



**Revised Draft
*Environmental
Protection
(Western Swamp
Tortoise Habitat)
Policy 2010***



**Report to the
Minister for
Environment**

**As required under section 28
of the *Environmental
Protection
Act 1986***



Environmental Protection Authority

October 2010

Copies of the Revised draft

The purpose of this document is to present for public inspection the revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010* and report transmitted to the Minister for Environment, in accordance with section 28 of the *Environmental Protection Act 1986*.

Copies of the revised draft Policy are available free of charge or for public inspection during normal business hours at the following Office of the EPA and Department of Environment and Conservation offices—

- The library, Level 4, 168 St Georges Terrace, Perth; and
- 5 Dundobar Road, Wanneroo.

The revised draft Policy can also be found at www.epa.wa.gov.au

Environmental Protection Policies

An Environmental Protection Policy (EPP) is prepared under Part III of the *Environmental Protection Act 1986* and has “the force of law as though it had been enacted as part of this Act”, on and from the day on which the policy is published in the Western Australian *Government Gazette*. The Act is binding on the Crown. Accordingly, the wider community as well as all government departments and agencies are required under law to comply with both the Act and EPPs prepared under the Act.

An EPP establishes the basis on which:

- the portion of the environment to which the policy relates to is to be protected; and
- pollution of, or environmental harm to, the portion of the environment to which the policy relates to is to be prevented, controlled or abated.

In addition, an EPP may:

- identify the portion of the environment to which the policy applies;
- identify and declare the beneficial uses of the environment to be protected under the policy;
- specify the environmental quality objectives to be achieved and maintained under the policy;
- set out the indicators, parameters or criteria to be used for measuring environmental quality in the policy area;
- relate to any activity directed towards the protection of the environment, including the discharge of waste;
- create offences and penalty provisions; and
- establish a program for the protection of the environment values within the policy area and may specify, among other things, measures designed to:
 - (i) minimise the possibility of pollution;
 - (ii) protect the environment; and
 - (iii) achieve and maintain the beneficial uses to be protected.

A diagram outlining the EPP process is provided at the back of this document. This document is at the stage of “EPA prepares a revised draft EPP and report, and submits them to the Minister for the Environment” and “Revised Draft EPP available for public inspection” as shown in the diagram.

Cover page photos: Top: Multiple Western Swamp Tortoises (Courtesy DEC) Middle: A Western Swamp Tortoise being released into Moore River Nature Reserve (Courtesy DEC) Bottom: Ellen Brook Nature Reserve.

Foreword

The Environmental Protection Authority (EPA) is an independent statutory authority and is the key provider of independent environmental advice to Government. The EPA's objectives are to protect the environment and to prevent, control and abate pollution.

The Western Swamp Tortoise is the most endangered tortoise in the world with less than 200 adult tortoises in the wild. The tortoise is found in the wild in just four locations: these being within the City of Swan and Shire of Gingin, Western Australia.

The *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002* (described herein as 'the EPP') was gazetted on 18 February 2003 and has had the force of law since that date. The EPP was developed to protect the known habitat of the Western Swamp Tortoise within the City of Swan. Since this time the Department of Environment and Conservation have successfully translocated tortoises from the Perth Zoo to areas within the Shire of Gingin.

Under section 36(1)(b) of the *Environmental Protection Act 1986* (the Act), the EPA is required to review the EPP and prepare a revised draft EPP for transmittal to the Minister for Environment within 7 years from the date on which the policy was published in the Western Australian *Government Gazette* unless otherwise directed by the Minister. The EPA was due to transmit a revised draft EPP to the Minister for Environment by 18 February 2010, however, the Minister for Environment directed the EPA to complete the review by 30 October 2010. A notice to this effect was published in the Western Australian *Government Gazette* on 16 February 2010.

Accordingly the EPA released a report for public comment on 8 March 2010 entitled "Review of the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*" which included a draft EPP. The eight week comment period closed on 30 April 2010.

The EPA has now reviewed public submissions received on the draft policy and transmits the revised draft EPP to the Minister for Environment under section 28 of the Act. This concludes the EPA's review of the Western Swamp Tortoise Habitat EPP.

Once the revised draft has been considered and approved by the Minister for Environment and published in the Western Australian *Government Gazette*, the approved EPP is then put before Parliament where it is subject to disallowance.

I am pleased to release and transmit this revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010* to the Minister for Environment.



Paul Vogel
CHAIRMAN
ENVIRONMENTAL PROTECTION AUTHORITY

28 October 2010

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- Appendix 1: Revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010*
- Appendix 2: Summary of submissions and EPA responses for the Review of the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*
- Appendix 3: Process to develop special control area (i.e. amend a local planning scheme)

1 BACKGROUND

1.1 THE WESTERN SWAMP TORTOISE HABITAT EPP AND REVIEW

The *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002* (described herein as 'the EPP') was gazetted on 18 February 2003 and has had the force of law since that date. The EPP was developed to protect the known habitat of the Western Swamp Tortoise within the City of Swan. Since this time the Department of Environment and Conservation have successfully translocated tortoises from the Perth Zoo to areas within the Shire of Gingin.

Under section 36(1)(b) of the *Environmental Protection Act 1986* (the Act), the Environmental Protection Authority (EPA) is required to review the EPP and prepare a revised draft EPP for transmittal to the Minister for Environment within 7 years from the date on which the policy was published in the *Government Gazette* unless otherwise directed by the Minister. The EPA was due to transmit a revised draft EPP to the Minister for Environment by 18 February 2010, however, the Minister for Environment directed the EPA to complete the review by 30 October 2010. A notice to this effect was published in the *Western Australian Government Gazette* on 16 February 2010.

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The EPA has now reviewed public submissions received on the draft policy and transmits the revised draft EPP (Appendix 1) to the Minister for Environment under section 28 of the Act. This concludes the EPA's review of the Western Swamp Tortoise Habitat EPP.

1.2 WESTERN SWAMP TORTOISE BIOLOGY AND ECOLOGY

The Western Swamp Tortoise (*Pseudemydura umbrina*) is a small, short-necked freshwater tortoise that is the only member of the sub-family Pseudemydurinae of the family Chelidae and is the only surviving member from an ancient lineage of Australian tortoises (Gaffney *et al.* 1989).

The Western Swamp Tortoise inhabits shallow, ephemeral, winter- and spring-wet swamps on clay or sand over clay soils with nearby suitable aestivation refuges. After the swamps fill in June or July the tortoises can be found in water, feeding when water temperatures are above 14°C. They are carnivorous, eating only living food such as insect larvae, small crustaceans and small tadpoles. As the swamps warm in spring and swamp life becomes plentiful, the tortoises' food intake increases, eggs develop and fat supplies are laid down for the forthcoming summer. When the swamps are nearly dry and water temperatures rise above 28°C (usually in November), the tortoises leave the water to aestivate during the summer and autumn. Aestivation refuges vary with the soil type. The Western Swamp Tortoise uses naturally occurring or rabbit dug holes in clay, leaf litter, fallen branches or dense, low bushes as aestivation sites (Burbidge *et al.* 2008).

Females lay three to five hard shelled eggs in an underground nest between late October and December. Only one clutch per year is produced in the wild; in most other Australian tortoises multiple clutching is normal. Eggs hatch only after early winter rains cause a drop in incubation temperature. Hatchlings emerge from the nest from late April to June. Hatchlings, being small, are prone to predation by birds, mammals and reptiles. Growth in juveniles is slow and varies considerably from year to year as well as within age classes. Consequently, age to sexual maturity varies from animal to animal and depends on seasonal conditions - the lower the annual rainfall the shorter the swamp life and the slower the growth rate. On average, sexual maturity for Western Swamp Tortoises is 13 years. (Burbidge *et al.* 2008).

1.3 PROTECTION STATUS OF THE WESTERN SWAMP TORTOISE

The Western Swamp Tortoise is the one of the most endangered tortoise or turtle in the world. The major threats to this species include predation from exotic predators (European red fox), habitat loss and degradation. The species conservation status is recognised at an International level and by National and State level through a range of high level protection listings and declarations for the species;

International Status;

The International Union for Conservation of Nature (IUCN) lists the Western Swamp Tortoise as;

- Critically Endangered (CR) in the *2007 IUCN Red List of threatened species*. This indicates that the species is considered to be facing an extremely high risk of extinction in the wild.

National Status;

- Listed in category 'critically endangered' in the list of threatened species - pursuant to section 178 of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act); this indicates that the species is facing an extremely high risk of extinction in the wild in the immediate future.

State-wide status;

- Schedule 1. Fauna that is 'rare or likely to become extinct' – pursuant to Section 14(2) (ba) of the Western Australian *Wildlife Conservation Act 1950*;
- Ranked as 'Critically Endangered' by the Department of Environment and Conservation's (DEC) Threatened Species Scientific Committee - endorsed by the Minister for Environment; DEC uses the IUCN (2007) Red List Categories and Criteria to allocate 'rankings' to listed threatened taxa.

Due to the level of conservation required for this species, the then Department of Conservation and Land Management (now DEC) developed a Western Swamp Tortoise Recovery Plan. Recovery plans are prepared by DEC to delineate, justify and schedule management actions necessary to support the recovery of an endangered or vulnerable species or ecological community. This recovery plan has been progressively updated, with the most recent plan published in 2008 (Burbidge and Kuchling, 2008). A specialist recovery team assists in implementing this plan.

In addition to the protection of the habitat of the Western Swamp Tortoise through the EPP, the habitat is also protected through the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act protects threatened

species and their habitat against an “action” (on-the-ground disturbance). If there is potential for adverse impacts on the Western Swamp Tortoise or its habitat (including translocated habitats), an approval is required from the Commonwealth Minister for the Environment prior to the commencement of on site works.

The EPP differs from the EPBC Act as the EPP defines an area that contains the Western Swamp Tortoise habitat as well as areas that are not considered to be Western Swamp Tortoise habitat but could affect the habitat should detrimental factors be conducted in that area.

It should be noted that the EPP protects the Western Swamp Tortoise’s habitat (within the EPP area) and not the species itself.

1.4 WESTERN SWAMP TORTOISE HABITAT AND POPULATION

The Western Swamp Tortoise was rediscovered in 1953 more than a century after its initial collection. Anecdotal information suggests that this species was restricted to the clay soils of the Swan Valley, the first part of Western Australia developed for agriculture. Almost all this land is now cleared and either urbanised, used for intensive agriculture, viticulture and horticulture, or mined for clay for brick and tile manufacture. Burbidge (1967) reported unsubstantiated sightings from near Mogumber (75 km north of Upper Swan), Pinjarra (95 km south) and Donnybrook (200 km south) (Burbidge *et al.* 2008).

Given the precarious conservation status of this species and its restricted distribution, the long-term survival of this species depends on human intervention to ensure its remaining natural habitat is protected against degrading activities.

At present, the Western Swamp Tortoise is restricted to the following sites (Figure 1);

- Ellen Brook Nature Reserve (natural population)
- Twin Swamps Nature Reserve (natural population but is “topped up” with captive-bred individuals)
- Mogumber (translocated, captive-bred population)
- Moore River Nature Reserve (translocated, captive-bred population)
- Perth Zoo (captive-bred breeding program)

These non-captive locations represent the best available habitats at this time for Western Swamp Tortoise habitation, based upon water and soil quality as well as ecological health.

Areas that have been chosen for translocations are based upon the best available land for the species to survive and remain viable in the long-term. This includes the current affect adjacent land-uses will have on the species’ habitat. DEC engages actively with the broader community and neighbours of DEC-managed lands as intended under the DEC Good Neighbour Policy (DEC, 2007).

More wild populations need to be established to ensure the long term survival of the Western Swamp Tortoise. The Western Swamp Tortoise Recovery Team is continually searching for additional translocation sites in secure areas that will not be under pressure from increasing urbanisation (Burbidge *et al.* 2008).

1.4.1 Ellen Brook Nature Reserve

Ellen Brook Nature Reserve is the only self-sustaining, largely-natural Western Swamp Tortoise population.

Reserve water levels are not greatly affected by drought and climate change and the swamps contain water from June to November during most years. Water quality at this site is excellent and there is no evidence of pollution entering the swamps on the reserve (Burbidge *et al.* 2008) although some drainage lines into Ellen Brook Nature Reserve have not been monitored in the past but will be monitored in the future. This reserve contains the biggest single population of Western Swamp Tortoises with an estimation of between 70 – 75 non-hatchling individuals (Gerald Kuchling, personal communication, 2010).

1.4.2 Twin Swamps Nature Reserve

This reserve represents a marginal habitat which was “topped-up” by captive bred individuals on an annual basis from 1994 to 2003 and from then onwards as required.

At Twin Swamps Nature Reserve the swamps are significantly affected by drought and by the drying climate. Only in high rainfall years do they contain water for long enough to enable females to produce eggs and for hatchling Western Swamp Tortoises to feed sufficiently to survive the summer aestivation period. Water quality varies between swamps. Some areas receive run-off from surrounding land and have relatively high levels of phosphates and nitrogen; others have good quality water. There is no evidence to suggest that Western Swamp Tortoises have been affected by changing water quality (Burbidge *et al.* 2008).

In 1994, the Western Australian Water Corporation installed a bore and pipelines in Twin Swamps Nature Reserve as sponsorship of the Western Swamp Tortoise Recovery Plan which is managed by DEC. Pumping of groundwater into the North West swamp has taken place every year since 1994. In recent years rather than supplementing water levels late in the season as intended; pumping has had to occur throughout the winter and spring. An upgrade of the bore and pump system to sustain key swamps was completed in 2008 in order to combat drying climatic conditions (Burbidge *et al.* 2008).

Re-introduction of captive-bred tortoises to Twin Swamps Nature Reserve commenced in September 1994 with annual translocations of between 20 to 40 tortoises taking place each year until 1999. Smaller numbers have been released since 1999 with a total of 163 captive bred juveniles and 20 hatchlings released within the reserve between 1994 and 2005. There are between 40 – 50 individuals currently within the reserve (Gerald Kuchling, personal communication, 2010).

1.4.3 Mogumber

The area in Mogumber containing the tortoise population is within the Lake Wannamal Nature Reserve. Introduction of captive-bred juvenile tortoises to Mogumber started in August 2000 with six tortoises and a further 120 tortoises were released between 2001 and 2005.

