



Department of
Environment and
Conservation

Our environment, our future

RECOVERY TEAM ANNUAL REPORT

THREATENED SPECIES AND/OR COMMUNITIES RECOVERY TEAM

PROGRAM INFORMATION	
Recovery Team	Swan Region Threatened Flora and Communities Recovery Team
Reporting Period Submission date 31 March	DATE FROM: 1/1/2012 DATE TO: 31/12/2012
Current membership	
Member	Representing
Chair	Barbara Wilson A/Program Leader Nature Conservation, Swan Region, DEC Kensington
Members	Craig Olejnik Nature Conservation Coordinator, DEC, Swan Coastal District
	Bob Huston Nature Conservation Coordinator, DEC, Perth Hills District
	Val English Principal Ecologist, Species and Communities Branch, DEC Kensington
	Andrew Brown Coordinator, Threatened Flora, DEC Kensington
	Kevin Thiele Curator, WA Herbarium, Kensington
	Catherine Page Conservation Officer, DEC, Perth Hills District
	Anne Harris Conservation Officer, DEC, Swan Coastal District
	Fred & Jean Hort Volunteers, DEC
Dates meetings were held	18 th June, 2012
Highlights of achievements for the previous 12 months suitable for publication in <i>WATSNU</i> and contribution to DEC annual report. Provide 1-2 paragraphs summarising total number of new populations located,	<p>Perth Hills District- Highlights</p> <p>63 populations/subpopulations of 16 Threatened taxa and 30 populations/subpopulations of 15 Priority taxa were monitored in 2012. Monitoring revealed that there had been a 455% increase in plant numbers at Population 1a of <i>Acacia chapmanii</i> subsp. <i>australis</i> following a number of disturbance trials. Conversely, Population 1b, which has been subjected to minimal disturbance, has decreased in size by 50%.</p> <p>14 new populations of Threatened and Priority taxa were located. Of note, 6 new populations of <i>Stylidium rubricalyx</i> were located as a result of targeted surveys by</p>

surveys completed, list major management actions etc

DEC volunteers, Fred and Jean Hort. *Stylidium rubricalyx* was previously only known from a couple of herbarium collections and one confirmed population, so the discovery of new populations is a significant find

Weed control was successfully completed at various locations to protect 5 threatened taxa and 4 TEC's. A weed trial to assess the impact of 2-DPA on *Diplolaena andrewsii* following *Watsonia* sp. control was also continued, and so far the chemical does not appear to be adversely impacting *D. andrewsii*.

Fences, gates and barriers were installed erected to restrict access into populations of 3 threatened taxa and 3 occurrences of 2 PEC's. Cages were placed around seedlings of *Grevillea flexuosa* to prevent grazing by kangaroos.

Research was continued into the fire response of a number of taxa. Burn trial plots were installed and/or monitored to provide information on the response of 9 threatened and priority taxa to fire.

Swan Coastal District- Highlights

Threatened and Priority Flora

20 populations/subpopulations of 8 Threatened taxa and 41 populations/subpopulations of three Priority taxa were monitored in 2012. Significant increases in plant numbers were recorded in populations of *Chorizema varium* (up to 89%) and *Conospermum undulatum* (179%) where recent fires had occurred. Conversely, post-fire surveys for *Diuris purdiei* failed to locate any plants. Critical habitat was extended along with significant increases in estimated plant numbers for *Eremophila glabra* subsp. *chlorella* (Pop'n 2), and *Trithuria occidentalis*.

Additional Critical Habitat was surveyed for two Threatened taxa (*Banksia mimica* and *Diuris micrantha*) without results. Six new populations of five Threatened taxa (*Caladenia huegelii*, *Calytrix breviseta* subsp. *breviseta*, *Lepidosperma rostratum*, *Synaphea stenoloba* and *Tetraria australiensis*) were surveyed from opportunistic recordings or requests.

Habitat and plant numbers for the Priority 1 taxa, *Leucopogon maritimus* has been increased, but further survey is required. Significant patches of dead plants were observed within boundary extents and could be due to the drying climate. Potentially seven new populations of two Priority taxa (*Gastrolobium* sp. Harvey and *Grevillea thelemanniana* subsp. *thelemanniana*) were surveyed.

