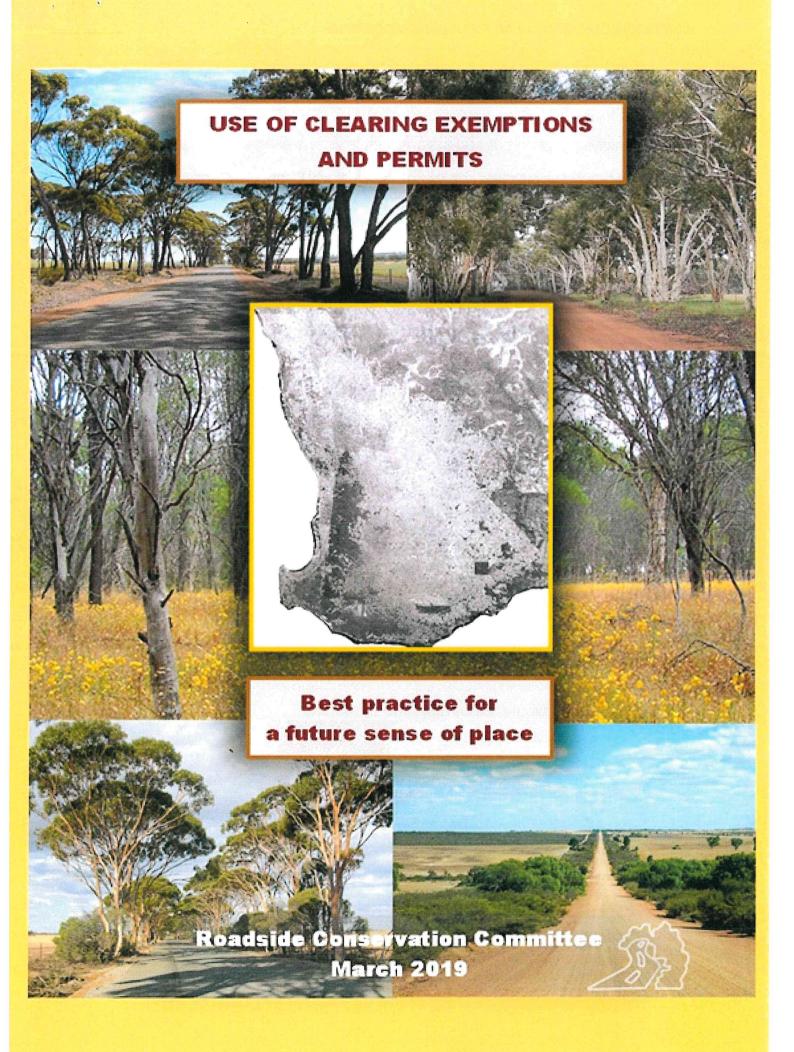
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	SUMMARY	1		
1.	INTRODUCTION	2		
2.	CLEARING EXEMPTIONS & PERMITS & THE DEPT. OF WATER & ENVIRONMENTAL REGULATION			
3.	EXEMPTION FOR CLEARING FOR MAINTENANCE IN TRANSPORT CORRIDORS.	4		
3.1	WHAT'S NOT EXEMPT OR HAS QUALIFIED SCOPE	5		
3.1.1	New works are not exempt.	5		
3.1.1.1	New clearing for safety is not exempt	5		
3.1.2	Environmentally Sensitive Areas are not exempt – but there is some leeway	5		
3.2	WHAT'S REQUIRED FOR THE EXEMPTION TO APPLY	6		
3.2.1	Damage to neighbouring vegetation must be avoided	6		
3.2.2	Authority to clear is still required	6		
3.2.3	The terms of key exemptions	6		
3.2.3.1	The extent of clearing is confined to the area 'previously cleared'	6		
3.2.3.2	Areas that tend to be exempt and 'previously cleared' in a corridor	6		
	(Lateral Clearances, Sight Lines, Crossovers, Infrastructure, & Facilities)			
3.2.3.3	Specific situations with threat of "imminent danger" are exempt	7		
3.2.3.4	Clearing for a temporary bypass road is exempt	7		
4.	EXEMPTION FOR CLEARING FOR FENCELINES IN ROAD RESERVES	7		
5.	BASIC GUIDE TO LOW RISK OF A BREACH DURING WORKS	9		
5.1	TAKE A STRATEGIC VIEW	9		
5.2	USE CONSISTENT CARE	10		
5.3	WORK IN THE EXISTING MAINTENANCE ZONE - LOW RISK OF A BREACH	11		
5.4	ROADWORK & FENCELINE EXEMPTIONS vs ASSESSMENT OR PERMITS	14		
5.5	OTHER SPECIFIC EXEMPTIONS AND EXCEPTIONS	16		
5.5.1	Crossovers and sight lines	16		
5.5.2	Other specific exemptions	16		
6.	MATTERS THAT PRECEDE PROPOSED ROADSIDE CLEARING	20		
6.1	ENSURE FUNDAMENTALS ARE IN PLACE	20		
6.2	SEEK TO AVOID AND MINIMISE IMPACTS	20		
6.3	BEFORE APPLYING FOR ASSESSMENT OF ANY CLEARING PROPOSAL	21		
7.	TERMS	22		
8.	REFERENCES 2			

APPENDIX 1: FLOWCHART – LIMITED CLEARING SUPPORTS A ROADSIDE PLAN

SUMMARY

This is a guide to best practice use of clearing exemptions and permits to protect roadsides.

It is essential to embed an approach that minimises the need to resort to clearing.

Aim to:

A) Respect the context of extensive loss of natural heritage.

In order to sustain unique local biodiversity into the future consider that any further net loss is critical in many developed areas. By 1990 much of the southwest had lost between 85-95% of its native vegetation (Hamilton *et al* 1991). This: i) breaks landscape unity and basic processes; ii) leaves small remnants that are easily disrupted by nearby changes; & iii) brings many new impacts. This all follows from poor foundation coverage of reserves for the numerous types of vegetation in WA (Hussey *et al* 1991; CALM 1992). This makes all remnants key to holding a typical array of the state's rich natural heritage (Allison *et al* 1993); this includes roadsides. (See the RCC's "Biodiversity context for road design".)