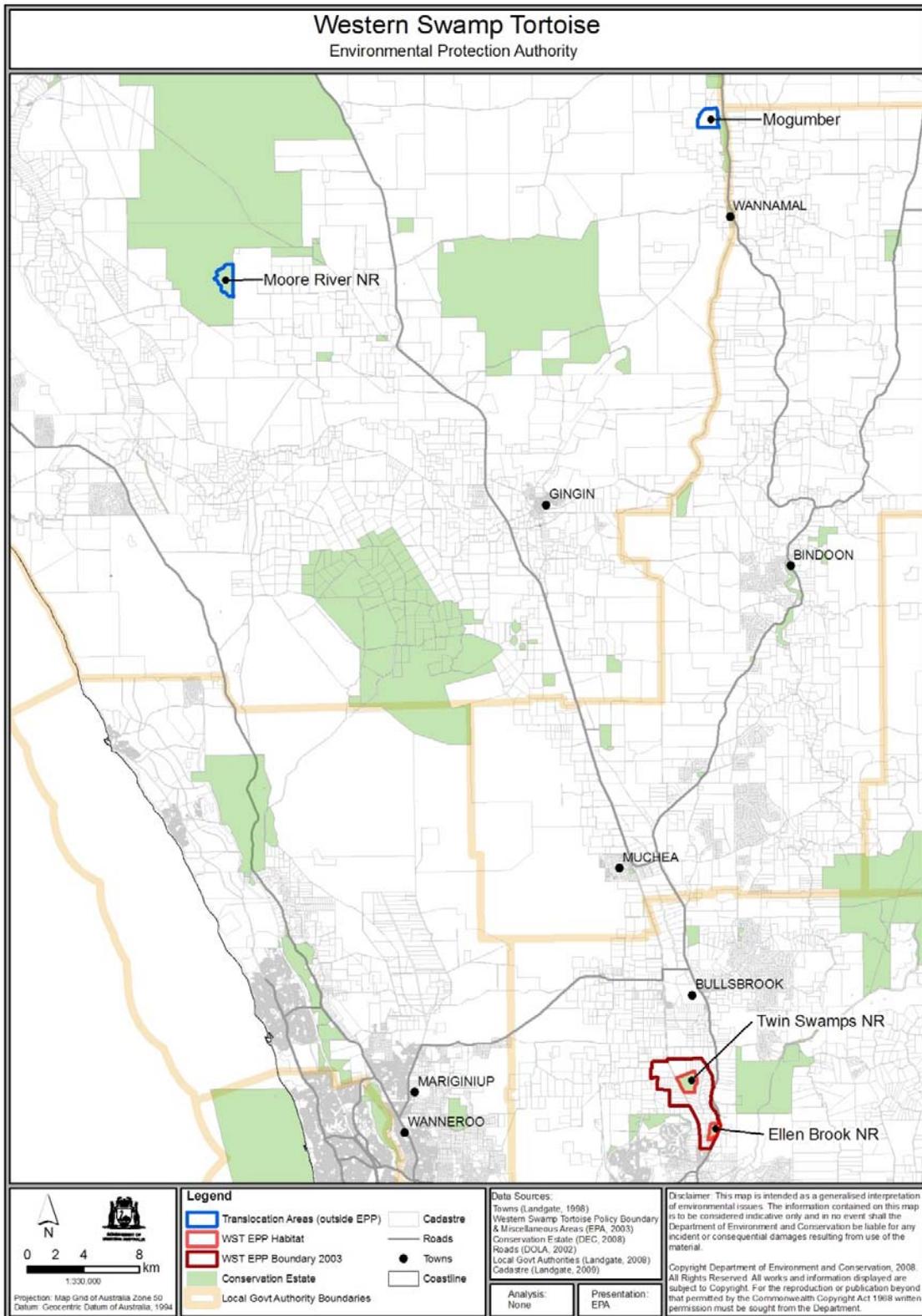


Figure 1. Western Swamp Tortoise Habitat (including current EPP area)

The entire Mogumber tortoise habitat was burnt by a large wildfire under extreme conditions on 20 December 2002. All radio-tracked tortoises aestivating in artificial aestivating tunnels installed to promote underground aestivation survived, but tortoises aestivating on the surface were killed. However, due to the lack of shade these animals were returned temporarily to Perth Zoo. Ten radio-tracked survivors were rehabilitated at Perth Zoo and re-released in the winter of 2003 (Burbidge, *et al.* 2008).

In 2006, the swamps remained dry and there was no release. A further 25 were released in 2007 and 20 in 2008. Several of the radio-tracked tortoises have moved to private land adjacent to the site, particularly in 2006 when the only available water in the area was outside the reserve. There is currently an estimate of between 60 – 70 individuals at Mogumber (Gerald Kuchling, personal communication, 2010).

Some Western Swamp Tortoises moved into neighbouring, private properties during the last six years. The owners of both properties are interested in and supportive of the introduction programme of the Western Swamp Tortoise.

The results of introductions of Western Swamp Tortoises from 2000 to 2008 demonstrate that the swamp life is suitable to support this species at Mogumber. Through ongoing translocations and threat abatement (such as fox control) it is hoped that a self-sustaining population will eventuate at Mogumber.

1.4.4 Moore River Nature Reserve

DEC identified this site at the Moore River Nature Reserve as a potential habitat for the Western Swamp Tortoise in 2004. After research into seasonal water depths and quality at the site, a trial translocation of ten captive-bred tortoises took place at Moore River Nature Reserve in August 2007. Minor habitat enhancement such as bunding along the boundary firebreak, together with limited mechanical deepening of several areas has taken place. Adjacent landowners are aware of the trial translocation site and are supportive of the project.

There was a release of 17 captive bred tortoises to the Moore River Nature Reserve in August 2008. A further 30 juvenile Western Swamp Tortoises were released into the reserve in 2009.

Due to the species' biological and ecological requirements it is too early to determine the level of success that this population will have at this nature reserve.

2 EPA CONSIDERATIONS

2.1 SUBMISSION SUMMARY AND ANALYSIS

Public comment period on the draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010* closed on 30 April 2010. A total of 16 submissions were received. All submissions have been summarised and EPA responses are provided in Appendix 2 and summarised below.

Notice of the release was published in the *Western Australian Government Gazette* on 9 March 2010. Following the release of the draft policy, advertisements were placed in

EPA's Monday advertisement section of the *The West Australian* and the *Bullsbrook, Bindoon, Gingin Advocate* for three consecutive weeks inviting submissions.

The draft policy was distributed to landowners, State Government departments, local Government departments in the region, Ministers, numerous individuals who expressed interest, local groups and conservation groups. Copies of the draft policy were available at the head office of the Office of the EPA and at Department of Environment and Conservation Swan Region office.

Of the sixteen submissions received, twelve of these were received from landowners within the current EPP area in the City of Swan; one submission was received from a landowner near to the Moore River translocation site, two from State Government and one from a conservation group.

2.1.1 Submissions on the options posed by the EPA

In the EPA's Review Report, the EPA posed the following options:

1. Retain the EPP with no changes being made;
2. Extend the EPP area to include translocation sites; or
3. Revoke the EPP and replace with alternative planning solution.

The EPA recommended Option 1 as the preferred way forward viz:-

- The *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002* should be retained for the protection of the original habitat in its current form;
- The City of Swan and Shire of Gingin commence preparation of Special Control Areas (SCA) for remnant and translocated Western Swamp Tortoise habitats; and
- The EPA should be informed of any potential activities that might degrade the Western Swamp Tortoise habitat within the EPP area.

Submissions in response to the EPA's recommended option 1

- The majority of submissions supported the retention of the EPP in its current form and agreed it was protecting the Western Swamp Tortoise habitat.
- Two submissions agreed with the EPA recommendation that extending the EPP to the new translocation sites was not seen as necessary.
- One submission stated that the EPP be extended to Moore River and Mogumber for the next 20 years while the trials take place.
- There was general support for a SCA over the translocated sites of Moore River and Mogumber however it was stressed that consultation with landowners was paramount and that careful consideration be given to the boundary.
- There was a mixed response to the recommendation to introduce a SCA over the current EPP area. The Review Report stated the activities listed in a SCA may include clause 11 of the EPP and the activities listed in the current Special Use Zone 6 of the City of Swan's Town Planning Scheme. Submissions stated if these activities were prohibited through a SCA it would cause the rural use of the land to be untenable. In addition many submissions stated this as duplication to the existing protection and said it provided negligible additional protection.

- Many submissions stated that the Twin Swamps Nature Reserve appeared to be questionable in its viability to be a natural habitat for the Western Swamp Tortoise and that the habitat should be abandoned and the tortoises be relocated elsewhere.
- Some submissions stated that the strongest possible protection be given to all four habitats as the greater diversity of sites available for the tortoise the greater it's chances of survival.
- Some stated that the current process of discussing proposals with DEC prior to lodging proposals was adequate for the WST protection and the local government has compliance officers who can control illegal activities.

Submissions in response to option 2

- One submission supported Option 2 to extend the EPP over the new translocated sites for the next 20 years while the trials take place. Two submissions stated that it was not necessary; one submission stated that activities near Moore and Mogumber could be controlled through the Gingin Shire Planning Scheme and the other stated that activities could be controlled through a SCA.

Submissions in response to option 3

- Only one submission strongly opposed the current EPP. The same submission also opposed the addition of a SCA over the area stating that there is already a 1km buffer protecting the habitats (ie the EPP). Most submissions appeared to prefer to continue with the EPP only in the City of Swan and not to introduce a SCA over the area.

2.1.2 EPA's response to specific issues raised

Western Swamp Tortoise

Generally submissions stated that the Western Swamp Tortoise was in need of protection and made suggestions on how this could be achieved. One submission stated how landowners were assisting in its preservation through planting trees and other submissions stated that a greater number of sites for the tortoise will increase its ability to survive.

EPA response: Noted support for Western Swamp Tortoise protection.

Western Swamp Tortoise Habitat

1. The submissions stated that the habitats of Ellen Brook Nature Reserve, Moore River and Mogumber were suitable habitats for the Western Swamp Tortoise and that the tortoise should be protected.
2. Many submissions however stated that the viability of the habitat at the Twins Swamp Nature Reserve was questionable given the large number of translocations that have occurred over the years and the resulting small estimated population, water needing to be pumped all year and weed infestation. Some suggested relocating the tortoise to a safer location.

3. One submission suggested further areas for consideration that may be suitable for future translocations near to the Ellen Brook Nature Reserve in old clay mine sites.
4. Other submissions stated that all four sites should be protected and the protection of the habitat is the highest priority for the Government and the greater the diversity of sites the greater the chances of survival.

EPA response:

1. Noted.
2. These concerns have been passed on to the Species Recovery Team. DEC has advised that Twin Swamps Nature Reserve and Ellen Brook Nature Reserve are the original habitats for the Western Swamp Tortoise. Although the Ellen Brook Nature Reserve site is considered the jewel in the crown, DEC considers both sites as important habitats for the tortoise. The recovery team has approved making modifications to the Twin Swamps Nature Reserve site to assist in its success; translocations are proposed for 2011. The effects of the modifications to the site will be reviewed in 5-7 years. At this time the EPA will continue to protect the habitat of the Western Swamp Tortoise at Twin Swamps Nature Reserve through the EPP.

In response to submissions regarding pumping at Twin Swamps Nature Reserve, DEC have advised that; pumping does not occur in summer as stated in submissions; pumping reflects the natural rainfall to allow for a top up of the winter swamps; and water is pumped from the Leederville aquifer not a superficial aquifer (where most landowners are likely to extract water).

The Perth Zoo celebrated its 500th captive bred tortoise released into the wild in 2009 across all four sites. In the optimum conditions of the Perth Zoo only 500 individuals have been produced since 1989. Given this and that sexual maturity occurs between 8-12 years and even as late as 15 years in poor years it is a gross exaggeration that 2000 individuals should be present at the Twin Swamps Nature Reserve site by this time.

3. DEC has advised that they have joined with the University of WA, the Perth Zoo and others to form a collaborative approach to model future habitats. By modeling hydrology and rainfall in the south west new sites for translocation will be identified. Considerations for new sites include depth of swamps, type of swamp, competition with other users (e.g. long necked tortoises) and macro invertebrate diversity. In general, clay mined areas are very deep and the water is turbid, and as such prevent sunlight; produce less plankton; provide less food source and are therefore usually not suitable. However any person with suggestions for future sites is encouraged to write to the Recovery Team with the details of the site suggested for a considered response.
4. The EPA agrees that all four sites should be protected. The EPA is satisfied that the introduction of SCAs will enhance protection.

Drainage

1. Several submissions in the EPP area stated that their property's surface water did not appear to flow towards the Western Swamp Tortoise habitats so their property should not be included in the EPP area or proposed SCA.
2. One submission stated that all surface water near the Moore River translocation site flows in a south easterly direction and on into the Mungarla and Gingin Brooks and state there is no and will never be contamination of the habitat by fertiliser or manure from their property. They state a bund has been placed along the boundary to allow the retention of water at the translocation site for a longer period than usual before overflowing through to the adjacent property.

EPA response:

1. The EPA has been advised that surface water appears to drain towards Western Swamp Tortoise habitat. DEC have also advised that water flows beneath the railway line towards the habitats. This has been confirmed using LiDAR imagery.
2. Noted. DEC has advised that the surface water at Moore River Nature Reserve does flow from the reserve towards the adjacent property. The bund was placed at the boundary of the nature reserve and private property to allow water to be retained in the Western Swamp Tortoise habitat for longer in winter. This will also ensure no surface water contaminants will enter the reserve.

Landowner relationship with DEC/EPA

One submission near Moore River stated they enjoyed a positive relationship with DEC and involvement with the release of ten tortoises gave them a personal connection to them. One submission from a landowner of the EPP area said they did not have a positive relationship with DEC or EPA.

EPA response:

The EPA encourages any further consultation on the protection of the Western Swamp Tortoise to be a positive one. If landowners wish to be involved in the management of the tortoises they are encouraged to contact the Swan Region of DEC to find out how they can participate.

Special Control Area at Mogumber

1. Two submissions supported the introduction of an SCA to the Mogumber site. No submissions objected.
2. A submission suggested the introduction of a SCA was a better approach at Mogumber than extending the EPP and suggested the SCA include all the adjacent properties to the nature reserve. The submission also stated that DEC managed land may not be necessary to be within the SCA given their protection through other planning mechanisms.
3. It was suggested that the preparation of SCAs should be developed in liaison with affected landowners, local governments, EPA and DEC.

