

CES EXPERTISE IN INFRASTRUCTURE AND INDUSTRIAL INSTALLATIONS

CES was established in 1990 and specialises in environmental management and impact assessments.

WE HAVE COMPLETED EIAs FOR LARGE INFRASTRUCTURE PROJECTS IN THE FOLLOWING SECTORS:

- ✓ Industrial installations - smelters, steel plants, mineral processing plants etc.
- ✓ Bulk water supply and reticulation.
- ✓ Wastewater treatment works.
- ✓ Power lines and substations.
- ✓ Renewable energy (biomass, hydroelectric power, solar and wind. See our Renewable Energy brochure).

We have secured other necessary permits, such as water use licenses, mining rights, waste licenses, and atmospheric emission licenses, in addition to EIAs.

Our expertise in South Africa and over twenty other African countries has resulted in us undertaking EIAs for a wide range of infrastructure and industrial projects across various sectors.

Lender groups such as the World Bank, the European Investment Bank, the International Finance Corporation, and the African Development Bank have rigorously reviewed our work. These reviews have confirmed our reputation for producing quality, bankable products that meet rigorous international and sector-specific guidelines. The relevant in-country authorities have approved all the ESIs prepared by CES, and environmental licenses have been issued.

2

We have considerable experience in terrestrial, marine and freshwater ecology and biodiversity, social impact assessments (SIA), State of Environment Reporting (SoER), Integrated Waste Management Plans (IWMPs), Public Participation, Strategic Environmental Assessments and Resettlement Action Plan Preparation.

CES has provided infrastructure and industry-related environmental services to the private and public sectors in South Africa and several African countries. In South Africa, these include the Department of Forestry, Fisheries and Environment (DFFE), Department of Water & Sanitation (DWS) and Department of Agriculture, Land Reform and Rural Development (DALRRD), and the following parastatals: Transnet, National Ports Authority (TNPA), South African National Roads Agency SOC Limited (SANRAL), Eskom, the Coega Development Corporation and the East London Industrial Development Zone.

For more information see www.cesnet.co.za



ENVIRONMENTAL STUDIES SPECIFIC TO INFRASTRUCTURE AND INDUSTRIAL PROJECTS

Processing plants for mining projects

- ✓ Mineral processing plants and smelters for various heavy mineral mining projects across Africa.
- ✓ Copper and Nickel processing plants for First Quantum Minerals Sentinel and Enterprise operations in north-west Zambia.
- ✓ Graphite processing plants for Syrah Resources Ltd and other Cabo Delgado Province, Mozambique operations.
- ✓ Iron and vanadium processing plant for Baobab Resources, Tete Province, Mozambique.

Bulk Water Supply and Reticulation

- ✓ EIA for the Amatola Water reverse osmosis plant at Bushman's River.
- ✓ EIA for the Rural Water Supply Scheme for Senqu Local Municipality.
- ✓ Basic Assessment for Maxongoshoek and Gubenxa Water Supply Schemes for Gibb Engineering.
- ✓ EIA for the Debe Water Supply Scheme (Phase 2).
- ✓ EIA for Lusikisiki Bulk Water Supply Scheme for the Department of Water and Sanitation.
- ✓ EIA for Ndlambe Bulk Water Scheme for Amatola Water.
- ✓ EIA for the Uitenhage Bulk Sewer Pipeline for Nelson Mandela Bay Metro.
- ✓ EIA for upgrading the Buffalo River Pump Station for Element Consulting Engineers.
- ✓ The Mooi Mgeni Transfer Scheme – Phase 2 EIA for water transfer from the Spring Grove Dam to the Mpofana River.
- ✓ Basic Assessment (BA) process for Eskom's Reverse Osmosis Plant located at their existing Matla Power Plant in the Mpumalanga Province.
- ✓ Environmental Impact Assessment for the upgrading of the Debe water supply scheme.

Wastewater treatment works

- ✓ Environmental Impact Assessment (EIA) and Water Use License Applications for the Barberton Waste Water Treatment Works (WWTW) upgrade.
- ✓ Environmental Control Officer (ECO) duties are to refurbish the KwaNobuhle Wastewater Treatment Works located within the Nelson Mandela Bay Municipality (NMBM).
- ✓ Environmental Impact Assessment supports an application for a Waste License and Environmental Authorization for upgrades to the existing Sandile Water Treatment Works at Keiskammahoe in the Eastern Cape.
- ✓ Environmental Impact Assessment and Environmental Control Officer (ECO) duties for the Fort Cox College WWTW.

Power lines and substations

- ✓ EIA for a power line in the East London Industrial Development Zone for Eskom.
- ✓ EIAs for various Eskom and renewable energy developers' electrical transmission and distribution projects.
- ✓ EIA for Eskom's Lesokwana substation and associated powerlines in Gauteng Province.
- ✓ Basic Assessment process and Water Use Licence applications for the proposed construction of the Lesokwana substation and associated 275 kV power lines located within the Ekurhuleni Metropolitan Municipality and the Sedibeng District Municipality.
- ✓ EIA for Eskom's proposed 132kV line from the proposed Thyspunt substation to the existing Melkhout substation in the Eastern Cape.
- ✓ Environmental and Social Compliance Review of the proposed Ilanga Lethemba PV Solar Energy Facility, which will be situated near the town of De Aar in the Northern Cape Province of South Africa. The facility has an installed generating capacity of 75 Megawatts (MW).

- ✓ EIA for Lesotho Electricity Company (LEC) to upgrade the existing 88Kv line from the Khukhune substation to the Letseng substation, Lesotho.
- ✓ Basic Assessment on behalf of Eskom for the loop-in and loop-out 400kV transmission powerlines: Approximately 2 x 1 km 400 kV line- loop-in and loop-out of the Apollo -Croydon 275 kV line into Mesong Main Transmission Station (MTS).
- ✓ EIA for the Moma Power Line for Kenmare Resources' Titanium Mineral Sands Project in North-Eastern Mozambique.
- ✓ EIA for the AECOM subsea cable through Mozambican Maritime Space to a coastal landing site in Nacala and a second one at Maputo.

Other Industrial Facilities

- ✓ EIA's for the East London and Coega Industrial Development Zones (IDZs).
- ✓ Biodiversity assessment for CEF iGAS of the proposed gas pipeline routes from Saldanha Bay to the Eskom Ankerlig power station in Atlantis (2015).
- ✓ EIAs for four Aquaculture Development Zones (ADZs) and other aquaculture projects in South Africa.
- ✓ EIA for a manganese smelter in the Coega Industrial Development Zone, Port Elizabeth, South Africa, to

produce high-carbon ferro-manganese alloy.

- ✓ ESIA for a stainless-steel precision strip processing facility in the Coega Industrial Development Zone, Port Elizabeth, South Africa.
- ✓ EIA for a Medium Density Fiber and woodchip plant, Nampula Province, Mozambique.
- ✓ EIA for a brewery in Nampula, Mozambique.
- ✓ The scoping phase of the ESIA for an Integrated steel mill and captive power plant near Port Loko in Sierra Leone.
- ✓ ESIA for an 88.6MW diesel generator power plant in Rabai, Kenya.
- ✓ In addition, we have conducted assessments of the impacts of industrial installations as part of larger ESIAs, notably but not exclusively for mineral processing plants on mine sites.

Biofuel / agricultural processing plants

- ✓ EcoFarm Lda, sugar mill and captive power plant, Sofala province Mozambique.
- ✓ Grown Energy Zambeze, ethanol processing plant, Mozambique.
- ✓ Addax Bioenergy, sugar cane to ethanol processing plant, Sierra Leone.