B) Consider the net impact of any further loss.

In most rural areas only about 10% of the original natural resources remains; this is a subcritical level to assure its long-term future.

Consider the impact of actions at all levels - on the roadside section, block and network.

- C) Have a plan for roadside vegetation as a whole and clarify where most care is needed. Prioritise – devise a roadside remnant network built from sections, roads and blocks of roads. At least aim to consolidate most complete roadsides into a basic network. Once a key roadside network is defined, make it a fixture in works plans and use due care. Keep as many local roadsides as possible. Try and minimise overlap of higher value roadsides and major feeder roads and locate them apart.
 - (For more detail see the RCC's "Have you planned to protect your roadsides?" guidance.)
- D) Recognize that current exemptions enable work across the network and on most local roads.

 Seek to optimise use of existing exemptions and seek alternative design solutions and conditional solutions (e.g. vehicle access permits) that do not require infrastructure change.
- E) Treat all stretches of local vegetation as planning and operating constraints.

In terms of clearing the RCC endorses an approach that first protects dwindling remnants:

- Avoid the need for new clearing. In most cases and most of the time (e.g. >99%).
 Avoid as many roadsides with remnant values as possible. Select routes for major access carefully.
- II) Minimise any new, unavoidable, clearing. Aim for few cases & seldom (e.g. <1%).
- III) Mitigate any new clearing. This should be a last resort as it often results in replacement or at best only partial restoration, with net loss of rich natural values. Also, in contrast to protection, best-case, partial, restoration is costly. Aim to keep at least one roadside if there are high values or a significant link (e.g. road/rail link) and ideally seek a fence setback to enhance this.
- F) Pre-empt a requirement for detailed survey of the area that is proposed to be impacted.

 Note that the vegetation and condition of roadsides proposed for new roadworks may need to be surveyed and mapped in detail by a qualified specialist once a route is defined and before a clearing permit is applied for through the Department of Water and Environmental Regulation. Initial environmental assessment using the methodology described above (C) may reduce the need for such mapping when seeking approval for a clearing permit.

 Especially if selected roadsides are evidently low-rating, clear, or totally weed congested.

BEST PRACTICE USE OF CLEARING EXEMPTIONS AND PERMITS

1. INTRODUCTION

This is a guide to best practice use of clearing exemptions and permits to protect roadsides.

Above all it aims to embed an approach that minimises the need to resort to new clearing.

Best practice will:

- Respect the context of extensive loss of natural heritage.
- Consider the net impact of any further loss.
- Have a plan for roadside vegetation as a whole and clarify where most care is needed.
- Recognize that current exemptions enable work across the network and on most local roads.
- Treat all stretches of local vegetation as planning and operating constraints.

This guide:

- Summarizes the exemptions for maintenance in transport corridors and for fence lines.
- Provides a basic outline of a low risk of a breach during works for maintenance.
- Encourages an approach where new clearing is a minor and well-placed part of whole strategy.

2. CLEARING EXEMPTIONS & PERMITS & THE DEPT. OF WATER & ENVIRONMENTAL REGULATION

"The Department of Water and Environmental Regulation (DWER) administers the clearing provisions of the Environmental Protection Act 1986 (EP Act)."

"Applications for clearing permits are assessed and decisions are made to grant or refuse the application in accordance with this Act."

"Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose."

"There are two types of exemptions:

- **1.** Exemptions for clearing (that are a requirement of a written law or authorised under certain statutory processes) are listed in Schedule 6 of the EP Act.
- **2.** Exemptions for prescribed low impact day-to-day activities are listed in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004, but do not apply in environmentally sensitive areas declared by the Minister."

(Source: https://www.der.wa.gov.au/our-work/clearing-permits)

RCC COMMENT:

- a. Remember that permission to clear outside exemptions is not assured. It is a privilege that may not be granted on first principles. The relevant Act and regulations were meant to protect the last vestiges of complex and irreplaceable local vegetation in widely cleared areas. This expressly compensates society for historical planning omissions that left insufficient reserve systems in many areas. An imbalance that was already seen as dire in the early 1960s.
- b. Aim to protect, not to clear; rather, make clearing the exception and consider the net impacts. Seek to:
 - Avoid- mostly.
 - Minimise seldom.
 Limit the footprint of any new clearing that may be approved and so its impacts on adjacent areas. This includes soil disturbance and compaction which are major impacts.
 - Mitigate (after clearing) thoroughly.

3. EXEMPTION FOR CLEARING FOR MAINTENANCE IN TRANSPORT CORRIDORS.

This section summarises key points from "A guide to the exemption for clearing ... in existing transport corridors". For full details see the DWER guide (DER 2015a).

The clearing of native vegetation in Western Australia is regulated under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Regulations).

An exemption for clearing for maintenance in existing transport corridors is provided by Regulation 5, item 22 (Schedule 2). Importantly, the exemption for clearing in existing transport corridors applies to clearing for maintenance purposes only. The exemption applies to the maintenance of both public and private roads. Clearing alongside a stretch of a road or railway must be done in an area or for a purpose specified in Schedule 2 of the Regulations.

This is refined below in terms of what's not exempt and what's required for the exemption to apply.

3.1 WHAT'S NOT EXEMPT OR HAS QUALIFIED SCOPE

3.1.1 New works are not exempt

Any extension, widening or realignment of an existing road or railway that requires the clearing of native vegetation is taken to be new works. New works are not covered by the exemption and require a clearing permit (as does any clearing that isn't exempt under Schedule 6). As noted above applications are assessed to see if a permit is warranted.

Gravel pits are mostly located outside the lateral exemption and qualify as new clearing. So instead seek to source clean material from outside the roadside and revegetate existing pits.

3.1.1.1 New clearing for safety is not exempt

New clearing for safety purposes within a transport corridor is not exempt under the regulations. However, safety is recognised in the definition of 'sight line area' and in the description of the extent of clearing permissible for maintenance and protection of 'transport corridor infrastructure'.