EPA response:

EPA considers that these issues can not be resolved through the EPP process and should be addressed in the early stages of the SCA development. As part of the development of a SCA a statutory consultative process is carried out (Appendix 3). Landowners and other affected parties will be consulted during the development of a SCA.

A SCA forms part of a scheme and is developed in the form of a scheme amendment either through a town planning or regional scheme. The relevant local government or the Western Australian Planning Commission oversees this process. SCAs are placed over an area zone where additional special control provisions need to be identified. SCAs can:

- i) change the permissibility of land uses under the zone;
- ii) specify particular development standards and requirements which should apply to the SCA;
- iii) list any particular requirements which should be included with an application for planning approval;
- iv) list the relevant considerations which the local government must consider; and
- v) identify relevant specialist agencies and public authorities which should be consulted before deciding on an application for planning approval.

SCA provisions in schemes require careful drafting to ensure that the objectives, processes and principles for the additional development controls are clear, unambiguous and provide a reasonable level of certainty regarding the potential impact on land development.

A SCA for the areas surrounding the habitat of the Western Swamp Tortoise is the appropriate planning mechanism for dealing with the issues and threats present. The EPP sets environmental objectives; but this is not a land use control instrument. The SCA takes the EPP and translates it into a planning instrument. Therefore the SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications. It is also through this process that the benefits will be made clear to landowners.

Special Control Area at Moore River Nature Reserve

1. One submission stated that applying the philosophy of lot boundaries for the SCA (as applied to the EPP) is not appropriate at Moore River due to lots being three kilometres wide.
2. It was suggested that each site needs to be assessed on its merits considering the direction the surface water flows.
3. One submission recommended the SCA area be a 500m strip along side the Moore River Nature Reserve.
4. It was suggested if DEC can not provide a buffer on its own land then compensation should be provided to the landowner if a buffer is needed on private land.

EPA response:

For all the above issues the EPA considers that these can not be resolved through the EPP process and should be addressed in the early stages of the SCA development. The development of the SCA will be a consultative process and each site will be assessed on its own merits. See also EPA response on Mogumber above.

Special Control Area in EPP area

1. Most submissions from landowners in the EPP area objected to or questioned the introduction of a SCA in addition to the EPP. Their main concerns were the loss of the rural use of their land, loss of currently permissible pursuits, the limited possibilities to make a small income given the restrictions that may be imposed, loss of land value and the apparent duplication.
2. If the SCA were to follow the EPP and SUZ 6 conditions then submissions indicated this was likely to mean that the following uses would not be permitted or not viable; horses; cattle; sheep; residential; market gardens; fruit trees; mining; or cropping. If this is the case then submissions stated “why would anyone buy a 20-30 acre block 50 kilometres from Perth if you couldn’t do anything”.

EPA response:

The EPA recognises the concerns which have arisen because there were no details in the Review Report on what would be in a SCA. EPA considers that these issues can not be resolved through the EPP process and should be addressed in the early stages of the SCA development. The development of the SCA will be a consultative process and each site will be assessed on its own merits. See also EPA response to Mogumber above.

Consistency with EPA Guidance Statement No 7 – Protection of the Western Swamp Tortoise Habitat, upper Swan/Bullsbrook

One submission stated that a proposed SCA is likely to be inconsistent with the EPA Guidance Statement No 7, for example, the guidance states that the stocking rates of horses within the EPP area should be consistent with the Department of Agriculture and Food WA guidelines and should not be a prohibited activity.

EPA Response:

The development of the SCA for this area should take into account all policies and guidance statements existing and develop a SCA that is compatible with these existing mechanisms. If the SCA conditions are different to these then it should be justified in the consultation and then accordingly the guidance would need to be updated.

Penalties within the EPP

One submission stated that the EPP has not had any prosecutions, as the EPP does not contain penalties.

EPA Response:

During the review period the EPA considered whether the introduction of penalties into the EPP would be beneficial. After much consideration it has been proposed that the EPA will not consider penalties until SCAs have been in place for some time. EPA will

review the performance of the SCAs in delivering protection to the Western Swamp Tortoise.

3 CONCLUSION

The Western Swamp Tortoise is still the most endangered tortoise or turtle in the world and there are still less than 200 adults in the wild.

The EPA will seek to protect the Western Swamp Tortoise in the current four known habitats and any future habitats established to enable the greatest chance of the species' success.

The EPA recommends that no changes are made to the draft EPP or the original 2002 EPP. The EPA will continue to protect the habitat of the Western Swamp Tortoise in the City of Swan directly through the EPP.

The development of Special Control Areas lies with the planning agencies however the EPA will endeavour to facilitate the development of Special Control Areas in the City of Swan and the Shire of Gingin to further protect the habitat and allow a streamlined planning process to provide clarity and certainty to landowners in the areas.

4 NEXT STEPS

The EPA has now reviewed public submissions received on the draft policy and submitted a revised draft EPP and report (this document) to the Minister for Environment. This concludes the EPA's review of the Western Swamp Tortoise Habitat EPP. The EPA will forward this report to submitters to the draft EPP, relevant landowners and interested parties. This document will also be available on the EPA website; www.epa.wa.gov.au.

This transmittal of the revised draft Western Swamp Tortoise Habitat EPP and report will be advertised for three weeks upon release of the document during which time it will be made available for inspection at various locations indicated on the inside cover.

Upon receiving this revised draft EPP and report the Minister for Environment must consider the revised draft EPP and report, and decide whether further consultation is required.

Consultation by the Minister for Environment is required under section 30 of the Act unless the Minister for Environment is of the opinion that:

- the submitted revised draft EPP is substantially the same as the draft EPP released for public comment on 8 March 2010; and
- the EPA has consulted such public authorities and persons as appear to the Minister to be likely to be affected by that draft EPP.

The revised draft EPP recommended by the EPA is the same as the draft released for public comment. All landowners, public authorities and other persons that are likely to be affected by the draft EPP have been consulted through this public comment process.

The EPA therefore considers that the Minister for Environment does not need to consult on the revised draft EPP.

After the Minister for Environment has considered this revised draft EPP and report, and reviewed the options for consultation under section 30 of the Act the Minister shall, under section 31 of the Act, either:

- i) remit the revised draft EPP to the EPA for reconsideration;
- ii) approve the revised draft EPP, with or without amendments; or
- iii) refuse to approve the revised draft EPP.

If the revised draft EPP is approved, as recommended, it is published in the Western Australian *Government Gazette* and the approved EPP is then put before Parliament where it is subject to disallowance.

5 RECOMMENDATIONS

The EPA recommends that the Minister for Environment:

- **Consider** the revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010* and report to the Minister for Environment (this document).
- **Note** this transmittal will be advertised in the Western Australian *Government Gazette*, the *West Australian* and the *Bullsbrook, Bindoon and Gingin Advocate*.
- **Note** the view of the EPA that Special Control Areas would improve the implementation of the EPP by providing greater planning certainty at the local level.
- **Note** that consultation on the development of Special Control Areas will be undertaken by the appropriate planning agency i.e. Department of Planning, Western Australian Planning Commission and/or the relevant local government.
- **Note** consultation on the revised draft EPP, in the opinion of the EPA, is not required as section 30(3) of the Act is satisfied.
- **Approve** the revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010*.

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Appendix 1

Revised draft *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010*

Please note this has yet to be formally drafted by Parliamentary Counsel

Environmental Protection Act 1986

Environmental Protection (Western Swamp Tortoise Habitat) Policy Approval Order 2010

Background to the approval of the Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010.

The Government of Western Australia —

- (a) is conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational, aesthetic and natural values of biological diversity and its components;*
- (b) recognises its obligations under the Intergovernmental Agreement on the Environment made between the Commonwealth, the States and Territories, and the Australian Local Government Association on 1 May 1992 to establish “ground rules” under which these parties will interact on the environment, especially in relation to land-use decisions, biological diversity and nature conservation;*
- (c) is cognisant of Australia’s assent to the United Nations Environment Program (UNEP) International Convention on Biological Diversity, 5 June 1992, namely to conserve biological diversity in situ, use its components sustainably and share the benefits arising from the use of genetic resources fairly and equitably;*
- (d) recognises its obligations under the National Strategy for the Conservation of Australia’s Biological Diversity (1996), to protect biological diversity and maintain ecological processes and life support systems;*

**Environmental Protection (Western Swamp Tortoise Habitat) Policy
Approval Order 2010**

cl. 1

- (e) is concerned that the habitat of the western swamp tortoise may be significantly degraded by certain human activities, and that such degradation poses a serious threat to the in-situ conservation of biological diversity;*
- (f) is concerned that concentrations and loads of wastewater, nutrients, sediments, pesticides and other materials that could have a detrimental effect on the western swamp tortoise may be increasing in both the habitat and its catchment;*
- (g) identifies the need to adopt an ecosystem management approach which is driven by environmental objectives, implemented by policies, protocols and best management practices and, where appropriate, made adaptable by monitoring and research;*
- (h) acknowledges that ecosystem management will be required that is based on the best understanding of the ecological interactions and processes necessary to sustain ecosystem structure and function intergenerationally;*
- (i) affirms its commitment to protect habitat suitable for the reintroduction and survival of wild populations of the western swamp tortoise and to prevent further pollution and degradation of such habitat and acknowledges this cannot be achieved independently of the ecosystems of which these habitats are a part; and*
- (j) is aware that there is a pressing need to strengthen measures to protect the western swamp tortoise and its habitat and that extinction of the western swamp tortoise in the wild would likely constitute a failing, both nationally and internationally, to conserve endangered species, genetic diversity and biological diversity.*

Made by the Minister under section 31(d).

***Environmental Protection (Western Swamp Tortoise Habitat) Policy
Approval Order 2010***

cl. 1

1. *Citation*

This order may be cited as the *Environmental Protection (Western Swamp Tortoise Habitat) Policy Approval Order 2010*.

2. *Approval of environmental protection policy*

The *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010*, set out in Appendix 1 to this order, is approved.

DONNA FARAGHER, Minister for Environment.

Dated:

Appendix 1
to the
Environmental Protection (Western Swamp Tortoise
Habitat) Policy Approval Order 2010

Environmental Protection Act 1986

Environmental Protection (Western Swamp
Tortoise Habitat) Policy 2010

Approved by the Minister under s. 31(d).

PART 1 — PRELIMINARY

1. Citation

This policy may be cited as the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2010*.

2. Purpose of the policy

The purpose of this policy is to protect habitat suitable for the long-term survival of wild populations of the western swamp tortoise.

3. Interpretation

- (1) In this policy, unless the contrary intention appears —
- “**beneficial uses**” means the beneficial uses declared under clause 7;
- “**Ellen Brook Nature Reserve**” means Reserve no. 27620 classified as a class “A” reserve vested in the Conservation

Commission of Western Australia for the purpose of preservation of fauna, namely the western swamp tortoise, and includes Reserve no. 42126 classified as a class “A” reserve vested in the Conservation Commission of Western Australia for the purpose of conservation of flora and fauna;

“**map**” means Environmental Protection Policy Map WST JUN02 prepared by the Department, a copy of which is set out in Schedule 1 for information purposes;

“**policy area**” means the area of land delineated in the map as “policy area”;

“**pollutant**” means any matter or thing that is likely to alter, directly or indirectly, the environment to the detriment of the western swamp tortoise habitat’s capacity to support the western swamp tortoise;

“**public authority**” means a public authority as defined in section 3(1) of the Act that is empowered by or under a written law to make a decision or take action that could impact on the beneficial uses;

“**this policy**” means this environmental protection policy;

“**Twin Swamps Nature Reserve**” means Reserve no. 27621 classified as a class “A” reserve vested in the Conservation Commission of Western Australia for the purpose of preservation of fauna, namely the western swamp tortoise;

“**western swamp tortoise**” means the animal species *Pseudemydura umbrina* commonly known as “western swamp tortoise” or “short-necked tortoise”;

“**western swamp tortoise habitat**” means the habitat of the western swamp tortoise occurring —

- (a) in the Ellen Brook Nature Reserve, in the area delineated in the map as “western swamp tortoise habitat”; or

- (b) in the Twin Swamps Nature Reserve, in the area delineated in the map as “western swamp tortoise habitat”.
- (2) Unless the contrary intention appears, words and expressions used in this policy that are given a meaning in the Act have the meaning so given.

4. *Inspection of map*

The Department is to make a copy of the map available for inspection by members of the public during normal office hours at the Department’s head office in Perth.

5. *Application of policy*

This policy applies to the portion of the environment comprising the policy area.

PART 2 — BASIS FOR PROTECTION OF THE WESTERN SWAMP TORTOISE HABITAT

6. *Basis for western swamp tortoise habitat protection*

The basis on which the western swamp tortoise habitat is to be protected is —

- (a) knowledge of ecological processes and the interconnectedness of terrestrial and aquatic ecosystems;
- (b) discharges to the western swamp tortoise habitat not exceeding pollutant levels that would be to the detriment of any of the beneficial uses;
- (c) maintenance of water quality and quantity such that ecological processes and ecological integrity are not threatened, impaired or degraded; and
- (d) appropriate land use, land management planning, fire management and conservation planning in the policy area,

having regard to —

- (e) goals, objectives and principles encapsulated in the *National Strategy for Ecologically Sustainable Development* (1992), in particular, the protection of biological diversity and maintenance of essential ecological processes and life support systems; and
- (f) goals, objectives and principles encapsulated in the *Intergovernmental Agreement on the Environment* (1992), in particular the principles set out in the Table to this paragraph.

Table

The precautionary principle

Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent

environmental degradation.

In the application of the precautionary principle, decisions should be guided by —

- (a) careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and
- (b) an assessment of the risk-weighted consequences of various options.

The principle of intergenerational equity

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The principle of the conservation of biological diversity and ecological integrity

Conservation of biological diversity and ecological integrity should be a fundamental consideration.

7. Beneficial uses of the western swamp tortoise habitat to be protected

The uses of the western swamp tortoise habitat that are declared to be beneficial uses to be protected under this policy are as follows —

- (a) its use as a resource for maintaining ecological processes, ecological integrity and ecological functions upon which the survival of viable wild populations of the western swamp tortoise depends;
- (b) its use as a resource for studying the western swamp tortoise and the habitat upon which the survival of the tortoise in the wild depends; and
- (c) its use as a basis for conserving biological diversity and maintaining a diverse natural environment in the policy area for present and future generations.

