NORTHERN TERRITORY GOVERNMENT
Department of
ENVIRONMENT, PARKS AND WATER SECURITY

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Our ref: DEPWS2023/0233

Ms Kylie Fitzpatrick
Department of Environment, Parks and Water Security
PO Box 3675
DARWIN NT 0801

Dear Ms Fitzpatrick

Re: Invitation to comment - Power and Water Corporation (NT) - Manton Dam Return to Service Project

The Department of Environment, Parks and Water Security (DEPWS) has assessed the information submitted for the above proposal and provides the following comments.

Flora and Fauna Division

Comments from the Flora and Fauna Division are provided in the attached table.

Overall, the risks to biodiversity values from the proposal are considered to be low. Although a number of threatened species are recorded in or near the project areas, the risk of significant impact is low due to the relatively small scale of disturbance.

It is noted that if a more extensive area is cleared for Stage 2 of the Strauss Water Treatment Plan, a more comprehensive assessment of potential impacts on threatened species, and of the extent and significance of 'old growth forest' vegetation, may be required.

Bushfires NT

The planned Strauss Water Treatment area is situated in an area that currently is part of a fire management plan and is impacted by wildfire from time to time. Those wildfires generally head in a north-westerly direction, which has the potential to impact essential infrastructure nearby, namely the Water Treatment Plant. Planned burning early in the dry season in collaboration with surrounding Vacant Crown Land along eastern edges of development would reduce wildfire risk.

It is noted that the proposal falls within the Northern Fire Protection Zone. The applicant is reminded that the minimum standard for a fire access trail is for the trail to be cleared to a minimum width of 4m, as a mineral earth (machine cut) break, sprayed with herbicide (chemical break) and/or slashed to a height of no more than 50mm with the slashed material removed within the perimeter boundary of the land, permanent structures and stationary engines to provide access for fire management vehicles. Access trails are to be maintained.

The applicant is to dispose of any felled timber resulting from the clearing of fire access trails or any other clearing required for this project. No burning may take place except where a Permit to Burn has been obtained from a Fire Management Officer or a Fire Warden. For further information please call Bushfires NT Acacia Hills Headquarters on 08 8922 0844.

Environment Division

The information provided regarding the proposal does not appear to trigger licensing requirements of an Environment Protection Approval under the *Waste Management and Pollution Control Act 1998* (WMPC Act).

Should the proponent collect, transport, store, recycle or treat listed wastes on a commercial or fee for service basis as part of the premises development, then an Environment Protection Approval or Licence will be required to authorise the activity under the WMPC Act. Any listed wastes generated during the construction or operation of the facility must be transported by an appropriately licensed waste handler to an appropriately licensed facility for treatment, recycling and/or disposal.

There are statutory obligations under the WMPC Act that require all persons to take all measures that are reasonable and practicable to prevent or minimise pollution or environmental harm and reduce the amount of waste. The proponent is required to comply at all times with the WMPC Act, including the General Environmental Duty under section 12. There is also a requirement to obtain an authorisation prior to conducting any of the activities listed in Schedule 2 of the WMPC Act.

Guidelines to assist proponents to avoid environmental impacts are available on the Northern Territory Environment Protection Authority (NT EPA) website[1].

To help satisfy the General Environmental Duty, the proponent is advised to take notice of the list of environmental considerations below. The list is not exhaustive, and the proponent is responsible for ensuring their activities do not result in non-compliance with the WMPC Act.

1. **Dust**: The proposed activities have the potential to generate dust, particularly during the dry season. The proponent must ensure that nuisance dust and/or nuisance airborne particles are not discharged or emitted beyond the boundaries of the project area.

2. **Noise**: The proponent is to ensure that the noise levels from any proposed activities and/or premises comply with the latest version of the NT EPA Northern Territory Noise Management Framework Guideline available online[2].

3. **Erosion and Sediment Control (ESC):** The proponent must ensure that pollution and/or environmental harm do not result from soil erosion. ESC measures should be employed prior to and throughout the construction stage of the development. Larger projects should plan, install and maintain ESC measures in accordance with the current International Erosion and Sediment Control Association (IECA) Australia guidelines and specifications.

