

NATURAL RESOURCE MANAGEMENT IN TRANSPORT CORRIDORS

SHIRES OF MANJIMUP & BRIDGETOWN-GREENBUSHES



Roadside Conservation Committee (RCC) – August 2012



Roadside Conservation Committee

AGENDA NATURAL RESOURCE MANAGEMENT IN TRANSPORT CORRIDORS: WORKSHOP FOR SHIRE WORKS CREW

SHIRE OF MANJIMUP
SHIRE COMMITTEE ROOM: 37-39 ROSE ST, MANJIMUP

Date: 9 August 2012

Start	Duration	Presenter	Subject
8.30	10 min	Pascal Balley Shire of Manjimup & Kylie Payne Roadside Conservation Committee (RCC)	Welcome & introduction to the day
8.40	25 min	Kylie Payne – RCC	The value of roadside vegetation
9.05	25 min	Janine Liddelow DEC Frankland District Flora Officer	Managing Special Environmental Areas in road reserves
9.30	35 min	Caron Macneall DEC Native Vegetation Conservation Branch	Fact sheet and guidelines on clearing native vegetation
10.05	20 min		SMOKO
10.25	30 min	Alan Grist Main Roads WA	Topsoil Management, use of natural mulch, composting and roadside revegetation.
10.55	30 min	Jason Dearle DAFWA and Lee Fontanini	Identification and management of weeds
11.25	25 min	Kylie Payne – RCC	Best practice methods for clearing native vegetation
11.50	10 min	All	Questions/ Feedback forms
12.00	45 min		LUNCH
12.45	2 hrs	All	Site visit
2.45	15 min	All	Questions, review of afternoon, feedback forms
3.00			CLOSE

Session 1

Values of Roadside Vegetation

Biodiversity



Endangered species, such as Carnaby's Black Cockatoo use roadside vegetation for feeding and nesting. Without these areas many more species would be at risk of extinction.



Roadside vegetation can be very diverse and contributes to the long term health of nearby bushland by creating corridors between bush blocks.



Vegetation within the road reserve can be a vital source of seed for regeneration and restoration works.

...the degree of variation in life forms



The diversity of plants and animals in these corridors helps researchers understand and educate people on the importance of our natural environment.



Roadside vegetation can provide vital habitat for fauna of all shapes and sizes and can provide refuges for populations of rare flora.



Many road reserves support the last of a vegetation complex in that bioregion. Which can be significant for preserving a unique gene pool.



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Roadsides - The vital link

Landcare



Livestock tends to congregate around roadside vegetation in paddocks which offer little shade of their own. On hot summer days this can provide much needed relief to these animals.



Leached sandy soils of the WA Wheatbelt are prone to wind erosion and without roadside vegetation the impacts of sand deposition would be felt by local farmers.

... protection of the land and the farmable products which rely on it.



Salinity is a major issue in many parts of the WA Wheatbelt. Without roadside vegetation to keep water tables low the excess salts can cause road surfaces to fail.



Without native vegetation in the road reserve there is nothing to hold the soil together and stop erosion.



Roadside vegetation is often more fire retardant than pasture and weed species. Roadside vegetation can slow an approaching fire to allow fire brigades time to extinguish the blaze.

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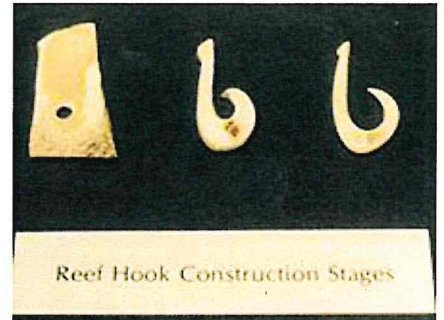
Cultural



Aboriginal sites are significant because they link Aboriginal cultural tradition to place, land and people over time.



Aboriginal cultural heritage sites are most common near rivers, lakes, swamps, hills and the coast.