**PART 3 — PROGRAMME FOR PROTECTION OF THE
BENEFICIAL USES**

8. *Environmental quality objective*

The environmental quality objective to be achieved and maintained by means of this policy is the protection of the beneficial uses.

**9. *Programme for achieving and maintaining the
environmental quality objective***

The environmental quality objective is to be achieved and maintained through —

- (a) the Western Swamp Tortoise Recovery Plan prepared by the Department assisting the Minister to whom the administration of the *Wildlife Conservation Act 1950* is committed;
- (b) each landowner in the policy area and each public authority managing land in a manner that minimises or avoids impacts from activities which might degrade the western swamp tortoise habitat;
- (c) government promoting awareness of this policy and providing advice and other services to landowners in the policy area for the purpose of minimising or avoiding impacts from activities which might degrade the western swamp tortoise habitat;
- (d) each public authority, including the Authority but not a Minister of the Crown, ensuring that each of its decisions or actions that could impact on the beneficial uses —
 - (i) is compatible with the protection of the beneficial uses; and

- (ii) minimises or avoids impacts from activities which might degrade the western swamp tortoise habitat;
- (e) each public authority, other than a Minister of the Crown, responding promptly to a request of the Authority to provide information on a decision or action of the public authority that could impact on the beneficial uses;
- (f) public authorities, other than Ministers of the Crown, coordinating, and liaising closely on, the development of catchment management plans, schemes, and land planning strategies, policies and plans to ensure an approach consistent with this policy;
- (g) each public authority that is a Minister of the Crown having regard to this policy when taking a decision or action that could impact on the beneficial uses.

10. Interpretation: decisions and actions

For the purposes of clause 9(d), (e) and (g), decisions or actions include, but are not limited to —

- (a) decisions or actions involved in the development of catchment management plans;
- (b) decisions or actions taken under any of the Acts listed in the Table to this clause.

Table

Bush Fires Act 1954

*Metropolitan Region Town
Planning Scheme Act 1959*

*Conservation and Land
Management Act 1984*

*Metropolitan Water Supply,
Sewerage, and Drainage
Act 1909*

*Country Areas Water Supply
Act 1947*

Mining Act 1978

*Electricity Corporation
Act 1994*

*Rights in Water and Irrigation
Act 1914*

<i>Environmental Protection Act 1986</i>	<i>Soil and Land Conservation Act 1945</i>
<i>Health Act 1911</i>	<i>Town Planning and Development Act 1928</i>
<i>Land Drainage Act 1925</i>	<i>Water and Rivers Commission Act 1995</i>
<i>Local Government Act 1995</i>	<i>Western Australian Planning Commission Act 1985</i>
<i>Local Government (Miscellaneous Provisions) Act 1960</i>	<i>Wildlife Conservation Act 1950</i>
<i>Main Roads Act 1930</i>	

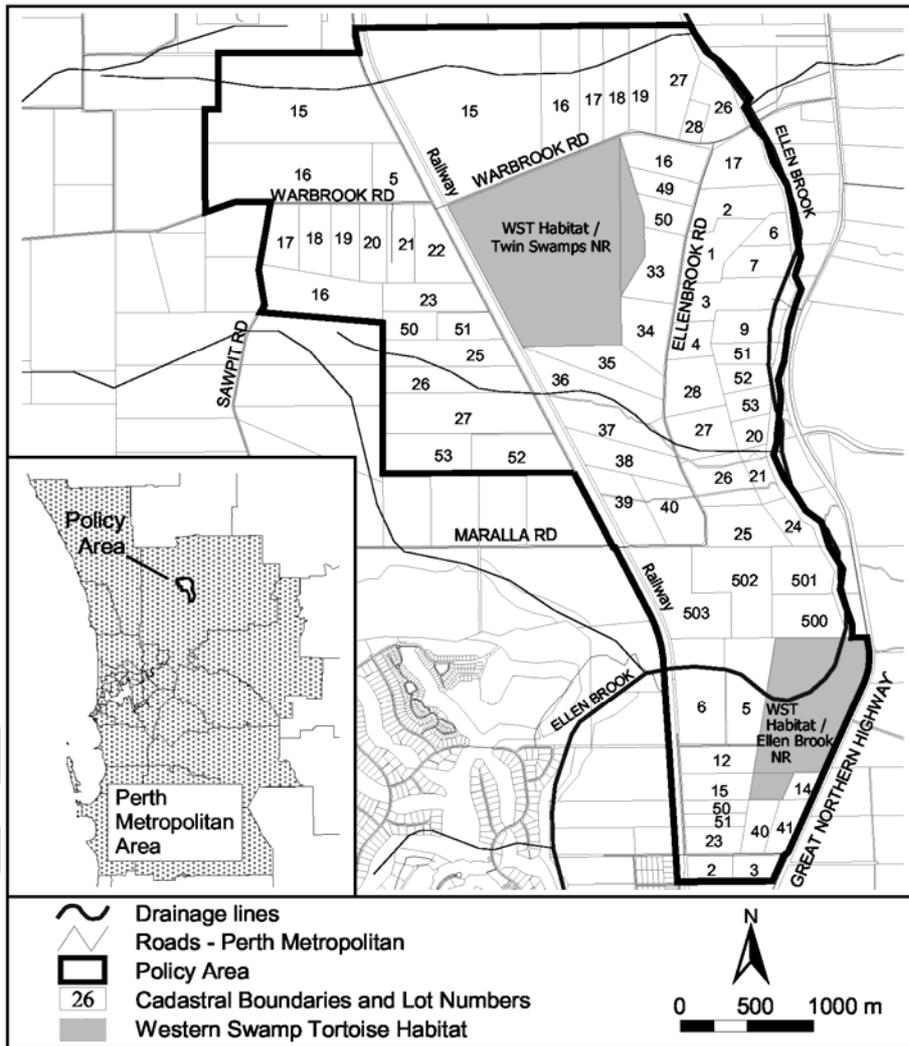
11. Interpretation: degradation of habitat

For the purposes of clause 9(b), (c) and (d)(ii), activities which might degrade the western swamp tortoise habitat include, but are not limited to —

- (a) the application of fertilisers and pesticides;
- (b) the disposal of liquid and solid wastes;
- (c) the discharge of polluting substances;
- (d) the extraction of basic raw materials;
- (e) the construction of drainage systems;
- (f) the placement of fill;
- (g) the abstraction of groundwater;
- (h) the clearing of vegetation; and
- (i) the lighting of unauthorised fires.

Schedule 1 — Copy of map

[cl. 3]



DONNA FARAGHER, Minister for Environment

Appendix 2

Summary of submissions and EPA responses

for the

Review of the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*

Table 1: List of Submitters to the Review of the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*.

Submission number	Group
1	Landowner
2	Landowner
3	Landowner
4	Landowner
5	Landowner
6	Landowner
7	Landowner
8	Landowner
9	Landowner
10	Landowner
11	Landowner
12	Landowner
13	Conservation Group
14	Landowner
15	State Government
16	State Government

Table 2: Summary of submissions and EPA responses for the Review of the *Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002*.

Option/Issue	Comment	EPA comments	Changes to EPP
Option 1 Retain the EPP with no changes being made	<p>Because there is no risk of contamination of the Moore River Nature Reserve Translocation Area (MRNRTA) we strongly oppose any change to the EPP that would fetter our right to farm our rural zoned land as we have for the last 60 years. We hold the view that any new development (ie the release of the Western Swamp Tortoise (WST)) should be able to provide the appropriate setbacks and buffers on the developers land. In other words if a buffer from alternate land uses was required it should have been provided for on the Moore River nature reserve.</p> <p>Likewise if we want to create a development of some sort (ie. a feedlot) we should and would under the Gingin Shire planning scheme provide the appropriate buffers within our property which ultimately protects the WST habitat anyway. (1)</p> <p>Because of the nonexistent risk to the MRNRTA site from our freehold land and the fact you are only dealing with one landowner and two lots we suggest there is no need to change the Environmental Protection Policies (EPP) with respect to the Moore River site. (1)</p>	<p>Agree that there is no need at this stage to change the EPP with respect to the Moore River site. The EPA considers the development of Special Control Areas around the Moore River and Mogumber sites will address pressures likely to be placed on the western swamp tortoise habitat.</p>	No change
	Support Point 6.1 “Retain the EPP with no changes being made”. (5)	Agree.	No change
Option 2 Extend the EPP area to include	In 2002, the WCS strongly supported the EPA’s initiative to introduce this EPP and we are pleased to see how effective it has been. We believe that it should now be strengthened by	Noted. The EPA considers the development of Special Control	No change

Option/Issue	Comment	EPA comments	Changes to EPP
Translocation sites	including the Moore River and Mogumber trial reintroduction sites, at least for the next 20 years while these trials continue. (13)	Areas around the Moore River and Mogumber sites will address pressures likely to be placed on the western swamp tortoise habitat. After the SCAs have been in place for a period of time the SCA should be reviewed to ascertain its effectiveness. At this time the EPA may further consider the role of the EPP at the Moore River and Mogumber sites.	
Option 3 Revoke the EPP and replace with an alternative Planning Solution	[no comments received on this option]		No change
Other suggested option – Review the EPP more broadly	We believe the policy ought to be reviewed but on a much broader scale than the narrow parameters your department has adopted. (2)	The EPA considers the extent of the EPP review was more than satisfactory.	No change
General			
Positive	Since the planned and subsequent introduction of the WST we	Noted.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
involvement with DEC	have enjoyed a very positive relationship with the Department of Environment and Conservation and in particular operations manager Sean Walsh. We have helped plan the fencing, bunding, revegetating and baiting of the site. With our children we were lucky enough to be involved in the original release of ten WST and have a personal connection with this unique endangered tiny tortoise. (1)		
Objection to the proposal	We being Land Owners affected by this review wish to register our objections to this proposal. (8)	Noted.	No change
Drainage	<p>No surface water flows from our property into the Moore River Nature Reserve translocation site. All surface water flows in a south easterly direction and on into the Mungarla and Gingin Brooks. As such there is no and will never be contamination of the habitat by fertiliser or manure from our property.</p> <p>The fact a site on our boundary was chosen for translocation proves that our 60 years of farming have had no ill effects on the MRNRTA apart from drainage which has now being rectified with our support by the construction of a bund along our boundary to hold the water on the Moore River Nature Reserve translocation site longer before it flows on through our property. (1)</p>	<p>DEC has advised that the surface water at Moore River Nature Reserve translocation site does flow from the reserve towards the adjacent property. The bund was placed at the boundary of the nature reserve and private property to allow water to be retained in the western swamp tortoise habitat for longer in winter.</p> <p>However a SCA will also take into consideration other issues in relation to the protection of the WST.</p>	No change
	<p>It seems that 4 properties on our southern side are not in the buffer zone nor have they any restriction placed on them. Why? When these properties drain into the same swamp area as our property, why are we placed in this zone? Apart from a small area on our boundary where the swamp is, our land is</p>	According to LiDAR imagery the boundary for the EPP is very accurate in relation to surface water runoff to the WST habitats in relation to these areas.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>higher than those around us. There is no permanent water on our property so why should we be restricted? (3)</p> <p>Please explain why all the properties on the western side of the railway are in the buffer zone when the land falls away to the west? When we have asked for land levels to be given to us we were refused. Why can't the landowners have access to them? (3)</p>	<p>DEC has advised that the runoff of water from properties to the west of the railway flow towards the habitats. In addition according to LiDAR imagery the boundary for the EPP is very accurate in relation to surface water runoff to the WST habitats in these areas.</p>	<p>No change</p>
	<p>The submitter's property is on the western fringe of the EPP area with its closest boundary approx 700 metres away from the Twin Swamps Nature Reserve and an even greater distance from the Ellen Brook Nature Reserve. (7)</p> <p>The submitters says their property is high at the eastern side draining sharply away to the west and so any runoff from their property would flow away from the EPP area. (7)</p> <p>Immediately to the South of the submitter's property which is not included in the EPP area, the submitter says they share drainage with this property. (7)</p>	<p>According to LiDAR imagery the boundary for the EPP is very accurate in relation to surface water runoff to the WST habitats in relation to these areas.</p>	<p>No change</p>
<p>Restrictions</p>	<p>It seems there are 70 properties singled out to pay the price of preserving the tortoise. When we bought the land there were no restrictions in place, why bring them in later when you already have two large enclosures in the area. (3)</p>	<p>The EPP was gazetted in 2003 and any restrictions associated with this have been in place since then. The purpose of the SCA will be to provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
		planning approval, and also for local government authorities in making decisions on development applications.	
Anti development	Your document clearly demonstrates that your department is stringently anti development, for any purpose, within the whole of the policy area. We believe the policy in this regard is seriously flawed and is not in the best interests of the tortoise, landowner (within EPP area) or the State of WA. (2)	The EPP is not retrospective and does not restrict the rights of landowners to continue with previous landuse activities prior to 2003. The purpose of the SCA will be to provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	No change
Special Control Area at Moore river	We note the recommendation to introduce SCA and once again stress each site needs to be assessed on its merits considering the direction the surface water flows. We also note that in the SCA around the Twin Swamps NR and the Ellen Brook NR's follows lot boundaries. If this philosophy was applied most of our property would be encumbered with some areas over 3 km from the Moore River Nature Reserve translocation site. This would be totally inappropriate. (1)	Agree that each WST habitat site needs to be assessed on its own merits. Surface water flows will be one issue to be considered along with others. The development of the SCA will be progressed through the planning system with full consultation with landowners	No change
	If the Department is unable to provide the required buffer	The purpose of the SCA will be to	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	within its own reserve and requires the introduction of a SCA on neighboring land the land owner should be compensated on fair and just terms. The land should be leased long term and paid on an annual basis. (1)	provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	
Continue positive relationship	We look forward to continuing our very positive relationship with all those involved with the WST program and will continue to work hard eradicating foxes, wild pigs, weeds and controlling wild fires, to the benefit of us all. (1)	Noted and forwarded to DEC for noting.	No change
Section 3.3 of review report	Our investigations reveal that there are to no raw materials to be extracted within the policy area.(2)	A number of clay extraction projects have and are continuing to occur within the policy area and have required environmental impact assessment to ensure they are environmentally acceptable for the tortoise. These threats listed in section 3.3 are a trigger for the decision making authorities to ensure they are managed to the benefit of the tortoise.	No change
Section 3.3 of review report	The lighting of unauthorized fires (listed in section 3.3) is apparent to all landholdings throughout WA whatever the status of the landholding. (2)	Noted, however fires are a major threat to the survival of the WST and so remain in clause 11 of the EPP.	No change
Section 3.3 of	In respect to “The clearing of vegetation” (section 3.3), there	The EPP ensures that any	No change

