



SAVING OUR SPECIES

Pimelea curviflora var. curviflora

2020-2021 annual report card

Overall status*

- Populations at all sites are known to be on track.
- Threat management is known to be on track at all sites, and population status is unknown at one or more sites.
- **Threat management is known to be off track at one or more sites, and population status is unknown at one or more sites.**
- Populations at one or more sites are known to be off track.

* For SoS priority management sites (may not include all locations where the species occurs in NSW)

Summary

Management sites	Albion Park; Francis Greenway Correctional Complex; Muogamarra Nature Reserve
Action implementation	6 (of 6) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$21,995 (\$8,000 cash; \$13,995 in-kind)
Partners	Environment, Energy and Science; NSW Rural Fire Service; Shellharbour City Council



Scientific name:
Pimelea curviflora var. curviflora

NSW status:
Vulnerable

Commonwealth status:
Vulnerable

Management stream:
Site-managed species





Photo: Barry Collier

Priority management site: Albion Park

Local government area:
Shellharbour

Partners:
Environment, Energy and Science; Shellharbour City Council

Population outcome

-  **On track**
-  **On track (inferred)**
-  **Not on track (inferred)**
-  **Not on track**

Monitoring

Species population monitoring by one or more methods indicates response to management over time and provides an outcome measure.

Monitoring metric	Species abundance
Annual target	The number of plants is not significantly lower than the 2019-20 average of 2.67 plants (± 1.67 SE) across 'treatment' plots and 1.11 plants (± 0.56 SE) across 'nil treatment/control' plots. The percentage of plants that are juvenile increase to 5% across 'treatment' plots. Targets assume no fire.
Long term target	In the absence of fire, to ensure the percentage of adult plants reproducing averages at least 27% across 'weed treatment' plots and 10% across 'nil treatment/control' plots, seedlings/juvenile plants average at least 12% of all plants across 'weed treatment' plots and 7% across 'nil treatment/control' plots, and there is an average of at least 2.82 plants across 'weed treatment' plots and 0.7 plants across 'nil treatment/control' plots after ten years.
Monitoring result	There were no significant differences in the numbers of plants recorded in 'weed treatment' or 'nil treatment/control' plots since 2019-20, and no effects of weed treatment could be detected. In 'weed treatment' plots, plants averaged 3 plants (± 1.90 SE) across plots, while in 'nil treatment/control' plots, there was an average of 1.5 plants (± 0.71 SE) across plots. The percentage of all plants that were juvenile in 'weed treatment' plots was 19.4%. The percentage of adult plants showing signs of reproduction could not be calculated as the reproductive status of plants was not recorded for each adult plant.
Scientific rigour of monitoring method	Moderate
Conducted by	Environment, Energy and Science; Shellharbour City Council

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$8,000	\$1,665
Shellharbour City Council	\$0	\$2,700

Management actions

The following actions are those identified as being required in financial year 2020-2021 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Habitat degradation due to rubbish dumping.	Remove any large stockpiles, rubbish, and other debris dumped at Croom, Light Rail and Hargraves Reserves.	Yes
Invasion and competition from various woody and herbaceous weed species, including <i>Lantana</i> and African lovegrass.	Undertake weed control across approximately 1.1 ha in Croom, 3.9 ha in Light Rail, and 2.7 ha in Hargraves Reserves. Concentrate effort on areas around known <i>Pimelea curviflora</i> var. <i>curviflora</i> records in the south of Croom Reserve, north east corner of Light Rail Reserve, and the eastern half of Hargraves Reserve and focus on woody weeds, asparagus fern, and other weeds including camphor laurel seedlings, fireweed, and mother of millions.	Yes
Risk of too frequent or too intense fires inhibiting growth or reproduction.	'Check that burn plans prepared under Reserve Fire Management Strategies consider any new records of the species and are in accordance with the species' fire regime requirements. Liaise with the Rural Fire Service about undertaking burns.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Invasion and competition from various woody and herbaceous weed species, including <i>Lantana</i> and African lovegrass.	Weed densities remain at 'light' or improve to 'sparse' levels in weed control areas in Croom, Light Rail, and Hargraves Reserves as assessed at the site overall. The percentage covers of the two most common weed species in transects, lantana and asparagus fern, are no more than 5% in any of the 'treatment' transects.	On track
Risk of too frequent or too intense fires inhibiting growth or reproduction.	To measure the number of plants germinating, in the event a fire occurs.	Not assessed
Habitat degradation due to rubbish dumping.	The extent of rubbish, debris and garden waste remains at a similar or lower level to those in 2018-19, not the higher levels recorded in 2019-20. The amount of rubbish requiring removal is not more than the amount that was removed in 2018-19 (one and a half cubic metres of rubbish).	On track

Site summary

Weed management and rubbish removal were implemented as planned. The hazard reduction burn did not proceed at Hargraves Reserve due to other hazard reduction priorities of the Rural Fire Service.

