



ELANDSFONTEIN PHOSPHATE PROJECT

A world-class environmentally conscious mine

Content

- Phosphate market
- Who is Kropz?
- Technical overview
- Responsible mining
- Our legacy

PHOSPHATE MARKET and FUTURE GROWTH

Strong need for South African fertilizer development

About phosphate

“Commercial fertilizer is responsible for 40% to 60% of the world’s food production”

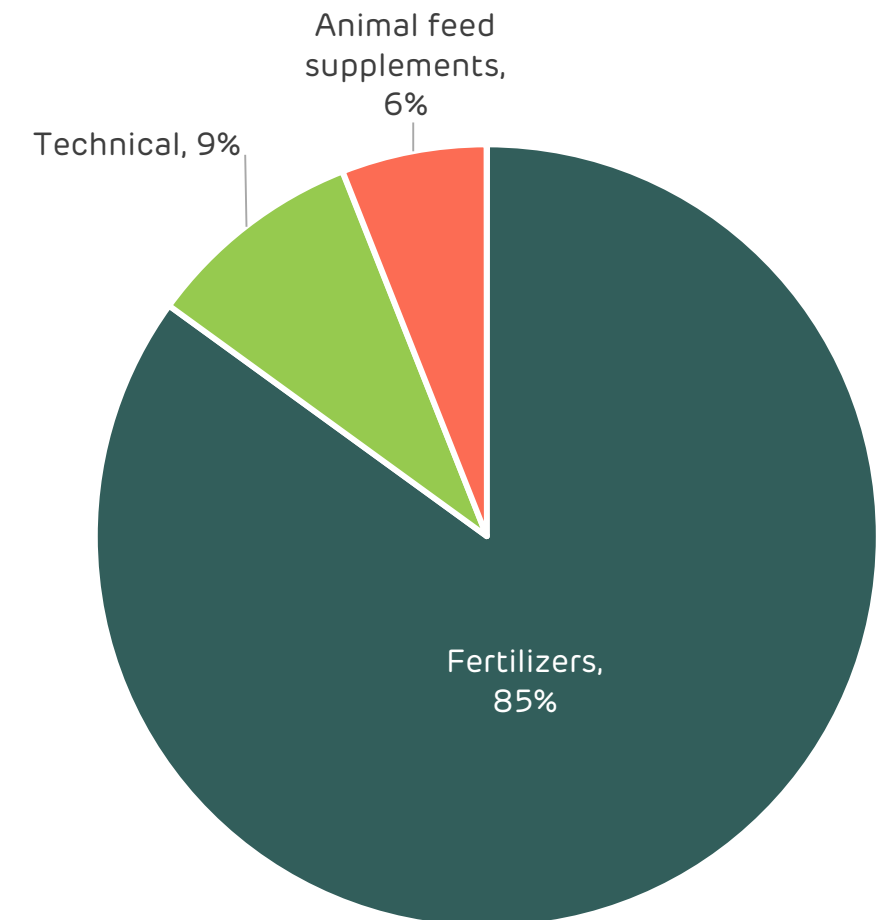
Dr. Roberts, President, International Plant Nutrition Institute

- Phosphorous an essential element for plant and animal nutrition
- **Mined phosphate minerals are only source of phosphorous**
 - no substitutes or recycling
- Phosphate ore beneficiated to increase grade
- 85% of phosphates produced globally used to make fertilizers
- World phosphate production around 210Mtpa
- To make phosphate rock concentrate into bio-available products, it is shipped to fertilizer plants and reacted with sulphuric acid to produce phosphoric acid
 - combined with ammonia to produce diammonium phosphate (DAP), monoammonium phosphate (MAP) fertilizers
 - combined with phosphate to produce triple superphosphate (TSP) fertilizer

Phosphate background information

Elandsfontein phosphate concentrate solely produced for fertilizer production

- Fertilizers (85%)
 - assists with seed formation, hastens plant maturity, reduces water requirements, improves crop quality
 - critical to the initial phase of growth, photosynthesis, cell division and enlargement and improves root formation and growth
- Technical phosphates (9%)
 - synthetic detergents, water treatment, lithium phosphate batteries, personal care products, soft drinks
- Animal feed supplements (6%)
 - major structural component of bones and teeth
 - essential for transfer and utilisation of energy in body cells, important for lactating animals



South African fertilizer market

- Currently only two producers of phosphate in South Africa
 - Foskor, Phalaborwa: 1.7Mtpa
 - supplies rock mainly to own manufacturing facility in Richards Bay and to local companies (eg Omnia)
 - high cost producer, low grades, deep mining, hard rock, more than 800km from port
 - reported loss of more than R500 million for FY2015
 - Gecko, West Coast: 40,000 tpa for direct application phosphate
- SA imports increasing amounts of fertilizer every year to satisfy local demand
 - SA's 2015 fertilizer imports valued at R7.3 billion, over half is MAP, DAP and phosphate-related fertilizer (DTI)
 - imported over 60% of fertilizer in 2015
- GrainSA asked government (DTI and IDC) to consider mechanisms to revitalise local fertilizer industry

“To be solely dependent on imports can also have a negative effect on prices and therefore also the grain producers’ ability to produce affordable food for the country”

GrainSA Fertilizer Report 2011

Potential for further growth

Meeting South Africa's Fertilizer Needs

- Additional resource required to support development of a fertilizer plant in Saldanha
- Fertilizer capital investment currently estimated at ±R10billion
- Potential investment in an area with over 30% youth unemployment (Census, 2011)
 - up to 2,000 temporary jobs during construction phase (3 years)
 - at least 500 long term jobs

Who is Kropz?

