ntepa Northern Territory Environment Protection Authority

Statement of Reasons

DEPARTMENT OF INFRASTRUCTURE, PLANNING AND LOGISTICS – GUNN POINT ROAD REALIGNMENT AND UPGRADE CH. 5.7 KM TO 38.21 KM

PROPOSAL

On 20 February 2018, the Department of Infrastructure, Planning and Logistics (the Proponent), submitted the Notice of Intent (NOI) for the Gunn Point Road Realignment and Upgrade CH 5.7 km to CH 38.21 km (the Proposal) to the Northern Territory Environment Protection Authority (NT EPA) for consideration under the *Environmental Assessment Act* (EA Act).

Further information was provided by the Proponent on 16 March 2018 (updated concept plans and a terrestrial ecological assessment), 20 April 2018 (addendum to the terrestrial ecological assessment) and 27 April 2018 (a consolidated list of threatened species mitigation measures). For the purposes of this assessment, the NT EPA has considered the NOI and the further information provided during the consultation process in making this decision.

The proposal is to realign and upgrade Gunn Point Road. The road provides access to Gunn Point, Murrumujuk Community, Tree Point Community, Leaders Creek Boat Ramp access, Koolpinyah Station and other recreational and commercial uses. The existing road is sealed from CH 0 km to CH 5.7 km, with the remainder unsealed. The current poor condition of the road is a limiting factor to growth in recreational fishing, tourism and other developments. The existing road is located on private property and the proposal would realign the road on appropriately zoned government owned land.

About 17 km of the existing road will be retained and upgraded and approximately 16 km will be on a new alignment, primarily within the existing 100 m wide road reserve. The Proposal includes the following components and activities:

- realignment of approximately 16 km of Gunn Point Road to the west of the existing road within an existing road reserve
- vegetation clearing for construction of 30 m road corridor, access to bores and fence construction between the road reserve and Koolpinyah Perpetual Pastoral Lease
- upgrade or establishment of seven intersections to Gunn Point Road with Koolpinyah Station access road, Leaders Creek Road, upgrade approximately 3 km of Murrumujuk Drive - an existing and proposed quarry access road
- construction of culverts at approximately 25 locations with a possible bridge structure at Scrubby Creek crossing
- upgrading the road to be two-way and sealed to a flood immunity of a 1 in 100 year event
- water extraction from existing or new bores of approximately 675 KL for dust suppression, concrete batching, compaction of road base material, construction of earthworks and campsite facilities.

The proposal is to commence construction in May 2018 and is scheduled for completion in December 2018. Works would be conducted all year round.

CONSULTATION

The NOI and further information 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 and further information 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.

The proposed road corridor traverses a number of identified significant and sensitive vegetation types (e.g. riparian vegetation and sandsheet heath) with direct impacts through vegetation clearing and potential indirect impacts through introduction and spread of weeds or other invasive species leading to altered fire regime, hydrological changes to wetland habitats resulting in increased susceptibility to fire for threatened species and their habitat (*Typhonium taylori, Uperoleia daviesae*).

Flora

The Proposal requires clearing of native vegetation for a clearing footprint of approximately 30 m wide within the 16 km realignment road reserve (approximately 50 ha). The alignment of the road corridor and the design of associated infrastructure has been chosen to avoid significant and sensitive vegetation types and habitats associated with waterways and wetland crossings.

The Darwin cycad (*Cycas armstrongii*) is listed vulnerable under the *Territory Parks and Wildlife Conservation Act* (TPWC Act) and surveys identified large numbers (29 000) along the proposed road corridor. The clearing proposed does not include high density stands (>200 stems/ha). Where there are higher density stands of cycads occurring at the northern end of the proposed alignment, roadworks would be contained within the existing cleared road corridor and few (if any) additional cycads are proposed to be cleared within this section. The NT EPA notes that a permit may be required for actions that 'damage or destroy habitat' of threatened species (protected wildlife) under the TPWC Act. The NT EPA is satisfied the potential impact to the species at the regional scale is low given the population size and distribution of the species.

Targeted field survey work conducted in February 2018 did not locate *Typhonium taylori* (Vulnerable *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Endangered TPWC Act) or the bladderwort (*Utricularia dunstaniae* Vulnerable TPWC Act). The modelled 'potentially suitable' sites did not provide optimal habitat for these species. The NT EPA is satisfied the overall risk to these species in the regional context is considered low.