   Where sediment basins are required by the development, the NT EPA recommends the use of at least Type B basins, unless prevented by site specific topography or other physical constraints.

   Basic advice for small development projects is provided by the NT EPA document: Guidelines to Prevent Pollution from Building Sites[3] and Keeping Our Stormwater Clean[4].

4. **Water:** If this activity requires the discharge of waste to water or could cause water to be polluted then a waste discharge licence under the *Water Act* 1992 (NT) may be required. Please refer to the Guidelines[5]**.**

[1] https://ntepa.nt.gov.au/publications-and-advice/environmental-management
[2] https://ntepa.nt.gov.au/__data/assets/pdf_file/0004/566356/noise_management_framework_guideline.pdf
[3] https://ntepa.nt.gov.au/__data/assets/pdf_file/0010/284680/guideline_prevent_pollution_building_sites.pdf
[4] https://ntepa.nt.gov.au/__data/assets/pdf_file/0006/284676/guideline_keeping_stormwater_clean_builders_guide.pdf
[5] https://ntepa.nt.gov.au/__data/assets/pdf_file/0005/950603/guidelines-waste-discharge-licensing.pdf

5. **Storage:** If an Environment Protection Approval or Environment Protection Licence is not required, the proponent should store liquids only in secure bunded areas in accordance with VIC EPA Publication 1698: Liquid storage and handling guidelines, June 2018, as amended. Where these guidelines are not relevant, the storage should be at least 110% of the total capacity of the largest vessel in the area.

   Where an Environment Protection Approval or Environment Protection Licence is required, the proponent must only accept, handle or store at the premises listed waste, including asbestos, as defined by the WMPC Act, in accordance with that authorisation.

6. **Site Contamination**: If the proposal relates to a change of land use or if the site is contaminated, including as a result from historical activities such as cyclones, a contaminated land assessment maybe required in accordance with the National Environment Protection (Assessment for Site Contamination) Measure 1999 (ASC NEPM). The proponent is encouraged to refer to the information provided on the NT EPA website[6], and the NT Contaminated Land Guidelines[7].

7. **Waste Management - Import and Export of Fill**: The proposed activities have the potential to generate fill and/or involve the importation of fill for use on-site. Untested fill material may already be present on the site. All fill imported or generated and exported as part of the activity must either be certified virgin excavated natural material (VENM) or be sampled and tested in line with the NSW EPA Guidelines[8].

   All imported fill material must be accompanied by details of its nature, origin, volume, testing and transportation details. All records must be retained and made available to authorised officers, upon request. The proponent should also consider the following NT EPA fact sheets: How to avoid the dangers of accepting illegal fill onto your land, and Illegal Dumping - What You Need to Know.

8. **Odour or Smoke:** The proposed activities may have the potential to create odours and/or smoke. The proponent must ensure that nuisance odours or smoke are not emitted beyond the boundaries of the project area.

Parks and Wildlife Division

The Parks and Wildlife Division has reviewed the application for the Manton Dam Return to Service Project and has no comment or objection to the proposal.

Rangelands Division

Weed Management Branch

The Weed Management Branch are satisfied with the submission in Section 5.2.3 of the *Manton Dam Return to Service* documentation that mandates the project will have a weed management plan as part of the Construction and Environmental Management Plan (CEMP).

The Power and Water Corporation must ensure that all internal staff and contactors abide by the plan with regard to weed spread, vehicle hygiene and statutory obligations for species such as gamba grass under the *Weeds Management Act 2001* across all properties affected by this project.

Water Resources Division

The Water Resources Division has no comment.

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[6] https://ntepa.nt.gov.au/your-environment/contaminated-land
[7] https://ntepa.nt.gov.au/__data/assets/pdf_file/0020/434540/guideline_contaminated_land.pdf
[8] https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste/virgin-excavated-natural-material

Should you have any further queries regarding these comments, please contact the Development Coordination Branch by email DevelopmentAssessment.DEPWS@nt.gov.au or phone (08) 8999 4446.