Full surveys have now been completed for *Synaphea* sp. Pinjarra Plain (P1) and *S.* sp. Serpentine and Threatened Species Nomination Forms have been submitted for an upgrade of conservation status for both plants.

Weed Control, weed mapping, fencing and fence repair were undertaken within various reserves to benefit 11 taxa of Threatened flora and 12 taxa of Priority flora.

Threatened and Priority Ecological Communities

Operational works during 2012 to map and control weeds, establish and repair fences, control feral pests and revegetate degraded areas were undertaken in 28 reserves to benefit 12 TECs and five PECs.

Weed mapping was carried out within five reserves to benefit TECs SCP20a, 20b and PECs SCP22 (P2), 23b (P3) and 25 (P3).

Control of weeds including *Acacia* spp. (Eastern States varieties), *Chamaecytisus palmensis* (Tagasaste), *Ehrharta* spp. (Veldt grass), *Eragrostis curvula* (African Lovegrass), *Euphorbia terracina* (Geraldton Carnation weed), *Gomphocarpus fruticosus* (Narrowleaf cotton bush), *Hyparrhenia hirta* (Tambookie grass), *Rubus ulmifolius* (Blackberry), *Zantedeschia aethiopica* (Arum Lily), *Watsonia* spp., and other bulbous species, was undertaken within 14 reserves to benefit TECs SCP3a, 3c, 7, 8, 15, 18, 20b, Mound Springs, Muchea Limestone and PECs SCP21c (P3), 22 (P2), 23b (P3) and 25 (P3).

Fences were established or repaired at 11 reserves to benefit TECs SCP3b, 7, 8, 10a, 15, 20a, 20b, and PECs SCP21 (P3), 22 (P2), 23b (P3), 24(P3), 25 (P3).

List of recovery actions coordinated by Recovery Team

Detail under the headings below the recovery actions undertaken during the reporting period. Provide separate detail for each species/community against each action. For species/community-specific recovery teams, the generic activity types below can be replaced by the specific recovery actions from the recovery plan where appropriate.

Monitoring and survey of existing and new populations/ occurrences, targeted surveys, critical habitat mapped etc.

PERTH HILLS DISTRICT

Monitoring - Threatened Flora

- *Lechenaultia laricina* 3, 8* -Poor flowering year, requires resurvey.
- *Pultenaea pauciflora* 5*, 22, 24, 25 – All populations have decreased in numbers since last surveyed.
- *Acacia anomala* 2a and b, 3b, 7*, 8a 11 A-F* - Further surveyed required for Chittering populations. Kalamunda populations (11a-f) appear to be stable.
- *Thelymitra stellata* 1, 3*, 10*, 17* - Roleystone populations surveyed quite late in season, follow up required for pre burn survey.
- *Caladenia* sp. Quindanning 1, 2, 4 – Large increase in population extent for population 1. Plants found to extend over 1km past previous extent.
- *Tribonanthes purpurea* 7 -Significant damage has occurred to this population through illegal 4WD access, despite attempts to restrict access.
- *Grevillea flexuosa* 1e,1f,1g 1t, 1u, 3a, 3b, 3c, 3d, 3e, 3q, - Most populations have decreased slightly in size since last surveyed
- *Grevillea curviloba* subsp. *incurva* 8a, 8b, 9a, 9b, 9c, 10, 11.
- *Acacia aphylla* - 22a, 22b and resurvey of population recorded 2011 not assigned population number as yet.
- *Acacia brachypoda* 1* -30% increase in population numbers since previous survey.
- *Verticordia fimbrialepis*, 10*, 11 - Populations appear stable
- *Acacia chapmanii* subsp. *australis* 1a and 1b. 1a had a 455% increase in size, 1b had a 50% decrease in size, presumably attributed to the lack of disturbance at this site.
- *Anthocercis gracilis* – 1, 2 3, 6.
- *Banksia aurantia* 2*,4*,5* - Populations appear stable
- *Conospermum undulatum* 16a* and 16N*.
- *Grevillea bracteosa* subsp. *bracteosa* 14a* and 14B* - Increase for 14a (45%). Decrease recorded 14b (47%)