3.1.2 Environmentally Sensitive Areas (ESAs) are not exempt – but there is some leeway

Particularly Environmentally Sensitive Areas (ESAs) are a reason to take extra care; as:

- A. Even though there is no exemption for maintenance within ESAs under the EP Act or regulations; the exemption is usually extended to pre-existing clearing within ESAs.
 - a. An existing maintenance area effectively 'extinguishes' the ESA.

"While this exemption" for maintenance in transport corridors "does not apply in environmentally sensitive areas, clearing the maintenance area of a stretch of road or railway, where that area has been cleared before and is cleared in accordance with this exemption, is deemed not to be clearing within an environmentally sensitive area." (Table of exemptions, Section 3, Guide DER2015/000510) "The maintenance area" is "any area in the reserve for that stretch of road or railway that is lawfully cleared."

So pre-existing clearing within an ESA that was in line with the exemption can be maintained for: existing crossovers; existing lateral clearance areas; existing public roadside facilities; existing transport corridor infrastructure; and existing sight line areas.

b. Any new work, including for new crossovers, is not exempt in ESAs.

B. But be aware that this default extension of the exemption doesn't apply in two cases:

a. Certain ESA's may be protected by other Acts and may not be exempt under these.

Chiefly, it is always an offence to 'take' threatened plants under the Biodiversity

Conservation Act 2016 without Ministerial consent. This includes where the plants may naturally have spread into the maintenance zone.

In contrast, where an existing maintenance area has precedent it is likely to extinguish other broader ESAs (such as those based on communities {e.g. TECs and wetlands}).

b. Other exemptions in the Regulations that aren't part of Schedule 2 can't occur in an ESA.

3.2 WHAT'S REQUIRED FOR THE EXEMPTION TO APPLY

3.2.1 Damage to neighbouring vegetation must be avoided

All prescribed clearing must be done in such a way as to limit damage to neighbouring vegetation (Regulation 5(1)(c)).

RCC COMMENT:

Its feasible to do more than just protect adjacent vegetation. Aim to retain frangible vegetation in the maintenance zone; on backslope batters wherever its outside of or below existing sight lines.

3.2.2 Authority to clear is still required

Clearing for maintenance in existing transport corridors is only exempt if it is done by or with the prior authority of the Commissioner of Main Roads WA, the Public Transport Authority, the local government authority, or the person legally responsible for the stretch of road or railway (the person responsible). Seek the landholder's consent.

3.2.3 The terms of key exemptions

For the exemption to apply requirements in Schedule 2 of the Regulations must be met. These specify the: i) extent of clearing permitted for the given area or purpose; & ii) how the clearing is to be carried out.

3.2.3.1 The extent of clearing is confined to the area 'previously cleared'

The extent of clearing is confined to the area 'previously cleared', and the previous clearing must have taken place within the preceding 10 years (table to clause 2(1) of Schedule 2). In addition, it either must have been lawfully cleared or the person doing the current clearing did not know and could not reasonably have been expected to know whether the previous clearing was lawful.

3.2.3.2 Areas that tend to be exempt and 'previously cleared' in a corridor

Lateral clearance area – 'the area parallel and immediately adjacent to a stretch of road or railway that is ordinarily cleared' (clause 1 of Schedule 2 to the Regulations). The lateral clearance area is only that part 'previously cleared' for that stretch of road or railway (i.e. only to the previous width and height).

Sight line area - 'an area between the edge of a stretch of road or railway and a line of sight necessary for the safe use of the road or railway'. This includes areas necessary for the safe use of crossovers and public roadside facilities.

Crossover area - only the 'area occupied by a crossover from a road to a property adjacent to the road and any associated sight line areas'. (While an exemption also applies for a new crossover and its sight lines 'if the construction is within the scope of an authority given by the road manager to construct the crossover'; such authority may be overridden by the Biodiversity Conservation Act 1986 and federal Acts, which must first be checked.)

Transport corridor infrastructure – include 'barriers, signs, guideposts, drains, levies, embankments, gutters, bridges, overpasses and other similar structures or works' (e.g.

BEST PRACTICE USE OF CLEARING EXEMPTIONS AND PERMITS

sumps, culverts and lighting). Clearing is only for the efficacy, safety and protection of, or access to, infrastructure.

Public roadside facility – only clearing for maintenance is exempt (extension is not); this includes a 'camping area, rest area, information bay, road train assembly area, parking areas or a footpath or cycle track in the road reserve'.

RCC COMMENT: Consider however, that roadside facilities break natural linkages and are best located outside the vegetated part of the road reserve if feasible.

3.2.3.3 Specific circumstances with threat of "imminent danger" are exempt

Clearing for imminent danger is exempt, where there is "an immediate and present risk" "to human life and health or irreversible harm or irreversible damage to a significant portion of the environment". A storm or fire damaged tree that's likely to fall in the travelled way is an example. (Contrast this with safety matters based on 'diffuse' risk and which have a low likelihood at any single location (2.1.1.1))

3.2.3.4 Clearing for a temporary bypass road is exempt

Clearing for a temporary bypass of a stretch of road made impassable by sudden damage is exempt.

4. EXEMPTION FOR CLEARING FOR FENCELINES IN ROAD RESERVES

The exemption for "Clearing along a fence line into Crown land" falls under a different item to the road maintenance exemption (it is under Regulation 5, Item 11). Details are in the next text box.

Note the road reserve manager still has right of authority in terms of exemptions for fence lines; so neighbours must obtain their consent before they disturb any road reserve vegetation.

RCC COMMENT:

Both neighbours and road or rail reserve managers are encouraged to view the fenceline exemption as discretionary and to consider that best practice will limit the need for clearing of vegetation.

The most benign options fall in the following the order:

- 1) Fence set back, away from vegetation;
- 2) Avoiding disturbance near to or inside the edge of the road or rail reserve;
- 3) Limiting disturbance to less than 1.5m.

EXEMPTION FOR "Clearing along a fence line into Crown land" (Regulation 5, Item 11).

