

## Attachment 4 - Banksia Mapping Improvement Proposal – DRAFT Scope for Land Conservation Steering Committee Meeting Agenda – 14<sup>th</sup> November 2019

Report by Megan LeRoy and Andrew Del Marco

---

### Recommendation

That the Land Conservation Steering Committee:

- 1) Recognises the importance to PHCC of further improving the Banksia Woodlands TEC mapping towards meeting the outcomes of the PHCC RLP Banksia Woodlands Project (2018 – 2023).
- 2) The Steering Committee endorses the proposal below to allocate \$23,054 of 2018/19 RLP Banksia Woodlands unspent funds towards further improvements to the Banksia Woodlands TEC mapping and requests this be proposal be put forward to the CEO for consideration as soon as possible.

### Summary

In order to assist with setting priority protection and restoration activities in the RLP Banksia Woodland Project, it is necessary to more accurately know the distribution and condition of Banksia Woodland Threatened Ecological Community (TEC) listed patches within the Peel-Harvey Catchment. The best knowledge we currently have is a distribution map produced by PHCC and DBCA in June 2019 as part of Year One of the RLP Banksia Woodlands Project.

The map indicates areas within the catchment that have known locations of TEC banksia, probable locations and possible locations (Appendices A, B, C and D). This improved mapping is a significant improvement on the Indicative Banksia Woodland mapping released by the Australian Government in 2016 when the Woodlands were listed as a TEC (Appendix E).

The biggest limitations of the maps is the age of the some of the data (10+ years old), the undefined boundaries and the unknown current condition of the patches.

The improved mapping work was undertaken to deliver the following RLP Project Services, with related budget (Table 1):

RLP Project service	2018/19 budget \$	2018/19 expended \$	Unspent \$
1 x Establishing and maintaining monitoring regimes (number of monitoring regimes established)	\$ 10,844.25	\$6018.54	
3 x Collecting, or synthesising baseline data (number of baseline data sets)	\$ 18,228.33	(made up of \$5,406.69 GIS Officer and \$611.85 DBCA)	
Total	\$29,072.58	\$6018.54	\$23,054.04

It is proposed that all of the Year 1 unspent funds previously allocated to the mapping improvement work, be reallocated to work to further improve the Banksia Woodlands mapping dataset. This will support the achievement of all of the project outcomes over the balance of the project through:

- 1) Ensuring PHCC and others are confident where a bushland area meets the criteria for the Banksia Woodlands
- 2) Gaining a better understanding of the diversity of floristic communities that make up the TEC in the Peel-Harvey Catchment.

In total, \$83,395 was unspent in the Banksia Woodlands project as at 30 June 2019. The Land Conservation team has no other proposals to reallocate the balance of these unspent funds to other Banksia Woodlands works.

It is proposed that the \$23,054 be used to:

- Engage suitably experienced contractors to ground-truth (in-field verification) to determine if a particular Banksia Woodland site or 'patch' meets the diagnostic characteristics and minimum condition thresholds to be described as a Banksia Woodland TEC and therefore protected under the EPBC Act. Initially, field verification should be focussed on determining a basic "presence" or "absence" of Banksia TEC community in areas where existence is least known, cross-referenced with the current priority mapping (Appendix C).
- Engage suitably experienced contractors to carry out botanical surveys to verify the condition of a selection of patches of Banksia Woodlands in known locations using the guidelines as listed in Section 2.2 pp. 18-27 of the Conservation Advice. These being: key diagnostic characteristics (eg. structure and composition); condition thresholds (eg. level of degradation) and minimum patch sizes dependent on condition (e.g. a 'pristine' patch has no minimum patch size, a 'good' patch has to be 2ha minimum).
- Engage a GIS officer to digitise the new mapping, and update the Banksia Woodlands mapping database that is currently held by PHCC.

In order to undertake the above, PHCC will develop project methodologies and undertake limited field verification work to complement work undertaken by contractors. Recently created "priority maps" for the southern and northern parts of the catchments will be used as guidance (see Appendices C & D).

Preference will be for funding to be released as soon as possible and expended by June 2020. It is estimated \$23,054 will support the employment of contractors to undertake the initial in-field verification across the catchment to the level that the mapping can be improved to eliminate all 'possible' or 'probable' patches of banksia woodland and replace with either 'present' or 'absent'.

Further to this, any unspent funds by June 30 deadline should be used on in-depth botanical surveys, to be conducted in Spring 2020 when annual flowering natives and weeds are identifiable. This will result in obtaining/improving data in identified priority TEC patches (eg. areas where PHCC/DBCA/other stakeholders consider worthy of restoration and/or protection).