Option/Issue	Comment	EPA comments	Changes to EPP
review report	is little vegetation on the land within the policy area with any significance – the area mainly consisting of poor quality sandy soils. In any event any development could easily encompass the existing flora and fauna. (2)	vegetation within the EPP area is retained as is suggested.	
Section 3.3 of review report	In respect to the balance of claims in section 3.3 we respectfully suggest that development of the land within the policy area rather than a threat to the tortoise would, in fact, be beneficial to the tortoise by controlling the concerns expressed ie the implementation of scheme water and sewerage as prime examples.(2)	The purpose of the SCA will be to provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	No change
Land Use	Without any regard whatsoever to the landowner your department has effectively quarantined a very large private land holding and made those private land owners honorary custodians of the WST – all at no cost to your department and without compensation to the affected land owners. The land is now basically unusable. This is grossly unjust and simply wrong. (2)	Many land uses are currently permitted to occur within the EPP area. It is not the intention of the development of the SCA to make the land unusable. See previous comment.	No change
Residential Development	The land you have now quarantined (excluding the tortoise reserves) being of poor quality soils is not suitable for farming, horticulture or animal husbandry, has no raw materials to extract and indeed its highest and best use is for residential development. (2)	Increasing the density of residences around the reserves brings increased threats to the Western Swamp Tortoises.	No change
	The land is adjacent to existing highly developed residential suburbs (by the way of the quality soils) with all major services in close proximity. (2)	Noted.	No change
	The State of WA desperately needs more land to house the	The EPP area is currently zoned	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	expanding population and the subject land (excluding reserves) is ideal for such development which your department seeks to exclude for no justified or sound reasoning. (2)	either “Rural” or “Special Use”.	
	The department’s thrust to isolate the policy area from further development and that the tortoise’s consideration must be paramount whatever the reason is unsound, unrealistic and dare we say irresponsible.(2)	The EPP was gazetted in 2003. The EPP has had the force of law since this time. The EPA is recommending no changes to the EPP.	No change
Equine pursuits	There are other inaccuracies within your document – particularly relating to equine pursuits occurring on the land within the policy area – which requires correction. (2)	The EPA is not aware of any inaccuracies in the report in regards to equine pursuits.	No change
Ministerial involvement	We perceive this can be best achieved by including at least the relevant Ministers in the review process and to this end we will attempt to gain their inclusion prior to your department finalizing same. (2)	The EPA transmits this report and revised draft to the Minister for Environment upon consideration of the submissions received. At this point the Minister will consider this report and revised policy.	No change
Relocation of the species	<p>Given that this habitat is rapidly being surrounded by urbanisation, with an extremely busy main highway on one side, a railway line on the other and an air force constantly flying overhead, I submit that the obvious thing to do for the preservation of this species is to move them to a more remote location. (6)</p> <p>It is very obvious to anyone living or even passing through the area in question, that the region is rapidly being developed in numerous ways that must impact on the likely preservation of this endangered species. It would appear to be the most unlikely location for a sustainable habitat of a species such as</p>	DEC has advised that Twin Swamps Nature Reserve and Ellen Brook Nature Reserve are the original habitats for the western swamp tortoise. Although the Ellen Brook Nature Reserve site is considered the jewel in the crown, DEC considers both sites as important habitats for the tortoise. The recovery team has approved making modifications to the Twin Swamps Nature Reserve site to	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>this. (6)</p> <ul style="list-style-type: none"> • Right on the eastern boundary of the habitat is West Australia's principle northern road artery with reportedly 2500 trucks thundering past 24 hours per day, together with at least ten times that many cars and other vehicles. • Right on the western boundary is WA's principle northern rail line. • On the southern boundary is some of Western Australia's biggest clay mining pits with machinery and trucks constantly working in and from these pits. • Supersonic jets from one of Australia's principle air force bases are constantly roaring overhead, day and night. • Almost adjoining the site on the western side is a rapidly spreading new housing sub division, which will bring all of the problems associated with big numbers of people in close proximity. (Cats, dogs, children and other human activity lawful or unlawful). • Most of the above activities are very conducive to the probability of bushfires being lit, which is constantly demonstrated by the number of fires in the area. <p>Surely this is not the right situation in which to preserve an endangered species. (6)</p> <p>There is little or nothing that this policy can do to reverse the</p>	<p>assist in its success and translocations are proposed for 2011. The effects of the modifications to the site will be reviewed in 5-7 years.</p> <p>DEC has also advised that they have joined with UWA, the Perth Zoo and others to form a collaborative approach to model future habitats. By modeling hydrology and rainfall in the south west new sites for translocation will be identified. Considerations for new sites include depth of swamps, type of swamp, competition with other users (e.g. long necked tortoises) and macro invertebrate diversity.</p>	

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>above threats, which in the admission of the review document are 'likely to either remain or increase'. It is quite obvious that the latter will be the case. (6)</p> <p>It is my submission that the WST must be moved to safer locations for its own preservation. (6)</p> <p>The measures that are being proposed in this policy review, which aim to assist in the preservation of the species by placing restrictions on the surrounding land use, may well result in exactly the opposite outcome. (6)</p>		
Fires	<p>If restrictions on stocking and other activities are such that the properties within the EPP area are completely neglected, as some already are, the area will become a tinder box that will create an uncontrollable inferno on the arrival of the first electrical storm, so common in this area in summer. As the review document declares, fire is probably the biggest threat to the species, and as mentioned above, if lightning strike doesn't start one there are plenty of other means prevalent.(6)</p>	<p>In the development of the Special Control Area the fire risks to the Western Swamp Tortoise habitat will be considered along with other issues. Your comments have been noted.</p>	<p>No change</p>
	<p>It is well known and roundly accepted that, where it is possible, the grazing of animals in controlled circumstances is the most practical method of reducing combustible fuel levels. (6)</p>	<p>Noted. See above comment.</p>	<p>No change</p>
Horses	<p>For some reason which escapes me, horses or the existence of them, has been singled out as some sort of threat to the preservation of the habitat. The properties in this EPP area are all too small to sustain other free range grazing animals in any sort of economically viable manner. An occupier can at least maintain a reasonably fire safe property by grazing a limited</p>	<p>It was indicated within the report that the Special Use Zone No 6 and the EPP will be used to initiate discussions on the development of the Special Control Areas.</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
	number of horses and even make the property self supporting in this way. To control the fire hazard with other grazing animals requires such numbers that impact on the environment in a more detrimental way, and are in fact a financial liability to the occupier. (6)	In the development of the Special Control Areas the fire risks to the Western Swamp Tortoise habitat will be considered along with other issues. These issues raised in submissions will be discussed during the development of the Special Control Areas..	
	If a bushfire is allowed to rush along Ellen brook, where access for fire fighters is quite difficult, fanned by a typical hot northerly wind, there won't be much left of the Ellen Brook Nature Reserve habitat. (6)	See above comment.	No change
	Unless housing subdivision of the surrounding land is allowed, which appears unlikely, grazing of animals on the properties in the area is the only financially viable means of maintaining the properties, and is essential to the control of the build up of fire fuel. (6)	See above comment.	No change
	Any grazing animals will assist in reducing the combustible fuel, but only horses offer a viable method of doing so. If the method of grazing isn't viable to the land holder then it won't happen, the properties will be neglected and the area will become a first order fire hazard. (6)	See above comment.	No change
Property values	<p>If the proposals suggested in this policy review are enforced in their entirety, the properties in the EPP area will become virtually worthless. Why would anyone buy a 20 or 30 acre property fifty kilometres from the Perth CBD if they can't do anything on it other than live there;</p> <ul style="list-style-type: none"> The properties are too small for viable cropping. In any case no fertilising, or chemical pest/weed control is 	These issues cannot be resolved through the EPP process and will be addressed in the early stages of the Special Control Area development. The EPA will make available all issues raised in this consultation period to the officers	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>allowed. These factors rule out any form of cropping.</p> <ul style="list-style-type: none"> • Grazing of sheep or cattle is not viable on such small acreage and both require considerable investment in suitable fencing and water supplies. • There isn't enough water made available to property holders to support market gardens or fruit trees/vines. • No animals of burden are to be allowed. This rules out grazing a few horses either for pleasure or financial return, which could generate some property maintenance funds through agistment, training etc • Residential sub division or even extra housing for rent is not to be permitted. • Excavation or mining is ruled out. • Heavy industry is not permitted. • Transport/trucking businesses only require a few acres; the remaining area of a twenty acre property will be a liability and become a neglected fire hazard. <p>Properties in the EPP area will become worthless under this policy. (6)</p> <p>The submitter believes there is no conservation value in keeping his property in the EPP area and would like it removed as it has dramatically lowered the value of the property. (7)</p> <p>Failing removal of the submitters property from the EPP area the submitter would object to it being included in a Special Control Area as this would further erode his/her property's</p>	<p>involved in the Special Control Area development for consideration. The Special Control Area will be carefully developed to ensure land is not made unusable. The Special Control Area will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.</p>	

Option/Issue	Comment	EPA comments	Changes to EPP
	value and burden them with additional cost. (7)		
Compensation	<p>If the WA Government want my property in order to protect this endangered species, then they surely must pay market value for that privilege, just as anyone else would have to do. It is not acceptable for the government to render the properties worthless, and basically reclaim ownership by stealth, by imposing such conditions on the properties that no one wants to buy them. Someone has to be accountable for that action and I for one will be seeking legal advice in this regard. (6)</p> <p>If the Government, through the EPA wish to resume ownership of my property for this apparently worthy enough cause, then I am also willing to support the cause by relinquishing ownership in exchange for fair and equitable financial compensation. (6)</p>	The EPA has recommended retaining the current EPP unchanged. However the introduction of a Special Control Area has been recommended to provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications. This will be consistent with the current EPP.	No change
summary	I am suggesting that given the circumstances surrounding this habitat, the best outcome would be to relocate the species. If this is not considered possible then landowners must be allowed to undertake such activities that will sustain the upkeep and ongoing value of the properties. If this is considered unacceptable the landowners must be compensated equitably for what will undoubtedly be the loss of their investment, which in many cases represents the owner's superannuation/retirement fund. (6)	The EPA considers the habitat of the Western Swamp Tortoise in the City of Swan to be important habitat. There is no consideration to relocate the species at this time.	No change
SCA near Twin Swamps	The submitter wishes to lodge his/her disapproval of the Review's Recommendations, that a Special Control Area is necessary for the WST Twin Swamps Reserve, in order to negate potential impact to the Tortoises Habitat. (4)	The EPP sets environmental objectives; but this is not a land use control instrument. The SCA takes the EPP and translates it into a planning instrument. Therefore the	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>If further improvements to the WST Habitat are to be made, then it should not be made at the continued expense of your neighbors, by way of administrative red tape that will only further reduce our land values, reduce Business Earnings & degrade our lifestyles. (4)</p> <p>The Local Town Planning Scheme and more specifically its conditions contained within schedule 4, are more than adequate for the purposes of controlling illegal activities. Additionally, the Shire has Compliance Officers & Bylaws which should be better utilized for such purposes. (4)</p>	<p>SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.</p>	
<p>Viability of Twin Swamps as a habitat for the tortoise</p>	<p>What is very apparent in your own Review is the fact that the Twin Swamps Reserve is totally unsuitable as a Tortoise Habitat, given it has less than 50 individuals left, as it has not been successful in:</p> <p>a) keeping a majority of the 700 animals relocated to it from the Perth Zoo alive for even a relatively short period of time given their lifespan is 60-70 years,</p> <p>b) enabling successful breeding to increase numbers that could have otherwise increased to over 2,000 individuals by now &</p> <p>c) offering any reasonable likelihood that it will sustain a useful population in the future if not only for the environmental considerations alone. (4)</p> <p>The EPA must now acknowledge & make recommendations to the Minister that this area be abandoned, live animals relocated immediately & all efforts be trained on more suitable sites, such as those mentioned within the Review & the following site near the Ellenbrook Nature Reserve, that I expect would offer far more promise than Twin Swamps. (4)</p>	<p>These concerns have been passed on to the Species Recovery Team. The Twin Swamps Nature Reserve and Ellen Brook Nature Reserve are the original habitats for the Western Swamp Tortoise. Although the Ellen Brook Nature Reserve site is considered the jewel in the crown, it is considered that both sites are important habitats for the tortoise. The recovery team has approved making modifications to the Twin Swamps Nature Reserve site to assist in its success; translocations are proposed for 2011. The effects of the modifications to the site will be reviewed in 5-7 years. At this time</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>This proposed site has essential clay, huge existing dams / soaks, it is adjacent to the Swan River which will allow it to be topped up & flushed out if required. It has permanent water through the water table. It is able to be joined by way of an identified Wetland Corridor to the Ellenbrook Nature Reserve & the Ellen Brook, the land adjoins the Walyunga National Park and was also very recently advertised for sale on the Open Market. (4)</p> <p>I suggest you seriously consider discussions to ascertain rezoning options for all land north of Marella Road with Kevin Bailey (Councilor - North Ward Swan Shire), before selling the Twin Swamps Land & use the funds to better use. (4)</p> <p>The submitter expects the EPA will be mindful of Landowner's future legal options with respect to seeking damages by way of a Class Action via the Tort of "Nuisance" & will remind the EPA that they have chosen not use Wetlands / Bush Forever Sites South of Marella Rd, that would have been better suited than any counter productive decision would be to continue with Twin Swamps (ref: Review's fig 4). (4)</p> <p>From what we see it is not a natural habitat as water is carted into the site several times a week during summer to boost up the water supply. (8)</p> <p>We moved to Ellenbrook Rd approximately 7 yrs ago and currently reside on Ellenbrook Rd which adjoins the Twin Swamp Reserve with our back boundary. We have lived on this property for approximately 2 ½ years and prior to this we were at 250 Ellenbrook Rd. During this time we have observed first hand the changes that are affecting the residents</p>	<p>the EPA will continue to protect the habitat of the Western Swamp Tortoise at Twin Swamps Nature Reserve through the EPP.</p> <p>Pumping at Twin Swamps Nature Reserve does not occur in summer as stated in submissions; pumping reflects the natural rainfall to allow for a top up of the winter swamps; and water is pumped from the Leederville aquifer not a superficial aquifer (where most landowners are likely to extract water).</p> <p>The Perth Zoo celebrated its 500th captive bred tortoise released into the wild in 2009 across all four sites. In the optimum conditions of the Perth Zoo only 500 individuals have been produced since 1989. Given this and that sexual maturity occurs between 8-12 years and even as late as 15 years in poor years it is a gross exaggeration that 2000 individuals should be present at the Twin Swamps Nature Reserve site by this time.</p>	

