

# Matters of national environmental significance



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## The potential impact to Matters of National Environmental Significance is considered low across all Project activities and phases.

The Project is being assessed to the level of an EIS, based on its potential to impact one or all of the following Commonwealth controlling provisions or Matters of National Environmental Significance (MNES): world heritage properties; national heritage places; wetlands of international importance; listed threatened species and communities; listed migratory species; nuclear action; and Commonwealth land.

By assessing the impacts of the Project on other MNES, the Draft EIS also assesses the potential impacts of this nuclear action on the environment.

Assessment against Commonwealth prescribed significant impacts criteria is provided in detail in the Draft EIS, and is considered across all Project phases. The assessment takes into account historical data and the outcomes of Project specific studies, examples of which are provided below.



Retention Pond 1: A component of the water management system

### Water Quality

A key focus of the assessment of potential impacts to MNES is the consideration of mine derived stressors such as uranium, magnesium, radionuclides and transported sediment, entering the ecosystem via one of several pathways: Surface water to surface water; storm water runoff from onsite non-mine areas; seepage from groundwater to surface water; and, bioaccumulation and trophic transfer.

Potential Project impacts to species populations, critical habitat, and breeding cycles, do not differ from those of the existing Ranger mine. This is largely due to the comprehensive surface water management system used at Ranger, and because the Project does not alter potential stressors associated with current operations at Ranger mine.

In addition to the existing water management controls, a number of new Project design elements are proposed. These include cased boreholes for paste delivery during backfilling and enhancements to the existing underground water management system to manage mine water inflow and use. These new initiatives can be readily incorporated into the Ranger environmental management systems.

### Land Clearing

Native vegetation clearing for the Project is expected to be less than 1 hectare and confined to the Ranger Project Area (RPA) and areas in, or immediately adjacent to, the current



Surface disturbance within the Project footprint

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mine site. The small clearing footprint for Project infrastructure is therefore unlikely to contribute to land degradation of the surrounding Kakadu National Park or lead to a significant impact on listed threatened and/or migratory species.

Moreover, the vegetation communities of the RPA are not uncommon or listed as critical habitat, they are indicative of those that occur in surrounding Kakadu National Park.

## Fire Management

Ranger's fire management practices, which are similar to those implemented by Parks Australia, are guided by five year and one year fire management plans. Burning is used for asset protection (by reducing fuel loads) and for controlling the spread of weeds. Burns along the Ranger Project Area boundary and in non-operational areas of the RPA, north of Magela Creek are typically co-ordinated with Parks Australia as part of their annual aerial burning program.

In addition to the existing environmental fire management practices, the current mines rescue team established for the exploration decline will be expanded to include team members from the underground mine workforce. The team will be led by fulltime emergency response personnel and will receive ongoing training in mines rescue. Based on these controls, the potential for a Project related fire was ranked very low and is not considered likely to result in significant impacts on the surrounding Kakadu National Park.



Burning on the Ranger Project Area

## Transport

Potential impacts from transport activities on the controlling provisions for the Project were evaluated through an independent traffic impact assessment across all Project phases. The assessment identified sensitive ecological locations along the road network (Kakadu and Arnhem Highways), and included rivers and associated wetlands and floodplains that provide habitat for large numbers of threatened and migratory species.

The assessment concluded that there is no material change in the transport risk profile compared to existing operations and that the risk of a significant impact to threatened and migratory species remains low.

## Fast Facts

- The Draft EIS assesses all potential impacts to MNES, including Commonwealth land.
- The environmental risk assessment has considered all potential risks to MNES based on existing controls, outcomes of Project studies and new controls.
- The potential impact to MNES is considered low across all Project activities and phases.



Sulfuric acid truck leaving Ranger mine

## Further reading:

Refer to Chapter 14 of the *ERA Ranger 3 Deeps Draft Environmental Impact Statement*.