Yours sincerely

Maria Wauchope
Executive Director Rangelands
4 December 2023

Submission on referral information

Power and Water /Corporation (NT) – Manton Dam Return to Service Project

This submission is made under regulation 53 of the Environment Protection Regulations 2020.

NT EPA reference number: EP2023/032

Government authority: Department of Environment, Parks and Water Security – Flora and Fauna Division

<table>
<tr><th>Section of referral or terms of reference</th><th>Theme / issue</th><th>Comment</th></tr>
<tr><td></td><td>Terrestrial Ecosystems</td><td>
<u>Strauss Water Treatment Plant</u>

Threatened Species

Based on a search of DEPWS databases, expert knowledge of species' habitat requirements, and information about habitats occurring within the Strauss Water Treatment Plant (WTP) sites, the following threatened species may occur within or adjacent to the search area:
<table>
<tr><th>Common Name</th><th>Scientific Name</th><th>TPWC Act</th><th>EPBC Act</th></tr>
<tr><td>Northern Brushtail Possum</td><td>Trichosurus vulpecula arnhemsis</td><td></td><td>Vulnerable</td></tr>
<tr><td>Black-footed Tree-rat</td><td>Mesembriomys gouldii gouldii</td><td>Endangered</td><td>Endangered</td></tr>
<tr><td>Pale Field-rat</td><td>Rattus tunneyi</td><td>Vulnerable</td><td></td></tr>
<tr><td>Howard Toadlet</td><td>Uperoleia daviesae</td><td>Vulnerable</td><td>Vulnerable</td></tr>
<tr><td>Northern Quoll</td><td>Dasyurus hallucatus</td><td>Critically Endangered</td><td>Endangered</td></tr>
<tr><td>Partridge Pigeon</td><td>Geophaps smithii smithii</td><td>Vulnerable</td><td>Vulnerable</td></tr>
<tr><td>Mertens' Water Monitor</td><td>Varanus mertensi</td><td>Vulnerable</td><td></td></tr>
<tr><td>Mitchell's Water Monitor</td><td>Varanus mitchelli</td><td>Vulnerable</td><td></td></tr>
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		Yellow-spotted Monitor	*Varanus panoptes*	Vulnerable	
		Typhonium	*Typhonium praetermissum*	Vulnerable	
		Stylidium	*Stylidium ensatum*	Endangered	Endangered
		Atalaya	*Atalaya brevialata*	Critically Endangered	Critically Endangered
		Darwin Cycad	*Cycas armstrongii*	Vulnerable	

* *Territory Parks and Wildlife Conservation Act 1976*
** *Environment Protection and Biodiversity Conservation Act 1999* (Cth)

Northern Brushtail Possum, Pale Field-rat: Surveys of the site identified this species in a number of locations at the Strauss WTP. The Flora and Fauna Division agrees with the proponent's assessment of the risk to this species and that the risks are considered low and are unlikely to be significant. This is largely due to the relatively small size of the area impacted and the retention of suitable quality habitat outside the site footprint. The retention of this habitat should ensure both species continue to persist in the area.

Black-footed Tree-rat, Northern Quoll: The site was surveyed using camera traps, which is an effective way of detecting these species'. It is possible that these species use the site occasionally but were not detected by the survey due to a lack of resources at the time or very low densities (Northern Quoll) which can affect detectability. The Flora and Fauna Division agrees with the likelihood and impact assessment, which concludes that there is unlikely to be a significant impact to these species due to the relatively small size of the area impacted.

Howard Toadlet: This species occurs in seasonally inundated wetlands, including sandy areas vegetated by grassland, sedgeland, or Paperbark (*Melaleuca*) woodland and areas of drainage woodland and riparian woodland. Suitable habitat for the species occurs immediately west of the Strauss WTP site and the species is known to occur in reasonable numbers. The species is unlikely to use the Strauss WTP site due to a lack of suitable wetland/Sandsheet Heath habitat. Further discussion of the Sandsheet Heath vegetation is provided below.