16 taxa, 63 populations/subpopulations

Monitoring - Priority Flora

- *Bossiaea modesta* (P2) -1 population
- *Thelymitra magnifica* (P1) - 3 populations*
- *Paracaleana gracillicordata* (P1) - 3 populations
- *Amperea micrantha* (P2) - 1 population*
- *Androcalva fagifolia* (P2) - 1 population*
- *Anthotium* sp. Darling Range (P1) - 3 populations*
- *Asterolasia grandiflora* (P4) - 1 population*
- *Caladenia postea* (P2) - 1 population *
- *Cyanicula ixiooides* subsp. *ixiooides* (P4) - 2 populations*
- *Lasiopetalum* sp. Northam (P2) - 1 population *
- *Lechenaultia hortii* (P2) - 3 populations *
- *Pithocarpa corymbulosa* (P3) - 6 subpopulations*

- *Stylidium* sp. Boulder Rock (P2) - 2 populations*
- *Verticordia citrella* (P2) - 2 populations*

15 taxa, 30 populations/sub populations

*= pre/post burn survey

Surveys for new populations

- *Thelymitra dedmaniarum* - 7ha surveyed, no new populations located.
- *Cyanicula ixiooides subsp. candida* – Surveys completed over a 5 000 ha area, focusing on sites burnt in 2011. *Cyanicula* sp. Dale located which looks similar but unable to locate *C. ixiooides* subsp. *candida*.
- *Stylidium rubricalyx* - Surveys completed over a 60 000ha area. 6 new populations located (see below).
- *Grevillea althoferorum* subsp. *fragilis* – Areas of suitable habitat within Bullsbrook Nature Reserve surveyed. No new populations located.

14 New Populations found for 7 species

- *Acacia aphylla* (VU) - One new population found in Beelu NP, 2 new subpopulations reported in Parkerville on private property.
- *Stylidium rubricalyx* (P1) - 6 new populations found in Wandoo National Park by Fred and Jean Hort. Approximately 800 new plants located. Significant find as previously only known from one herbarium collection.
- *Verticordia lindleyi* subsp. *lindleyi* (P4) – 1 new population found by Fred and Jean Hort at Bullsbrook NR.
- *Platysace ramosissima* (P3) - 1 new population found by Fred and Jean Hort at Bullsbrook NR.
- *Lechenaultia hortii* (P2) -1 new population found in Wandoo National Park by Fred and Jean Hort.
- *Cyanicula ixiooides* subsp. *ixiooides* (P4) 1 new population found in Woondowing NR by Fred and Jean Hort.
- *Grevillea bracteosa* subsp. *bracteosa* (VU) – 1 new subpopulation confirmed in Bindoon Defence training area (found by consultants).

SWAN COASTAL DISTRICT

Monitoring - Threatened Flora

Targeted surveys were undertaken of the following:

- *Andersonia gracilis* (Population 20) was surveyed on land recently acquired by DEC. This population showed signs of stress with 22% of plants recorded being in poor condition and a further 7% were dead.
- *Chorizema varium* (Populations 1a, b, c; 2a, b, c; 3a, b). Plants in most populations appear healthy and numbers throughout the populations fluctuated with both significant increases (30% - 89.1%) and decreases (23% - 103%) occurring. (Note: in some populations, plant numbers have been estimated). The highest increase was recorded for Population 2a where a recent wildfire had occurred.
- *Conospermum undulatum* (Population 2) was surveyed post- fire. Plant numbers increased significantly (179%) from 2006, with juveniles making up 27% of the population.
- *Diuris purdiei* (Populations 10a, c) was surveyed post-fire for the second consecutive year. No plants were found.
- *Eucalyptus argutifolia* (Population 3). Condition of population is excellent with stable plant numbers.

