

Statement of Reasons

DEPARTMENT OF INFRASTRUCTURE, PLANNING AND LOGISTICS – GIMBAT ROAD UPGRADE (KAMBOLGIE CREEK CROSSING)

PROPOSAL

The Department of Infrastructure, Planning and Logistics (the Proponent), submitted the Notice of Intent (NOI) for the Gimbat Road Upgrade to the Northern Territory Environment Protection Authority (NT EPA) on 27 April 2018 for consideration under the *Environmental Assessment Act* (EA Act).

The Proponent proposes to upgrade the Kambolgie Creek Crossing on Gimbat Road within Kakadu National Park. Gimbat Road is an unsealed road that links the Kakadu Highway to the Gunlom campground, Koolpin Gorge, Yurmikmik Walking Trails and the Gimbat day use area. The road is owned by the Australian Government Director of National Parks and managed by the Northern Territory Government.

The upgrade would include the following:

- upgrading the Kambolgie Creek crossing to improve flood immunity at the crossing and approaches to a one in fifty year rain event (Q50)
- construction of a 75 m long low level bridge deck and abutments
- realignment of approximately 2 km of the road (between Chainages 12.8 km and 14.77 km) to the north of the existing unsealed road
- construction of vented reinforced concrete protection works leading into either rock filled baskets or quarter tonne rock around abutments
- construction of a 1V:2H to 1V:4H batters either side of the road as part of the road formation.

The upgrade is proposed to commence in June 2018 with completion by November 2018.

CONSULTATION

The NOI has been reviewed as a notification under the EA Act in consultation with Northern Territory Government (NTG) advisory bodies (see Attachment A) and the responsible Minister, in accordance with clause 8(1) of the Environmental Assessment Administrative Procedures.

JUSTIFICATION

The Notice of Intent was assessed against the NT EPA's environmental factors and objectives.

1. Terrestrial flora and fauna

Objective: Protect the NT's flora and fauna so that biological diversity and ecological integrity are maintained.

Flora

Construction of the upgrade would require the clearing approximately 2.7 ha of vegetation to allow for the new alignment and bridge crossing. The vegetation within the road alignment was surveyed by the Proponent and found to be largely open woodland with riparian vegetation associated with Kambolgie Creek. Construction works associated with the proposal would require the clearing of native grasses, shrubs and 22 large mature trees (predominantly *Eucalyptus miniata*, *Erythrophleum chlorostachys* and *Corymbia bella*) and a single *Lophostemon grandiflorus*. The restricted alignment of the proposed road means that the clearing of riparian vegetation and open woodland would be largely unavoidable. The NT EPA notes that the area of vegetation directly impacted is relatively small and therefore unlikely to be significant.

The Proposal is located within an area likely to contain the endangered ecological community - Arnhem Plateau Sandstone Shrubland Complex¹. The Department of Environment and Natural Resources (DENR) acknowledges that the ecological community is likely to be present and that there are no direct impacts proposed.

There are potential impacts and risks associated with the introduction and spread of weeds during the proposed works. Invasive weeds, particularly introduced pasture grasses (i.e. *Andropogon gayanus*, *Cenchrus polystachion*) are a threat to the endangered ecological community and have the potential to alter the floristic diversity of the community in addition to increasing the frequency/intensity of fire.

To address these potential impacts, the NT EPA has recommended that the Department of Infrastructure, Planning and Logistics develop and implement a Weed Management Plan. The Plan should address the risks associated with the introduction and spread of *A. gayanus*, *C. polystachion* and hyptis (*Hyptis suaveolens*) during roadworks and during the ongoing maintenance of the road. The NT EPA is satisfied that potential impacts and risks to vegetation of conservation significance would be mitigated through implementation of weed hygiene and management measures presented in the Weed Management Plan.

Fauna

Threatened species have been historically recorded from the area immediately adjacent to Gimbat Road. DENR notes that there is potential for the following threatened terrestrial fauna species to occur on the site, in particular:

- pale field-rat (*Rattus tunneyi*) – Vulnerable TPWC Act
- Arnhem Land egernia (*Bellatorius obiri*) – Endangered TPWC Act and EPBC Act
- yellow-spotted monitor (*Varanus panoptes*) – Vulnerable TPWC Act
- Oenpelli python (*Morelia oenpelliensis*) – Vulnerable TPWC Act
- red goshawk (*Erythrotriorchis radiatus*) – Vulnerable TPWC Act
- Gouldian finch (*Erythrura gouldiae*) – Vulnerable TPWC Act and Endangered EPBC Act
- partridge pigeon (*Geophaps smithii smithii*) – Vulnerable TPWC Act and EPBC Act
- masked owl (*Tyto novaehollandiae kimberli*) – vulnerable TPWC Act and EPBC Act.

