



**PART B**

**RISK ASSESSMENT FRAMEWORK**

**GUIDELINES FOR THE PREPARATION OF  
AN ENVIRONMENTAL IMPACT STATEMENT**

**TERRA GOLD MINING LTD  
MAUD CREEK GOLD PROJECT**

**MAY 2007**

## Introduction

These guidelines have been developed to assist Terra Gold Mining Ltd (Terra Gold) in preparing an Environmental Impact Statement (EIS) for the proposed Maud Creek Gold Project in accordance with Clause 8 of the Administrative Procedures of the *Environmental Assessment Act* of the Northern Territory.

In an environmental assessment context, the proposal presents challenges of a scope and magnitude that have resulted in the adoption of a whole of project risk assessment.

This part of the Guidelines will assist the proponent to set the context of the risk assessment. It also serves to direct the environmental assessment toward information and outcomes that Government requires in order to complete the assessment process.

Processes for risk management are formalised in Australian standards (Standards Australia/Standards New Zealand 2004, 2005) which provide generic guidance for application and more detailed guidelines for specific risks, including environmental. In addition, organisations such as the US Environmental Protection Agency have published guidelines for ecological risk assessment (e.g. US EPA 1998).

Terra Gold will be expected to demonstrate the implementation of industry best practice measures in project planning, the environmental risk assessment, and in all future aspects of the life of the mine.

Terra Gold is expected to work with close regard to community expectations and concerns and to respect that:

- Mining within the catchment of the town's water supply is an issue of special concern to the public;
- The community may be sceptical of reported economic and other benefits; and
- The community may perceive the level of risk for this proposal differently to the proponent.

In the interest of achieving a balanced risk assessment, it is expected that the proponent will place a high priority on communicating with the local community.

The major risks below have been identified through an initial analysis of the Notice of Intent by the Northern Territory Government. It is possible that further major risks will be identified in the Environment Impact Assessment process.

The EIS must quantitatively demonstrate the following environmental outcomes in order for approval to be considered:

## **1 PROTECTION OF KATHERINE TOWN WATER SUPPLY**

The proponent will ensure that the Maud Creek gold mine does not cause a loss of water quality of the Katherine town water drinking supply.

In risk management terms, the proponent shall demonstrate that the likelihood of significant impact to the drinking water supply for Katherine township from direct and indirect mining influences is rare, and that the measures put in place to mitigate the effect of impact reduce the risk of consequence to negligible risk.

### ***Context***

- The Katherine water supply is extracted from the Katherine River at Donkey Camp, downstream of Maud Creek;
- Approximately 75% of the town's drinking water supply is sourced from this location;
- Any contamination or increased sediment load resulting from the mine will have the potential to impact the town's primary drinking water supply; and
- The proposed mine is located within the Water Management Zone of the Katherine Area Plan. Although mining is exempt from this criteria, A Water Management Zone is declared to:

*“restrict development within a water catchment area or other area providing surface or ground water for public water supplies.”*

## **2 PROTECTION OF MAUD CREEK AND THE KATHERINE RIVER**

The Maud Creek gold mine will not degrade the beneficial uses of Maud Creek and the Katherine River.

In risk management terms, the proponent shall demonstrate that the likelihood of impact to the Declared Beneficial Uses (as defined under the Northern Territory *Water Act*) of Maud Creek and Katherine River from direct and indirect mining influences is rare, and that the measures put in place to mitigate the effect of impact reduce the risk of consequence to negligible risk.

### ***Context***

- Beneficial Use Declaration for Maud Creek is Protection of Aquatic Ecosystem and Recreational Water Quality and Aesthetics;
- Beneficial Use Declaration for the section of the Katherine River immediately downstream of Maud Creek is Protection of Aquatic Ecosystem and Raw Water for Drinking Water Supply; and

- Any contaminants deliberately or accidentally discharged from the mine into the surrounding catchment have the potential to negatively impact the Declared Beneficial Uses of Maud Creek and the Katherine River.

### **3 PROTECTION OF NITMILUK NATIONAL PARK**

The proponent will ensure that there is no significant detrimental impacts on the adjacent Nitmiluk National Park caused by the mine.

In risk management terms, the proponent shall demonstrate that the likelihood of impact to Nitmiluk National Park from direct and indirect mining influences is rare, and that the measures put in place to mitigate the effect of impact reduce the risk of consequence to negligible risk.

#### ***Contex***

- The proposed site for the Maud Creek mine development is directly adjacent to a section of Nitmiluk National Park; and
- Any major disturbances that extend beyond the mining lease boundary could impact on the Park.