#### Further information

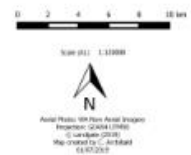
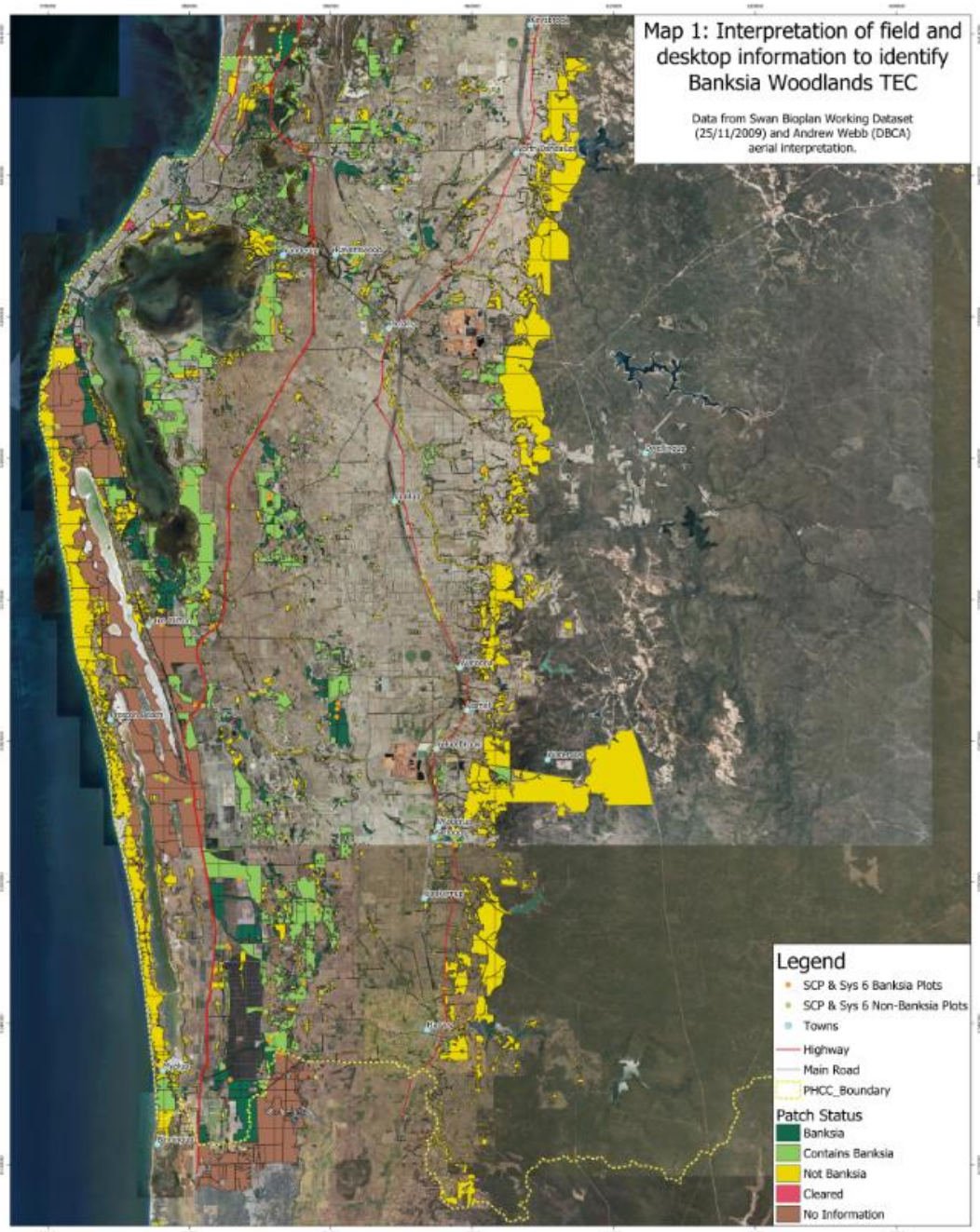
Banksia Woodlands of the Swan Coastal Plain are declared by the Federal Government as a Threatened Ecological Community. At the time of declaration in 2016, the mapping for this

community was based on the Commonwealth's 'likely to occur' areas, and represents the broad-scale vegetation map unit areas most likely to contain the banksia woodlands ecological community. The map is included in Appendix E and can be found at:

<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-indicative-distribution-map.pdf>.