Significant broad-based BEE investment through
Ubuntu-Botho Investments

Elandsfontein ownership

A Proudly South African mining company

- Owned by Kropz and African Rainbow Capital (ARC)
- Kropz is a privately owned exploration and mining company
- ARC is a broad-based black economic empowerment (BBEEE) investment company owned by Ubuntu-Botho Investments
 - Ubuntu-Botho comprises the Motsepe Family Trust and broad base of stakeholders, including church groups, trade unions and women's groups, representing ±100,000 previously disadvantaged people
 - one of SA's most broad-based empowerment groupings
 - to date, over 400,000 people have directly benefitted from annual disbursement of funds through Ubuntu-Botho Investments Community Development Trust

Leadership



Michelle Lawrence
Director



Mike Nunn
Director



Mark Summers
Director



Thandabantu
Nhlapo
Non-executive Director



Rejoice Simelane
Non-executive Director



ELANDSFONTEIN PROJECT

“Under construction”

Introduction to Elandsfontein

A responsible mining company in an advanced construction phase

- Located $\pm 100\text{km}$ north of Cape Town, in the Western Cape province
- Deposit drilled and defined in 1980s by Samancor
- Declared by CGS as second largest deposit in country with highest grade
 - largest sedimentary deposit
- Project currently under construction
 - mine access road construction started February 2015
 - site earthworks complete
 - power lines and substation complete
 - civil construction since September 2015
 - SMP and electrical construction in progress
 - commissioning expected Q1 2017
- First phase to produce between 1.2 and 1.5Mtpa rock concentrate, with a grade of 32% P_2O_5



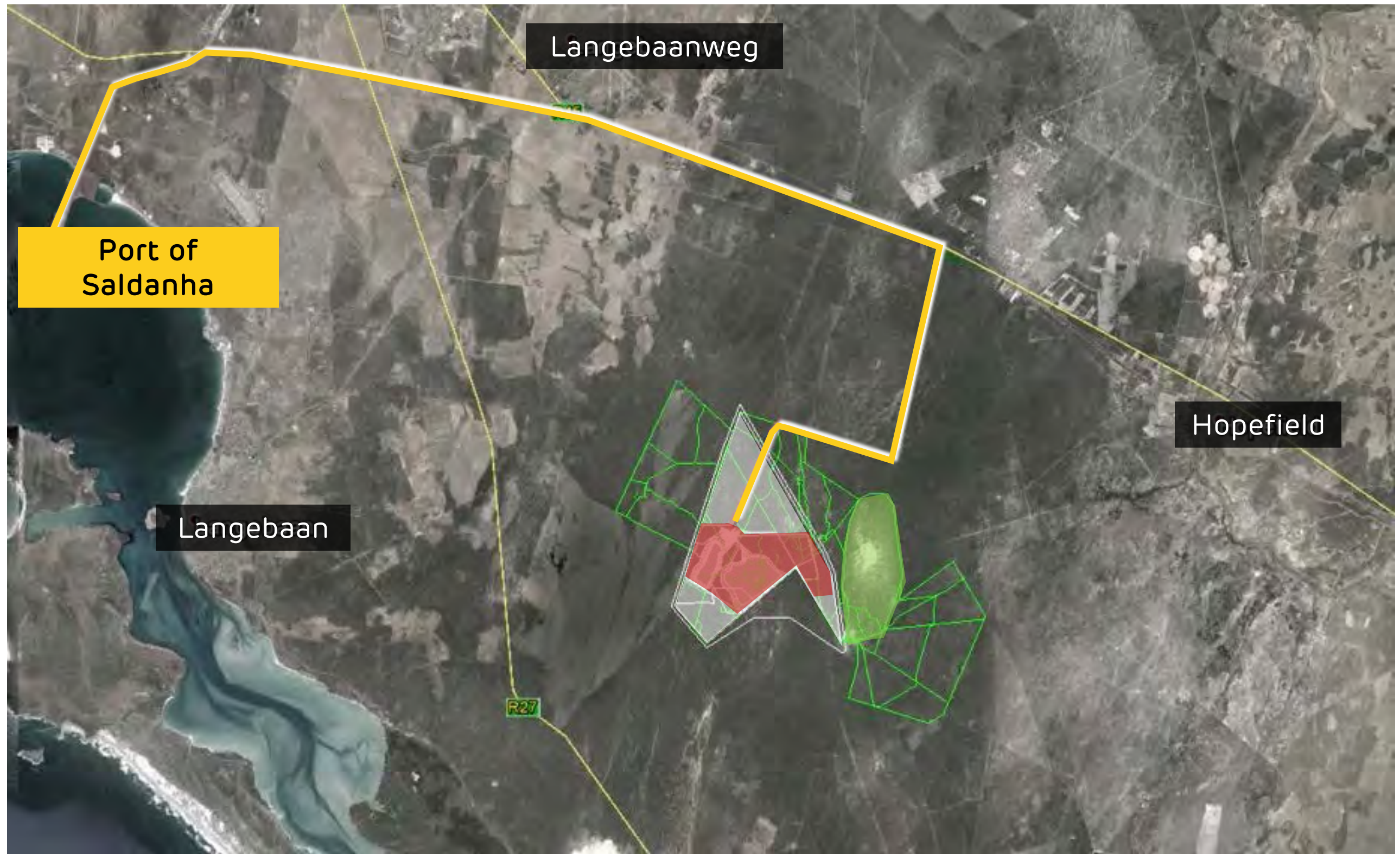
Permitting and approvals

Approvals Received	
Mining right	Executed in January 2015
EMPR	Approved in February 2015
Scheme departure for mining from SBM	Granted in December 2015
Heritage Impact Assessment	Approved in January 2016

