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19.1 Groundwater

Objectives and Targets	<ul style="list-style-type: none"> • Prevent pollution of groundwater; • Minimise drawdown impacts due to dewatering; • Work towards achieving water quality standards consistent with ANZECC guidelines for stock consumption purposes.
Key Performance Indicators	<ul style="list-style-type: none"> • Groundwater quality to be maintained at pre-mining concentrations, particularly for metals, salinity and pH; • Groundwater drawdown does not exceed the maximum required for effective mine dewatering.
Actions	<ul style="list-style-type: none"> • Operate dewatering system as efficiently as possible by monitoring flows and groundwater levels during mining to ensure over-pumping does not occur; • Store fuels and chemicals in sealed and bunded facilities to contain potential spills; • Encapsulate problematic waste rock material to prevent contamination of ground water.
Monitoring	<ul style="list-style-type: none"> • Monitoring will be undertaken prior to commencement, during and following the completion of mining activities until decommissioning; • Groundwater production rates, electrical conductivity and pH will be measured from all production bores at monthly intervals; • Groundwater level fluctuations in nearby groundwater monitoring bores will be monitored on monthly intervals; • A detailed chemical analysis involving major cations/anions and metals will take place at six-monthly intervals from all monitoring bores and selected production bores; • The site Environmental Officer will be responsible for the collection and dispatch of all water quality samples. Water samples will be dispatched to a NATA accredited water testing laboratory and results regularly reviewed.
Reporting	<ul style="list-style-type: none"> • Results of groundwater management and monitoring will be documented in Terra Gold's annual report of performance against the MMP; • Where an incident causing pollution occurs the EPA will be informed within 24 hrs, as per the <i>Waste Management and Pollution Control Act</i>.
Corrective Actions	<ul style="list-style-type: none"> • The following will require corrective action to comply with the Groundwater EMP: <ul style="list-style-type: none"> – groundwater contamination; – significant impacts on surrounding vegetation. • All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> • Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan • <i>Mining Management Act 2001</i> • <i>Waste Management and Pollution Control Act</i> • <i>Water Act</i> • ANZECC Water Quality Guidelines 2000 • NEPM for contaminated sites



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19.1.1 Surface water

Objectives and Targets	<ul style="list-style-type: none"> Minimise or prevent potential negative impacts on surface water quality; Minimise disturbance to drainage through erosion or deposition, beyond natural fluctuations; Contain potential acid mine drainage and arsenic on site and prevent impact on local waterways.
Key Performance Indicators	<ul style="list-style-type: none"> Surface water quality to be consistent with ANZECC Water Quality guidelines for livestock consumption purposes.
Actions	<ul style="list-style-type: none"> Manage all earthworks to minimise disturbance to drainage channels and erosion; Pass turbid waters through sediment traps, where required; Construct internal drainage and sediment dams within the mining area to collect potentially contaminated run-off (particularly around the temporary waste rock stockpile); Revegetate bare earth as soon as practicable to slow water run-off and improve infiltration; Construct haul roads with appropriate materials and compaction to minimise washout during storm events; Store fuels and chemicals in sealed, bunded facilities and treat spills quickly so as to contain pollution.
Monitoring	<ul style="list-style-type: none"> Surface water quality testing upstream, in mine water dam, and downstream in Gold Creek and Maud Creek (subject to presence of surface water). Parameters to be monitored to include pH, EC, selected metals and hydrocarbons; Soil erosion monitoring to include visual monthly checks and corrective actions if required; The site Environmental Officer will be responsible for the collection and dispatch of all water quality samples. Water samples will be dispatched to a NATA accredited water testing laboratory and results regularly reviewed.
Reporting	<ul style="list-style-type: none"> Results of surface water management and monitoring will be documented in Terra Gold's annual report of performance against the MMP; Where an incident causing pollution occurs the EPA will be informed within 24hrs, as per the <i>Waste Management and Pollution Control Act</i>.
Corrective Actions	<ul style="list-style-type: none"> The following will require corrective action to comply with the Surface Water EMP: <ul style="list-style-type: none"> surface water contamination; significant erosion incidences; sedimentation and erosion of local watercourses. All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan <i>Mining Management Act 2001</i> <i>Soil Conservation and Land Utilisation Act</i> <i>Waste Management and Pollution Control Act</i> <i>Water Act</i> ANZECC Water Quality Guidelines 2000