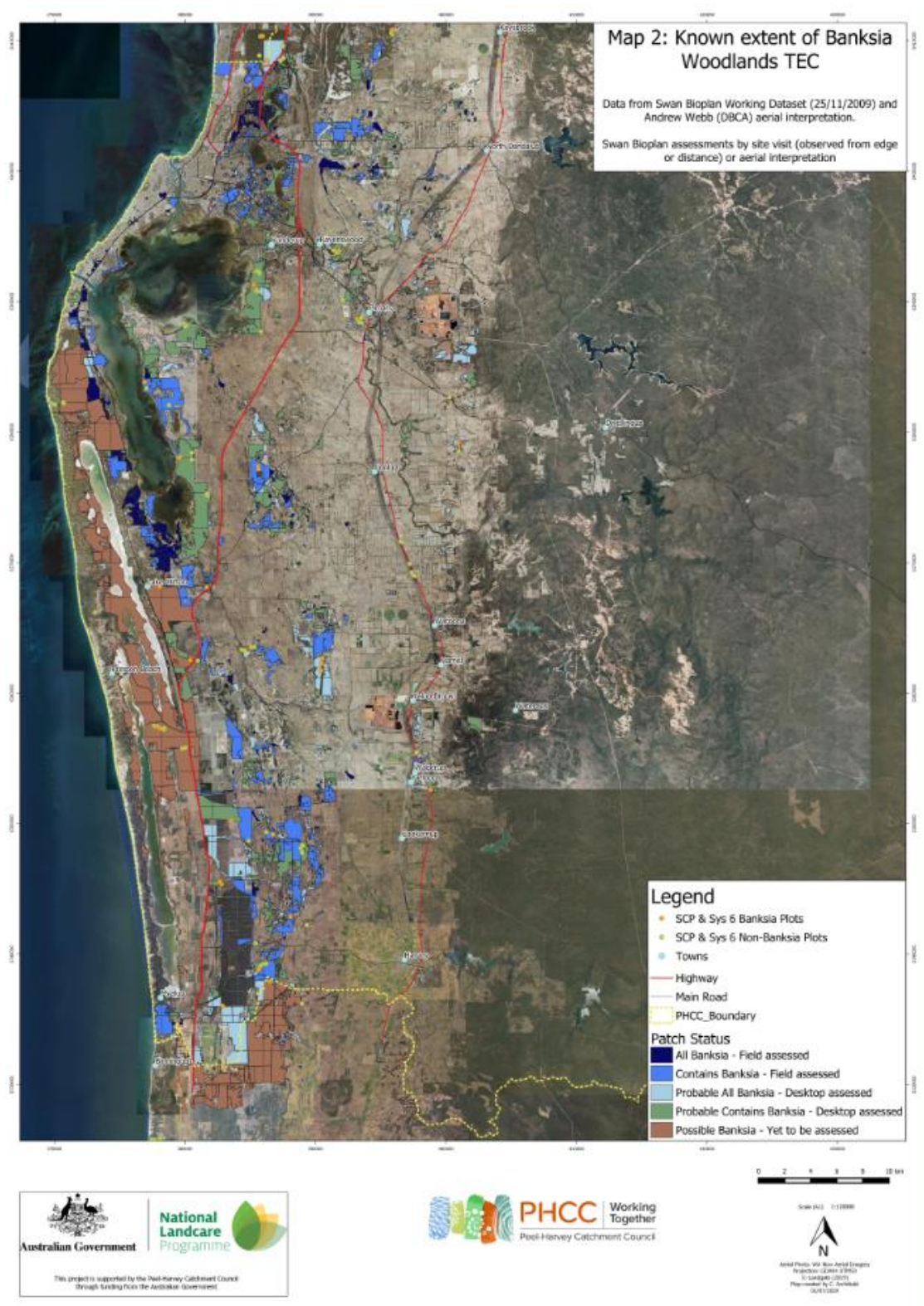
More recently (June 2019), Peel-Harvey Catchment Council's GIS officer Colleen Archibald, in collaboration with DBCA officers has improved the mapping using datasets from the Bush Forever Program and the Swan Bioplan Area as well as aerial interpretation. This collaboration has resulted in more comprehensive maps with known locations of TEC banksia, probable locations and possible locations (Appendices A - D). Ground-truthing will be needed to verify if the patches meet the requirements to be listed as a TEC and to define the boundary of the patch. The condition of the vegetation classed, for example, as pristine/good/degraded, will also need to be recorded. Only patches classed as good or above can be listed as a TEC (and thus have protection under the EPBC Act).

