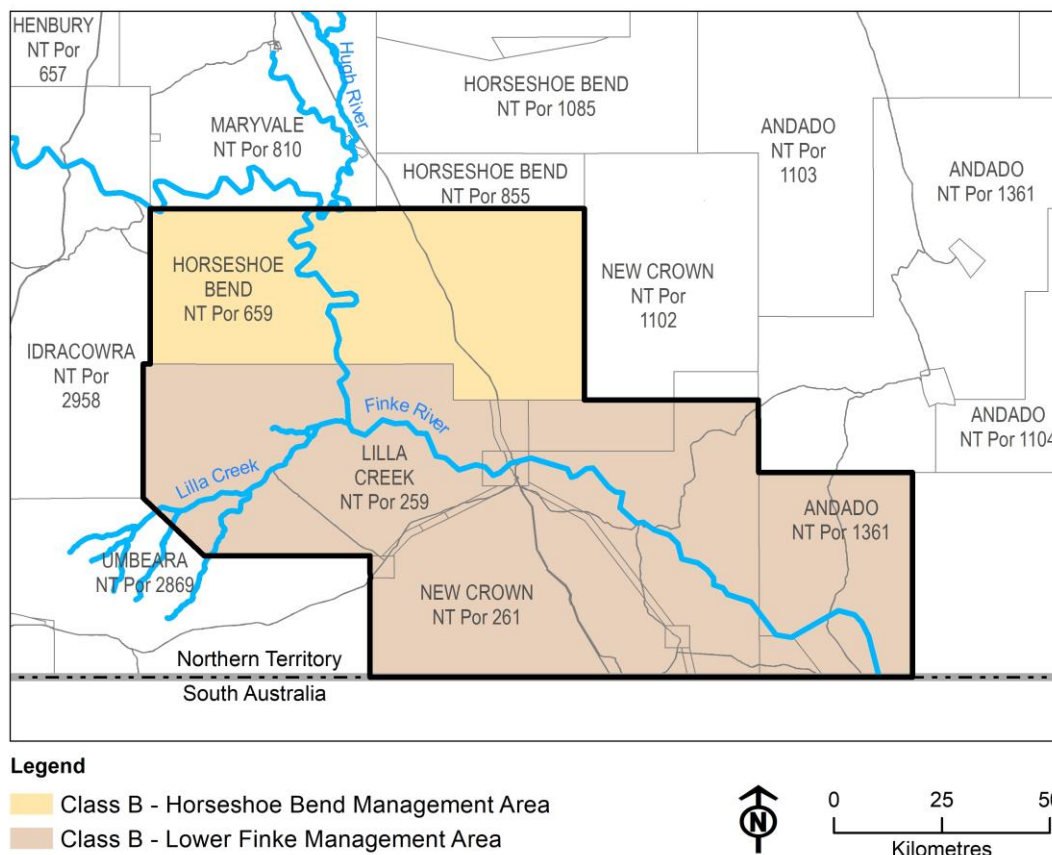


Figure 4 - Athel Pine Class B Management Area

5. Management requirements for landowners and occupiers under this plan

All persons and organisations with athel pine on land they own or occupy must comply with the management requirements in Table 1 to Table 4 to achieve compliance with this plan. All actions with timeframes based upon commencement of the plan are to be implemented from the gazettal date 28 July 2021.

Table 1 Class A - Outside of Intensive Management Area ¹	
1.1	All athel pine amenity plantings must have a permit to be retained. A permit can be obtained from the Weed Management Branch. The permit holder must comply with all conditions of the permit.
1.2	All athel pine is destroyed immediately, unless under permit.

Table 2 Class A - Intensive Management Area ¹	
2.1	All athel pine amenity plantings must have a permit to be retained. A permit can be obtained from the Weed Management Branch. The permit holder must comply with all conditions of the permit.
2.2	Athel pine control must work towards the eradication of athel pine on the property.
2.3	A two year property weed management plan must be documented and implemented to achieve requirement 2.2.
2.4	The property weed management plan must be prepared in accordance with Section 7 below by December 2021 and be provided to the Weed Management Branch.
2.5	An annual report that outlines progress made against the property weed management plan must be provided to the Weed Management Branch by December 2022 and each December thereafter.