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19.2 Flora

Objectives and Targets	<ul style="list-style-type: none"> • Minimise the area of land disturbed or cleared; • Prevent disturbance of flora outside of designated construction and operational areas; • Progressively rehabilitate cleared ground to reinstate the local ecosystem after mine closure.
Key Performance Indicators	<ul style="list-style-type: none"> • Extent of clearing and level of disturbance outside operational areas; • Extent of weed infestation; • Rehabilitation success.
Actions	<ul style="list-style-type: none"> • Install temporary fencing or bunding around stands of native vegetation and large trees that are to be retained prior to any road or site works; • Instruct personnel to only use existing roads and avoid off-road driving, to minimise damage to native vegetation; • Educate personnel through inductions on the importance of protecting stands of native vegetation, and on measures to prevent the spread of weeds, and weed identification and reporting; • Rehabilitate disturbed area with native flora species that are found in the surrounding areas wherever possible; • Identify key flora species and collect seeds (where possible and appropriate) for revegetation programs.
Monitoring	<ul style="list-style-type: none"> • Inspection of operational areas, the general lease area, access roads and rehabilitation areas annually by environmental staff for weed infestations; • Photographic monitoring of rehabilitation areas on an annual basis; • Rehabilitation success monitoring including revegetation success assessing litter captured and decomposing within the system, vegetation complexities as determined by the development of a tree layer, habitat complexity and extent of weed infestation.
Reporting	<ul style="list-style-type: none"> • The results of the flora management and monitoring program will be documented in Terra Gold's annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> • The following will require corrective action to comply with the Flora EMP: <ul style="list-style-type: none"> – unauthorised disturbance of vegetation outside designated areas; – rehabilitation failure. • All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> • Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan • <i>Weeds Management Act 2001</i> • <i>Territory Parks and Wildlife Conservation Act</i> • <i>Environment Protection and Biodiversity Act 1999</i> (Cth) • <i>Soil Conservation and Land Utilisation Act</i>



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19.3 Fauna

Objectives and Targets	<ul style="list-style-type: none"> • Minimise impact of mining operations on local fauna; • Prevent the introduction and spread of feral animals; • Progressively rehabilitate cleared ground to reinstate the local ecosystem after mine closure; • Protect and appropriately manage threatened species that inhabit the vicinity of the mining area.
Key Performance Indicators	<ul style="list-style-type: none"> • Recorded mammal deaths that have resulted from mining operations; • Recorded feral animal sightings.
Actions	<ul style="list-style-type: none"> • Minimise areas of disturbance and vegetation clearing; • Report mammal deaths and injuries that result from mining activities (e.g. hit by vehicles) to the Environmental Officer, and implement mitigation strategies when required (e.g. altered driving hours, slower speeds at appropriate parts of haulage route); • Assess suitability of water (through Surface Water EMP and Groundwater EMP) in the mine void for livestock drinking after mine closure, and fence off water bodies that are unsuitable for consumption; • Cover power infrastructure (e.g. transformers) to prevent access by bats where possible.
Monitoring	<ul style="list-style-type: none"> • Monitoring will take place as part of Terra Gold's incident reporting procedure, and will include the reporting of mammal deaths and feral mammal sightings; • Monitoring of groundwater and surface water will indicate the suitability of water in the mine void for livestock after mine closure.
Reporting	<ul style="list-style-type: none"> • The results of the fauna management and monitoring program will be documented in Terra Gold's annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> • The following require corrective action to comply with the Fauna EMP: <ul style="list-style-type: none"> – negative impacts on native fauna; – increase or spread of feral animals. • All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> • Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan • <i>Territory Parks and Wildlife Conservation Act</i> • <i>Environment Protection and Biodiversity Act 1999 (Cth)</i> • <i>Biological Control Act</i> • <i>Mining Management Act 2001</i>