The site provides potential habitat for several threatened species, particularly *R. tunneyi*, *G. s. smithii*, *V. panoptes*, *B. obiri* and *M. oenpelliensis*. A review of the habitat requirements of each species suggests that important habitat is unlikely to occur or be impacted during construction activities. In addition, the Proposal is unlikely to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that any these species would be likely to decline.

¹ Department of Sustainability, Environment Water, Population and Communities (2011) Arnhem Plateau Sandstone Shrubland Complex Ecological Community, online at:

<http://www.environment.gov.au/biodiversity/threatened/communities/maps/pubs/111-map.pdf>

There is potential for highly mobile species (*E. radiatus*, *T. n. kimberli*) to occur within the proposed works area. Given that the works would likely require the removal of trees that could provide suitable nesting habitat, the NT EPA has recommended that pre-clearance surveys be undertaken to identify any nests. In the event that a nesting tree is located, clearing of the tree should occur outside of the breeding season to reduce the risk to an acceptable level.

The NT EPA considers that the risks and potential impacts on terrestrial flora and fauna have been adequately assessed by the Proponent with suitable measures in place to avoid a significant impact so that its objective for terrestrial flora and fauna is likely to be met.

2. Aquatic ecosystems

Objective: protect aquatic ecosystems to maintain the biological diversity of flora and fauna and the ecological functions they perform.

Water for construction activities would be sourced from Kambolgie Creek and the South Alligator River. To ensure extraction activities do not impact environmental flows that maintain aquatic ecosystems, the Proponent has committed to ensuring that the rate of extraction does not exceed 20% of the river flow, in accordance with the Northern Territory Water Allocation Planning Framework. In the event that additional water is required, the Proponent has stated that it would be sourced from an alternative supply.

The largemouth sawfish (*Pristis pristis* – Vulnerable EPBC/TPWC Act) occurs in the South Alligator River system. The species is diadromous with pups being born in the marine environment and migrating up the freshwater river system and tributaries during periods of high flow. During the Dry season, juvenile *P. pristis* utilise intermittent pools as freshwater nurseries. Kambolgie Creek within or adjacent to the construction site is likely to provide Dry season refuge for the species. Construction works are not proposed within and are unlikely to have a direct impact on the availability or quality of intermittent pools for *P. pristis*.

Advice from the Department of Environment and Natural Resources, suggests that the existing crossing would provide a barrier to *P. pristis* during low flow periods. The construction of a new bridge and removal of the existing crossing would contribute to facilitating the migration of juvenile *P. pristis* into upstream pools. To avoid impacts to flows during works, the Proponent has committed to limiting construction of the new bridge to the Dry season and installing temporary pipes to ensure natural flows downstream are maintained.

The NT EPA considers that the potential impacts and risks on aquatic ecosystems and the significant values (*P. pristis*) of Kambolgie Creek and the South Alligator River have been adequately considered with mitigation measures in place to avoid potential significant impacts so that its objective for aquatic ecosystems is likely to be met.

3. Inland water environmental quality

Objective: Maintain the quality of groundwater and surface water so that environmental values including ecological health, land uses, and the welfare and amenity of people are protected.

Soils at the site have been identified as being Tenosols which have a high erodibility, particularly where there is minimal groundcover and vegetation. The upgrade and construction of the new bridge is expected to take approximately six months with works completed by November 2018. As construction is expected to extend into the Wet season there is potential that disturbed areas would be particularly susceptible to erosion which would mobilise sediment through surface runoff.

Sediment mobilised from construction works would likely be discharged into Kambolgie Creek and the South Alligator River. Increased suspended sediments and turbidity can alter the aquatic biota and ecosystem by impacting fish and benthic organism respiration, feeding and alter the structure of macroinvertebrate communities by smothering habitat.

To manage the potential impacts and risks from erosion and sedimentation, the Proponent has committed to undertaking all works in a manner that would avoid disturbing the banks and streambed of Kambolgie Creek. Clearing and excavation activities at gravel pit 1 and 2 have the potential to mobilise sediment by concentrating surface flows in drainage depressions/incised channels. In these areas, the Proponent has committed to clearing and excavating material above sloping land. This is to avoid concentrating flows downslope and generating erosion and mobilising sediment. Vegetation cleared during the upgrade would be stockpiled separately and used to stabilise and rehabilitate disturbance in gravel extraction areas.

In addition to avoiding potential high risk areas, the Proponent has committed to ensuring its contractors implement an Erosion and Sediment Control Plan (ESCP). The ESCP would be prepared by a suitably qualified professional with experience in erosion and sediment control planning. The ESCP would be submitted to the Department of Infrastructure, Planning and Logistics for its approval.

The NT EPA is satisfied that the potential impacts and risks on inland water environmental quality can be mitigated through implementation of the management measures presented in the NOI. The NT EPA considers that its objectives for inland water environmental quality is likely to be met

4. Social, economic and cultural surroundings

Objective: Protect the rich social, economic, cultural and heritage values of the Northern Territory.

Cultural heritage

Archaeological surveys were undertaken for the region in 2016 which identified seven archaeological sites within the proposal area.