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>and some specifically related to the reserves set aside for the Western Swamp Tortoise Habitat under the Environmental Protection Plan. (9)</p> <p>Section 3.1 of the report states that it is to ‘protect habitat suitable for the long-term survival of wild populations of the western swamp tortoise’. We have complied with all the processes indicated in clause 11 with regards to threats to the proposed area. (9)</p> <p>As a landowner with land abutting the Twin Swamps Reserve we question the viability of the reserve as a natural habitat for the continued protection of a limited number of tortoises when it has been identified that areas at Moore River and Mogumber have been proved to be acceptable relocation areas. Twin Swamps has unlimited ground water pumped onto the site annually and this is increasing every year as the vegetation is no longer ‘natural’ for the tortoises. At what cost is this occurring for government. The cost to us is that our water licenses are restricted and soil erosion occurs due to lack of irrigation and this is becoming more evident every year. The water that is currently being pumped onto the Twin Swamps Reserve needs to be given back to the landowners immediately so that they can further manage their properties. (9)</p> <p>One submitter recommends:</p> <ul style="list-style-type: none"> • The current Twin Swamp reserve population is relocated to Mogumber or Moore River EPA as Tran’s relocation has proved to be successful. (9) 		

Option/Issue	Comment	EPA comments	Changes to EPP
	<ul style="list-style-type: none"> • The Twin Swamp reserve is allowed to vegetate back to natural environment and the current fencing and pumping stations be removed. (9) • The water allocated to the Twin Swamp Reserve be reallocated to the areas surrounding the EPP for futuristic management of their farm lands. (9) <p>According to the review report, captive bred individuals have topped up the Twin Swamps every year from 1994 to 2003, and thereafter as required. 30-40 WST were translocated each year from 1994-1999, with smaller numbers being released since this time. An average of 150-200 WST were translocated to the Twin Swamps over a 5 year period, however there are only currently 40-50 in the reserve according to your report. This indicates less than one third survival rate if you also include the smaller numbers (unspecified amount) that were released yearly in the 4 years from 1999 to 2003 and thereafter. The report identifies that the non-captive locations represent the best available habitats at this time for the WST habitation, based upon water and soil quality as well as ecological health, however it shows that Twin Swamps has had no water and unsuccessful survival rate over the last 16 years, despite a successful captive breeding programme. (10)</p> <p>The report shows that the Twin Swamps is not self sustainable, and in my view is not viable. The WST would be better translocated to Ellenbrook Nature Reserve or other more viable sites. It should not impact on the current permissible</p>		

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>land use of the area, as there is no evidence to suggest that the local area operations have had any impact on the policy objective (i.e. to protect the remnant natural habitat of the WST). The area has been significantly affected by drought and by the drying climate, requiring a bore since 1994 (16 years in total). I understand that this bore runs all year round. It is expected that the sites vulnerability to drying out will intensify in an increasingly drying climate. I would also question whether the area within the Twin Swamps is too large an area for WST to migrate safely from swamp to swamp given the swamp is clearly dry. Survival rate at this site does not warrant maintaining, what has been documented as representing a marginal habitat. Additionally, this ‘marginal habitat’ encompasses a much larger area of land in comparison to the Ellenbrook Nature Reserve, which provides for a more successful programme. (10)</p> <p>We are strongly opposed to the protection policy. Twin swamps is no longer a natural habitat for the tortoise. A bore has had to be drilled and water pumped 24 hours a day in the summer and exotic weeds infestation, such as cape tulip has spread through the reserve. This hardly seems “a natural habitat”. (14)</p>		
Subdivision expectations	<p>In 1995 we purchased this block on Maralla Rd in good faith for our retirement, with expectations that we would be looking at 2 hectare subdivisions. (8)</p> <p>The policy regarding this land has changed significantly since our purchase, inflicting enormous hardship on our retirement</p>	The EPP began development in 1994 with the release of the first draft for public comment. In 2003 the EPP was approved and has been law since that time.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>plans. (8)</p> <p>We believe that we should not have to face this penalty, and a fairer way would be to recompense and purchase this property at market value if these proposals are to go ahead. (8)</p> <p>We feel we have been denied a suitable retirement plan brought about by “ changing the initial policy plans.’ (8)</p> <p>Section 4. States that ‘Conditional approvals have been given to subdivisions and developments that are consistent with EPP.’ (9)</p> <p>The residents of Ellenbrook Rd would be open to subdivision development in either 2, 4, 8 hectare lots. (4 hectare lots have been rebuked in 2002/2003) (9)</p> <p>Submitter recommends residents are allowed to continue to push for the redevelopment of their properties without the added burden applied by the EPA. (9)</p>	<p>The Special Control Area will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.</p>	
<p>Nearby urban development drawing on water table – effects on Ellenbrook Reserve</p>	<p>The new area of The Vines (The Mews) is currently under development and the natural water table levels are decreasing. What effect is this having on the Ellenbrook Reserve which is very close to the new development? It is the opinion of local land owners that the decreasing water table level in the area is from the Perth Metropolitan Water Supply who draw excessive quantities from the Gngangara mound on a consistent basis (9)</p>	<p>The Western Swamp Tortoise habitat within the Ellen Brook Nature Reserve comprises of a perched clay pan wetland and current hydrological information indicates that the system relies predominantly on surface water runoff from a localised catchment.</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
		Any draw down from the Gngangara Mound has minimal affect on the hydrology of this Western Swamp Tortoise habitat.	
What are acceptable future land uses in the EPP area?	<p>Section 5.1.3 indicates that for future development the will be</p> <ul style="list-style-type: none"> • no stocking of horses or any other beasts of burden permitted; • Single dwelling per lot; • No development within the Poultry Farm buffer area / the poultry farm ceased operations several years ago; and • The council may require additional tree planting ...(9) <p>Currently Ellenbrook Rd and the surrounding area is either farm with hooved animals or as horse properties. Does this mean that the lots remain 16 hectares or is approval to be given for smaller development?</p> <p>Does this mean that if the development takes the pathway of 2/4/8 hectares then there is no provision for horses or hooved animals? If that is the pathway taken, what would be the purpose of smaller lot holdings versus suburban lots? (9)</p>	<p>This section of the review report outlines what is currently in the Special Use Zone in the City of Swan’s Local Planning Scheme.</p> <p>The Special Control Area will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.</p> <p>These issues will be discussed in the development of the Special Control Area.</p>	No change
Not enough information to make comment on SCA proposals in City of Swan	I would like to make comment on the Environmental Protection Authorities review of the existing <i>Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002</i> , and the proposed Western Swamp Tortoise Habitat Environmental Protection Policy, under section 36 of the <i>Environmental Protection Act 1986</i> . Please note that my comments are directed at the ‘policy area’ within the City of	EPA considers that these issues can not be resolved through the EPP process and should be addressed in the early stages of the Special Control Area development. A brief outline of the process for the development of a Special Control	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>Swan. (10)</p> <p>Before proceeding, I would like to highlight that it has been difficult to make comment on the proposed options for the review of the Environmental Protection (<i>Western Swamp Tortoise Habitat</i>) Policy (EPP), when the document does not stipulate <u>at all</u> what is entailed in a “special control area” (SCA) for the purposes of this policy. This has unnecessarily increased anxieties amongst landholders, and draws forth a knee jerk response. Furthermore, it demerits a process that appears to be going through motions to meet review requirements, rather than paying any attention to public opinion and comment. I am unable to support a recommendation when there is no information provided on the proposed option. (10)</p>	<p>Area is provided in this report. Landowners will be consulted through the development process.</p>	
<p>Support EPP retained but oppose extension to Special Use Zone 6 or oppose SCA in place for City of Swan</p>	<p>It is in my view that if required, the current EPP be retained, however I would oppose any extension of the current special use zone (as is shown in the City of Swan map indicating Special Use Zone 6), to extend the whole of the policy area, or as worded in your review document ‘the introduction of appropriate planning tools to complement the Environmental Protection Policy’ namely Special Control Area. No matter what way you view the proposal, whether it is the introduction of a SCA, or altering the zoning, it means one of the same things. Land value would be reduced in the area, and it would directly affect the landholder from engaging in pursuits that would otherwise be permissible. Residents would request compensation for properties purchased based on current zoning, with the intention of use as is currently shown in the</p>	<p>These comments are noted and will be considered in the development of a Special Control Area in the City of Swan.</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
	City of Swan Local Planning Scheme No. 17 (District Zoning Scheme). (10)		
No evidence in report to show the need for SCA on top of EPP. System to talk to CALM in place already protects the tortoise	The report shows that the objective of the EPP 2002, <i>to protect the remnant natural habitat of the WST</i> , has been met. Within point 4 <i>Performance of the WST habitat EPP</i> : it is documented that ‘there does not appear to be a great discrepancy in vegetation cover or water quality between the gazettal of the EPP and now’. There has been no evidence shown in the report that substantiates the recommended option to introduce an increase in SCA within the City of Swan in order to provide increased security against activities that <u>might</u> degrade the WST habitat. The EPP has been in place for 7 years since Gazettal. This has provided a sufficient length of time for any research to indicate activities that have or will degrade the habitat, and that are not already considered within the local planning scheme. “The City of Swan has incorporated most of the principles of the western swamp tortoise habitat protection into its Local Planning Scheme”. Point 3.3 of the review document <i>Threatening processes identified in the WST habitat EPP</i> : indicates that there is a range of activities that “might” degrade the WST habitat, however there is no evidence in the report to implicate these or any other factors as having impacted on the policy objective. It has also been noted in the report that the EPP currently protects against these threatening processes by directing each landowner and public authority to manage their land within the policy area in a manner that minimises or avoids impact from these activities. It is my understanding that it is current practice for applications for development within the policy area to be forwarded and	Consistent with the EPP, it is the intention of the Special Control Area to provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	commented on by the Department of Conservation and Land Management as a measure of protection for the WST habitat. This measure is already in place. It does not warrant duplication or the costs associated with changing the current system. (10)		
Address the construction of dams issue as only issue of concern raised	Despite there being no detail available regarding what the proposed SCA would involve, one can assume that it would mean putting a 'blanket' ruling in place, across the whole of the policy area. This would unnecessarily affect landholder's ability to be approved for certain development applications that might otherwise be permitted in the area given consideration to the WST habitat. Moreover, it would not allow any flexibility in reviewing development applications that may be otherwise altered following assessment and comment from the Department of Conservation and Land Management. The EPA has considered the major threatening processes during its review. The only issue identified in the report where there 'may be inconsistencies' between the EPP and the local planning scheme is in relation to the construction of dams (as they may be in breach of the EPP in regards to the construction of drainage systems). If this is the only area of concern, then address this area only. (10)	Through the development of the Special Control Area, issues will be identified that require particular attention. Comments on the introduction of a Special Control Area received during this review process will be considered in the development of the Special Control Areas. Landowners will be provided with further opportunities to contribute to the development of the Special Control Areas through the planning process.	No change
SCA unduly penalize CoS EPP landowners	To summarise, it is my view that the proposed introduction of SCA would unduly penalise local residents in the policy area and is not warranted. The WST remains critically endangered in the medium to long term due to breeding sexual maturity (13 years) and decreased water. The naturally drying climate is a global issue, with below average rainfalls over the last 50 years. At a local level, large scale practices such as clay	It is intended the SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>extraction, would more likely impact on the habitat, as opposed to local area activities, namely rural pursuits. Safety mechanisms are already in place, and do not require costly duplication. It is unwarranted to impose limitations on landholders who are, for the majority, wanting to preserve the land and not degrade it. My personal situation for example is that I have recently planted sixty privately purchased trees, and am awaiting the winter rains to plant more than one hundred more, as part of my own personal contribution toward revegetating and improving the area. (10)</p>	<p>decisions on development applications.</p> <p>Your contributions towards revegetating the local area is noted and commended.</p>	
<p>Adjacent land use effects on reserves</p>	<p>According to the report, the Ellenbrook Nature Reserve provides for the only self-sustaining, largely natural WST population. Water quality is excellent with no evidence of pollution entering the swamps on the reserve. Reserve water levels are not greatly affected by drought and climate change. Of interest also is that there is currently no 'Special Use' zone on 8 of the 9 lots that adjoin the Ellenbrook Nature Reserve. This reserve is also boundaried by a main road. Despite this, there are no indications in the report that the surrounding properties have impacted on the policy objective. In fact, this habitat provides for the most successful and largest natural population. Comparatively, the Twin Swamps Nature Reserve is boundaried by road, railway and 7 adjoining properties, and all properties are managed within the 'Special Use Zone' in relation to the tortoise habitat. In addition to this, a further 15 non-adjoining lots are also managed within this special use zone. Despite these efforts, the Twin Swamps Nature Reserve continues to show no sign of sustainability. (10)</p>	<p>DEC has advised that Twin Swamps Nature Reserve and Ellen Brook Nature Reserve are the original habitats for the western swamp tortoise. Although the Ellen Brook Nature Reserve site is considered the jewel in the crown, DEC considers both sites as important habitats for the tortoise. The recovery team has approved making modifications to the Twin Swamps Nature Reserve site to assist in its success and translocations are proposed for 2011. The effects of the modifications to the site will be reviewed in 5-7 years.</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
Section 5.3	5.3 We do not need any more departments S.C.A. The Shire wage/salary account is now \$40 million and landowners and businesses now pay enough. If anything needs to be done it needs to be less wages and processes streamlined. (11)	Noted	No change
Committee established 10 years ago	<p>We, about 10 years ago had a committee suggesting many ways to make the whole area from Twin swamps to Ellenbrook more practical.</p> <ol style="list-style-type: none"> 1. Special rural – friendly controls (as conditions have been taken away from rural pursuits therefore surely it is no longer rural). 2. Organic fertilizers 3. Part Forestry (for phosphate uptake) 4. Contain septic systems therefore no flow into groundwater and grey water for gardens. 5. More fire breaks as the parks are regarded by the Fire Department as the biggest fire hazard in the area. 6. Control stock numbers. 7. Control kangaroo numbers as they have already demolished three kilometres of my fence and are now damaging my new fence.(11) 	These issues will be considered in the development of a Special Control Area.	No change
S 6.2	6.2 Incorrect. The local landowners adjacent to the site do not have a good working relationship with the EPA. The damages bill was muted against the Shire for the Bullsbrook area. (11)	This statement was made in relation to the Department of Environment and Conservation and the landowners opposite the Moore River and Mogumber translocation sites.	No change
House built on	My daughter built a new house still on one title, after nearly	Noted.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
fenceline	being rejected by the Shire which is on the fenceline of the fenced tortoise area. She adopted my policy as we advised the EPA and Shire and politicians as well regarding septic, fertilisers, stock numbers etc. (11)		
Management of reserves	So far most of the deaths of the tortoise has been from the management eg fencing of Twin Swamps so that the instinct of the tortoise to travel from the brook to the park is stopped. Until that problem was solved they died on the fenceline by crows and predators. Due to bad fire management control at Mogumber the tortoise aestivating at ground level were burnt and killed. (11)	These issues will be addressed through a Special Control Area.	No change
Drainage at Ellenbrook Reserve	In the 1990s old Shire notes - the surrounding drainage pattern has a direct effect on the water habitat of the reserve. We told you years ago that if they did not control the use of the site would be the most dangerous because of the capacity of trucks, cars, poisonous loads heading north. (11) I notice the storm water drain runs under the Great Northern Highway under the reserve. It was going to be re-routed to along the southern boundary. Has it been completed as one drain still runs into the reserve? (11)	This issue of drainage will be forwarded to DEC as managers of the reserve.	No change
Water quality excellent but monitoring not occurring	With these mistakes no one would listen to us. We have been farmers therefore have worked and owned the land, have been stymied and told what to do with it. They would not listen to the people, they have made mistakes and even my daughter's house right on the fenceline and not corrected the runoff from the highways. Therefore for 10 years it has not been a problem. Now Burbidge states (water quality of the site is excellent) although some drainage lines haven't been monitored in the past but will be in the future. (11)	Noted.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>Water quality is excellent although the most dangerous pollutant would be the eastern or highway side that has not been monitored but could be in the future. (11)</p>		
<p>Summary for (11)</p>	<p>So what is the problem? The possible biggest pollutant potential is the eastern or highway area that has not been monitored but could be in the future Therefore not a problem (have been told) (11)</p> <p>Twin Swamps – The water quality varies (Burbidge 2008) as bores had to be used to supplement the site. Therefore no problem. (11)</p> <p>The Ellen Brook runs past and away from the fenced area. Therefore no problem (have been told). (11)</p> <p>Told about the weed infection flowing downstream from the park to neighbour’s property (ours). Once again bad management. When advised the weed was sprayed. We were told safe for the tortoise but on reading the specifications, dangerous for humans. (11)</p> <p>Eventually my daughter’s new house still on one title on fenceline, no problem, water quality excellent. No problem and were told. (11)</p> <p>You were told 9-10 years ago about we are not acquiring the land as proposed by the EPA (intends to try and acquire land to act as a buffer around the reserve in accordance with the EPA Guidelines). You didn’t listen to the people who actually own the land and trying to acquire the land. 30 years we could do 4 hectares and the EPA did not try and acquire the land to act as a buffer. (11)</p> <p>The Swan River is dying – Headlines in the West Australian.</p>	<p>Noted</p>	<p>No change</p>