Field surveys conducted for the triggerplant (*Stylidium ensatum* Endangered TPWC Act/EPBC Act) and the Howard River toadlet (*Uperoleia daviesae* Vulnerable TPWC Act) were inconclusive about their presence or absence in the Proposal area due to inappropriate timing of the surveys. The Proponent has identified four areas (TT2, SE1, TT8 and TT10) with suitable breeding habitat for *U. daviesae* and two sites (SE1, SE2) with suitable habitat for *S. ensatum*. The Proponent provided mitigation measures and commitments to minimise impact to these species including[1]:

- the suitable habitat areas are 'no-go zones' that must be flagged/marked and complied with by the contractor

[1] Gunn Point Road Realignment and Upgrade Notice of Intent – Further Information 3 Consolidated List of Mitigation Measures– 27 April 2018

- hydrology of seasonally inundated areas including swamps, seepage areas and creek lines is not impacted during and after road construction
- existing hydrological conditions are maintained, including low flows that are critical for maintaining ecosystem processes in seasonally inundated areas
- the cycle of Wet season inundation and Dry season drawdown and maintenance of flow regime is to be maintained at SE1
- design of road ensures maintenance of flow regime at SE2

The NT EPA recommends the Contractors' Environmental Management Plan (CEMP) provide clarification on how impacts to hydrology would be quantified and assessed, particularly in relation to the commitments around SE1. Provided that the proposed mitigation measures and recommendations are implemented, the NT EPA is satisfied the overall impacts to *S. ensatum* and *U. daviesae* are likely to be low.

The Proponent conducted targeted surveys and an assessment of the potential significance of impact on important populations of *Typhonium praetermissum* (Vulnerable TPWC Act). Surveys found *T. praetermissum* plants to be present in 19 discrete habitat patches within the road reserve and in adjacent areas with four high density patches. The Proponent recommended the patches of occurrences of *T. praetermissum* be designated 'no-go zones' to ensure minimal disturbance to plants remaining *in situ* and as mitigation for the likely loss of individual plants from within the construction footprint of the realignment. The following mitigation measures proposed by the Proponent would ensure the residual impacts to *T. praetermissum* remain low:

- compliance with designated 'no-go zones' that must be clearly flagged/marked on the ground
- minimise direct impacts on mapped individuals including a narrower clearing footprint at 17 km to avoid a cluster of *T. praetermissum*
- do not disturb adjacent areas to the earthworks footprint of habitat patches where species were recorded outside the road reserve
- maintain adjacent areas of habitat patches where *T. praetermissum* were recorded outside of the road reserve
- implement erosion and sediment controls, stormwater and weed management to avoid indirect impacts to the population.

Advice from Department of Environment and Natural Resources (DENR) supports adherence to the 'no go zones' to minimise potential impacts on known occurrences of these species would likely reduce risks to an acceptable low level. The NT EPA recommends the mitigation measures and 'no-go zones' are formalised and included within the CEMP and reflected in accompanying road design plans provided to contractors.

Fauna

Mobile species with large home ranges (partridge pigeon, masked owl and red goshawk) are unlikely to be significantly impacted by the Proposal unless nesting sites (masked owl and red goshawk) are located within the disturbance corridor. The red goshawk (*Erythrotriorchis radiatus* Vulnerable TPWC Act/EPBC Act) prefers tall open Eucalypt forest areas. In April 2018, flora and fauna scientists from DENR undertook a site inspection along the proposed alignment, observing few large trees and no raptor nests, providing advice to the NT EPA to this effect. The NT EPA is satisfied the proposed action will not significantly impact this species.

For the masked owl (*Tyto novaehollandiae kimberli* Vulnerable TPWC Act/EPBC Act), the Proponent has committed to conducting targeted surveys to determine presence/absence using call playback as per the 2010 Australian Government survey guidelines for Australia's threatened birds. If the species is detected, a targeted survey to identify large trees with hollows during pre-clearance surveys will be conducted by the Proponent. Advice from DENR recommends the trees are not cleared until after the breeding season (between March and October) when any chicks

have fledged. The NT EPA recommends in the case a nesting tree is found, vegetation clearing should be done outside of the breeding season.

