ntepa Northern Territory Environment Protection Authority

Statement of Reasons

DEPARTMENT OF INFRASTRUCTURE, PLANNING AND LOGISTICS – PORT KEATS ROAD UPGRADE CH 3.25 KM TO CH 14.45 KM – SADDLE RAIL CREEK CROSSING AND ROAD APPROACHES

PROPOSAL

The Department of Infrastructure, Planning and Logistics (DIPL) (the Proponent) submitted a Notice of Intent (NOI) for the Port Keats Road Upgrade Ch 3.25 km to Ch 14.45 km – Saddle Rail Creek Crossing and Road Approaches (the Proposal) to the Northern Territory Environment Protection Authority (NT EPA) on 28 November 2018, for consideration under the *Environmental Assessment Act* (EA Act).

The Proponent proposes to upgrade an 11 km section of Port Keats Road to provide improved flood immunity and road user safety appropriate for a speed limit of 120 km per hour.

The Proposal includes:

- upgrade and seal of Port Keats Road between Ch 3.25 km and Ch 14.45 km
- minor realignment and straightening of several road curves within the road reserve
- realignment of a section of Port Keats Road
- construction of four floodways
- installation of five culvert crossings
- construction of a 45 m long bridge over Saddle Rail Creek.

Ancillary works associated with the roadworks include:

- construction of detours
- extraction and transportation of water and mineral resources
- temporary establishment of construction compounds and laydown areas used for the duration of construction works.

Construction works are planned to commence in the 2019 Dry Season and are expected to be completed prior to the beginning of 2021 Wet Season. Works will be conducted in both the Wet and Dry seasons.

Port Keats Road commences 150 km south-west of Darwin, at the Daly River near the community of Nauiyu, and continues for 184 km to Wadeye (Port Keats). The road provides access to pastoral properties such as Elizabeth Downs Station and remote communities in the Daly River/Port Keats Aboriginal Land Trust including Woodycupildiya, Peppimenarti, Nganmarriyanga/Palumpa and Wadeye/Port Keats.

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 (EAAP).

JUSTIFICATION

Having regard to the NOI, the NT EPA assessed the potentially significant environmental impacts and risks associated with the Proposal in line with the NT EPA's environmental factors and objectives, and in accordance with the requirements under the EA Act. The NT EPA identified five environmental factors that could be potentially significantly impacted by the Proposal. The NT EPA considered the importance of other environmental factors during the course of its assessment, however those factors were not identified as potentially significantly impacted.

1. Terrestrial flora and fauna

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

The Proposal is partially within the Anson Bay and Associated Coastal Floodplains Site of Conservation Significance (SOCS)[1]. This is an internationally recognised coastal floodplain of the Daly and Reynolds Rivers which forms one of the largest floodplains in the NT. The SOCS supports numerous waterbird breeding colonies and internationally significant numbers of waterbirds, particularly magpie geese and wandering whistling ducks. It is unlikely that the values of the SOCS will be impacted by the Proposal given the proposed works largely avoid the core habitats utilised by these species.

The NOI identified 29 threatened fauna species as having the potential to occur within 5 km of the Proposal area. The Department of Environment and Natural Resources (DENR) Flora and Fauna Division identified that many of these species are unlikely to inhabit the immediate area surrounding the Proposal and that the likelihood of occurrence of the majority of the identified species is low, primarily because the Proposal does not encroach on the specific habitats of these species. The limited extent of habitat disturbance in relation to the extent of available habitat in the region means that risk to any threatened fauna species is low. No threatened flora species were identified within 5 km of the Proposal.

Clearing of native vegetation is required for temporary detours, roadworks, extraction pits and turn-arounds. The NOI states that clearing within extraction pits will be restricted to a maximum of one hectare at any given time. The Proponent commits to implementation of the DIPL Standard Specifications for Environmental Management, to minimise and limit clearing on site by marking 'no-go areas'. Where possible, large trees will be left uncleared and progressive rehabilitation undertaken on the extraction pits to reduce impacts of clearing on native flora and fauna.