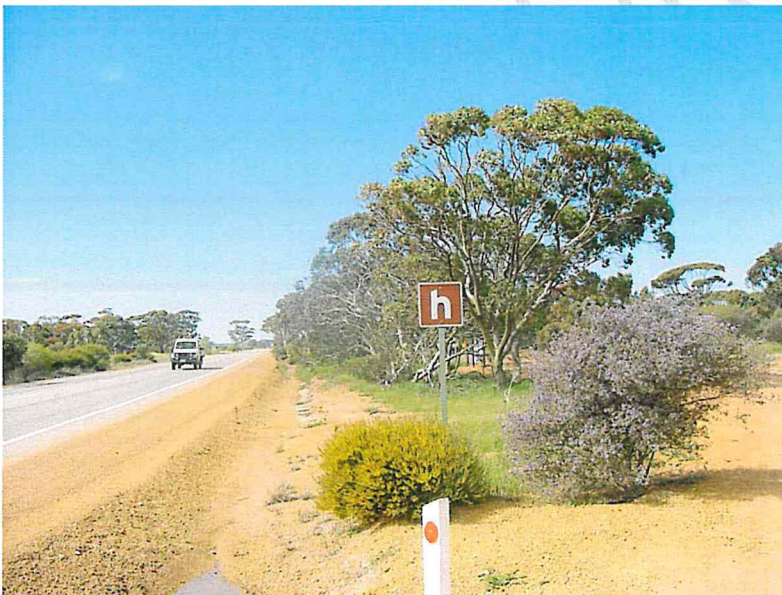


For more than 45 000 years, Indigenous people have left signs of their occupation in Australia.

...Aboriginal and European sites containing significant historic value or meaning.



Road construction particularly on fill batters may impact on ancient indigenous rock art which then exists within the roadside environment.



European settlers were the first to use our transport corridors and some areas now have significance to documenting our history.

Roadside graves occur in some Wheatbelt road reserves and special management of these areas is required.



Aesthetic



Roadsides can display the unique and interesting vegetation of a region in areas easily accessible for enthusiasts.



Roadside vegetation can be very diverse and the variety and colour of wildflowers attracts a lot of attention to the roadside environment.



Iconic native flora attracts tourism to Western Australia

...pertaining to a sense of the beautiful.



Roadside vegetation creates attractive archway corridors where tourists can feel amongst nature.



Fauna tracks across low traffic roadways can provide a valuable opportunity to spot wildlife without venturing into the native bushland.



Wildflower displays promote photographers and other travellers to a region.

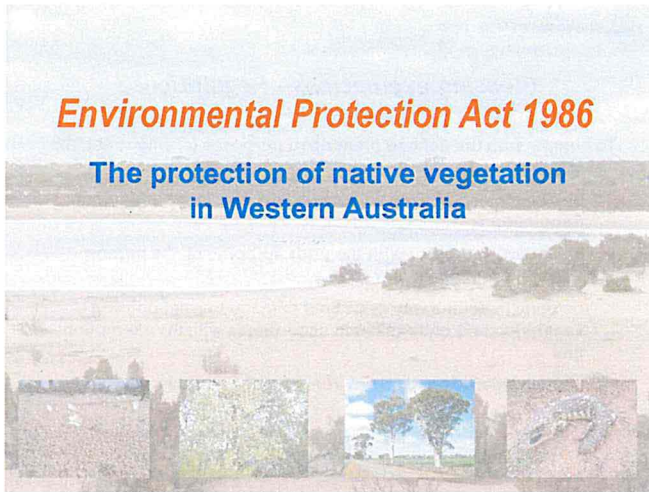
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Session 2

Legislation in Road Reserves



What is Clearing?

What is Native Vegetation?

When does the Shire need a clearing permit for road works?



Clearing of native vegetation

Requirement under the *Environmental Protection Act 1986*

Commenced 8 July 2004



Definitions

Clearing:

- means the killing or destruction of, the removal of, the severing or ringbarking of trunks or stems of, or the doing of any other substantial damage to some or all of the vegetation; and
- includes draining, flooding, burning, grazing or any other activity that causes substantial damage to some or all of the native vegetation.



Definitions

Native vegetation includes:

- aquatic and terrestrial vegetation indigenous to Western Australia;
- dead vegetation;
- intentionally sown, planted or propagated vegetation by a requirement by law and/or vegetation which was partly or wholly funded by a third party.