Approvals Pending	
Integrated Water Use License	Application lodged in February 2016
Atmospheric Emissions License	Application lodged in March 2016

More than 32 specialist studies undertaken at a cost of R25 million in development of Environmental Management Programme

Project location



About Saldanha Bay Municipality

- Total population of almost 100,000 people
- High levels of unemployment (Census, 2011)
 - municipal unemployment rate of 23.4%
 - youth unemployment at around 30.4%
- Mine will promote economic growth and development and employment
- Training for employees, skills development and the support of an entrepreneurial culture in the surrounding communities
- Employees and their families will have access to long term work and benefits, and opportunities for training, development and improved quality of life



TECHNICAL OVERVIEW

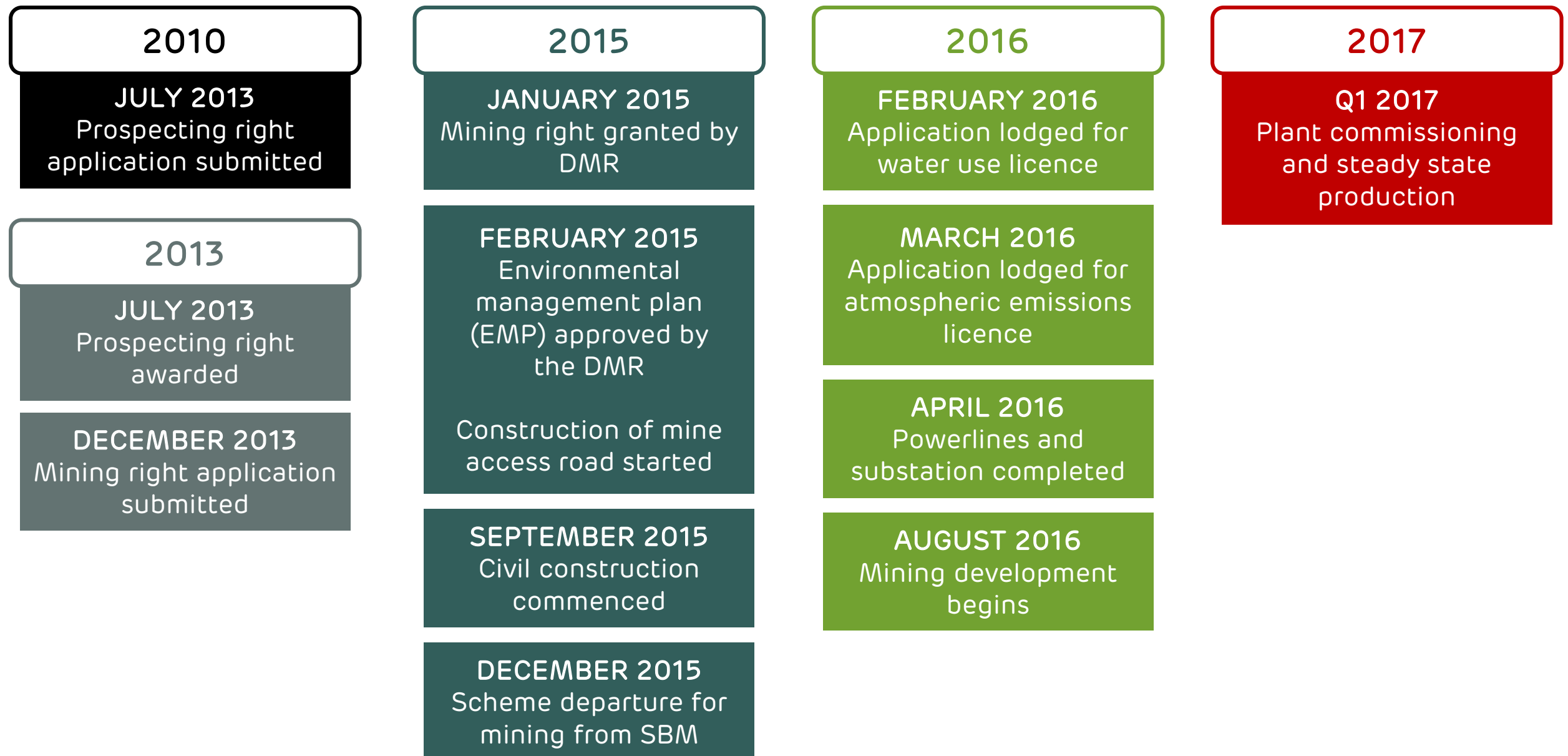
Carefully considered mine and plant

Responsible mine design considerations

Key environmental decisions taken since conceptual design

- Mine access road constructed along existing firebreaks
- Employment of roll-over mining:
 - reduced open area
 - continuous rehabilitation
 - effective topsoil management
- Careful mine dewatering and replacement of groundwater to protect aquifer and Langebaan Lagoon
- Rehabilitation specialist involved in project since 2013
- Reverse flotation using biodegradable collector (not conventional phosphate flotation)
- Filtration of plant tailings for maximum water recovery, avoiding need for conventional TSF
- Application for use of PBS haulage trucks to reduce number of concentrate trucks on road
- Iterative design process followed to continuously reduce disturbed area