There were no significant changes in the numbers of individual *Pimelea curviflora* var. *curviflora* recorded in monitoring plots in 2020-21 compared to 2019-20 in either 'weed treatment' or 'nil treatment/control' plots, and no detectable changes in the species in response to on-ground weed removal works. This was despite weed cover being maintained at 'light' levels in weed control areas across the site.

Rubbish dumping was recorded as having decreased at the site since 2019-20. Rubbish that was present was located on the outskirts of Hargraves Reserve, demonstrating that bollards and a swing gate re-installed by Shellharbour Council in 2019-20 were successful at deterring illegal dumping within the reserve.

Priority management site: Francis Greenway Correctional Complex

<p>Local government area: Penrith</p> <p>Partners: Environment, Energy and Science; NSW Rural Fire Service</p>	<p>Population outcome</p> <ul style="list-style-type: none"> ● On track ● On track (inferred) ● Not on track (inferred) ● Not on track <p>The species population is inferred to be off track based on threat management being off track. The population trend is unknown at this time.</p>
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Monitoring

Species population monitoring by one or more methods indicates response to management over time and provides an outcome measure.

Species population monitoring was not conducted at this site this financial year - Monitoring for the species or its habitat occurs every three years.

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$0	\$540
NSW Rural Fire Service	\$0	\$9,000

Management actions

The following actions are those identified as being required in financial year 2020-2021 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Habitat degradation due to recreational activities and bush rock removal.	Remove pine trees and rubbish from the site.	Partial implementation - The Department of Communities and Justice agreed to undertake management works without Saving our Species funding, with work including the removal of pine trees. Rubbish was not removed.
Risk of too frequent or too intense fires inhibiting growth or reproduction.	Liaise with the Rural Fire Service and the relevant bushfire management committee involved in making decisions about burns on land including the management site about an ecological burn on the site in the near future. Ensure burns consider any new records of the species and are in accordance with the species' fire regime requirements.	Partial implementation - logistical delays

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Habitat degradation due to recreational activities and bush rock removal.	Assess the site for habitat condition and threats.	Not assessed
Risk of too frequent or too intense fires inhibiting growth or reproduction.	To measure the number of plants germinating, in the event a fire occurs.	On track

Site summary

The Department of Communities and Justice collaborated with the Rural Fire Service to manage (cut down) pine trees at the site. Pine tree felling represented a chainsaw training exercise for Rural Fire Service volunteers. At least 60 pine trees were felled in the north west of the site over four days in April and May 2021, where a cluster of pine trees had previously been recorded by the species project coordinator. Felled pine trees were cut up to reasonable handling sizes but left on site to rot. Care was taken to minimise impacts on surrounding vegetation, including threatened flora species.

There were no actions undertaken to restrict recreational activities as current impacts are low and limited to the occasional training exercise by staff at the correction centre.





Species monitoring was not undertaken as this occurs on a three-yearly basis. There was no fire on site in 2020-21, so post-fire monitoring was not required.

Priority management site: Muogamarra Nature Reserve

Local government area:
Hornsby

Partners:
Environment, Energy and
Science

Population outcome

-  On track
-  **On track (inferred)**
-  Not on track (inferred)
-  Not on track

The species population is inferred to be on track based on threat management being on track. The population trend is unknown at this time.

Monitoring

Species population monitoring by one or more methods indicates response to management over time and provides an outcome measure.

Species population monitoring was not conducted at this site this financial year - logistical delays.

Investment

Participant	Cash	In-kind
Environment, Energy and Science	\$0	\$90

Management actions

The following actions are those identified as being required in financial year 2020-2021 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Habitat degradation due to road and trail maintenance.	Follow standard National Park and Wildlife Service procedures for environmental assessment prior to any trail maintenance work.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Risk of too frequent or too intense fires inhibiting growth or reproduction.	To measure the number of plants germinating, in the event a fire occurs.	Not assessed
Habitat degradation due to road and trail maintenance.	There is no evidence of direct disturbance on the species as a result of any trail maintenance works.	On track

Site summary

Vegetation maintenance works occurred on Bujwa Trail and Glendale Trail in 2020-21. An environmental risk checklist was completed prior to undertaking any trail maintenance work. At sensitive locations, green verge marker posts were put up and some exclusion zones established. A briefing was given to the contractor prior to works commencing. There was no direct disturbance to the species as a result of trail maintenance works.

Species monitoring was not conducted as a higher priority project needed to be delivered at the time monitoring would have occurred. It is likely the population target for the species was met. Species monitoring at this site assumes targets are met if habitat condition is maintained. Habitat condition was impacted from ongoing drought in Muogamarra Nature Reserve in 2019-20 but this improved following heavy rainfall in February 2020 and continuing good conditions throughout 2020-21.

There were no planned fires near known *Pimelea curviflora* var. *curviflora* records at the site in 2020-21. As such, the preparation of burn plans was not required, and neither was post-fire monitoring. There are no planned fires in 2021-22, but given there has not been a fire at the site since the early 2000s, it is recommended that an ecological burn is investigated in 2021-22.

Saving our Species 2020-2021 annual report card for *Pimelea curviflora* var. *curviflora*. For more information refer to the specific strategy in the Saving our Species program.