Clearing exemptions

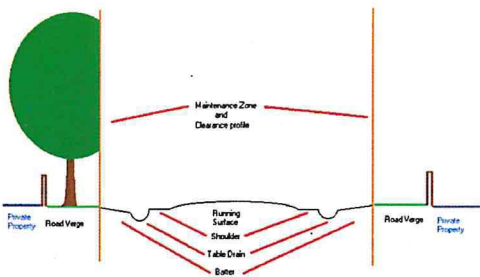
There are two classes of exemptions for clearing:

- for prescribed purposes provided that it is not within an environmentally sensitive area (Regulations); and
- as approved / required under other laws (Schedule 6)
 e.g. Section 33 of the *Bush Fires Act 1954*
 Section 54 of the *Energy Operators (Powers) Act 1979*
Land Administration Act 1997



Clearing exemptions - Regulations

- Schedule 2 - Clearing for maintenance in existing transport corridors
 - Purposes
 - Extent of clearing
 - How clearing is to be carried out



Clearing permits

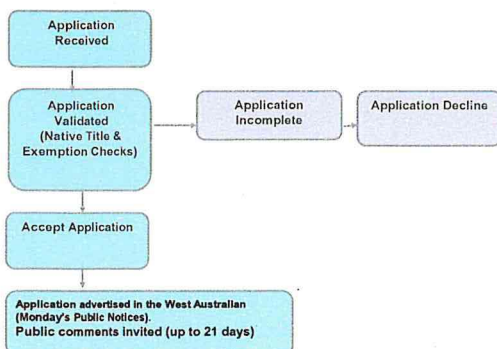
Area permits:

- made by owner of the land for specified area
- generally valid for 2 years.

Purpose permits:

- made by person on whose behalf the clearing will be done for a program that involves clearing (e.g. Local Government)
- generally valid for 5 years.

Assessment Process



Clearing Assessments

Applications are assessed against ten clearing principles in Schedule 5 of the *Environmental Protection Act 1986*:

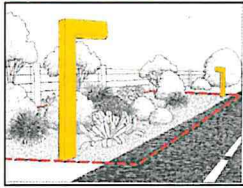
- high level of biodiversity
- significant habitat for indigenous fauna
- habitat for rare flora
- habitat for threatened ecological communities
- significant as a remnant in extensively cleared landscape
- environments associated with wetlands or watercourses
- result in appreciable land degradation
- impacts on conservation areas
- impacts on surface or underground water
- impacts on incidence or intensity of flooding

Planning instruments and any other relevant matter
e.g. black spot funding

Session 3

Managing Special
Environmental Areas

MANAGEMENT OF THREATENED FLORA AND SENSITIVE AREAS IN TRANSPORT CORRIDORS



Legislation

- All native flora is protected under the *Wildlife Conservation (WC) Act (1950)* and the *Environmental Protection (EP) Act (1986)*.
- Flora cannot be 'taken' without proper authorisation and in accordance with prescribed licence and authority.
- The WC Act 1950 23b allows local government to "take" flora in their line of their work but not rare flora. So the Shire requires a permit or exemption under the EP Act (1986) and approval to take rare flora under the WC Act (1950).



Definition of "To Take"

- Under the WC Act, 'take' means to -
 - gather
 - pluck
 - cut
 - pull up
 - destroy
 - dig up
 - remove or
 - injure the flora
- or to cause or permit the same to be done by ANY MEANS.



Policy

- Special protection provided for Threatened flora
- Policy Statement No. 9:
 - "To conserve threatened flora in the wild in Western Australia and to comply with Section 23F of the Wildlife Conservation Act."



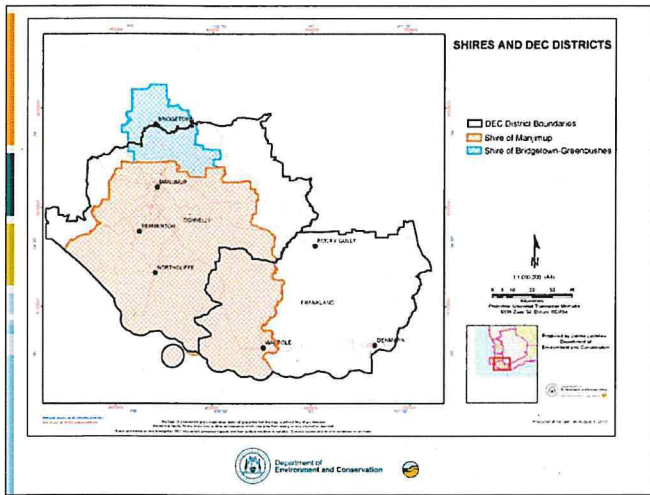
Penalties

- THE EP Act (1986) applies to illegal clearing and has substantially higher penalties than the Wildlife Conservation Act 1950.
 - Penalties for taking native flora under the WC Act (1950) is up to \$4,000 and for taking threatened flora is up to \$10,000.
 - Under the EP Act (1986) : Breaching a clearing permit conditions can be a fine of up to:
 - \$62500 for an individual or \$125,000 for a body corporate or
- Illegal clearing without a permit can be a fine of up to:
- \$250,000 for an individual (and/or 3 years jail) or up to \$500,000 (and/or 5 years jail) for a body corporate.