Timeline to production



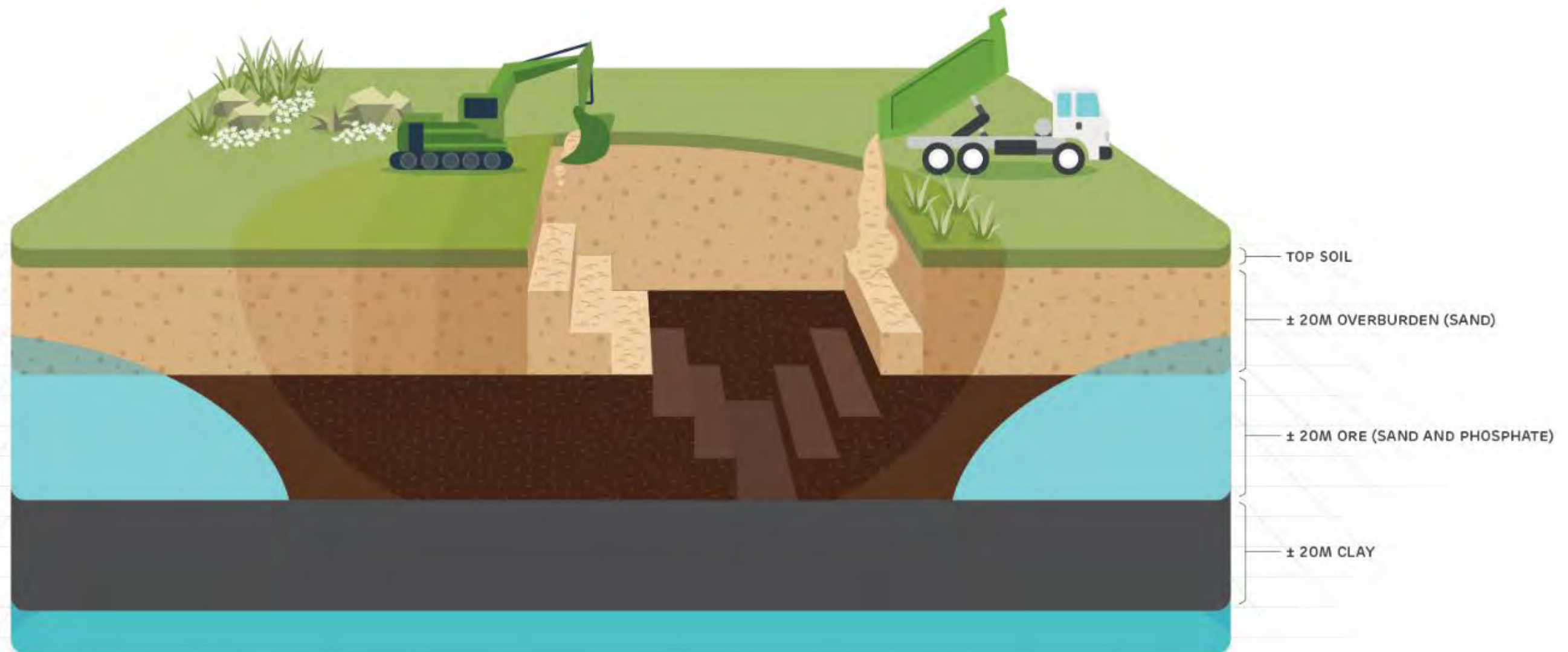
On-site activities

Fenced off area limited to 500ha, Phase 1 disturbed area of 300ha



Simple mining

Sandy deposit allows for free digging strip mining; no drilling or blasting required



