

Potential impacts to be considered by the Oryx Gems prospecting rights application

Biodiversity, Ecosystems & Natural Resources

- The farm portions overlap with several Critical Biodiversity Areas (CBA) and Ecological Support Areas (ESA) under the Mpumalanga Biodiversity Sector Plan (MBSP, 2014) and the National Freshwater Ecosystem Priority Areas (NFEPA, 2011)
 - Multiple Irreplaceable and Optimal terrestrial CBAs and ESAs
 - Multiple CBA and ESA rivers, wetlands and catchments (including the Blyde & Lisbon Rivers as listed CBA rivers)
 - Several downstream aquatic CBAs and ESAs under the Limpopo Conservation Plan (2013) will also be affected
- The farm portions overlap with three NEMBA listed Threatened Ecosystems:
 - Northern Escarpment Dolomite Grassland (Vulnerable)
 - Blyde Quartzite Grasslands (Endangered)
 - Malmali Karstlands (Endangered)
- The Unique community, 'Graskop grassland', registered under Mpumalanga Nature Conservation Act (1998) is located on the farm portions
- Birdlife Important Bird and Biodiversity Areas (IBA): area overlaps with the globally listed Blyde River Canyon IBA
- Threatened or rare species, or species of conservation concern potentially occurring on the farm portions:
 - Bird species: Blue swallow, Bald Ibis, Striped Flufftail, Stanley's Bustard (*Neotis denhami*), Blackwinged Plover (*Vanellus melanopterus*), Buffstreaked Chat (*Oenanthe bifaciata*)
 - Mammal species: Oribi, Rough-haired Golden Mole, Meester's Golden Mole, Short-eared Trident Bat, Natal Long-fingered Bat
 - Reptile species: *Bradypodion transvaalense*, *Lamprophis swazicus*, *Platysaurus wilhelmi*, Berg adder (*Bitis atropos*), Black Spotted Dwarf gecko (*Lygodactylus nigropunctatus nigropunctatus*), Mariepskop Dwarf chameleon (*Bradypodion spp. Indet*), Cape Snake lizard (*Chamaesaura anguina*). Transvaal Snake lizard (*Chamaesaura aenea*), Large-scaled Grass lizard (*Chamaesaura macrolepis*), Transvaal Crag lizard (*Pseudocordylus melanotus melanotus*), Breyer's Plated lizard (*Tetradactylus breyeri*), African Rock Python (*Python sebae natalensis*), Black Water snake (*Lycodonomorphus laevissimus fitzsimonsi*), Reed snake (*Amplorinus multimaculus*), Spotted Harlequin snake (*Homoroselaps lacteus*), Striped Harlequin snake (*Homoroselaps dorsalis*), East African Shovelnout (*Prosymna ambigua stuhlmannii*) and Brown Egg-eater (*Dasypeltis inornata*)
 - Amphibian species: Plaintive Rain frog (*Breviceps verrucosus*), Three-striped Grass frog (*Ptychadena porosissima*), Lesser dainty frog (*Cacosternum nanum parvum*), Longtoed Kassina (*Semnodactylus wealii*) and Natal Ghost frog (*Heliophryne natalensis*)

- o Plant species: *Aloe fouriei*, *Gladiolus vernus*, *Gladiolus macneilii*, *Ocotea kenyensis*, *Warburgia salutaris*, *Cineraria hederifolia*, *Crocasmia mathewsiana*, *Erica rivularis*, *Gladiolus saxatilis*, *Schizochilus crenulatus*, *Streptocarpus decipiens*, *Aloe modesta*, *Angraecum chamaenthus*, *Cyrtanthus bicolor*, *Disa extingtoria*, *Disa maculomarronina*, *Erica revoluta*, *Eucomis autumnalis*, *Eucomis pole-evansii*, *Gladiolus varius* var. *micranthus*, *Kniphofia triangularis*, subsp. *obtusiloba*, *Protea parvula*, *Watsonia* cf. *wilmsii*
- The farm portions fall within the buffer zone of Blyde River Canyon Nature Reserve (BNR), impacts would threaten the ecological integrity of habitats inside the reserve
- Farm portions fall on MTPA Biodiversity Stewardship sites with intention to declare these as Protected Areas
- The Department of Environmental Affairs Natural Resource Management Programmes (through Working for Water [WfW] and other programmes) has and continues to make significant investments (totalling well over R100 million historically) in the Blyde River Catchment in ecosystem restoration through invasive alien plant control and wetland restoration to secure ecosystem services (especially water). The Blyde Catchment, within which these farm portions occur, forms the highest priority sub-catchment for WfW within Mpumalanga. Impacts from prospecting and mining will significantly undermine the investments and ecosystem service gains made through these programmes.

Water

- The farm portions fall within a national Strategic Water Source Area (Mpumalanga Drakensberg Node) Blyde River and major tributaries Lisbon and Watervalspruit rivers
- Potential impacts on downstream water quality in the Blyde and Olifants Rivers will affect the following towns/villages, major land-uses and economic activities dependent on or associated with these rivers:
 - o Moremela village
 - o Blyde River Canyon Nature Reserve
 - o Hoedspruit farming area
 - o Hoedspruit town
 - o Drakensig Airforce base
 - o Several private nature reserves and conservancies (Balule, Klaserie, etc.)
 - o Phalaborwa town
 - o Kruger National Park

Socio-economic impacts: Tourism, Farming and the NRM sector

- The farm portions fall within the Mpumalanga Panorama route, with several major tourist attractions on and adjacent to these including Lisbon & Berlin waterfalls, God's Window, Burke's Luck Potholes, Blyde River Canyon & Three Rondavels, and others. Tourism is a major economic

activity and employer in this area, and the visual and biodiversity impacts of mining and prospecting could have negative impacts on this.

- Reduced water quality will impact the Hoedspruit Citrus and Mango farming area which is fully dependent on water from the Blyde dam for irrigation. Farming is a major economic activity in the area (combined annual turnover of around 1 billion rand) and employs several thousand people seasonally and annually.
- Potential negative impacts on Working for Water projects operating in the Blyde catchment could result in reduced investment by DEA NRM in the catchment with consequent job losses. DEA NRM is a significant employer in the area.