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19.4 Weeds and pests

Objectives and Targets	<ul style="list-style-type: none"> Prevent the introduction and spread of weeds and pests that could impact on native flora and fauna; Progressively rehabilitate cleared ground to reinstate the local ecosystem after mine closure.
Key Performance Indicators	<ul style="list-style-type: none"> The area and extent of weed infestation in operational areas and surrounds; Feral mammal species present and numbers sighted.
Actions	<ul style="list-style-type: none"> Prevent the accidental introduction of weeds to the mine site, or spread from the mine site, through appropriate management of vehicle movement, including preventing vehicles driving off-road in vegetated areas; Implement a weed control program (particularly along haul roads and in the irrigation area), to contain infestations and prevent spread, during and after mining operations; Implement a feral animal control program if required; Implement appropriate waste management strategies that do not attract feral animals to the mine site; Educate key personnel on weed identification, feral animal identification and reporting.
Monitoring	<ul style="list-style-type: none"> Monitoring will take place as part of Terra Gold's incident reporting procedure, and will include the reporting of weed and pest introduction and/or spread.
Reporting	<ul style="list-style-type: none"> The results of the weeds and pests management and monitoring program will be documented in Terra Gold's annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> The following will require corrective action to comply with the Weeds EMP: <ul style="list-style-type: none"> introduction of new weeds to the mine area and haul roads; spread of existing weeds throughout the mine area and haul roads; increase in feral mammal species and numbers to the mine area. All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan <i>Weeds Management Act 2001</i> <i>Biological Control Act</i> <i>Territory Parks and Wildlife Conservation Act</i> <i>Environment Protection and Biodiversity Act 1999 (Cth)</i>



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19.5 Biting insects

Objectives and Targets	<ul style="list-style-type: none"> To prevent increases in the number of mosquito breeding sites as a result of proposed gold mining operations. To prevent the transmission of mosquito-borne diseases as result of proposed gold mining operation.
Key Performance Indicators	<ul style="list-style-type: none"> no increase in the area of mosquito breeding habitat
Actions	<ul style="list-style-type: none"> Open drainage will be maintained to prevent water ponding; Any mining equipment brought from North Queensland will be go through adequate wash down before proceeding to the mine site; Insect ponds and on-site excavations filled with water for the presence of larvae. If larvae are detected, the Medical Entomology Branch of NT health will be consulted on what actions should be taken; Rehabilitate mining areas in a manner that prevents the creation of new mosquito breeding sites; Staff and contractors will be made aware of the potential risk of mosquito borne diseases and the high risk periods (late dry to wet season); Staff and contractors will be advised to wear long sleeved shirts and trousers, avoid going outside at sundown, and to use insect repellent. Insect repellent will be provided at work sites. Workers will be educated about the early symptoms associated with exposure to mosquito-borne arbovirus and will be instructed on the need to report any symptoms to a medical officer.
Monitoring	<ul style="list-style-type: none"> Management strategies for the –prevention of mosquito breeding sites associated with the mine will be in accordance with DHCS guidelines for <i>‘Preventing mosquito breeding sites associated with mining sites’</i> and a biting insects monitoring program.
Reporting	<ul style="list-style-type: none"> The results of the biting insects management and monitoring program will be documented in Terra Gold’s annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> The following will require corrective action to comply with the Biting Insects EMP: <ul style="list-style-type: none"> – creation of mosquito breeding sites during construction and operation of the mine; – significant incidences of mosquito bites are reported; – confirmed infection by ross river or other mosquito-borne disease All incidents will be reported and managed through to resolution via Terra Gold’s incident reporting procedures.
Relevant Procedures, Legislation and Standards	<ul style="list-style-type: none"> Terra Gold’s Environmental Policy, Terra Gold’s Environmental Management Plan <i>Public Health Act</i>

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19.6 Air quality, greenhouse emissions and noise