There are potential impacts and risks associated with the introduction and spread of weeds during the proposed works. Invasive weeds, particularly gamba grass (*Andropogon gayanus*) pose a significant threat to regional biodiversity values due to modification of fire regimes and/or direct replacement of native understorey species. There are known records of gamba grass, grader grass (*Themeda quadrivalvis*) and hyptis (*Hyptis suaveolens*) within the road reserve, and minimising sources for further spread is important. The NT EPA supports the Proponent's commitment to develop and implement a Weed Management Plan to control weeds during construction and at completion of works.

The NT EPA is satisfied that the potential impacts and risks to terrestrial flora and fauna can be mitigated through implementation of the management measures presented in the NOI. The NT EPA considers 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.

[1] Northern Territory Government (2009) Anson Bay and Associated Coastal Floodplains, online at: http://www.territorystories.nt.gov.au/bitstream/handle/10070/254344/02_anson.pdf

The Proposal has the potential to impact terrestrial environmental quality through soil disturbance and erosion from vegetation clearing, earthworks, construction of bridge piles and culverts.

Works will be undertaken on gravelly yellow chromosols and yellow kandosols which are highly erodible. Construction works are expected to extend into the Wet season hence it is likely that low sections of Port Keats Road associated with drainage lines and creek crossings will be susceptible to erosion and sedimentation. To address this risk, the Proponent has committed to ensuring its contractors implement an Erosion and Sediment Control Plan (ESCP) in accordance with International Erosion Control Association guidelines and DIPL Standard Specifications for Environmental Management. The ESCP would be prepared by a suitably qualified professional with experience in erosion and sediment control planning, and would be endorsed by DIPL. A Pit Management Plan will also be prepared to address erosion risk resultant from land clearing for material extraction.

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

3. Hydrological processes

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

The Proposal is located within the Daly Roper Beetaloo Water Control District (WCD). While there is a requirement for a water extraction licence to be obtained to extract surface or ground water in this WCD, activities associated with road construction on public roads are currently exempt from requiring a licence under the *Water Act*.

The Proposal will require water for concrete batching, construction of earthworks, compaction of road base material, dust suppression and construction of campsite facilities. It is proposed that water be extracted from the Daly River at the low level crossing. Extraction from Saddle Rail Creek and Christmas Creek may also occur during the Wet season when sufficient water is available.

The Proponent has not identified how much water will be required, however the extraction of water must comply with the Guidelines for Water Extraction as they relate to Road Construction and Maintenance. The Guidelines state that any proposed water extraction should not exceed the threshold level equivalent to 20 per cent of flow at any time in any part of the river. As a requirement of the contract, the construction contractors will be responsible for providing a refined water estimate and source and ensuring that appropriate approvals, including from Water Resources Division (DENR), are obtained prior to any water extraction.

The Proposal includes construction of Saddle Rail Creek bridge and road embankments on the floodplain between the bridge and Christmas Creek. Saddle Rail Creek is a 4th order stream and flows from the south west toward the north east to the Daly River. Christmas Creek is a 1st order stream located approximately 3 km to the east of Saddle Rail Creek and flows in a northerly direction. Both creeks are ephemeral waterways which flow into the coastal floodplain associated with the Pinwinkle Land System before draining into the Daly River.

The hydraulic assessment undertaken by the Proponent states that, based on historical information, flooding at Saddle Rail Creek and Christmas Creek occurs as a result of backwater from the Daly River, as opposed to flows occurring in these creeks' local catchments. Therefore, when Daly River flood waters rise, the direction of flow is reversed from normal creek flow.

The bridge will span the Saddle Rail Creek channel, thereby enabling the free flow of creek water. The embankment between Saddle Rail Creek and Christmas Creek will constrain backwater flow on the floodplain when the Daly River is in flood. The NOI states the corresponding increase in flood level will be minimal as the backwater head will be in an open floodplain.