Both black-footed tree-rat (*Mesembriomys gouldii* Vulnerable TPWC Act, Endangered EPBC Act*)* and fawn antechinus (*Antechinus bellus* Endangered TPWC Act, Vulnerable EPBC Act) have historic records from the Gunn Point area, but the current status of both species is poorly known. The black-footed tree-rat prefers habitat with a diverse mid-storey which are characteristic of areas that are infrequently burnt. Fire mapping of the proposed realignment indicates it has been subject to a high fire frequency and a site inspection conducted in April 2018 found few areas of suitable habitat. DENR advised the black-footed tree-rat is unlikely to occur within the disturbance footprint and the potential for impact to this species is low.

A site habitat inspection conducted by flora and fauna scientists from DENR, in April 2018, indicated the potential likelihood of occurrence of fawn antechinus as moderate within the disturbance footprint due to the presence of suitable habitat. In the absence of targeted surveys to determine whether the species is present or absent, advice from DENR recommends the Proponent assumes the species is present and manage risks to reduce impact to this species. The Proponent proposed the following mitigation measures to minimise potential significant impact to the species:

- minimising clearing footprint (at 4 km, 10.5 km, 13 km, 16.5 km)
- fawn antechinus breeds between mid-June and late-August, any clearing of vegetation should occur outside the breeding season
- maintaining quality of habitat outside of the road corridor including implementation of weed and fire management plan as part of CEMP.

The NT EPA supports the above mitigation measures and notes the Proponents Standards for Road Maintenance requires weed control and road maintenance activities post construction that could reduce likelihood of fire in the road reserve. The NT EPA is satisfied the mitigation measures proposed would prevent potential significant impacts to this species.

Biodiversity values

DENR has identified that residual risks associated with weed establishment and spread as a result of the proposed works are of concern in relatively intact landscapes. The Proponent has committed as part of the Weed Management Plan that the declared weeds, gamba grass and mission grass are to be excluded from any seed mix used by contractors as part of land stabilisation or rehabilitation works associated with the Proposal. Weeds would be managed by contractors in accordance with their Weed Management Plan endorsed by DENR Weeds Branch.

Tully grass (*Urochloa humidicola*) is not a declared weed, but has invasive qualities with the potential to have significant impacts to biodiversity values on the Howard sandplains. The species cannot be considered in a weed management plan and the NT EPA recommends that an invasive species management plan as an additional management plan for this species be developed as part of the CEMP. The ongoing maintenance plan for the realigned road should also exclude tully grass from any seed mix used by contractors as part of stabilisation or rehabilitation works.

The plan should have particular emphasis on the prevention and spread of invasive exotic grasses such as gamba grass, mission grass and tully grass which pose an identified threat to biodiversity values in the area. The NT EPA considers through the implementation of the weed management and invasive species plan, ongoing establishment of exotic grass species along the road corridor would be minimised and the residual risks to biodiversity values are likely to be low.

The NT EPA is satisfied that potential impacts and risks to sensitive habitats and threatened species will be mitigated through environmental management measures presented in the NOI,

additional information and recommendations provided to the Proponent, so that its objective for terrestrial flora and fauna is likely to be met.

2. Terrestrial environmental quality

Objective: Maintain the quality of land and soils so that environmental values are protected.

The land adjacent to the project area is a mix of agricultural, conservation, rural, rural living and utilities. The road reserve is within the NT Howard Sand Plains Site of Conservation Significance (SOCS) and Shoal Bay SOCS which have unique ecological values associated with sandsheet heath. The Proposal has the potential to impact terrestrial environmental quality through soil disturbance and erosion from landscape modifications and earthworks and through contamination from construction waste including fuels, oils and lubricants.

Soil erosion

Kandasol soils over the construction works area are highly erodible and would require erosion and sediment control measures to prevent soil erosion. The Proponent has committed to ensuring an approved Erosion and Sediment Control Plan (ESCP) in accordance with the Standard Specification for Environmental Management (Department of Infrastructure, 2013/2014) is in place prior to works commencing. The NT EPA supports this, subject to the ESCP being prepared by a suitably qualified and experienced professional in erosion and sediment control and subsequently reviewed and approved by a certified professional in erosion and sediment control and as per the International Erosion Control Association (IECA) 2008 Best Practice Guidelines for Erosion and Sediment Control.

Waste Management

The Proposal would produce general construction waste including waste listed under the *Waste Management and Pollution Control Act* (WMPC Act). Listed wastes will need to be collected, transported, storage and disposed of by an operator holding an Environment Protection Licence under the WMPC Act. The NT EPA recommends the Waste Management Plan, developed as part of the CEMP, includes this management measure.

