



WILDFLOWER SOCIETY OF WESTERN AUSTRALIA (Inc)

8 February 2022

Appeals Convenor
Office of the Appeals Convenor
Level 22 Forrest Centre
221 St Georges Terrace
PERTH WA 6000

Re: **CPS 9300/1 Shire of Ngaanyatjarraku**

The Wildflower Society of WA (the Society) hereby appeals the conditions of Clearing Permit CPS 9300/1 granted by the Department of Water and Environmental Regulation (DWER) to the Shire of Ngaanyatjarraku (the Shire) for the clearing of approximately 60 ha of vegetation for the realignment of the Great Central Road in Warburton. We note the lack of detail relating to weed management, the lack of any conditions regarding rehabilitation works of temporarily cleared areas and no conditions given on the use of removed topsoil.

In the biological survey prepared by GHD (2021), some broad statements are made regarding the conservation status of *Seringia exastia* and *Goodenia virgata*. The Society contends the biological survey should have been extended to confirm statements assumed regarding the impact of this clearing, rather than assuming that known presence in other areas will not result in significant impact to the species in the local area. The arguments regarding both these species are not evidence-based and warrant extension of the biological survey area to enable collection of evidence to justify the conclusions drawn. The Society contends that, based on international standards regarding significance of impact, 46% of loss of a known local population (*S. existia*) is a highly significant impact as it exceeds 0.05% of the known population and warrants more detailed consideration of management measures to avoid loss of this species locally.

Providing protection for pollination species is critical to the sustainability of *S. existia* and *G. virgata* and the conditions of the permit to clear should specify 50 m buffer areas around the affected individuals to assure their ability to reproduce without influence from the road.

The Society is also aware that road drainage has an impact of the viability of Mulga and Triodia hummock grassland communities and that without specific design being incorporated into the design of drainage offshoots the mulga and Triodia in the shadow/downstream of these offshoot drains will suffer stress from no and concentrated flows that result from this style of drainage and decline as a result. There is no recognition of this decline, as described by Dr John Fox from Curtin University in the 1980's and 1990's, in either the biological survey, the permit application or the Decision Report. The Society requests the proponent be required to prepare a surface water drainage management plan for the project and have it independently reviewed and made publicly available.

The proponent is proposing to use a "dry construction" technique in the development of this road. This technique results in generation of extensive dust clouds arising from movement of trucks and machinery on the project. The dust covers the leaves of vegetation abutting the construction area resulting in blocking of stomata and covering of leaf surfaces. This leads to plant death for areas up to 500 m from the road alignment, as evidenced on a number of minesites in Western Australia, and an



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overall decline in local biodiversity. The Society requests the proponent is required to prepare a dust management plan for the project and specifically address the protection of vegetation in areas adjacent to the road alignment.

We note that in the supporting flora and vegetation survey (GHD 2021), four weed species were recorded along the alignment. Of these, **Bidens bipinnata* has not been recorded in the area before. Given that this species, as well as **Rumex vesicarius*, were only found at one location each, removal of these populations should be undertaken prior to any clearing commencing so as to avoid further spread. **Cenchrus ciliaris* (Buffel grass) is a highly invasive species and we acknowledge its eradication locally would be impossible. However, given that the realignment is through vegetation in largely Excellent condition, it is likely that patches of Buffel grass will be few and small. As such, removal of these patches prior to any clearing should be undertaken to avoid the local promotion of the species by roadworks.

The biological survey does not describe the flora and fauna associated with the basic raw material pits that will be generated for this project. The Society is aware that these materials will likely occur in areas that can be defined by their specific vegetation cover. The areas to be used should be described and their flora and fauna documented prior to the commencement of construction and a report provided and made publicly available. A management plan should also be prepared to describe the planning, operation and rehabilitation of these areas.

Construction of the realignment will involve clearing not associated with the road itself (e.g. turn around areas). Such areas are unlikely to regenerate vegetation unassisted due to the subsequently compacted and erosion-prone nature of the soil surface. We maintain that such areas should be ripped to alleviate compaction and allow for better water and root penetration, and then topsoil removed from clearing for the realignment be spread on top.

Topsoil is a valuable resource containing seed and other biological material invaluable to rehabilitation efforts. Instead of such material being wasted, the large amount of topsoil to be cleared from the realignment (subsequent to weed control) could be used to rehabilitate, for example, degraded areas around the community of Warburton. Such additional rehabilitation would go some way towards offsetting the clearing required by the project.

Conclusions

While not opposed to the project in principle, the Society argues that DWER should attach additional conditions to the clearing permit to help mitigate the impacts of clearing:

- Provide a 50 m buffer around individual of *S. existia* and *G. virgata*
- Remove **Bidens bipinnata*, **Rumex vesicarius* and **Cenchrus ciliaris* from along the alignment prior to clearing to prevent further spread and introduction
- Provide evidence-based support for comments made regarding *S. existia* and *G. virgata*
- Prepare a drainage management plan to address the longevity of Triodia and mulga communities along the road alignment
- Provide a dust management plan to address protection of roadside flora populations
- Survey the flora and fauna and provide management plans for the planning, operation and rehabilitation of basic raw material pits
- Rehabilitate temporarily cleared areas
- Make use of topsoil cleared from the realignment to rehabilitated nearby degraded areas.



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The realignment works are to be conducted not by the Shire but by Main Roads Western Australia with both state and federal funding. Therefore, there is both the capability and financing for such conditions to be implemented.

References

GHD (2021) Shire of Ngaanyatjarraku, Warburton: Flora and Vegetation Survey, May 2021.