Authority: "Clearing must be done by or with the prior authority of: The owner of the land on which the clearing is to take place" (in WA Local Government Authorities manage local road reserves and MRWA manages state road reserves).

Exemption: "Clearing of Crown land along a fence line to provide access to construct or maintain a fence – (a) **between alienated land and**Crown land - if the clearing is no more than 1.5 metres from the fence line".

Exemption not available in ESAs:

"This exemption does not apply in an environmentally sensitive area." A proposal must be assessed to see if it qualifies for a clearing permit.

[**Source**: Department of Environment Regulation 2014 A guide to the exemptions and regulations for clearing native vegetation; under Part V of the Environmental Protection Act 1986. P22 table of exemptions in Regulation 5 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.]

BEST PRACTICE FENCELINE MAINTENANCE:

The RCC encourages neighbours of road and rail reserves to use this exemption sparingly & to consider, in order of most environmental benefit:

- 1) Fence set back, away from vegetation. Along good quality vegetation this can allow regeneration or active restoration, and so improve links.
- 2) Avoiding or minimizing disturbance near or into the road or rail reserve be careful along the boundary (minor trimming & soil disturbance).
- 3) Limiting disturbance to less than 1.5m if intrusion is unavoidable.



5. BASIC GUIDE TO LOW RISK OF A BREACH DURING WORKS

5.1. TAKE A STRATEGIC VIEW

Above all take a broad unified view rather than a fragmented one. Consider the range of local & regional values that merge in your zone.

A key role of roadsides is to protect a cross section of the many vegetation types once found across the landscape. This is also a primary reason that: i) many roadsides were surveyed for conservation; ii) that the RCC was set up; and iii) that the clearing regulations were proclaimed (under the EP Act).

Best practice doesn't begin and end with a small selection of highlighted areas (e.g. specially marked areas and other ESAs); best practice will aim to safeguard all types of roadside remnant vegetation.

Take care to put the many vegetation types in context. Due care is warranted for all types, not just the most-scarce elements with special protection. (The latter include Threatened Ecological Communities (TECs), Ecologically Sensitive Areas (ESAs), and Threatened Flora.) Such selective cover lags behind the spirit of the EP Act in terms of protection for the full range of natural values. However, increasingly an overlay of 'compound' TECs is starting to reflect such wider context and the true extent of the heritage at stake.

Identify a core network and work towards sustaining its integrity as a whole. Consolidate stretches and sectors with fairly intact values, as this is coherent and feasible.

So, at least, outline where the majority of fairly intact vegetation occurs and aim to keep it.

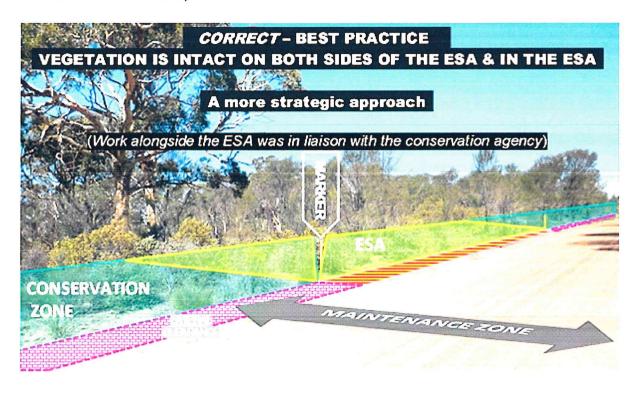
This should include all key parts of the wider conservation network, namely:

- Landscape fragments conserve all vegetation in place.
- Corridors keep them intact and limit breaks and maximise possible width.
- Highlighted areas mainly ESAs (e.g.: Threatened Flora, Threatened Communities, & Wetlands). Be alert for ESAs as they remind you to use extra caution & seek advice.

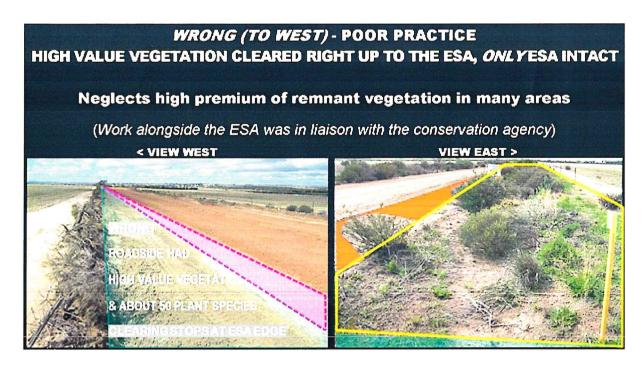
Also include neighbours and fence lines, as an important part of a whole strategy. Note the road or rail reserve manager still has right of authority in terms of exemptions for fence lines (see part 4). The reserve manager can encourage: i) Fence set back, away from vegetation; ii) Avoiding or minimizing disturbance near or into the road or rail reserve; and iii) Limiting disturbance to less than 1.5m - if intrusion is unavoidable.

5.2 USE CONSISTENT CARE

This image shows consistent care of the roadside. The whole corridor, with the marked area, is intact. This means: i) local biodiversity is intact; and ii) this linkage is intact and can slot into a network across the landscape.



In this image only the marked area has been protected. Most of the corridor has been demolished (to the west). This means: i) a slice of local biodiversity is lost (some 50 species); and ii) the linkage is broken and the network is weakened. (Colour codes as above.)



5.3 WORK IN THE EXISTING MAINTENANCE ZONE - LOW RISK OF A BREACH

Most road reserve work will avoid the risk of a breach if it's kept in the existing maintenance zone.

Note on rail reserves: The following focuses on road reserves, however in rail reserves the existing area that has been legally maintained still applies; it will cover the lateral clearance area that helps maintain the rail foundations and ballast, access tracks, crossovers, and related infrastructure. It will still matter to be aware of any exceptions such as marked areas and designated ESAs and use extra caution.

Basically keep work in existing Lateral Clearances, but avoid or seek advice on marked areas (e.g. Yellow Markers which point in the direction of the highlighted area).