The Proponent has committed to implementing the mitigation measures identified in the archaeological report to ensure the protection of the sites. Artefacts within gravel pit 2 would be flagged as no-go areas to avoid disturbance and damage to GAS01. Works would not commence within gravel pit 2 until the boundary of GAS01 is flagged and written approval is received. Artefacts at site GAS03 would be relocated by a qualified person with Traditional Owners and in accordance with the *Heritage Act*.

The Proponent has obtained certificates from the Aboriginal Areas Protection Authority (AAPA) which identify the location of registered sacred sites and Restricted Work Areas near the upgrade. The Proponent notes that the design of the road would ensure that the sacred sites registered under the *Northern Territory Aboriginal Sacred Sites Act* are not impacted. The proposed gravel extraction areas (1 and 2) are covered under AAPA Certificate C2007/103 and provide for extraction. Gravel pit 3 and the nominated water extraction points are covered under AAPA certificate C2016/136.

Social considerations

Kakadu National Park is a significant tourist attraction in the Top End region of the Northern Territory. The upgrade would occur along a 2 km stretch of Gimbat Road which provides the only access to a number of tourist attractions, including Gunlom, Koolpin Gorge, Gimbat Picnic Area, Yurmikmik walks and the Kambolgie campground. Construction of the upgrade is expected to commence in June and be finished by November 2018 which coincides with the season when peak numbers of visitors are expected to be using Gimbat Road.

There are likely to be delays for road users during the construction period particularly when works at the tie-ins for the new and old roads occur. While these delays are unavoidable, the

Proponent has committed to preparing and implementing a Traffic Management Plan which complies with Australian Standard² and ensures the safety of road users while undertaking the works. The NT EPA acknowledges that delays may negatively affect the satisfaction of visitors using the road during the construction period, however the longer term social benefits from improved safety and flooding immunity would outweigh any short-term impacts to road users.

Construction activities would occur adjacent to the existing Kambolgie Creek Campground. The Proponent has committed to establishing temporary access to the campground which would remain open at all times. Roadworks adjacent to the campground may generate noise, vibration and dust which may affect visitors using the campground. The impacts from noise and vibrations would be limited to standard daylight hours when works are occurring. Dust from the construction works would be suppressed using water and is unlikely to have medium or long-term impacts to the amenity of visitors to the campground.

The NT EPA considers that the potential impacts and risks on social, economic and cultural surroundings have been adequately assessed by the Proponent and can be mitigated with the management measures presented in the NOI, so that its objective for social, economic and cultural surroundings is likely to be met.

Conclusion

The NT EPA considers that significant environmental impacts are unlikely due to the limited disturbance footprint and construction methods which can be adequately managed by implementing the measures outlined in the NOI and in accordance with the Contractor's Environmental Management Plan.

The NT EPA considers that the potential environmental impacts and risks associated with the Proposal are not significant and does not require assessment under the EA Act.

Comments from NTG advisory bodies have been provided to the Proponent and the NT EPA has provided recommendations to the Proponent to ensure that potential impacts on the environment are minimised and responsibilities under the legislation can be met.

DECISION

The proposed action, which was referred to the NT EPA by the Proponent, has been examined by the NT EPA and preliminary investigations and inquiries conducted. The NT EPA has decided that the potential environmental impacts and risks of the proposed action are not so significant as to warrant environmental impact assessment by the NT EPA under provisions of the EA Act. Environmental management of the potential environmental impacts is the responsibility of the Proponent through preparation and implementation of procedures and management plans specified in the NOI and in this Statement.

²Australian Standard AS1742.3 (Manual of uniform traffic control devices), Standards Australia.

This decision is made in accordance with clause 8(2) of Environmental Assessment Administrative Procedures, and subject to clause 14A the administrative procedures are at an end with respect to the proposed action.



DR PAUL VOGEL

CHAIRMAN

NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY

13 JULY 2018

Attachment A: Northern Territory Government Advisory bodies consulted on the Notice of Intent

Department	Division
Department of Environment and Natural Resources	Flora and Fauna Water Resources Weeds Environment Bushfires NT Rangelands
Department of Infrastructure, Planning and Logistics	Lands Planning Infrastructure Transport
Department of Primary Industry and Resources	Fisheries Mining Compliance Petroleum Primary Industry
Department of Tourism and Culture	Heritage Tourism NT Arts and Museums Parks and Wildlife
NT Police, Fire and Emergency Services	Business Improvement and Planning
Department of Health	Environmental Health Medical Entomology
Department of Trade, Business and Innovation	Economics and Policy Strategic Policy and Research
Department of Housing and Community Development	Maintenance Planning Housing supply
Power and Water Corporation	
Aboriginal Areas Protection Authority	Technical
Department of the Attorney-General and Justice	Commercial Division NT Worksafe
Land Development Corporation	
Department of the Chief Minister	Economic and Environmental Policy