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>Once again we told you and being farmers for nearly 70 years combined. Controlled fertilisers, stock numbers, part forestry for phosphate uptake and more firebreaks is a fire hazard and all dangerous fires come from the hot easterly winds. Eco septic systems as you were told, controlled use of Kangaroos as they could damage your fence even though in your incorrect statement to us that our sheep could damage your fence. (11) Human Life. People's lives have been lost in this period as they could not do with the land as they wished when purchased. When our committees told you what to do with the land and instead you sterilized the whole area from Bullsbrook to Upper Swan. When we purchased the property 30 years ago we could do 10 acres for our children to have a bit easier start in life. If this had happened as proposed possibly our son Julian would be alive today. Eg less stress, less longer hours to buy his own home, more time with his two boys that he taught to ride the two wheeled motor bikes, coached their football teams and brought them up as fun outdoor boys with a love of sport. His partner is now considering selling the house as there is no main income for the mortgage. A thousand people attended his funeral, some flew from the Eastern States. He helped set world records in his sport and was a hard working Australian that contributed honestly to this country. (If this Swan EPA have anyway been responsible for this, action will certainly be taken). (11)</p>		
SCA will constrain the use and enjoyment of	Submitter operates a wholesale grain and produce supply operation within the City of Swan to service local rural pursuits. The submitter's site is on the downstream side and approximately 500 m to the west of Ellen Brook Nature	The introduction of a SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat	No change

Option/Issue	Comment	EPA comments	Changes to EPP
the submitters land	Reserve. The Site is predominantly cleared of native vegetation with some scattered remnants of riparian vegetation immediately adjacent to Ellen Brook The key implication posed by the Review is the inclusion of the Site into the City of Swan’s Special Control Area. This would result in the application of a number of restrictions to potential uses of the Site. The inclusion of the Site into the Special Control Area would provide negligible additional protection for the Western Swamp Tortoise habitat as described in this submission, however, it would result in substantial constraints to the use and enjoyment of the property. (12)	regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	
SCA will cause restrictions to potential uses of the property	The key implication posed by the review is the inclusion of the landowner’s property into the City of Swan’s Special Control Area. This would result in the application of a number of restrictions to potential uses of the property. The inclusion of the property into the Special Control Area would provide negligible additional protection for the Western Swamp Tortoise habitat as described in this submission, however, it would result in substantial constraints to the use and enjoyment of the property. (12)	A Special Control Area (SCA) has yet to be developed in the EPP area in the City of Swan. Consultation with landowners will take place in its development. Currently there is a “Special Use Zone” No. 6 within the EPP area. This is different to a SCA and will remain during the consultation.	No change
Biology and status	The submitter understands that the Western Swamp Tortoise (<i>Pseudemys umbrina</i>) is listed as critically endangered under the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and as a Schedule 1 fauna that is ‘rare or likely to become extinct’ under the Western Australian Wildlife Conservation Act 1950. The submitter has reviewed both the <i>Environmental Protection (Western Swamp Tortoise) Policy 2002</i> and <i>Guidance Statement No 7 Protection of the Western Swamp Tortoise Habitat, Upper</i>	Noted	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	Swan/Bullsbrook (herein referred to as Guidance Statement No. 7) (EPA, 2006) as part of the preparation of this submission. (12)		
Summary of the Review	<p>The EPA is required to review an Environmental Protection Policy under Section 36 (1)(b) of the Environmental Protection Act 1986 within seven years of its gazettal. The Minister for Environment has directed the EPA to complete a review of the EPP by 30 October, 2010.</p> <p>In summary, the Review describes the following:</p> <ul style="list-style-type: none"> • That the Western Swamp Tortoise is expected to remain ‘critically endangered’ in the medium to long term; • The outcomes of a Department of Environment and Conservation (DEC) translocation programme; • Performance of the EPP; • Analysis of future threats to the Western Swamp Tortoise; and • The introduction of planning tools to complement the EPP. <p>The Review concludes that the EPP has performed well to date based on its ability to protect suitable habitat for the Western Swamp Tortoise. The success of the EPP has been dependant on the continued successful breeding of the tortoise within reserves and preventing activities that have degrade the habitat. To this end, the Review proposes no amendments to the existing EPP. The Review recommends that the EPP should align itself with the Local Planning Scheme (LPS) due to predicted urbanisation and land use changes within the surrounding area. Special Control Areas (SCA) are generally used to identify areas which may require special planning considerations including appropriate land uses and conditions</p>	Noted	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	for development. Zone SCA 6 within the City of Swan Local Planning Scheme No.17 (City of Swan, 2008) serves the intention of limiting land uses to have “no adverse impacts on Ellen Brook and the Western Swamp Tortoise Reserves”. (12)		
SCA will be the same as SUZ6	<p>The conditions for development within the SCA are outlined in Number 6 of Schedule 4 within the City of Swan LPS and include the requirements listed below (City of Swan, 2008):</p> <ul style="list-style-type: none"> • No stocking of horses or any other beasts of burden shall be permitted. • No more than 1 dwelling per lot shall be permitted. • Lot sizes are a minimum of 8 ha. • No subdivision, strata subdivision, and/or development shall be permitted unless in accordance with an approved Structure Plan for the entire zoned area. • The Structure Plan must include a number of environmental studies including: a description of the physical environment, landscape qualities, analysis of constraints and opportunities and details of likely environmental impacts; demonstration that surface and groundwater quality will be improved post development and a reduction in nutrient loadings to Ellen Brook and the Western Swamp Tortoise Habitat; and demonstration of reduced risk of fire, weed invasion, dieback, domestic animals and predators to Western Swamp Tortoise habitat post development. <p>Currently, the SCA 6 zoned area does not match the EPP area. The EPP area has a greater extent in all directions than SCA 6 as shown in Figure 1.</p>	The contents of a SCA are yet to be determined. The relevant planning agency will conduct consultation with landowners to develop a set of conditions for the SCA.	No change
Current SUZ6	According to Guidance Statement No 7 Protection of the Western Swamp Tortoise Habitat, Upper Swan/Bullsbrook	The Guidance Statement No 7 refers to the Special Use Zone No 6	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>(herein referred to as Guidance Statement No. 7 (EPA, 2006) the SCA was developed with the particular aim of protecting the Western Swamp Tortoise habitat. The EPA assumes that aligning the EPP area with the SCA 6 would allow for the City of Swan to better assess development applications and their potential impacts on Western Swamp Tortoise habitat. The Review proposes that the mapped EPP area be contained within the SCA and that both the conditions of the SCA and those of the EPP apply to the entire EPP area. (12)</p>	<p>that covers a part of the EPP area and not the SCA proposed.</p> <p>The EPA does agree that aligning local planning tools SCA or SUZ6 with the EPP boundary will be beneficial for management purposes. It is proposed that the SCA be the same area as the EPP. However the SUZ6 may remain in place. This will be determined through the SCA process.</p>	
SCA, SUZ6 and the EPP	<p>The submitter strongly objects to the imposition the EPA proposes to place on its landholding by expanding SCA 6 to cover the entire EPP Area. It is considered that the Zoning change from ‘General Rural’ to ‘Special Control Area’ in relation to the TRPS property is not founded on scientific principles and is unlikely to provide any additional protection to the Western Swamp Tortoise habitat. The expansion of SCA 6 ignores the original reasoning behind its creation as described in Guidance Statement No. 7 and appears to be an administrative decision whereby the EPA are delegating a greater responsibility for environmental conservation to City of Swan.</p> <p>According to the Review the existing EPP, Guidance Statement No. 7, and SCA 6 are providing an effective means of protecting Western Swamp Tortoise Habitat and then provides no justification for the proposed change (EPA, 2010). The intention of SCA 6 (City of Swan, 2008) as described in</p>	<p>The introduction of a SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.</p>	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>EPA Guidance Statement No. 7 is clearly to reduce any potential impacts to Ellen Brook Nature Reserve and Twin Swamps Nature Reserve through a catchment management approach which involves careful management of both the hydrological regime and water quality (particularly nutrients) from the upstream area. The EPA Guidance Statement No. 7 also states that: “the land surrounding the Nature Reserves is zoned ‘General Rural’, where the purpose is to retain the rural character and amenity and environmental issues are not a primary focus” (EPA, 2006)</p> <p>As stated above, the Guidance Statement articulates that ‘General Rural’ areas such as the Site are not included in SCA 6 because environmental impacts are not a constraint to development. The expansion of SCA 6 to include ‘General Rural’ zoned land is unlikely to provide further protection for the Western Swamp Tortoise because its landscape amenity is the primary focus and not environmental values.</p> <p>Furthermore, the existing boundary of SCA 6 is based roughly on both topographic and cadastral boundaries that defines the upstream catchment impact zone of the Ellen Brook Nature Reserve. This is considered appropriate as activities in this area have the potential to impact on Western Swamp Tortoise habitat. (12)</p> <p>Inclusion of the entire EPP Area in SCA 6, including the Site, would add areas that are downstream in the catchment to both of the know habitats for the Western Swamp Tortoise. It appears that the inclusion of TRPS’s Site has occurred because of the need for a convenient cadastral boundary rather than on any scientific basis. The conditions relating to hydrology and</p>		

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>water quality within SCA 6 are irrelevant to protecting Western Swamp Tortoise habitats in sites such as 220 Almeria Parade and only impose restrictions on land use.</p> <p>SCA 6 is also aims to protect those properties that are directly adjacent to Twin Swamps Nature Reserve and Ellen Brook Nature Reserve through controlling potential physical impacts to the reserves. This includes the provision of weed management measures and feral animal control. The Site is 500 m west of the Ellen Brook Nature Reserve and approximately 2 km south of Twin Swamps Nature Reserve therefore will not cause any physical impacts to either Nature Reserve and demonstrates that the conditions within SCA 6 are not appropriate for the Site.</p> <p>The conditions placed on SCA 6 are a reflection of its placement in the hydrological catchment, its physical environment and how these factors influence Western Swamp Tortoise habitat. For the EPA and the City of Swan to justify the expansion of SCA 6, results of scientific investigations should be presented to confirm that all areas of the EPP have the same environmental value.</p> <p>Adequate guidance for future development is currently provided by the EPA in Guidance Statement No 7 with environmentally sensitive areas currently captured in SCA 6. It should be noted that regardless of the position within the catchment, all future development will need to consider its potential impact on Ellen Brook and will need to be deemed acceptable by the Swan River Trust and Department of Water. Consequently the proposed extension of the SCA 6 is unnecessary to control development within the 'General Rural'</p>		