- *Eremophila glabra* subsp. *chlorella* (Populations 2a, b, c, 5). Plant numbers within Population 2 have significantly increased (>200%) however, the area extent was also increased. The overall condition of this population was healthy, although stressed and dead plants were observed in areas bordering saline communities and impacts of grazing were clearly evident.
- *Marianthus paralius* (Populations 1, 2) a full survey of the only known populations. Plant numbers in Population 1 have increased from the 2006 survey by 15 (62%) with juveniles making up 13% of the population. Plant numbers in Population 2 decreased from the 2005 survey by 11 (73%) with no juveniles recorded. (It must be noted that previous plant numbers were given as estimates).
- *Trithuria occidentalis* (Population 1). A new area close to the known location of this population was mapped and resulted in an increase of plant numbers by 36%. It must be noted that numbers will fluctuate seasonally for this annual, short-lived species. However, as it is the only known population, any increase is favourable.

Critical habitat was surveyed for:

- *Banksia mimica* on land recently acquired by DEC prior to fencing. No plants were found.
- *Diuris micrantha* in areas identified on aerial photography as potentially suitable habitat, around southwest claypans within local government and DEC reserves. No plants were found.

New populations were surveyed of the following:

- *Caladenia huegelii* (1 population) on land proposed for development.
- *Calytrix breviseta* subsp. *breviseta* (1 population) on private property.
- *Lepidosperma rostratum* (2 populations) on private property.
- *Synaphea stenoloba* (1 population) on local government land.
- *Tetraria australiensis* (3 populations) on road and rail reserves.

Monitoring - Priority Flora

Targeted surveys were undertaken of the following:

- *Leucopogon maritimus* (P1). Three locations from Florabase population records were surveyed, boundaries recorded. Critical Habitat was increased significantly as a result. Plant numbers are yet to be calculated, however, a significant number of dead plants were observed at two of the sites. Further survey is required.
- *Synaphea* sp. Pinjarra Plain (P1). All known records were investigated to complete a full survey of this species initiated in 2011. A Threatened Species Nomination Form has been submitted to raise the conservation status to Critically Endangered. A total of 715 mature individuals were recorded. Of these, 175 individuals (24.4%) are in poor condition. In addition, a further 75 individuals (9.4%) were dead.
- *Synaphea* sp. Serpentine (P3). All known records were investigated to complete a full survey of this species initiated in 2010. A Threatened Species Nomination Form has been submitted to raise the conservation status to Critically Endangered. A total of 1,328 mature individuals were recorded. Of these 125 (9.4%) are in poor condition. In addition, a further 397 individuals (29.8% of the total population) were dead.

New populations were surveyed of the following:

- *Gastrolobium* sp. Harvey (P2) (5 potential populations)