**Appendix A:** Map showing known locations of Banksia woodlands and areas where no banksia exists. In the Legend, 'Banksia' refers to containing at least one TEC banksia species. 'Contains Banksia' contains TEC banksia but other communities may exist so boundaries need to be defined. The 'no information' areas will be priority to verify in the field (Archibald, 2019).

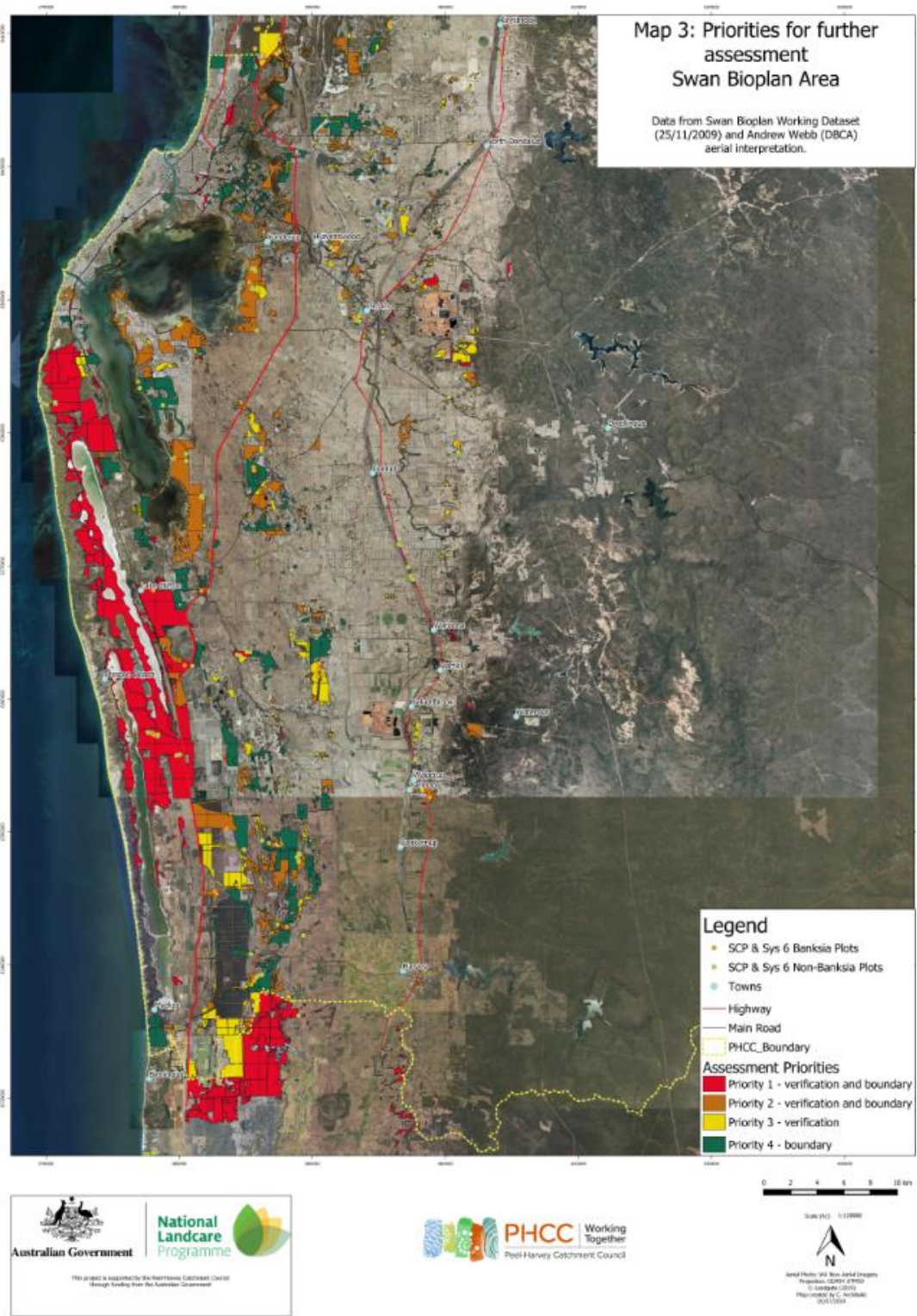




**Appendix B:** Map showing areas that have been field assessed and desktop assessed for Banksia. Different from Map 1 as non-banksia areas have been removed (Archibald, 2019).