Objectives and Targets	<ul style="list-style-type: none"> Minimise dust from construction and mining activities; Minimise potential noise and vibration issues related to the operations and mitigate any potential noise impacts. Limit net greenhouse gas emissions through efficient energy use, recycling of construction materials, rehabilitation of disturbed sites (resulting in carbon sequestration), and appropriate fire management practices.
Key Performance Indicators	<ul style="list-style-type: none"> Registered complaints resulting from unacceptable noise and/or dust levels. Reducing CO₂^e emissions per unit production over the life of the mine.
Actions	<ul style="list-style-type: none"> Installation of soundproofing and/or noise abatement devices where practicable; Use of water to suppress dust during dry, windy conditions; Use hearing protection equipment on site where required; Install signs in operational areas where hearing protection is required; Use appropriate blasting techniques to minimise vibration effects Developing a continuous improvement program that monitors fuel and electricity use on a monthly basis, and reports on CO₂^e emissions per unit production. . Investigate options for increased energy efficiency through the life of operation of the project and during decommissioning.
Monitoring	<ul style="list-style-type: none"> Dust monitoring will be carried out at two sites as described in section 12 using Environmental Protection Act 1994 (Qld) standard of 133mg/m²/month for protection of amenity due to dustfall. A noise monitoring program will be implemented if emissions are considered to reach an unacceptable level. Monitoring fuel and electricity use on a monthly basis.
Reporting	<ul style="list-style-type: none"> Results of the dust and noise management and monitoring program will be documented in Terra Gold's annual report of performance against the MMP; Any complaints will be documented in and managed through to resolution via Terra Gold's incident reporting procedure; Where an incident causing pollution occurs the EPA will be informed within 24 hrs, as per the <i>Waste Management and Pollution Control Act</i>. Report greenhouse gas emissions in compliance with NPI reporting guidelines.
Corrective Actions	<ul style="list-style-type: none"> The following will require corrective action to comply with the Air quality, greenhouse emissions and noise EMP: <ul style="list-style-type: none"> proposed dust mitigation strategies not being implemented; receipt of a noise or air quality complaint. All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan <i>Soil Conservation and Land Utilisation Act</i> <i>Waste Management and Pollution Control Act</i> AS 1055.1 1997 – Acoustics – Description and measurement of environmental noise AS/NZS 1269.2:2005 Occupational noise management - noise control management <i>National Greenhouse and Energy Reporting Act 2007</i> (Cth) Australian Greenhouse Office documentation (refer AGO 2006a)



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19.7 Fire and Fuel

Objectives and Targets	<ul style="list-style-type: none"> To prevent wildfires caused by ignition sources at the mine sites; To maintain conditions and low fuel loads in the vicinity of the mine sites, so that the fuel load will not support hot wildfires that may damage local ecosystems or rehabilitation (beyond normal bushfire impacts).
Key Performance Indicators	<ul style="list-style-type: none"> Occurrence of wildfires caused by ignition sources at the mine sites.
Actions	<ul style="list-style-type: none"> Fire breaks to be maintained around the perimeter of the mine sites, with twice-yearly upgrades; Early dry season fuel reduction burning on an annual basis, in consultation with the site manager and the local Chief Bushfire Control Officer; Put in place a “No Unauthorised Fire” policy at the mine sites to reduce risks of wildfire outbreaks; Develop a procedure for quick response to fire outbreaks, including maintenance of fire-fighting equipment and water sources.
Monitoring	<ul style="list-style-type: none"> Condition of fire breaks and fire fighting equipment will be assessed regularly as part of site maintenance.
Reporting	<ul style="list-style-type: none"> Results of the fire and fuel management and monitoring will be documented in Terra Gold’s annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> The following will require corrective action to comply with the Fire and Fuel EMP: <ul style="list-style-type: none"> Initiation of a wildfire from an ignition source at the mine site; Fire fighting equipment and water sources not kept in working order; Late dry season burning, i.e. after August in any year; Unauthorised lighting of fires on or near the mine sites. All incidents will be reported and managed through to resolution via Terra Gold’s incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold’s Environmental Policy, Terra Gold’s Environmental Management Plan <i>Fire and Emergency Act</i> Terra Gold’s Environmental Management Plan <i>Bushfires Act</i> <i>Parks and Wildlife Commission Act</i>