	<p>collections of plants taken for confirmation.</p> <ul style="list-style-type: none"> • <i>Grevillea thelemanniana</i> subsp. <i>thelemanniana</i> (P4) (2 populations) on private property.
<p>Threat amelioration e.g. weed control/mapping, fencing/ repairs, fire management disease management, feral/ introduced animal control, installation of roadside markers</p>	<p><u>PERTH HILLS DISTRICT</u></p> <p>Threat amelioration- Threatened and Priority Flora</p> <ul style="list-style-type: none"> • Control of <i>Hesperantha falcata</i> within Bullsbrook Nature reserve to protect <i>Grevillea althoferorum</i> subsp. <i>fragilis</i> and <i>Verticordia plumosa</i> var. <i>pleiobotrya</i>. • Burnside NR contains <i>Watsonia</i> sp. and <i>Eragrostis curvula</i> were controlled at Burnside Nature Reserve protecting a population of <i>Tetralia australiensis</i> (DRF). • Gates and fencing were installed surrounding the reserve to restrict access to Drummonds Nature reserve which contains 2 Threatened taxa, <i>Acacia chapmanii</i> and <i>Eleocharis keigheryi</i>. • <i>Phytophthora cinnamomi</i> was mapped at Loppollo Nature reserve which contains populations of <i>Chamelaucium</i> sp. GinGin. • 10 cages installed around seedlings at <i>Grevillea flexuosa</i> population 1U. • Population 17 of <i>Eleocharis keigheryi</i> within Julimar State Forest was fenced to exclude off-road vehicles. • <i>Watsonia</i> sp. and <i>Rubus ulmifolius</i> (Blackberry) control completed at Serpentine National Park to protect the natural populations of <i>Lasiopetalum pterocarpum</i> (1a to 1f). • 4WD Access blocked to <i>Tribonanthes purpurea</i> population at Mount Dale. • Weed control conducted within an area of proposed National Park containing population 1a and 1b of <i>Conospermum undulatum</i>. The following weeds were controlled: <i>Watsonia</i> spp., <i>Ehrharta</i> sp. (Veldt grass), <i>Hyparrhenia hirta</i> (Tambookie grass), <i>Eragrostis curvula</i> (African Lovegrass), <i>Freesia</i> sp., <i>Babiana</i> sp. <p>Threat amelioration – Threatened & Priority Ecological Communities</p> <ul style="list-style-type: none"> • Occurrence 3 (JB20) Priority 1 Ecological Community “Claypan with <i>Melaleuca lateritia</i> mid dense shrubland over herbs” in Julimar State Forest was enclosed by 500m of 3-strand wire fencing to exclude off-road vehicles. • Access restricted through the installation gates and fences at Drummonds Nature Reserve to two Priority 1 Ecological Communities “Claypans with mid dense shrublands of <i>Melaleuca lateritia</i> over herbs, “and “Wandoo woodland over dense low sedges of <i>Mesomelaena preissii</i>.” • Control of <i>Hesperantha falcata</i> within Bullsbrook Nature reserve to protect TEC “Herb rich saline shrublands in clay pans.” • Weed control conducted within an area of proposed National Park containing the TEC “<i>Banksia attenuata</i> woodland over species rich dense shrublands.” The following weeds were controlled: <i>Watsonia</i> spp., <i>Ehrharta</i> sp. (Veldt grass), <i>Hyparrhenia hirta</i> (Tambookie grass), <i>Eragrostis curvula</i> (Love Grass), <i>Freesia</i> sp., <i>Babiana</i> sp. • Control of <i>Watsonia</i> sp. at Meelon Nature reserve which contains the TEC, SCP08 Herb rich shrublands in clay pans. • <i>Hesperantha falcata</i> and <i>Watsonia</i> sp. controlled at Talbot Road Nature Reserve in 2012, in liaison with the Friends of Group and Urban Nature. Talbot Nature Reserve contains the Critically Endangered TEC SCP20c “Shrublands and woodlands of the eastern side of the Swan Coastal Plain.”

SWAN COASTAL DISTRICT

Threat amelioration - Threatened and Priority Flora

Weed control, weed mapping and fence establishment or repair was undertaken in various reserves and will benefit the following Threatened and Priority Flora.

Drakaea elastica, *Caladenia huegelii*, *Conospermum undulatum*, *Darwinia foetida*, *Diuris purdiei*, *Grevillea curviloba* subsp. *curviloba*, *G. curviloba* subsp. *incurva*, *Lepidosperma rostratum*, *Macarthuria keigheryi*, *Tetraria australiensis*, *Trithuria occidentalis*, *Synaphea stenoloba*, *Synaphea* sp. Fairbridge Farm.

Acacia benthamii (P2), *Acacia lasiocarpa* var. *bracteolata* (P1), *Blennospora doliiformis* (P3), *Cardamine paucijuga* (P2), *Cyathochaeta teretifolia* (P3), *Dillwynia dillwynioides* (P3), *Eryngium subdecumbens* (P3), *Gastrolobium* sp. Harvey (P2), *Johnsonia pubescens* subsp. *cygnorum* (P2), *Lasiopetalum membranaceum* (P3), *Synaphea* sp. Pinjarra Plain (P1), *S.* sp. Serpentine (P3).

Threat amelioration - Threatened & Priority Ecological Communities

Weed control and weed mapping of various species of woody and non-woody weeds, fencing and rubbish removal were undertaken within DEC managed estate to benefit TECs and PECs.