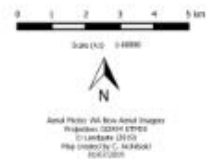
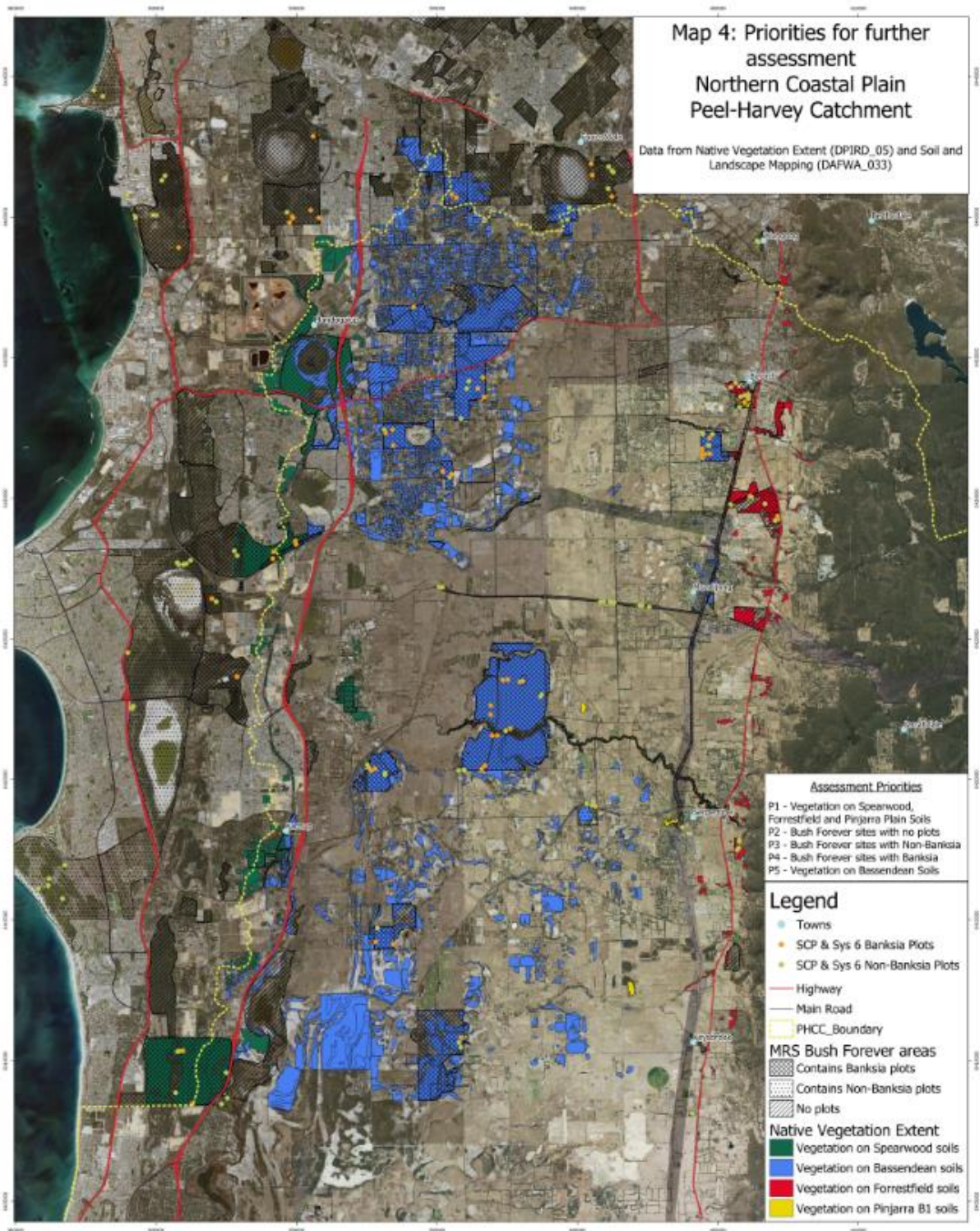


**Appendix C:** Map showing priority areas for in-field verification in the southern Peel-Harvey Catchment (Archibald, 2019).





Appendix D: Map showing priority areas for field-verification in the northern part of the Peel-Harvey Catchment (Archibald, 2019).



**Appendix E:** Indicative mapping of Banksia Woodlands of the Swan Coastal Plain ecological community, Commonwealth of Australia 2016.