Mine access road



Overburden haul road

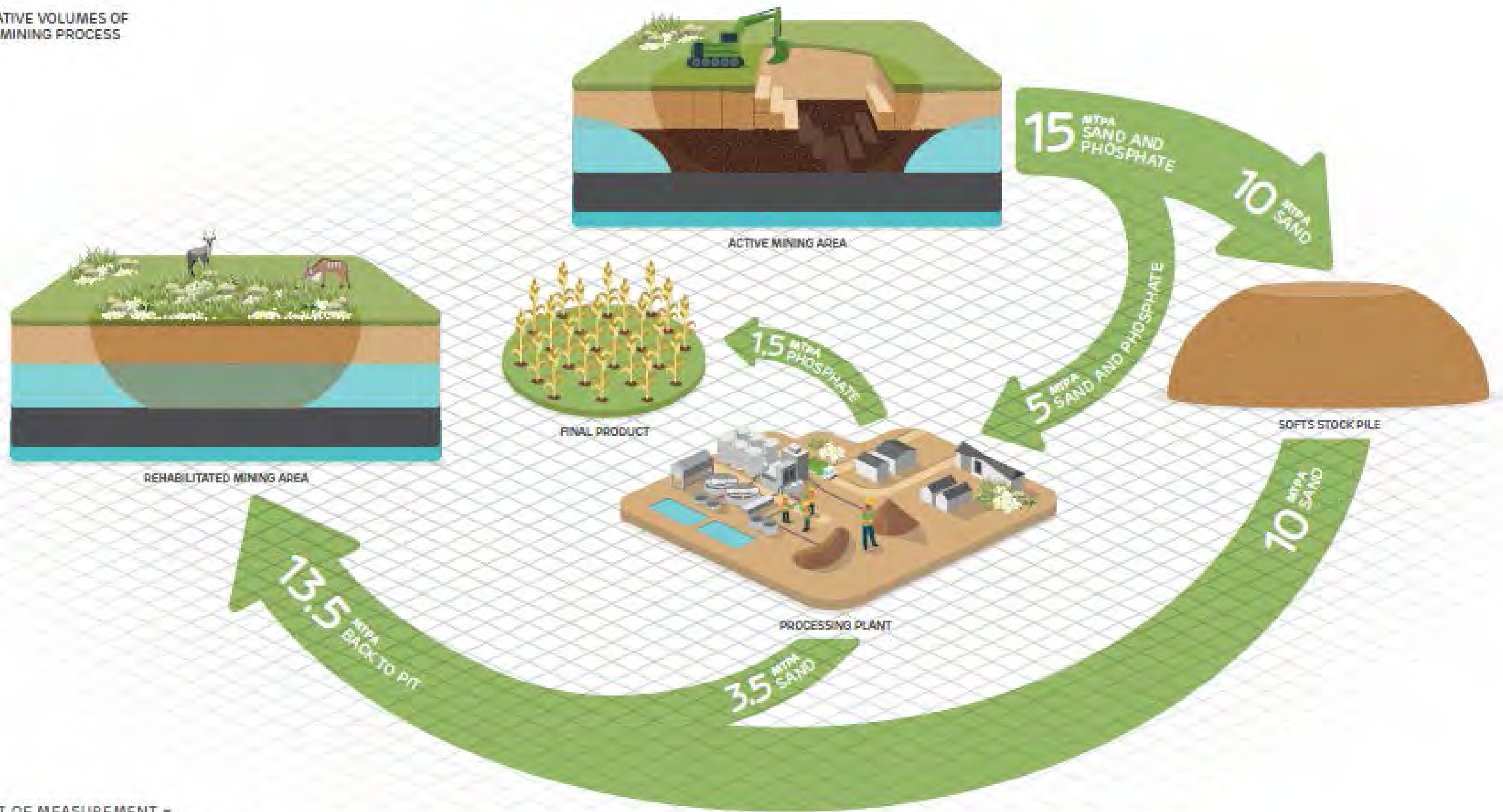


Box cut development



Volumes moved

RELATIVE VOLUMES OF
THE MINING PROCESS



UNIT OF MEASUREMENT -
MTPA (MILLION TONNES PER ANNUM)

Simple beneficiation process

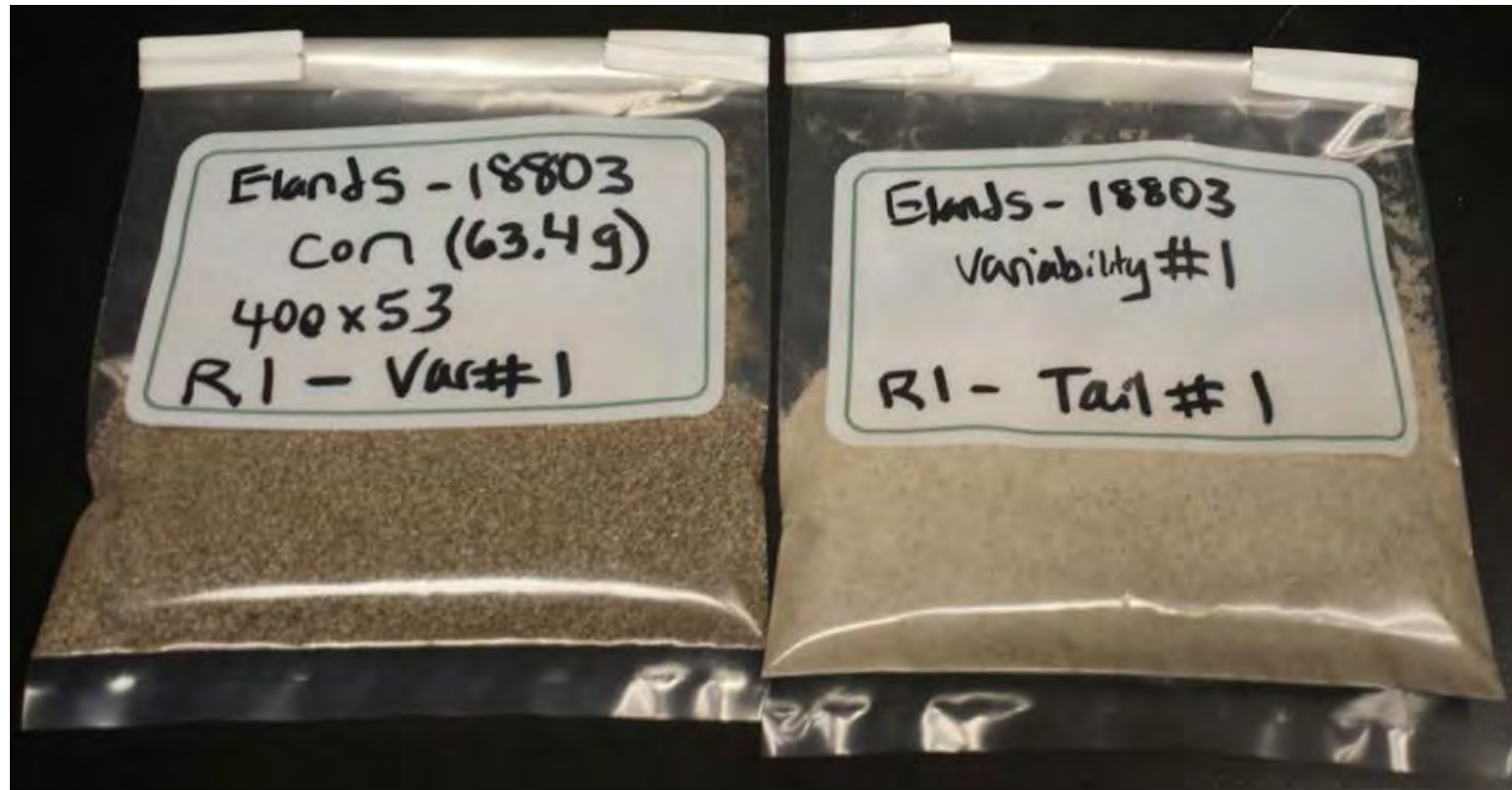
- Processing plant upgrades phosphate using size classification and flotation
 - plant function is to separate silica and apatite
 - silica is recovered using amine collector in reverse flotation
- Design to produce up to 1.5Mtpa of phosphate rock
- Processing outsourced to Minopex
- Mine will purchase water from SBM for the first three years of operation
 - has secured grey water from WWTP for treatment and water offsets
- Will run a zero emissions, closed water circuit