The community of Nauiyu and other residents in the area are not expected to be negatively impacted by the altered hydrology at Saddle Rail Creek or Christmas Creek due to the distance these creeks are from the community and bridge (approximately 11 km from Saddle Rail Creek to Nauiyu).

The NT EPA is satisfied that the potential impacts and risks on hydrological processes can be mitigated through implementation of the management measures presented in the NOI. The NT EPA considers that its objective for hydrological processes is likely to be met.

4. 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.

There is potential for works to result in sedimentation and water quality impacts in waterways if erosion and sediment control measures are not effectively implemented during the Wet season and cleared areas are not adequately rehabilitated. Aquatic species such as the large-tooth sawfish (*Pristis pristis*), while adapted to periodically turbid environments, may be impacted if significant sedimentation occurs. To minimise potential impacts to aquatic species, the NOI states that clearing of riparian vegetation will be restricted to the Dry season and that an ESCP will be implemented to minimise sediment transport from waterway crossing upgrades in the Wet season.

There is also potential for accidental release of hydrocarbon or other hazardous chemical spills on site entering waterways during the Wet season from poorly maintained vehicles and equipment leaking onto the soils and washing into the waterways, and from refuelling near drainage lines. Primers and binders also have the potential to be washed off the road during sealing works. To manage this risk, the Proponent will ensure all chemicals are stored in bunded areas at least 50 m away from waterways, spill kits are kept on site, any spills cleaned up immediately and an ESCP implemented in accordance with International Erosion Control Association guidelines and as per the DIPL Standard Specifications for Environmental Management.

The NT EPA is satisfied that potential impacts and risks to inland water environmental quality will be mitigated through management measures identified in the NOI so that its objective for inland water environmental quality is likely to be met.

5. Social, economic and cultural surroundings

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

Cultural heritage

Archaeological survey was undertaken in the region in 2007. Within the Proposal area, one Aboriginal archaeological site was recorded within the road reserve at the Saddle Creek Rail crossing. To mitigate disturbance, this site would be fenced off and marked as a ‘no-go’ zone. The Proponent has identified measures in the NOI for ensuring that any additional heritage/archaeological finds would be reported to the Heritage Branch and dealt with appropriately.

The Proponent has obtained Authority Certificates from the Aboriginal Areas Protection Authority which cover the entire area of works. These certificates include a number of conditions and specify numerous Restricted Work Areas to be marked as ‘no-go zones’. The NT EPA is satisfied that adherence to certificate and permit conditions and actions consistent with the NOI will adequately and appropriately manage the potential for impact on cultural heritage.

Social considerations

Port Keats Road is the major access road for a number of pastoral properties and the Wadeye (Port Keats), Peppimenarti, Woodycupildiya and Nganmarriyanga/Palumpa communities. The Proponent has committed to preparing and implementing a Traffic Management Plan. To mitigate potential for traffic delays during the construction period, a detour road will be constructed adjacent to the existing road within the road reserve to mitigate public use of the road. This road will be a two-way unsealed road capable of accommodating Triple A road trains.

Dust, noise and vibration from construction activities are not likely to impact road users and nearby residents given works will be restricted to daylight hours and dust managed through watering.

Post-construction, as mentioned above, the communities of Nauiyu and other residents and tourist operators at Daly River are not expected to be negatively impacted by the altered hydrology at Saddle Rail Creek or Christmas Creek. The improved flood immunity of the road is anticipated to reduce the time the road is closed, therefore particularly improving accessibility to pastoral properties and communities in the Wet season.

The NT EPA is satisfied that the potential impacts and risks on social, economic and cultural surroundings can be mitigated through implementation of the management measures presented in the NOI. The NT EPA considers 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, appropriate construction methods and the Proponent's environmental management commitments.

The NT EPA considers that the potential environmental impacts and risks associated with the Proposal are not significant and that the Proposal 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.

DECISION

The proposed action, which was referred to the NT EPA by 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 Proponent through preparation and implementation of procedures and management plans specified in the NOI.

This decision is made in accordance with clause 8(2) of EAAP, 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

18 JANUARY 2019

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