ESA: Environmentally Sensitive Area





Roadside Rare Flora - Manjimup

Myriophyllum trifidum (Vulnerable)

Form

Habitat

Department of Environment and Conservation

Cont...

Reedia spathacea (Endangered)

Seedling

Habitat

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Cont...

Caladenia erythrochila (P2)

Lomandra ordii (P4)

Leptinella drummondii (P3)

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Roadside Rare Flora – Bridgetown-Greenbushes

Scaevola balanjupensis (P1)

Caladenia christineae (DRF)

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Case Study: *Caustis* sp Boyanup, Deeside Coast Rd

Sprayed

Department of Environment and Conservation

Managing ESAs in roadsides

REMEMBER

If clearing native vegetation is required in or near any areas associated with ESA markers (yellow hockey sticks) contact local DEC Officers for advice, prior to undertaking any works.



Contact details

Department of Environment and Conservation

Manjimup and southern half of Bridgetown-Greenbushes:
Brad Barton (Regional Nature Conservation Coordinator)
9771 7933 Bradley.Barton@dec.wa.gov.au

Northern half of Bridgetown-Greenbushes:
Ben Lullfitz (Conservation Officer)
9752 5555 Ben.Lullfitz@dec.wa.gov.au
or
John Carter (Nature Conservation Program Leader)
9752 5524 John.Carter@dec.wa.gov.au



Session 4

Best Practice Methods for Clearing Native Vegetation

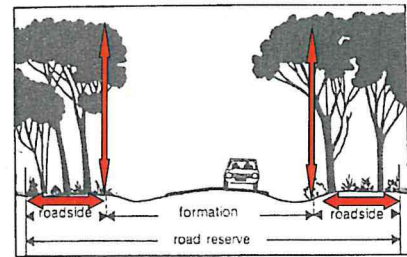
Best Practice Management clearing methodology



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Terminology

- What is the road side?
 - Top of the backslope to the fence



Roadside Conservation Committee

Objective



Allowing for a clear zone

WHILE...

Maintaining various
values



AND...

Objective

Avoiding the ugly



Planning and Design

- Plan for clearing at an early stage of project
- Width of road reserve taken into account
 - drain construction can potentially damage substantial amounts of vegetation.
- Shrubs and ground cover plants should be retained on backslopes:
 - Assists in reducing drain scour
 - Reduce siltation
 - Provides a safer recovery zone.
- Vegetation to be retained should be marked out well before clearing occurs.



Machinery



- Machinery for clearing should be suited to the particular vegetation type.
- Rubber-tyred vehicles cause less damage to topsoil, understorey
 - used where possible.
- Smaller machinery should be used where possible
- Larger machinery requires more space to manoeuvre
 - Less selective about clearing.

Tools of the trade



Hammer head mulcher

The Outcome to avoid

If used incorrectly these machines can have undesirable outcomes

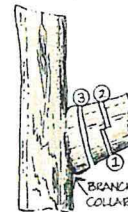


Tools of the trade



Chainsaw

The Outcome to aim for



Felling trees onto roadways can reduce vegetation damaged as a result of clearing.



Vegetation Control

- Vegetation may need to be removed:
 - Affect road safety by reducing vision
 - Encroach on the road
- Need to avoid unnecessary damage
 - Work in designated areas
 - Prune enough to meet safety standards
 - Avoid SEAs
 - Prune for a natural finish (e.g. entire branch)
 - Spread mulch over bare areas – weed control
 - Dispose of waste appropriately – avoid burning
 - Don't "tidy" understorey
 - Avoid pushing graded roadside and vegetation back into the roadside vegetation



Weed Control

- Compete and displace native vegetation
- Increased fire hazard
- May require action to remove if identified in regulation
- Actions to take:
 - Identify weeds for specific action
 - Train staff in weed ID
 - Apply effective weed control
 - Manage topsoil movement
 - Clean equipment and vehicles
 - Minimise disturbance of vegetation
 - Dispose of weeds appropriately