This is outlined in the next figures.

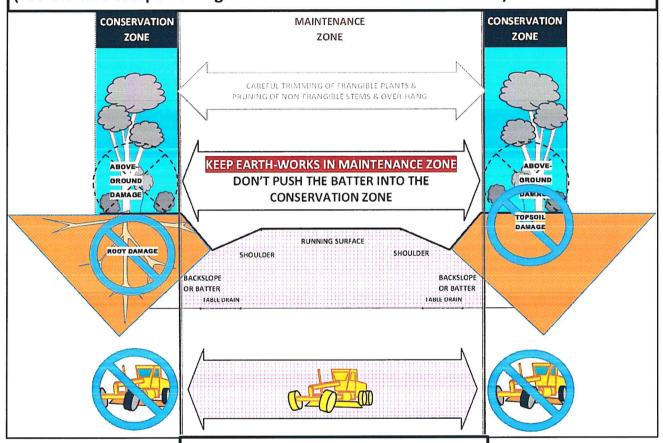
The first diagram shows the existing maintenance zone which includes the existing lateral clearances that are exempt under the clearing regulations; it stretches from the outer edge of one backslope batter to the other, or if flat, form one graded edge to the other.

The following images show lateral clearances. A lateral clearance area is "In relation to a stretch of road or railway, the area (if any) parallel to and immediately adjacent to the stretch of road or railway that is ordinarily cleared." (DER 2015) That is, the area from the edge of the running surface to the existing outer edge of the backslope batter or grading.

However, also see background to this basic approach (4.4) and other exemptions & exceptions (4.5).

ROADWORK IN EXISTING MAINTENANCE ZONE - LOW RISK OF A BREACH:

This shows the key exemption for the existing maintenance zone under the clearing regulations. The key exemption is based on existing lateral clearances. It covers most basic risk but lacks detail on marked areas & specific exemptions (see the two companion figures of the road reserve from above).



IN SHORT:

- ❖Work in the existing maintenance zone
- Limit maintenance & construction footprint
- Use alternatives to infrastructure change to keep the same footprint
- Avoid the conservation zone
- Limit conservation zone disturbance
- Limit batter or spoil spread –
 Avoid pushing it onto vegetation
- Avoid marked areas (e.g. YELLOW MARKERS)
- STOP seek external approval





KEY EXEMPTION – EXISTING LATERAL CLEARANCE AREAS FOR ROADWORK

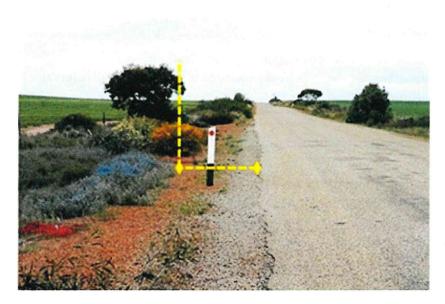
Best practice will keep frangible plants on any batter (left & 1 below).

Note the careful work for shoulder sealing (first below).













5.4 ROADWORK & FENCELINE EXEMPTIONS – VERSUS ASSESSMENT OR PERMITS

This part outlines how some key protections apply to roadsides and to clearing exemptions.

As a basic rule work that intrudes on roadsides (Conservation Zones) requires assessment before any clearing is considered. This is chiefly to see if clearing is low impact and so permissible (see 1 above). The context is critically low levels of remnant vegetation in many developed areas and the direct risk that any new clearing is likely to intensify net loss. This also invites a strategic approach (see 4.1).

The next figure shows:

- The road reserve from above.
- II. The place of the road maintenance zone and fenceline exemptions.
- III. The overlay of protections for highlighted areas.

A road reserve manager has two exemptions available (see sections 2. & 3.):

- A. The existing road maintenance zone with its existing (legal) lateral exemptions.
 - i) This mostly extinguishes other protections; including most ESAs.
 - But, marked areas are exceptions where approval is needed (so avoid YELLOW MARKERS). Threatened Flora has priority (Biodiversity Conservation Act 2016).
 - iii) Note: this is a maximum width and might be less if effective and safe.
- B. The fenceline exemption, which is:
 - i) Primarily for neighbouring landholders.
 - ii) May apply to the road (or rail) reserve manager in select cases.
 - iii) Subject to being authorised by the road (or rail) reserve manager.

 This may mean the reserve manager has some input on whether, to what extent and how, any clearing may be done.

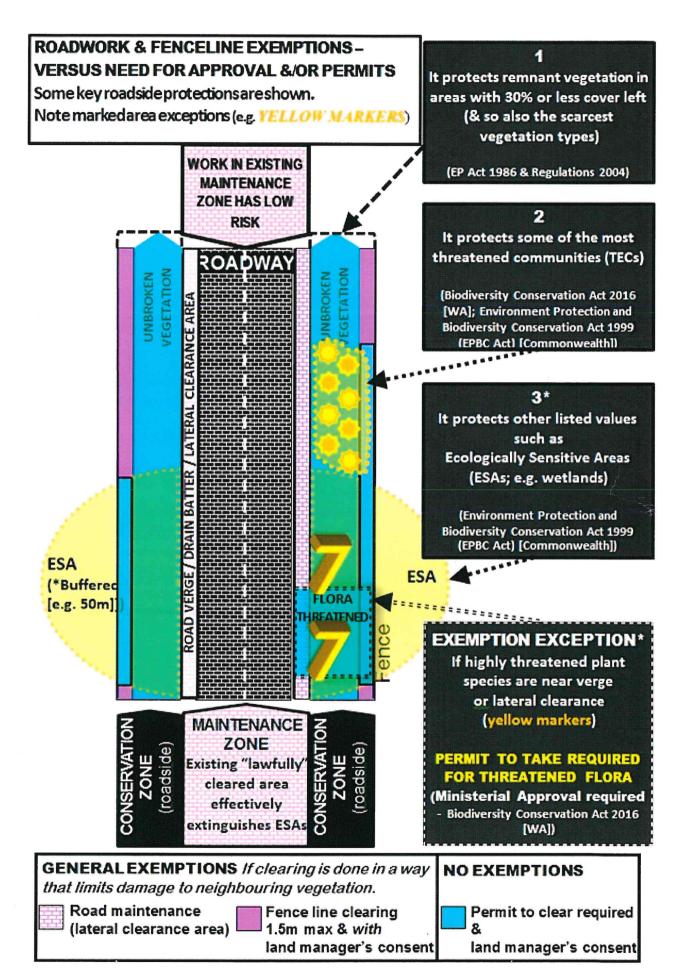
RCC COMMENT:

Both neighbours and road or rail reserve managers are encouraged to view the fenceline exemption as discretionary and to consider that best practice will limit the need for clearing of vegetation.