Option/Issue	Comment	EPA comments	Changes to EPP
	<p>zoned submitters site.</p> <p>In conclusion, it appears as though the EPP has performed effectively in the past seven years in maintaining Western Swamp Tortoise habitat. No justification or reasoning is given for changing the current application of the policy and designating further responsibility to the City of Swan. The inclusion of the EPP area into SCA 6 is not based on scientific analysis and the reasoning for doing so is primarily administrative. It will however result in our client's ability to use and eventually develop its land being severely compromised. SCA 6 should maintain its current boundaries and that at the very least the sunmitters site located downstream from Western Swamp Tortoise habitat being excluded. (12)</p>		
Stocking rate and water quality	<p>With respect to nutrient management requirements in SCA 6 Burbridge et al (2008) have indicated that "there is no evidence to suggest that Western Swamp Tortoise have been affected by changing water quality". This suggests that only maintenance of hydrological regime is of importance for Western Swamp Tortoise habitat. This implies that restricting land uses such as stocking horses or other beasts of burden within SCA 6 to control nutrients may not be beneficial to the ongoing survival of the Western Swamp Tortoise habitat. As outlined in EPA Guidance Statement No 7 (EPA, 2006) stocking rates should be consistent with the Department of Agriculture and Food guidelines and not prohibited. (12)</p>	<p>The Western Swamp Tortoises rely on macro invertebrates as their main food source.</p> <p>Macro invertebrates are susceptible to water quality.</p> <p>Land uses permitted in the EPP area will be discussed during the SCA development.</p>	No change
Protection of WST habitat is highest priority	<p>The WCS regards the protection of the habitat of the Western Swamp Tortoise (WST) as a matter of the highest priority for the Government and people of WA. The WST is a critically</p>	Noted	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	endangered wetland species and its habitat is restricted to a few small wetlands north and east of Perth. These wetlands are under enormous pressure from climate change and urban development and unless the EPA and the Government take strong and effective action the WST is likely to lose its remaining habitat over the next decade. The EPA drew our attention to the continuing loss of coastal wetlands in its 2007 State of the Environment Report and the WST EPP is an essential measure to address one aspect of this problem. (13)		
Support SCA in current EPP area	We also support the EPA's suggestion that these sites and the Ellen Brook and Twin Swamps sites should be protected by the introduction of Special Control Areas (SCAs) in the City of Swan and Shire of Gingin local planning schemes. Such protection is essential to ensure that the reintroduction program has a good chance of succeeding. (13)	Noted.	No change
Protection for the WST	The strongest possible protection should be given to the habitat of the WST, together with a continuation of the captive breeding program at the Perth Zoo and effective management of the four wetlands where the WST is now found. The greater the diversity of sites available to the WST, the greater will be its chance of survival. A promising start has been made on this task and the review of the WST EPP provides an opportunity to build on those gains as outlined above. (13)	Noted and agreed.	No change
Issues raised previously are still relevant	The submitter states that they own 3 properties in the EPP area and are directly affected by the EPP. Issues raised in previous submissions are still relevant. (14)	Noted.	No change
Property values	We find it abhorrent that the Department of Environmental Protection would introduce policies that will deprive us of our livelihood, let alone depreciate our assets to such an extent that	The EPP has been in place since 2003. The introduction of a SCA will provide greater clarity and	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	they practically valueless, thereby depriving our children and grandchildren out of their inheritance. (14)	certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	
Introduction of SCA	We also strongly oppose the introduction of Special Control Areas, as the same area is already covered by the one kilometer buffer zone gazetted in February 2003. We wish to advise that in the event of these policies being gazetted and our farming operation being affected, we may take legal action against the department for compensation. (14)	The EPP sets environmental objectives; but this is not a land use control instrument. The SCA takes the EPP and translates it into a planning instrument. Therefore the SCA will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	No change
	As a member of the species recovery team for the Western swamp Tortoise, the Perth Zoo has contributed to the submission from that body. (15)	Noted	No change
Protection of habitat	The role of Perth Zoo is to breed animals for release and to respond to requests to facilitate research that may assist the conservation of the species. Our priority as a conservation organization is to support measures that will protect native species' habitat, so I hope that the EPA can assist with facilitating that outcome. (15)	Noted	No change

Option/Issue	Comment	EPA comments	Changes to EPP
Support of the EPP review and 2010 draft EPP	DEC strongly supports the retention of an EPP to protect the habitat of the WST. The EPP has been particularly effective in ensuring appropriate assessment of proposals involving clay extraction and subdivision, with conditional approval being given to developments that are consistent with the EPP. (16)	Support noted	No change
Breeding in EPP area	The performance of the EPP in conjunction with the intensive management of habitat and the WST within the Ellenbrook and Twin Swamps Nature Reserves has resulted in this species persisting and breeding within the area the EPP protects. DEC therefore concurs with the EPA that overall the EPP has performed well. (16)	Noted that the WST has persisted and bred in the EPP areas due to intensive management of reserves and the EPP.	No change
Absence of offence provisions	In the EPP review document the EPA infers that given there has been no prosecutions under the EPP and landowners have abided by the EPP since its gazettal. DEC submits that the absence of prosecutions under the EPP is due to the absence of offence provisions under the EPP and not necessarily the compliance of all landowners with the policy. (16)	Noted. During the review period the EPA considered whether the introduction of penalties into the EPP would be beneficial. After much consideration it has been proposed that the EPA will not consider penalties until SCAs have been in place for some time. The EPA will review the performance of the SCAs in delivering protection to the Western Swamp Tortoise habitat at a later time.	No change
Activities that may contaminate	This has been most recently observed with the filling of land around the Twin swamps Nature Reserve and the illegal construction activities associated with a transport depot immediately adjacent to the Ellenbrook Nature Reserve. Both these forms of development have the potential to alter hydrological regimes and have the potential to result in	Noted.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	contamination of WST habitat. (16)		
Improving dealing with non compliance activities	Given these cases, DEC considers that although the EPP has performed well, the current review process provides the opportunity to investigate ways to further improve the draft 2010 EPP. These improvements should focus on ways that effectively assist in dealing with developments that do not follow the appropriate planning processes and that have the potential to impact on the environmental quality objectives of the EPP. (16)	The development of Special Control Areas will provide greater clarity and certainty for landowners adjacent to the Western Swamp Tortoise habitat regarding any applications for planning approval, and also for local government authorities in making decisions on development applications.	No change
Support for proposed special control areas – Moore River and Mogumber habitats	DEC supports the proposed Special Control Areas (SCA) outlined in the EPP review and considers this a better approach than extending the existing EPP over these additional areas. The Mogumber and Moore River WST populations have been introduced in recent years. The arguments supporting an EPP for these areas is not as strong as those for the existing two sites covered by the EPP at Ellen Brook and Twin Swamps Nature Reserves. (16)	Noted.	No change
Suggested SCA boundaries for the Moore River and Mogumber sites	The boundary of the proposed SCA will require careful consideration and should not only be based on proximity to the reserve but on known WST movements, hydrology, current and potential land uses. DEC has developed some preliminary boundaries for the SCA for Moore River (attachment 1) and Mogumber (attachment 2) WST habitats. (16)	Noted and agreed.	No change
Moore River SCA	The SCA proposed for the Moore River translocation site is a 500 metre zone parallel to the eastern boundary of the tortoise habitat. This is considered adequate due to local surface water hydrology moving in an easterly direction and recorded tortoise movements following release. It was not considered	The recommendation of the SCA was to ensure that further rezoning of land that may affect the tortoise habitat is compatible with the protection of the tortoise habitat.	No change

Option/Issue	Comment	EPA comments	Changes to EPP
	necessary to extend this area to encompass the whole of the lots adjacent to the nature reserve as any operations or development consistent with the current zoning outside this 500 metres zone would be unlikely to impact the WST or its habitat. (16)	These areas suggested will be considered during the development of the draft SCA for Moore River.	
Mogumber SCA	DEC suggests a different approach for the Mogumber translocation site. The tortoises within the habitat have been recorded moving out of the main swamp habitat located within the nature reserve and into adjacent properties, residing mainly in farm dams during times of low rainfall. The WST has also been recorded aestivating under leaf litter on a number of the adjacent lots. Given this movement of WST and hydrology in the local area, DEC proposes that the whole of the lots adjacent to the nature reserves be included in the SCA. Currently DEC managed lands have been included in the proposed SCA for Mogumber, however, this may be unnecessary given their protection through other planning mechanisms. (16)	These areas suggested will be considered during the development of the draft SCA for Mogumber.	No change
	DEC has attempted to contact landowners adjacent to WST habitats to advise them of the review and the potential planning changes which may affect their properties. Currently DEC has a good working relationship with the neighbours adjoining the Mogumber and Moore River release sites. The preparation of the SCAs should be developed in liaison with affected landowners, local government authorities, EPA and DEC. (16)	Noted. It is understood that the preparation of the SCA's will be developed in liaison with affected landowners, local government authorities, EPA and DEC.	No change
Minor edits Section 2.1	DEC suggests changing the wording "is the only member of the sub-family Pseudemydurinae" to "is the only member of the sub-family Pseudemydurinae of the family Chelidae". (16)	Noted, will change in report.	No change

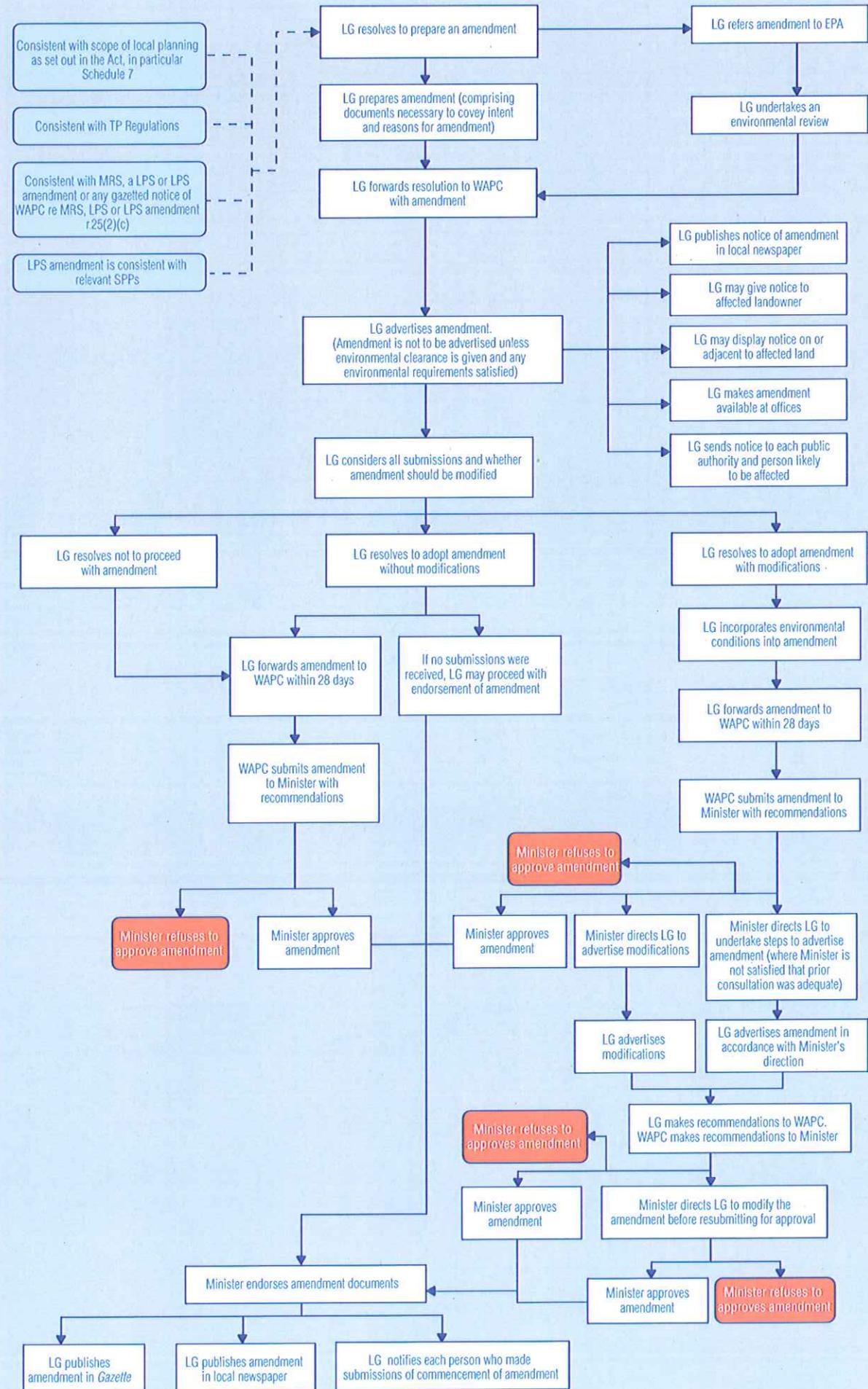
Option/Issue	Comment	EPA comments	Changes to EPP
	DEC suggests changing the wording “Females lay three to five hard shelled eggs in an underground nest in November or early December” to “Females lay three to five hard shelled eggs in an underground nest between late October and December”. (16)	Noted, will change in report.	No change
Minor edits Section 2.3.2	DEC suggests changing the wording “annual translocations of around 30 to 40 tortoises taking place each year until 1999” to “annual translocations of between 20 to 40 tortoises taking place each year until 1999”, with the following additional sentence “Smaller numbers have been released since 1999 with a total of 163 captive bred juveniles and 20 hatchlings released within the reserve between 1994 and 2005”. (16)	Noted, will change in report.	No change
Minor edits Section 2.3.3	The WST habitat at Mogumber has been referred to in the EPP review as unallocated Crown land (UCL). This UCL (Lot 14036, Bindoon – Moora Road, Mogumber) was added to Lake Wannamal Nature Reserve in September 2009. (16)	Noted, will change in report.	No change

Appendix 3

Process to develop a special control area (i.e. amend a local planning scheme)

Taken from Western Australian Planning Commission (2010). Local Planning Manual. A guide to the preparation of local planning strategies and local planning schemes in Western Australia.

Appendix 5.5b Preparing an amendment to a local planning scheme



Flow diagram of the Environmental Protection Policy process under the *Environmental Protection Act 1986* showing the statutory (light grey boxes) and non-statutory (white boxes) stages.