Table 3 Class B - Horseshoe Bend Area ²	
3.1	All athel pine amenity plantings must have a permit to be retained. A permit can be obtained from the Weed Management Branch. The permit holder must comply with all conditions of the permit.
3.2	Athel pine control work is progressed to destroy all athel pine prior to seeding.
3.3	A two year property weed management plan must be documented and implemented to achieve requirement 3.2.
3.4	The property weed management plan must be prepared in accordance with Section 7 below by December 2021 and be provided to the Weed Management Branch.
3.5	An annual report that outlines progress made against the property weed management plan must be provided to the Weed Management Branch by December 2022 and each December thereafter.

Table 4 Class B - Lower Finke Area ²	
4.1	All athel pine amenity plantings must have a permit to be retained. A permit can be obtained from the Weed Management Branch. The permit holder must comply with all conditions of the permit.
4.2	Athel pine control must work towards containment of athel pine to the main Finke River channel.
4.3	All mature athel pine plants are destroyed outside of the main Finke River channel.
4.4	A two year property weed management plan must be documented and implemented to achieve requirement 4.2 and 4.3.
4.5	The property weed management plan must be prepared in accordance with Section 7 below by December 2021.
4.6	The property weed management plan must be provided to the Weed Management Branch upon request.

¹ The Intensive Management Area is defined in Section 4.1 (page 7) above

² The Horseshoe Bend Management Area and Lower Finke Management Area are described in Section 4.2 (page 7 and 8) above.

6. Reporting weed data

All land owners / occupiers must report their athel pine data points to the Weed Management Branch using the [NT WeedMate App](#) or by emailing weedinfo@nt.gov.au.

Weed records must be reported in accordance with the [Field Guide for Collecting Weed Data for the NT](#). This document describes the core attributes to be collected.

Further guidance on collecting weed data can be found in the [Northern Territory Weed Data Collection Manual](#).

Where possible, data on whether or not control was undertaken should be collected at the time of survey. This information is important to better understand athel pine distribution, and whether there is an active control program in place.

7. Property weed management plan

A property weed management plan assists landowners and occupiers to plan effective management, control and monitoring of athel pine on their properties. A property weed management plan, required by Section 5 (above) must be prepared in conjunction with the [Weed Planning Guide for Central Australia](#).

The property weed management plan must record the location of athel pine plants or infestations as described above.

The Northern Territory Government [Preventing Weed Spread is Everybody's Business](#) document also provides further guidance on weed spread prevention measures.

Please contact the Alice Springs Weed Management Branch for assistance developing a property weed management plan on 08 8951 9210.

8. Monitoring and evaluation

Performance measures to track progress of this plan are included in Table 5.

Table 5 Performance Measures		
Performance indicator	What will be measured	Timeframe
Progress towards eradication of athel pine in Class A (Eradication Zone)	The WMB has developed a monitoring protocol for eradication for athel pine in the Class A zone and the eradication status of all properties in the Class A zone with athel pine has been categorised as: <ol style="list-style-type: none"> unmanaged active management monitoring phase eradicated amenity plantings under permit 	December 2022
	The WMB assess progress towards eradication of athel pine in the Class A zone using the monitoring protocol.	December 2023 and annually thereafter
Athel pine management - Class B Horseshoe Bend	The WMB will assess reduction of athel pine presence on Horseshoe Bend Station using the monitoring protocol for eradication.	December 2023
Athel pine management - Class B Lower Finke	Proportion of properties with known athel pine outside of the main Finke River channel that are actively managing athel pine and providing data to the WMB.	December 2023
Compliance with this plan	Proportion of properties with known athel pine where the owners and/or occupiers are: <ol style="list-style-type: none"> fully compliant with this plan working towards compliance with this plan not complaint with this plan unknown compliance with this plan 	December 2023
	Proportion of enforcement action taken against this plan.	December 2023
Use of property weed management plans	Proportion of properties with known athel pine where owners and/or occupiers have a property weed management plan.	December 2021
	Proportion of properties with known athel pine that have provided an annual report to the WMB. The annual report has documented progress made against the property weed management plan.	December 2022 and annual thereafter
Provision of distribution data	Landowners and occupiers provide athel pine presence and absence data as a result of survey and control.	December 2022 and annually thereafter
Register of all athel pine including amenity plantings	The WMB will maintain a register of all athel pine including properties with amenity athel pine plantings.	December 2022
	Proportion of properties with amenity plantings under a permit.	
Updated distribution map	WMB to prepare updated distribution maps to represent progress in eradication.	December 2022 and annually thereafter
Progress against this plan to inform next plan review	A three year status report is completed by the WMB to assess performance against this plan and progress against the performance indicators above. Note: this plan will be reviewed using the outcomes of this status report.	December 2023