Yellow Spotted Monitor, Mertens' Water Monitor, Mitchell's Water Monitor: The Flora and Fauna Division considers that there is a high potential for these species to occur in the region, particularly in riparian vegetation and riverine habitats. The proposed works will avoid these habitats, and is unlikely to exacerbate existing threats to these species from Cane Toads. The Flora and Fauna Division considers the risk to these species is low.

Darwin Cycad: Surveys of the Strauss WTP site suggests that the species occurs in low densities. The Flora and Fauna Division considers that the risk to this species is low. Impacts to local cycad populations or individuals can be minimised through the principles outlined in the *Management Program for Cycads in the Northern Territory of Australia 2009-2014* (Liddle, 2009). This

		could include conservation or salvage from the area during development and may require appropriate permits if salvage for commercial purposes is proposed. Typhonium: Surveys of the site have identified that *T. praetermissum* occurs within the footprint and in adjacent areas of habitat. A total of 25 individuals were identified within the survey area. The Flora and Fauna Division agrees with the proponent that this occurrence represents an important population due to its isolation from other occurrences (>5km). Stage 1 of the proposal requires the clearing of two individuals with the remaining individuals from the patch retained. The Flora and Fauna Division considers that the loss of two individuals is unlikely to have a significant impact on the (sub)population of this species. Stylidium: A review of modelling by DEPWS suggests that the site is unlikely to contain 'high likelihood' habitat for *S. ensatum*. The modelled habitat is associated with the drainage line and fringing habitats, which are extensive west of the area. The proposal avoids the Sandsheet Heath habitat and impacts to suitable habitat for the species from Stage 1 are not expected. Atalaya: A review of modelling by DEPWS suggests that the site is unlikely to contain 'high likelihood' habitat for *A. brevialata*. The modelled habitat is generally located north of Sections 2929 and 418 and is associated with sandy soils upslope of Sandsheet Heath vegetation. Provided that the proposal avoids impacting this area and it is suitably buffered from disturbance (250m), the Flora and Fauna Division considers that the risk to this species would be low. **Biodiversity** Significant and/or Sensitive Vegetation: Sandsheet Heath: A large patch of Sandsheet Heath is mapped as occurring on Section 4131, Hundred of Strangways immediately west of the proposal area. The vegetation is outside the proposed clearing footprint but may be impacted by offsite impacts (weeds, fire, etc). When assessed against the criteria in the Northern Territory Planning Scheme Land Clearing Guidelines, the Sandsheet Heath vegetation is considered to be high value due to its large size and the presence of large numbers of Howard River Toadlets and potentially other threatened flora species (*S. ensatum*, *A. brevialata*). The Flora and Fauna Division recommends that future planning of works at Strauss WTP incorporate a minimum buffer of 250m from the outer edge of the Sandsheet Heath vegetation. Large Hollow Bearing Trees: Surveys within the Strauss WTP site identified a number of large hollow-bearing trees, including a patch of about 1ha in extent that meets the definition of 'Old-growth forest containing large trees with hollows suitable for fauna'. This vegetation is within Stage 1 of the proposal and will be cleared for the development. Due to the small area of development for Stage 1, loss of these trees is unlikely to have a significant impact on biodiversity at a regional scale, or local subpopulations of the threatened species that may use such hollows (Black-footed Tree-rat, Northern Brushtail Possum; see

above). If a more extensive area is cleared for Stage 2, a more comprehensive assessment of the extent and significance of 'old growth forest' vegetation may be required.

Manton Dam Construction and Operation

Threatened Species

Based on a search of DEPWS databases (using a 10 km buffer), expert knowledge of species' habitat requirements, and information about habitats occurring within the Manton Dam footprint, the following threatened species may occur within or adjacent to the search area:

Common Name	Scientific Name	TPWC Act	EPBC Act
Common Brushtail Possum (north-western)	*Trichosurus vulpecula arnhemsis*		Vulnerable
Black-footed Tree-rat	*Mesembriomys gouldii gouldii*	Endangered	Endangered
Fawn Antechinus	*Antechinus bellus*	Endangered	Vulnerable
Pale Field-rat	*Rattus tunneyi*	Vulnerable	
Northern Quoll	*Dasyurus hallucatus*	Critically Endangered	Endangered
Partridge Pigeon	*Geophaps smithii smithii*	Vulnerable	Vulnerable
Mertens' Water Monitor	*Varanus mertensi*	Vulnerable	
Mitchell's Water Monitor	*Varanus mitchelli*	Vulnerable	
Yellow-spotted Monitor	*Varanus panoptes*	Vulnerable	
Darwin Cycad	*Cycas armstrongii*	Vulnerable	
Northern River Shark	*Glyphis garricki*	Endangered	Endangered
Largetooth Sawfish	*Pristis pristis*	Vulnerable	Vulnerable

* *Territory Parks and Wildlife Conservation Act 1976*
** *Environment Protection and Biodiversity Conservation Act 1999* (Cth)

Common Brushtail Possum (north-western), Partridge Pigeon, Black-footed Tree-rat, Fawn Antechinus, Pale Field-rat: The proposed works are largely limited to areas with existing infrastructure and do not require clearing substantial areas of suitable

		habitat for these species. The Flora and Fauna Division considers that the risks from the proposed infrastructure works at Manton Dam will be low. Northern Quoll: This species has recently been recorded near Manton Dam on the Marrakai Track and there is a moderate likelihood that it also occurs within the vicinity of Manton Dam. While the species may be present, the Flora and Fauna Division considers that the risks are low as works are largely limited to areas with existing infrastructure and do not require clearing substantial areas of suitable habitat, and the changes to the operation of Manton Dam are unlikely to exacerbate existing threats to the species (Cane Toads). Mertens' Water Monitor, Mitchell's Water Monitor: Manton Dam supports a healthy population of Mertens' Water Monitor, as evidenced by recent monitoring. Mitchell's Water Monitor is also likely to occur as the species also uses the edges of impounded waterways in other areas where it occurs. Both species are highly likely to occur along the Manton River downstream from the dam. The construction of infrastructure and proposed changes to the hydrology of the river pose a low risk to both species based on experience from the Ord River Scheme. Yellow Spotted Monitor: There is a high potential for this species to occur along the Manton River, particularly in riparian vegetation and riverine habitats. The proposed works are unlikely to exacerbate existing threats to these species (cane toads). The risk to this species is considered low. Darwin Cycad: The risk to this species is very low as the site of the proposed works is located along the Manton River and is unlikely to support the species. If present, impacts to local cycad populations or individuals can be minimised through the principles outlined in the *Management Program for Cycads in the Northern Territory of Australia 2009-2014* (Liddle, 2009). This could include conservation or salvage from the area during development and may require appropriate permits if salvage for commercial purposes is proposed. Northern River Shark: This species is typically associated with the main channel of the Adelaide River and is not known to frequent smaller tributaries such as the Manton River. Changes to the hydrology due to the proposed water extraction and future changes to the operation of Manton Dam are unlikely to cause significant changes in the flow or availability of habitat for this species in the Adelaide River. Largetooth Sawfish: This species has been recorded at the base of the Manton Dam wall and is known to occur in the Manton and Adelaide River systems. The species occupies a range of Top End waterways and is known to persist in riverine systems that are subject to cease-to-flow periods where individuals persist in refuge pools. Changes to flows during Stage 1 extractions and changes to the flow regime from Manton Dam are unlikely to reduce the availability of refuge pools in Manton River.

		Biodiversity Significant and/or Sensitive Vegetation: The proponent has identified riparian vegetation along the easement between the Manton Dam wall and the Stuart Highway. The total area of riparian vegetation within the project area is 0.4ha and is associated with the Manton River. Large areas of riparian/rainforest vegetation were also identified outside the proposal footprint that will not be impacted by the proposal. The area proposed to be impacted is localised and risks of a significant impact on biodiversity values is low.
		Pipeline Alignment The pipeline and cable alignment follow the existing powerline alignment adjacent to the Stuart Highway. This alignment has been cleared previously and is unlikely to support significant biodiversity values. The alignment does cross minor watercourses and the proponent has identified mitigation measures to reduce the risk to these features. The alignment poses a low risk to threatened species and biodiversity overall.