The most benign options fall in the following the order:

- 1) Fence set back, away from vegetation;
- 2) Avoiding disturbance near to or inside the edge of the road or rail reserve;
- 3) Limiting disturbance to less than 1.5m.
- iv) Subject to not triggering another part of the clearing regulations or other Acts.

 Such as:
 - a) Mainly for ESAs (under both the EP Act and other state and federal Acts). The exemption is overridden where Threatened Flora occur (Biodiversity Conservation Act 2016) *and so approval must be sought*.
 - b) For 'composite' TECs, the outlining of which is only beginning to reflect the range of remnant vegetation types at threat. Examples are wheatbelt woodlands and Kwongkan shrublands.



5.5 OTHER SPECIFIC EXEMPTIONS AND EXCEPTIONS

5.5.1 Crossovers and sight lines

Established crossovers and sight lines are exempt. Again the extent of clearing is confined to the area 'previously cleared' in the last 10 years (see **3.2.3.1**).

As a general rule this means that sight lines tend to sit above the edge of existing lateral clearances within the maintenance zone. Sight lines may tend to be wider at inside curves and at major intersections. Note that in the latter cases it is preferable that obstructing vegetation is trimmed to the required height rather than removed, especially if the vegetation is mainly frangible.

This is outlined in the next diagram and the following 4 images

5.5.2 Other specific exemptions

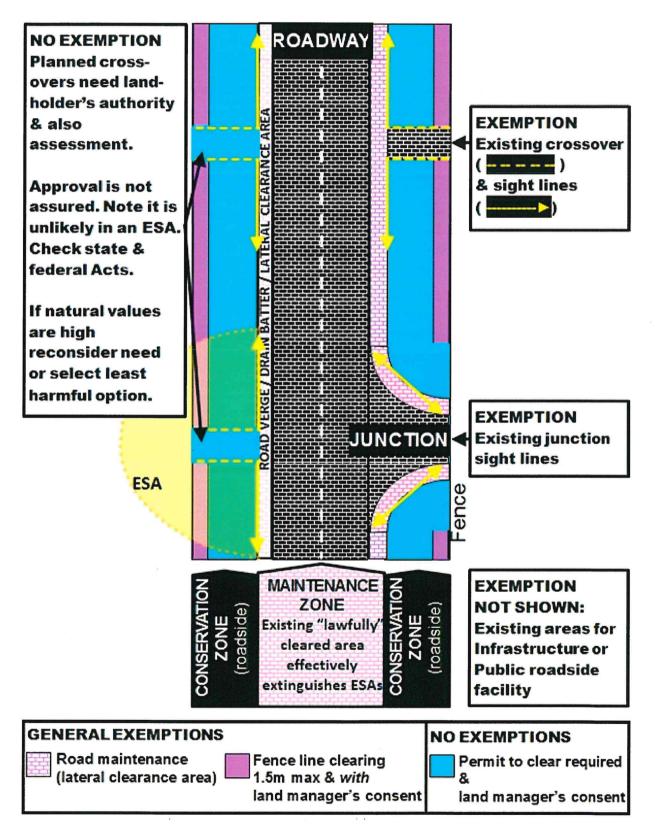
Corridor Infrastructure and Roadside Facilities are exempt. Again the extent of clearing is confined to the area 'previously cleared' in the last 10 years (see **3.2.3.2**).

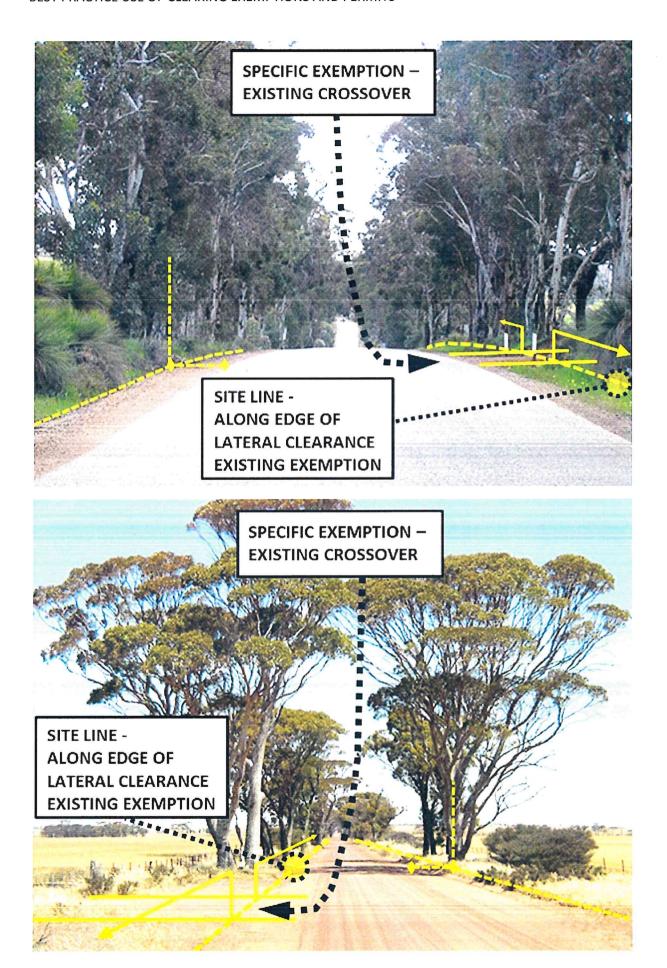
Specific situations with threat of "imminent danger" are exempt (see **3.2.3.3**). However, exercise due care and target the specific issue without affecting neighbouring vegetation (see **3.2.1**).