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19.8 Hazardous Substances

Objectives and Targets	<ul style="list-style-type: none"> • To safely use, store and dispose of chemicals and hazardous goods (including explosives) and prevent the uncontrolled release of chemicals into the environment; • To comply with relevant Australian standards (for the storage and handling of flammable and combustible liquids and dangerous goods) including: <ul style="list-style-type: none"> • AS 4452 The Storage and Handling of Toxic Substances; • AS 1940 The Storage and Handling of Flammable and Combustible Liquids; and • AS 2187.1 Explosives – Storage, transport and use
Key Performance Indicators	<ul style="list-style-type: none"> • Reported spill incidents; • Reported non-compliance with Australian Standards regarding storage and handling of hazardous substances.
Actions	<ul style="list-style-type: none"> • Handling and storage of all hazardous substances in accordance with information provided on the MSDSs, the Australian Standard for the Storage and Handling of Toxic Substances (AS – 4452) and the Australian Standards for the Storage and Handling of Flammable and Combustible Liquids (AS 1940) and Explosives – Storage, transport and use (AS – 2187.1); • Transport of dangerous goods in accordance with the Australian code for the Transport of Dangerous Goods by Road and Rail (1998); • Registers of all hazardous materials imported to Maud Creek site or generated as a result of site activities will be maintained and held on site; • Construction of an appropriate area to install the mobile fuel tanker truck when needed on site; • Collection of small amounts of waste oil and other oily wastes , oil filters and rags in properly labelled 205 L drums. Take oily waste off site for appropriate disposal at a hazardous wastes facility; • Provide all personnel with safety equipment required for the correct handling of hazardous goods; • Provide all personnel with training in the appropriate handling, storage, disposal and containment practices for chemicals and hazardous goods as is relevant to their position; • Develop spillage clean-up procedures and spill stations for immediate clean-up of accidental spills; • Collect and remediate contaminated runoff and contaminated soil if spills occur, and transport to a suitable facility for disposal; • Maintain a register of all hazardous materials imported to the site or generated as a result of site activities.
Monitoring	<ul style="list-style-type: none"> • Inspections of mobile fuel tanks and explosive facilities on a monthly basis; • Inspections of operational areas for spills will be conducted by the site supervisor on a weekly basis.
Reporting	<ul style="list-style-type: none"> • The Environment Officer will record and sign off on monthly inspections of mobile fuel and explosives equipment; • The results of the Hazardous Substances management program will be documented in Terra Gold’s annual report of performance against the MMP; • Where an incident causes or threatens to cause pollution resulting in material or serious environmental harm, the EPA will be informed within 24 hrs as per the requirements of the <i>Waste Management and Pollution Control Act</i>.
Corrective Actions	<ul style="list-style-type: none"> • The following events will require corrective action to comply with the Hazardous Substances EMP: <ul style="list-style-type: none"> – a fuel or chemical spill; – mobile storage equipment not meeting Australian standards, or not suitably banded; – release of fuels or chemicals into the environment.



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	<ul style="list-style-type: none"> • An Emergency Response Procedure will be developed to ensure an appropriate response can be made to minimise the environmental impact caused by incidents involving hazardous materials; • Personnel will have access to safety equipment required for the correct handling of hazardous goods; • Spill response kits will be provided on site for use in the event of incidents; • All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
<p>Relevant Legislation and Standards</p>	<ul style="list-style-type: none"> • Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan • <i>Dangerous Goods Act</i> • <i>Dangerous Goods (Road and Rail Transport) Act</i> • <i>Waste Management and Pollution Control Act</i> • AS 4452 The Storage and Handling of Toxic Substances • AS 1940 The Storage and Handling of Flammable and Combustible Liquids • AS 2187.1 – Explosives – Storage, transport and use • Australian Code for the Transport of Dangerous Goods by Road and Rail (1998)