9. Further resources

The Weed Management Branch have developed a number of resources to assist with the management of athel pine, preventing weed spread, developing property weed management plans and outlining weed data collection practices. These resources are summarised below.

- [Athel pine fact sheet](#)- Provides information on athel pine identification, impacts, habitat, distribution and management.
- [Northern Territory weed management handbook](#) - Developed to provide detailed information about weed control in the Northern Territory. Weed control option tables are included in this handbook that detail herbicide recommendations and optimum treatment times for most problem weeds. Other control methods, which can assist in weed management, have also been described.
- [Regional weed management strategies](#) - In the Northern Territory, there are regional strategies for the Darwin, Katherine, Barkly and Alice Springs regions which identify priority weeds in each region for strategic control.
- [Weeds Australia](#) - athel pine profile information, distribution, gallery, literature and links.
- [Athel Pine National Best Practice Management Manual Managing athel pine and other Tamarix weeds in Australia July 2008](#) - Includes information on ecology and threat, managing athel pine and case studies.

For further information contact the Weed Management Branch. Contact details are provided below.

10. Weed Management Branch Contact Details

Weed Management Branch
Rangelands Division
Department of Environment, Parks and Water Security
PO Box 496
Palmerston NT 0831

Phone 08 8999 4567
Email weedinfo@nt.gov.au
Web nt.gov.au/weeds

11. References

Northern Territory Government (2014). Athel pine (*Tamarix aphylla*) NT Weed Risk Assessment Technical Report January 2014, Department of Land Resource Management, Darwin.

Northern Territory Government (2016). Weed Management Plan for Athel Pine (*Tamarix aphylla*), Department of Environment and Natural Resources, Darwin.

Panetta, F D (2016). Environmental weed risk screen for Victoria: background and development. A report prepared for the Department of Environment, Land, Water and Planning, VIC.
https://www.environment.vic.gov.au/data/assets/pdf_file/0022/49171/WESI-Env-weed-risk-screen-report-Jan-2016_ONLINE.pdf

12. Glossary

Glossary	
Amenity athel pine plantings	Historically or culturally significant athel pine plantings of value to the land owner / occupier, that require a permit to be retained according to this plan.
Containment	The aim of preventing or reducing the spread of invasive species, e.g. by preventing invasions into new areas and eradicating any species that are found outside a defined area or beyond a defined line (Panetta 2016).
Control	To implement actions that reduce the impacts of a weed including physical, mechanical, chemical and biological control. Fire is also a useful management tool that can be used to reduce the impact of weeds.
Declared weed	A plant declared to be a weed under section 7 of the <i>Weeds Management Act 2001</i> .
Destroy	End the existence of a weed plant or weed infestation so no regrowth occurs.
Eradication	The elimination of every single individual (including seeds and other propagules) of a species from a defined area in which recolonisation is unlikely to occur (Panetta 2016).
Main Finke River channel	The Main Finke River channel consists of the main river channel, associated creeks or streams which are intermittently covered by water including the upper levee banks (sloping ground rising from the waterway) up to a defined lip (high watermark).
Mature plant	A plant that has evidence of flowering or seeding, or is of sufficient size to be judged capable of flowering or seeding.
Naturalised	A plant that has demonstrated the ability to reproduce, establish and form self-sustaining populations in the wild unassisted by human interaction.
Owner / occupier	“Owner” refers to the holder of an estate in fee simple, while “occupier” must refer to someone having exclusive possession, occupation, use or enjoyment of the land.