Metallurgical test work

Good understanding of metallurgical response of ore

- Laboratory scale test work at Mintek and SGS South Africa
- Completed 5 bulk runs on various composite samples at Eriez Laboratories, United States
- Successful production of 32% P₂O₅ consistently from head grades ranging from 7 – 13%



Site activities (August 2016)



Site activities (August 2016)





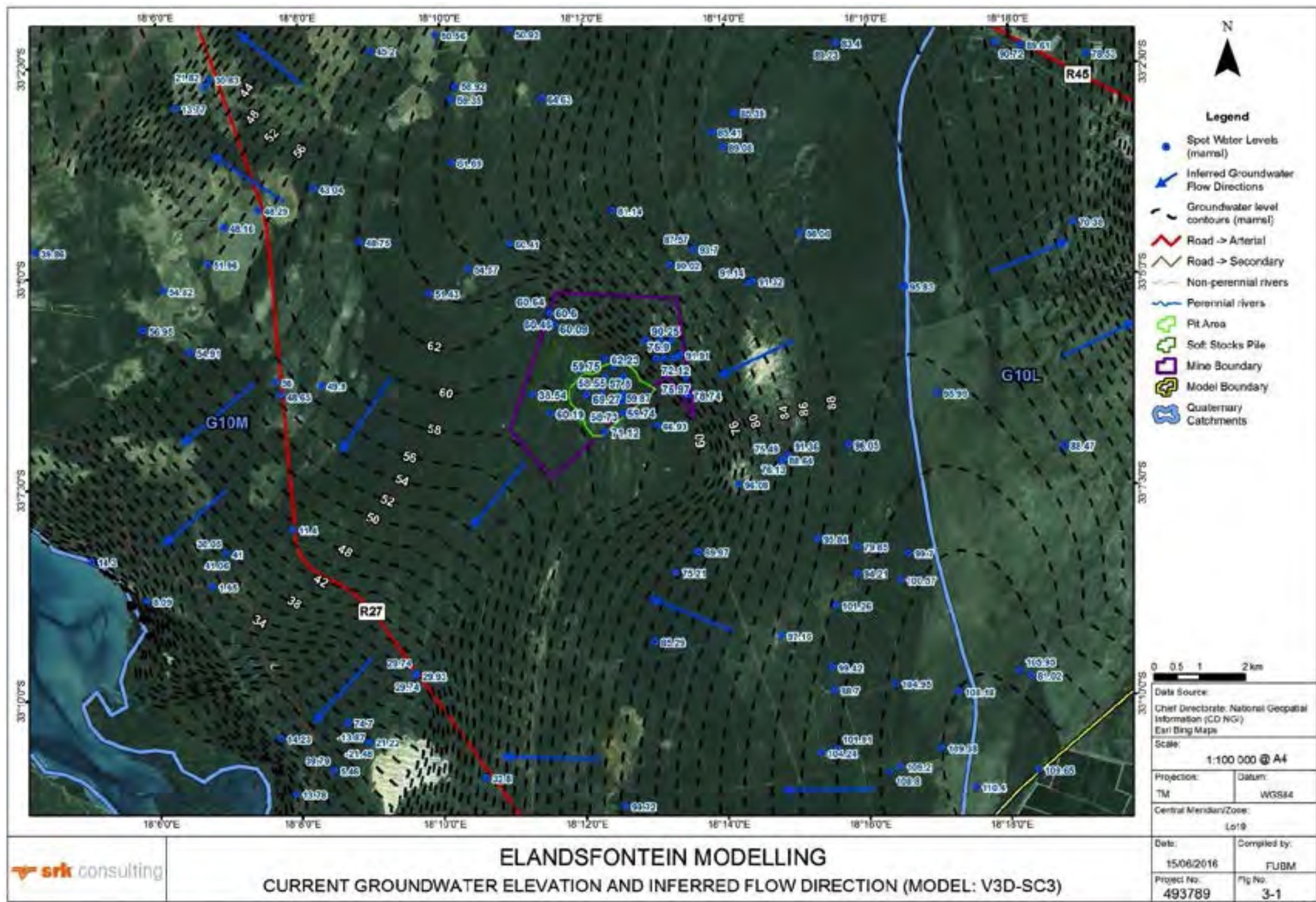
RESPONSIBLE MINING

Environmental and community initiatives

Location in relation to SANParks land