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19.9 Traffic and Transport

Objectives and Targets	<ul style="list-style-type: none"> To minimise the impact of road train haul trucks on local traffic; To minimise the impact of haulage through the local community of Katherine.
Key Performance Indicators	<ul style="list-style-type: none"> Registered complaints resulting from unacceptable noise levels from local residents.
Actions	<ul style="list-style-type: none"> Road upgrades will be required at a number of sections through the haul route from Maud Creek to URGM; Road train movements may halt with prolonged monsoon rainfall conditions; Internal roads may be upgraded to bitumen which will enable haulage to occur longer during wet conditions and suppress dust; Addition of new signage where necessary in accordance to the DPI/AusRoads and Australian Standards; Undertake surveillance by a video camera of the intersection near Ross Road to provide a base level of the condition of the road; Ensure that road trains are fitted with high visibility strips as per the AS1906.1 and other Australian Standards. Loads in ore trucks will be covered.
Monitoring	<ul style="list-style-type: none"> Road conditions will be monitored regularly and maintained where required. Complaints of traffic movement and noise will be addressed as per incident reporting procedure
Reporting	<ul style="list-style-type: none"> Results of the Traffic and Transport management and monitoring program will be documented in Terra Gold's annual report of performance against the MMP; Any complaints will be documented in and managed through to resolution via Terra Gold's incident reporting procedure.
Corrective Actions	<ul style="list-style-type: none"> The following events will require corrective action to comply with the Traffic and Transport EMP: <ul style="list-style-type: none"> failure to fit visibility strips; use of roads on the mining lease through highly wet conditions; failure to cover ore truck loads. All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Procedures, Legislation and Standards	<ul style="list-style-type: none"> Terra Gold's Environmental Policy, Terra Gold's Environmental Management Plan AusRoad, DPI and Australian Standards.

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19.10 Cultural and Heritage

Objectives and Targets	<ul style="list-style-type: none"> Prevent impacts from mine construction and operation on archaeological and historical sites of significance close to the mine area.
Key Performance Indicators	<ul style="list-style-type: none"> Damage or impact to an archaeological or heritage site located within the vicinity of the mine sites.
Actions	<ul style="list-style-type: none"> Designation of archaeological and historical sites of moderate significance close to the mining area as “No-Go Zones”. Signposting and fencing or bunding around these areas to alert mine personnel; Applications made to the Minister for Heritage to disturb the archaeological site inside the mine footprint before mining commences; Inclusion of information on archaeological and heritage sites in site inductions for mine personnel; Adoption of a Chance-Find procedure in the event that archaeological material is uncovered unexpectedly during mine operation or construction. In this case, the Environmental Officer will contact Heritage Conservation Services, Darwin (at NRETA) for advice.
Monitoring	<ul style="list-style-type: none"> The site supervisor will undertake monthly inspections to check the fencing and signage around the No-Go Zones that are located near active operational areas, and ensure that the archaeological and heritage sites remain intact.
Reporting	<ul style="list-style-type: none"> The results of the Cultural and Heritage management program will be documented in Terra Gold’s annual report of performance against the MMP.
Corrective Actions	<ul style="list-style-type: none"> The following events will require corrective action to comply with the Cultural and Heritage EMP: <ul style="list-style-type: none"> – damage or impacts to a known archaeological or heritage site in the vicinity of the mine sites; – failure to gain ministerial approval before disturbing known sites through mining activities; – failure to stop work and notify Heritage Conservation Services in the event that archaeological material is unexpectedly found. All incidents will be reported and managed through to resolution via Terra Gold’s incident reporting procedures.
Relevant Procedures, Legislation and Standards	<ul style="list-style-type: none"> Maud Creek Archaeological Chance-Find Procedure Terra Gold’s Environmental Policy, Terra Gold’s Environmental Management Plan <i>Mining Management Act 2001</i> <i>Heritage Conservation Act</i>



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19.11 Domestic and industrial waste