A temporary bypass road is exempt (see 3.2.3.4). However, prioritise works to cause least harm:

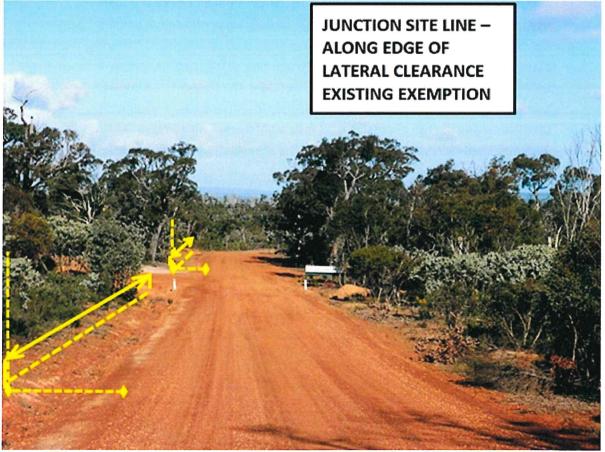
- i) ideally select any adjacent cleared areas for both the route, and extraction and stockpiles;
- ii) the next option is to select the most degraded vegetation in the vicinity;
- lastly, if intact (weed free) vegetation must be disturbed, plan to rehabilitate it from the outset. Primarily stockpile topsoil (only the first 10cm); locate it away from weed beds and use deeper stockpiles if its return can be assured in a matter of weeks or months. If it may be years before it can be replaced it is best spread out along a vegetated area and allowed to regenerate and self-replenish. Secondarily, if feasible, arrange propagation of local provenance plants. Finally, reclaim fill, address compaction, contour surface, spread topsoil and where feasible, plant.

OTHER SPECIFIC EXEMPTIONS AND EXCEPTIONS - (Refer to this diagram and the next 4 images.)









6. MATTERS THAT PRECEDE PROPOSED ROADSIDE CLEARING

6.1 ENSURE FUNDAMENTALS ARE IN PLACE

Above all aim to optimise use of existing exemptions and work space. Make this usual and routine.

Ensure a well-defined core network of roadsides is protected and that key feeder roads fit within this. Basic road types appear in the table. Type 2 is a format in common use (MRWA 2016).

6.2 SEEK TO AVOID AND MINIMISE IMPACTS

In the few instances where widening is unavoidable - do not aim to use the whole road reserve; rather use good design to limit the road's total footprint. Protect the roadside as much as possible. Some maintenance zone widths that may help retain roadside in a 20m road reserve appear in the table. Types 2, 3 and 4 are the most favourable.

The width on either side of the carriageway used to house the table drain and batters needs careful site-specific consideration to ensure minimal disturbance to roadsides. The nominal upper widths per side are about 3m (including a 1m table drain batter). This will vary, if extra cut or fill is required. Consider:

- Reducing the space used by earthworks, use favourable soil types and slope stabilities to advantage, and vary batter slopes for cuttings, embankments and table drains.
- Saving space by reducing the table drain depth and width where feasible.
- Avoiding constructing a table drain on the lower side of the road.
- Widening the road on the low side to reduce the space required for earthworks.
- Importing fill for embankment to avoid side borrow from alongside the road.
- Using steps on wide batter slopes; to retain topsoil, aid regeneration and improve stability.
- Final roadside width. If only two narrow roadsides may be left (e.g. 1-2m wide) then the best option may be to offset the carriageway to one side of the road reserve so as to leave one wide vegetated roadside. Aim to resume the side in the poorer condition and leave the other undisturbed. Similar considerations apply to carriageway re-alignment.
- On minor roads the use of passing bays instead of overall widening.
- Widening road reserves to so as to extend the roadsides, especially when re-fencing is likely.

SUITA	SUITABLE HIERARCHY FOR LOCAL GOVERNMENT ROAD MAINTENANCE ZONES						
TYPE	ROAD TYPE	CARRIAGE- WAY WIDTH (indicative)	TOTAL CLEARING WIDTH (max)	ROADSIDE WIDTH (in a 20m wide road reserve)	COMMENT		
1	Major feeder	9m	15m	2.5m [x2]	Option: one 5m wide roadside		
2	Lesser feeder ('typical' RAV)	8m (7m + shoulder)	14m	3.0m [x2]	Upper limit for lesser feeder in 20m rd. res.		
3	Major farm access	7m	12m	4.0m [x2]	Small footprint Valuable roadside		
4	Minor farm access	5m	7m	6.5m [x2]	Smallest footprint Valuable roadside		

Note: Type 2 matches a typical RAV unsealed road for <500 vehicles per day with a minimum usable width of 8.6m (roughly a 7m running surface plus 1m shoulders) (MRWA 2016).

6.3 BEFORE APPLYING FOR ASSESSMENT OF ANY CLEARING PROPOSAL

Before applying for assessment of any clearing proposal - ensure that you have:

- Made best use of existing exemptions.
- Used all available information to plan to routinely protect a core network of roadside vegetation throughout your area.
- All available information together for submission on proposed routes.
- Identified gaps in knowledge and are set to rectify these (e.g. requests for detailed survey).
- Demonstrably selected and designed routes to limit further net loss and fragmentation of vegetation.
 - o By seeking to: i) avoid; ii) minimise; and iii) mitigate impacts on roadside vegetation.
 - o If there is no option but to clear, by seeking to mitigate appropriately.
 - Consider options such as passing bays.
 - If widening may leave only two thin roadsides, opt to at least retain one intact roadside.
 - For realignment, aim to rehabilitate the roadside vegetation; plan to reclaim topsoil and use locality-sourced plant stock.
 - Include fence set back to help balance such trade-offs.