- SCP3a: *Eucalyptus calophylla* – *Kingia australis* woodlands on heavy soil, Swan Coastal Plain. Weed control in Greater Brixton St. wetlands, Lambert Lane Reserve and Roman Rd. Reserve. Rubbish removal at Greater Brixton St. wetlands.
- SCP3b: *Eucalyptus calophylla* – *Eucalyptus marginata* woodlands on sandy clay soils of the southern Swan Coastal Plain. Weed mapping in Cardup NR. Fencing at Kooljerrenup NR.
- SCP3c: *Eucalyptus calophylla* – *Xanthorrhoea preissii* woodlands and shrublands, Swan Coastal Plain. Weed control in EllenBrook NR and Roman Rd. Reserve,
- SCP07: Herb rich saline shrublands in clay pans. Weed control and fencing at Carrabungup NR,
- SCP08: Herb rich shrublands in clay pans. Weed control in EllenBrook NR, Forrestdale Industrial Park and Greater Brixton St. wetlands. Fencing at Forrestdale Lake Reserve. Rubbish removal at Greater Brixton St. wetlands.
- SCP10a: Shrublands on dry clay flats. Fencing at Forrestdale Lake Reserve and Kooljerrenup NR.
- SCP15: Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain. Weed control and fencing at Carrabungup NR.
- SCP18: Shrublands on calcareous silts of the Swan Coastal Plain. Weed control in Itty Bitty NR.
- SCP20a: *Banksia attenuata* woodland over species rich dense shrublands. Weed mapping in Hawkevale NR. Fencing at Errina Rd. Reserve.
- SCP20b: *Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain. Weed control in Lambkin NR, Watkins Rd. Reserve and Roman Rd. Reserve. Weed mapping in Cardup NR. Fencing at Watkins Rd. Reserve.
- Mound Springs SCP: Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain). Weed control in Neaves Rd. NR.
- Muchea Limestone: Shrublands and woodlands on Muchea Limestone. Weed control in Muchea NR,
- SCP21c: Low lying *Banksia attenuata* woodlands or shrublands (P3). Weed control in Lowlands. Fencing at Forrestdale Lake

	<p>Reserve.</p> <ul style="list-style-type: none"> • SCP22: <i>Banksia ilicifolia</i> woodlands, southern Swan Coastal Plain (P2). Weed control and weed mapping in Melaleuca Park. Fencing at Beermullah Reserve. • SCP23b: <i>Banksia attenuata</i> – <i>Banksia menziesii</i> woodlands (P3). Weed control and weed mapping in Melaleuca Park. Fencing at Beermullah Reserve. • SCP24: Northern Spearwood shrublands and woodlands (P3). Fencing at Nowergup Reserve. • SCP25: Southern Swan Coastal Plain <i>Eucalyptus gomphocephala</i> – <i>Agonis flexuosa</i> woodlands (P3). Weed control in Muchea NR and Paganoni NR. Weed mapping and fencing at Leda NR.
<p>Conservation and research e.g. fire research, translocation, ex-situ conservation, revegetation/rehabilitation etc</p>	<p><u>PERTH HILLS DISTRICT</u></p> <p>Fire Monitoring and Burn Trial Plots:</p> <ul style="list-style-type: none"> • <i>Acacia anomala</i> (VU) Pop 11: 6 plots monitored post-burn. • <i>Acacia aphylla</i> (VU) Pop 1C: 4 burn trial plots monitored. • <i>Acacia chapmanii</i> subsp. <i>australis</i> (EN) Pop1a, b: 20 burn trial plots monitored. • <i>Anthocercis gracilis</i> (VU) Pop1: 1 existing burn plot monitored as due to be burnt again. • <i>Darwinia spiculata</i> (EN) Pop 1a, b: 11 plots monitored post-burn • <i>Pultenaea pauciflora</i> (VU) Pop 5: 1 existing burn trial plot monitored for pre-burn. • <i>Verticordia fimbriolepis</i> subsp. <i>fimbriolepis</i> (VU) Pop10: 7 plots monitored post-burn. • <i>Acacia browniana</i> var. <i>glaucescens</i> (P2) Pop 9a: 3 plots installed pre-burn and monitored post-burn. • <i>Acacia oncinophylla</i> subsp. <i>patulifolia</i> (P3) Pop 12: 1 plot monitored post-burn. <p>Weed control trial <i>Watsonia</i> spp. is invading a number of populations of <i>Diplolaena andrewsii</i> within John Forest National Park. The use of the chemical 2-2 DPA to control <i>Watsonia</i> within these populations was trialled in 2011 and 2012. The objective of this trial is to assess the impact of 2-2DPA on <i>D. andrewsii</i> and to monitor recruitment of <i>D. andrewsii</i> seedlings following <i>Watsonia</i> control. Initial monitoring has indicated that 2-2 DPA has not impacted on <i>D. andrewsii</i>.</p> <p><u>SWAN COASTAL DISTRICT</u></p> <ul style="list-style-type: none"> • Revegetation of a degraded area within Muchea NR was undertaken close to the boundary of the TEC Muchea Limestone. • Assistance was given to Andrew Crawford to collect seeds of <i>Trithuria occidentalis</i> for storage and research. • Entry of flora data from plots established within various reserves was completed and analysed to verify inferred TECs.
<p>Liaison, education/provision of advice e.g. promotional material inc newspaper/ magazine articles, liaison with land managers/ owners, input to impact assessment, development of specific management plans, volunteers assisting with surveys/ monitoring etc.</p>	<p><u>PERTH HILLS DISTRICT</u></p> <ul style="list-style-type: none"> • Liaison with WWF and Toodyay Naturalists to create a sign for Reserve 19904, which contains populations of <i>Grevillea flexuosa</i>. • Liaison with Darling Range Wildflower Society in relation to a funding grant for weed control to protect <i>Conospermum undulatum</i>. • Liaison with DEC volunteers to complete various surveys. • Worked with members of the native Orchid Society (WANOSCG) to monitor populations of <i>Thelymitra magnifica</i>, <i>Thelymitra stellata</i> and <i>Caladenia</i> sp. Quindanning. • Newspaper article written about volunteer surveys for <i>Cyanicula</i>