Objectives and Targets	<ul style="list-style-type: none"> Minimise environmental impacts associated with the generation and disposal of waste from mining operations; Promote the efficient use of resources, minimisation of waste and correct waste disposal.
Key Performance Indicators	<ul style="list-style-type: none"> Volumes of waste being generated; Volumes of waste being recycled.
Actions	<ul style="list-style-type: none"> Domestic waste (including crib room and office waste), plastics, and rubber will be collected and transported for disposal at Katherine Town Council Waste Transfer Station (dump) facility; Small amounts of waste oil and grease will be collected and sent to a licensed disposal facility; Contaminated soil will be sent for bioremediation; Waste paper products disposed of or shredded and recycled; Mobile ablation facilities will be emptied by contractors in accordance with DHCS guidelines.
Monitoring	<ul style="list-style-type: none"> Inspections of waste facilities will be conducted on a monthly basis; The Environmental Officer will record and sign off on monthly inspections of waste management and septic systems.
Reporting	<ul style="list-style-type: none"> The results of the Domestic and Industrial Waste management program will be documented in Terra Gold's annual report of performance against the MMP; Where an incident causes pollution the EPA will be informed within 24 hours as per the requirements of the <i>Waste Management and Pollution Control Act</i>.
Corrective Actions	<ul style="list-style-type: none"> The following events will require corrective action to comply with the Domestic and Industrial Waste EMP: <ul style="list-style-type: none"> unnecessary volumes of waste being sent for disposal; materials being disposed of rather than reused or recycled where possible; uncontrolled waste disposal; noncompliance with waste tracking procedures; soil, surface water or groundwater contamination. All incidents will be reported and managed through to resolution via Terra Gold's incident reporting procedures.
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold's Environmental Policy , Terra Gold's Environmental Management Plan <i>Litter Act</i> <i>Waste Management and Pollution Control Act</i> <i>Mining Management Act 2001</i>

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19.12 Waste rock and ore stockpile

Objectives and Targets	<ul style="list-style-type: none"> Contain all materials extracted from the decline and underground mine to the appropriate areas – that is, the waste rock dump or the ROM pad for waste rock and ore respectively; Minimize or prevent contamination of soils and surface water from acid mine drainage or heavy metals associated with waste rock and ores.
Key Performance Indicators	<ul style="list-style-type: none"> Groundwater and surface water quality consistent with ANZECC (2000) guidelines; Successful rehabilitation of waste rock dump and ROM pad areas at the end of the life of mine; No evidence of acid mine drainage from waste rock dump, ROM pad or open pit on cessation of mining.
Actions	<ul style="list-style-type: none"> Construction of a temporary waste rock dump will be according to an approved engineering design that encapsulates potentially acid producing materials, and prevents infiltration of air or rain; Construction of the ROM pad will ensure that potentially contaminated water is contained within the operational area. All surface water within the operational area is directed to the sediment dam.
Monitoring	<ul style="list-style-type: none"> Groundwater monitoring program (outlined in section 19.1). Surface monitoring program (outlined in section 19.2).
Reporting	<ul style="list-style-type: none"> The results of the Waste Rock and ROM Pad management program will be documented in Terra Gold’s annual report of performance against the MMP; Where an incident causes pollution the EPA will be informed within 24 hours as per the requirements of the <i>Waste Management and Pollution Control Act</i>.
Corrective Actions	<ul style="list-style-type: none"> The following event will require corrective action to comply with the Waste Rock and ROM Pad EMP: <ul style="list-style-type: none"> contamination of surface water, groundwater, or soils; Loss of flora or fauna due to contamination (poisoning).
Relevant Legislation and Standards	<ul style="list-style-type: none"> Terra Gold’s Environmental Policy, Terra Gold’s Environmental Management Plan <i>Mining Management Act 2001</i> <i>Waste Management and Pollution Control Act</i>

19.13 Commitments

Terra Gold will implement environmental management plans with the aim of reducing moderate to high level environmental risks and risks to public infrastructure, health and safety to a low level.