7. TERMS

Terminology	Meaning (Source: DER 2015 unless stated otherwise.)
crossover area	The area occupied by a crossover from a road to a property adjacent to the road and any associated sight line areas.
environmentally sensitive area	An area declared in the Environmental Protection Environmentally Sensitive Areas Notice 2005 to be an environmentally sensitive area.
lateral clearance area	In relation to a stretch of road or railway, the area (if any) parallel to and immediately adjacent to the stretch of road or railway that is ordinarily cleared.
maintenance area	Of a stretch of road or railway, any area in the reserve for that stretch of road or railway that is lawfully cleared.
public roadside facility	Includes a camping area, rest area, information bay, road train assembly area or parking area or a footpath or cycle track in the road reserve.
previously cleared	 (a) the previous clearing took place within the 10 years immediately prior to the proposed clearing; and (b) either — (i) the previous clearing was lawful; or (ii) the person clearing does not know, and cannot reasonably be expected to know, whether the previous clearing was lawful.
sight line area (incl. line-of-sight)	An area between the edge of a stretch of road or railway and a line of sight necessary for the safe use of the stretch of road or railway.
transport corridor infrastructure	In relation to a stretch of road or railway, includes barriers, signs, guideposts, drains, levies, embankments, gutters, bridges, overpasses and other similar structures or works.
authority (of the land manager)	"The clearing for maintenance in an existing transport corridor must be done by, or with the prior authority of, Main Roads WA, the Public Transport Authority, the local government, or any other person or entity legally responsible for the stretch of road or railway." ("Section 3 – table of exemptions")
frangible vegetation	'Frangible' vegetation - plants with stems equal to or less than 100mm when measured from 300mm above the finished ground level. Groundcovers and shrubs are all generally frangible except for large shrub species exceeding 3.5m in mature height. Trees are not considered frangible. (DTMRQ 2013)
	'Frangible' vegetation covers the bulk of plant diversity (90-95% or more [Koch 2007]). It includes native grasses, herbs, rushes, groundcovers, vines, and shrubs; so there may be 30 to 50 species in a section of roadside (& a few hundred in a locality [Koch 2007]).
	This implies that 'frangible' material will deform, displace, shatter, or otherwise arrest an errant vehicle, rather than result in a major impact (RTA 2009); so it may be somewhat 'impact absorbent' (Austroads 2011). Such attributes mean 'frangible' vegetation doesn't appear as a separate cause of casualties in safety reviews (e.g. Austroads 2014, 2014b).
carriageway	Width of road, or travelled way, between guide posts, barriers or kerbs;

	includes shoulders (MRWA 2016).
clearing width	The width required to carry out road works during construction.
batter	Slope of banks and cuttings.
table drain	The drain alongside the road.
maintenance zone	Area periodically disturbed to maintain the road and table drain. Fits the total clearing width for maintenance under existing exemptions.
roadside	Area between the maintenance zone and the road reserve boundary; usually from the outer edge of the backslope batter on the table drain to the boundary.
RAV road	Restricted Access Vehicle road with heavy/over-wide vehicle access enabled on set terms.

8. REFERENCES

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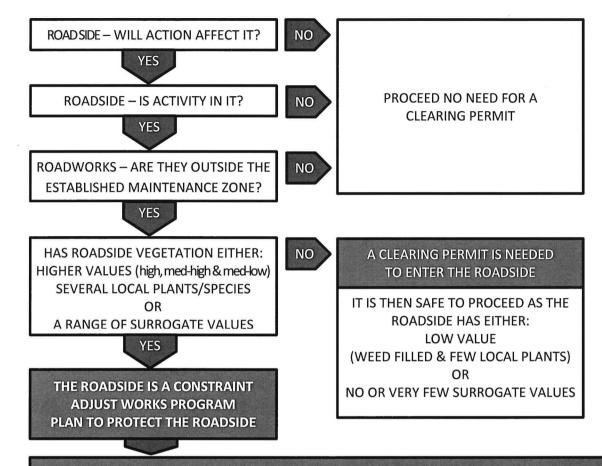
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ACKNOWLEDGEMENTS

This document was reviewed by the Roadside Conservation Committee and composed by N. Casson.

DISCLAIMER

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IDENTIFY ROADSIDE VALUES TO BE PROTECTED

MAPPED VALUES:

- High
- Med-High
- Med-Low

(From RCC maps)

SURROGATE CUES:

- That remnant vegetation is in a LG with <30% cover left.
- Validated vegetation mapping created for other purposes.
- Unmade road reserves that were never cleared or grazed.
- Roadsides linking larger remnants (reserves, crown land & freehold).
- Localized values and their linkages: i) Vegetation with large trees with hollows; ii) Threatened Flora or Ecological Communities; and iii) Ecologically Sensitive Areas (ESAs).
- Widths of road reserves; as:
 - Many wide corridors (>20m) were reserved for conservation.
 - Wider road reserves (30m, etc.) tend to sustain values;
 - Roadsides with rail reserves alongside tend to sustain values;
 - Roadsides with remnants alongside tend to sustain values.
- Pooled road nominations by parties with sound knowledge of local plants (criteria follow *).
- Roadsides with vegetation with several native plant species &/or 2 or more layers of these and/or with few weeds (*).
- Roadside assessment agreeing to the classes the RCC uses.

COMPOUNDED VALUES & CUES

Multiple values &/or cues in a roadside enhance its overall status (so plan to protect it).

Consider the overall extent of roadside:

- Sections with mostly medium-high & high values &/or patches of surrogate cues.
 - Groupings of such value-rich sections in clusters, corridors, or networks.

ALTERNATIVE PLANNING OUTCOMES ARE REQUIRED



MAKE A PLAN &
MAKE POLICY
TO PROTECT
ROADSIDE
NETWORKS



CLEARING ASSESSMENT IS A LAST OPTION

CLEARING IS A LAST RESORT: CLEARING ASSESSMENT THEN A PERMIT ARE NEEDED TO ENTER THE ROADSIDE AIM TO CLEAR RARELY, CLEAR LITTLE, CLEAR CAREFULLY & TARGET IT WELL