	<p><i>ixioides</i> subsp. <i>candida</i> (P2) in Wandoo National Park.</p> <ul style="list-style-type: none"> Liaison with various land managers including Western Power, DFES, City of Swan, Shire of Serpentine Jarrahdale, Shire of Kalamunda, Shire of Toodyay and Brookfield Rail in relation to rare flora populations. <p><u>SWAN COASTAL DISTRICT</u></p> <ul style="list-style-type: none"> Liaised with and gave assistance to DEC volunteers from the Mandurah office to survey for various Threatened and Priority flora and to establish plots for the compilation of Flora and Vegetation inventories for reserves in the south-west of the Swan Coastal District. Liaised with various land managers including Western Power, DFES, City of Swan, Shire of Serpentine/Jarrahdale, PTA, Brookfield Rail, WA Herbarium officers and specialist taxonomists in relation to surveys of and potential impacts of proposed works to Threatened and Priority flora and ecological communities.
<p>Land use/tenure changes e.g. covenants, acquisitions, changes in land use or listed purpose etc.</p>	
<p>Conservation status reviews for taxa/TECs e.g. nominations for additions, deletions or change in status to state threatened or priority lists; changes to EPBC list</p>	<p><u>PERTH HILLS DISTRICT</u></p> <p>Two DRF gazetted: <i>Hypocalymma sylvestre</i> (P1 to CE) and <i>Leucopogon</i> sp. Flynn (P2 to CE)</p> <p><u>SWAN COASTAL DISTRICT</u></p> <p>Nomination Forms for a change in status to Critically Endangered were completed for <i>Synaphea</i> sp. Pinjarra Plain (P1) and <i>Synaphea</i> sp. Serpentine (P3).</p>
<p>Recovery plans e.g. recovery plans/ IRPs drafted, approved, reviewed or updated</p>	<p><u>PERTH HILLS & SWAN COASTAL DISTRICTS</u></p> <p>Interim recovery plans were reviewed and approved for <i>Caladenia</i> sp. Quindanning, <i>Calytrix breviseta</i> subsp. <i>breviseta</i> and <i>Thelymitra dedmaniarum</i>.</p>
<p>Other actions completed</p>	