The NT EPA considers that potential impacts and risks to terrestrial environmental quality can be mitigated through implementation of measures proposed in the NOI. The NT EPA is satisfied that the Proposal is likely to meet its objectives for terrestrial environmental quality.

3. Hydrological processes

Objective: Maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.

The Proposal has the potential to impact surface water hydrological processes through construction of bridges, culverts, batters, road approaches and road on higher embankments altering the velocity and distribution of water in the area. Construction of the Proposal has potential to result in direct changes to flow regimes and associated erosion and deposition and indirect impacts to wetland dependent flora species through reduction in habitat quality.

The Proposal is occurring in the central zone of the Draft Howard Groundwater System Water Allocation Plan area which is over-allocated and has potential to impact groundwater levels and other users. The extraction of groundwater near the Howard River has potential to mobilise the saline tongue of groundwater landward, up the Howard River mouth at depth.

The Proposal would require water for the construction activities including concrete batching, earthworks, compaction of road base material, dust control and campsite facilities. The volume of

water required for the Proposal is yet to be determined but it is estimated that 675 KL would be required for works. As a requirement of the contract, the construction contractors would be responsible for providing a refined water estimate and source and ensure appropriate approvals, including from Water Resources (DENR), are obtained. The NT EPA recommends bore locations be sited according to environmental considerations such as location of significant vegetation (e.g. spring-fed rainforest and sandsheet heaths) and/or threatened species (*T. taylori, U. daviesae*) and that these considerations for water extraction are included in the CEMP.

The realignment traverses six low points including Scrubby Creek and culverts and/or a bridge structure are proposed. The Proponent has committed to maintaining surface water flows during construction activities and the road design follows the natural surface with culverts to ensure hydrology of the area is not significantly altered. Bridge/culvert construction would be undertaken during the Dry season after the majority of Wet season flow has dissipated. The NT EPA notes the Proponent has committed to ensuring contractors maintain surface water flows as part of the CEMP and this would minimise impacts on wetland habitats and the biodiversity values they support.

The NT EPA is satisfied that the potential impacts and risks to hydrological process can be mitigated through the management measures presented in the NOI and recommendations outlined above. The NT EPA considers so that its objective for hydrological processes 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.

The Gunn Point area is highly utilised by locals for recreational activities such as hunting, fishing and tourism. It is also important to Aboriginal communities, with Murrumujuk and Tree Communities located to the north and west of the Proposal and accessed via Gunn Point Road. The Proposal would provide improved access and safety along the Gunn Point Road as well as avoiding/reducing road closures during the Wet season.

There are no heritage places or previously recorded Aboriginal archaeological sites within the road reserve and there is low risk of encountering archaeological material protected under the NT *Heritage Act*. The Proponent has identified additional measures in its NOI for ensuring that any heritage/archaeological finds would be reported to the Heritage Branch and dealt with appropriately. The Proponent has obtained an Aboriginal Areas Protection Authority Certificate under the *Northern Territory Aboriginal Sacred Sites Act* identifying the registered sacred sites and associated Restricted Work Areas (RWA). The Proponent has designed the road corridor to avoid impacts to those sites and the identified RWAs.

The NT EPA is satisfied that potential impacts and risks to social, economic and cultural surroundings can be mitigated through management measures presented in the NOI and developed and implemented as outlined above. The NT EPA considers that its environmental objective for social, economic and cultural surroundings quality is highly likely to be met.

Conclusion

The NT EPA considers that significant environmental impacts are unlikely due to the limited disturbance and linear footprint within the road reserve which can be adequately managed by measures outlined in the NOI and additional information. The NT EPA notes that a number of mitigation measures to manage the potential impacts to threatened species have been provided in further information and recommends the consolidated list of threatened species mitigation measures is formalised as part of the CEMP.

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.

The Department of Planning, Infrastructure and Logistics (DIPL) has advised that contractors will develop detailed CEMPs that must be reviewed and endorsed by DIPL. As the proponent, DIPL has a duty of care to ensure that the potential environmental impacts associated with the Proposal are effectively managed by its contractors through compliance with the approved CEMP and measures outlined in the NOI and further information.

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

DECISION

The proposed action, which was referred to the NT EPA by the DIPL 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 DIPL through preparation and implementation of mitigation measures, procedures and management plans specified in the NOI, further information and in this Statement.

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

10 MAY 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