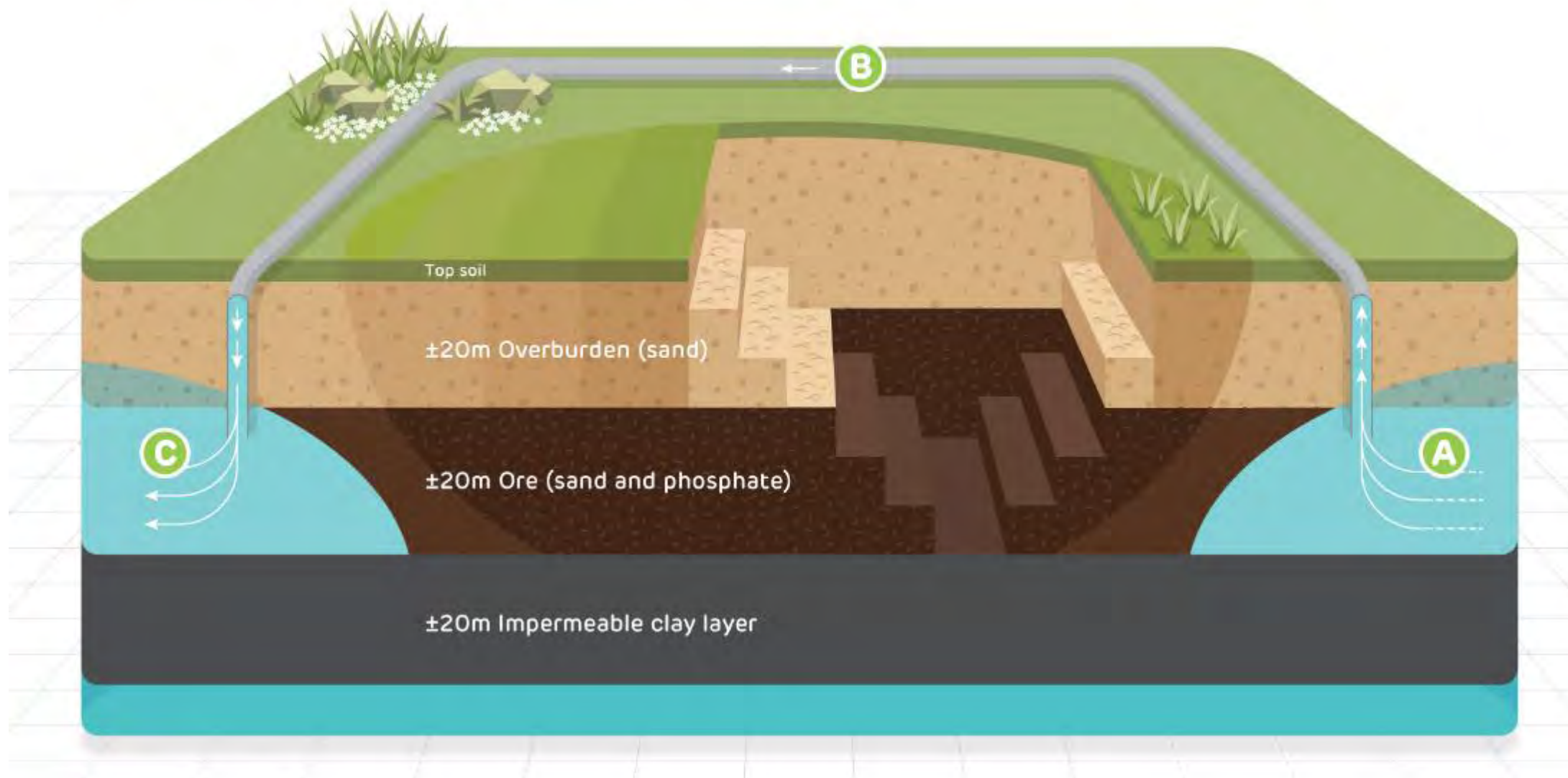
Water flow direction



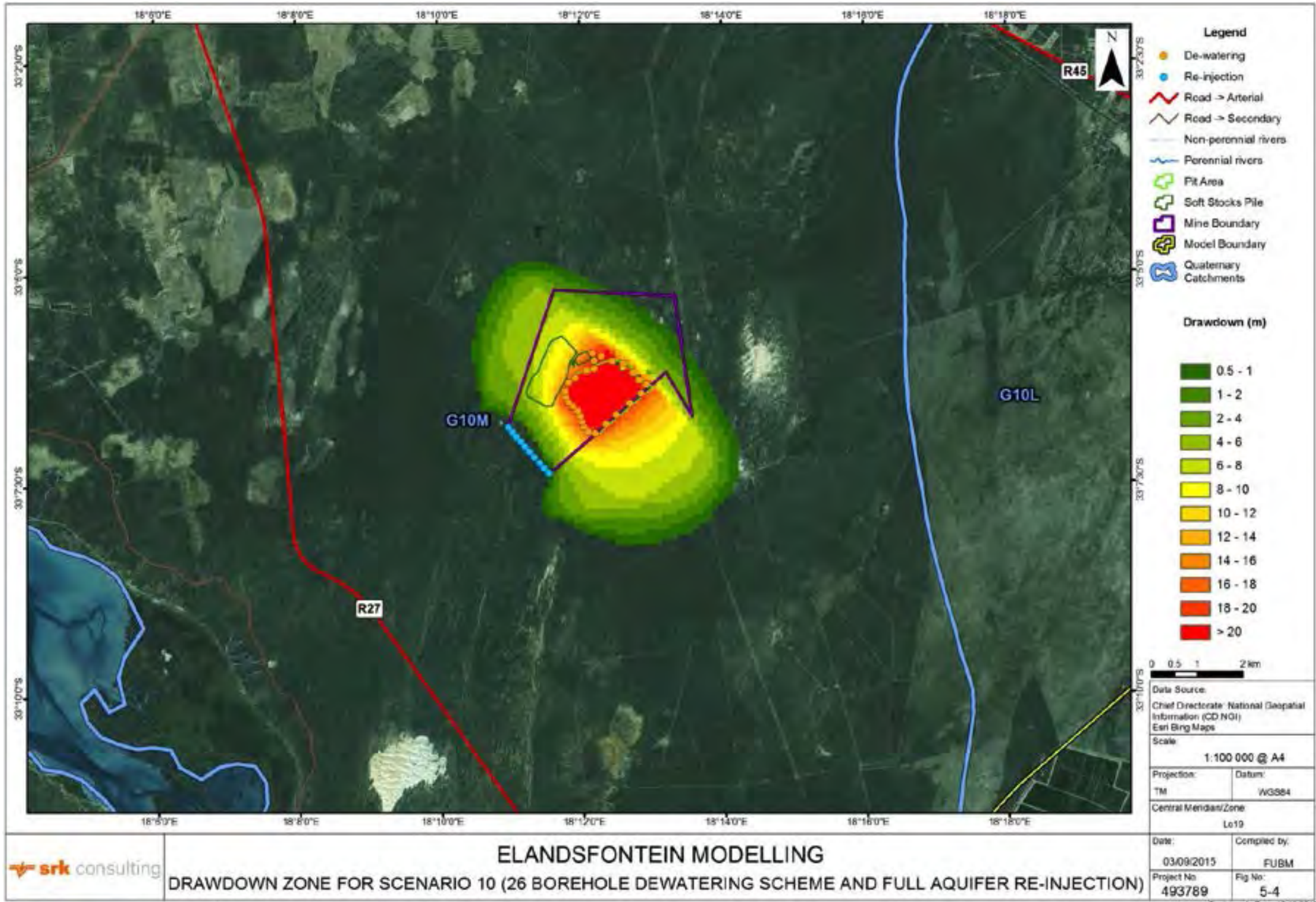
Mine dewatering

Environmentally conscious aquifer dewatering and recharge planned

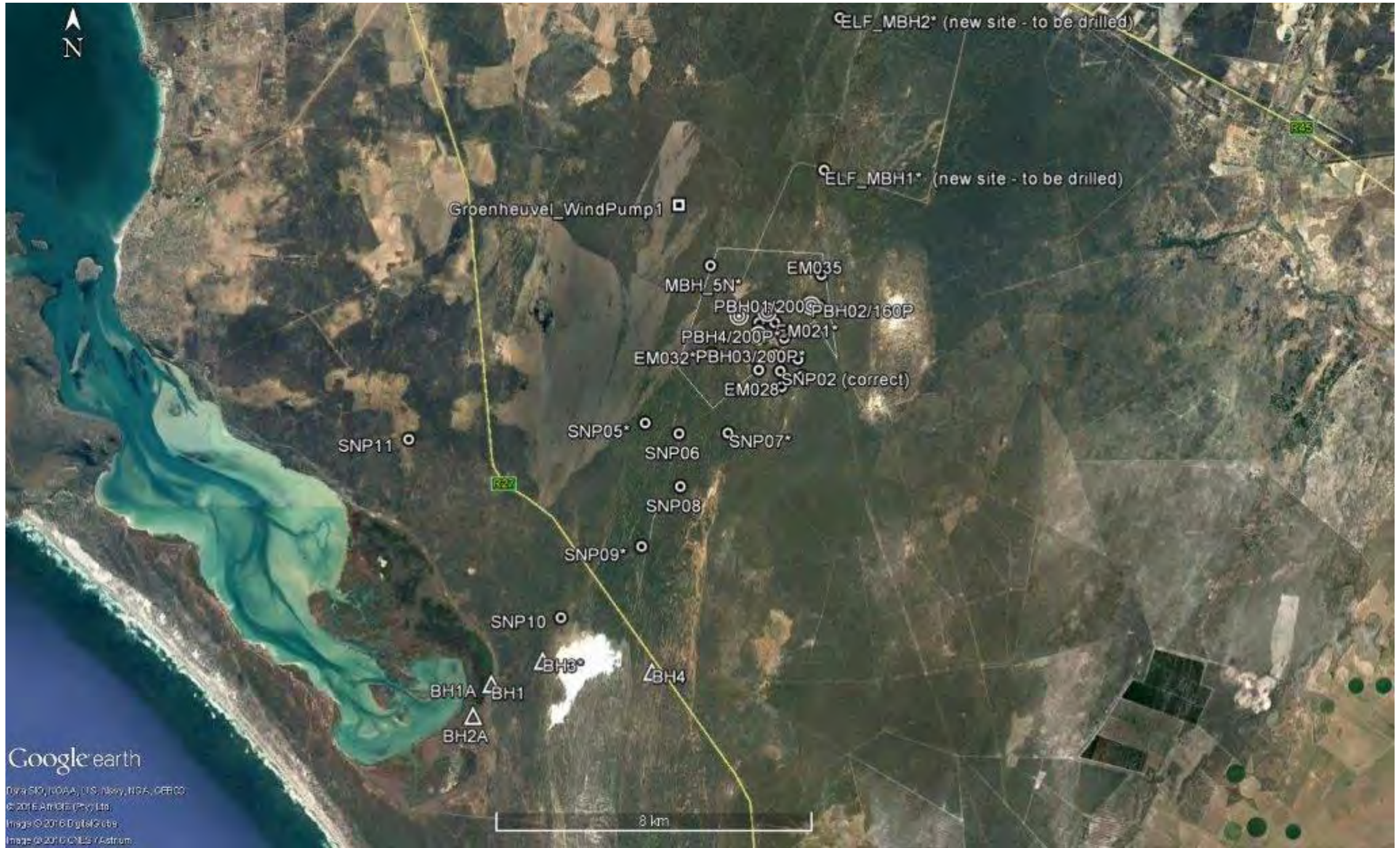
PROTECTING THE AQUIFER AND THE LAGOON



Draw down zone

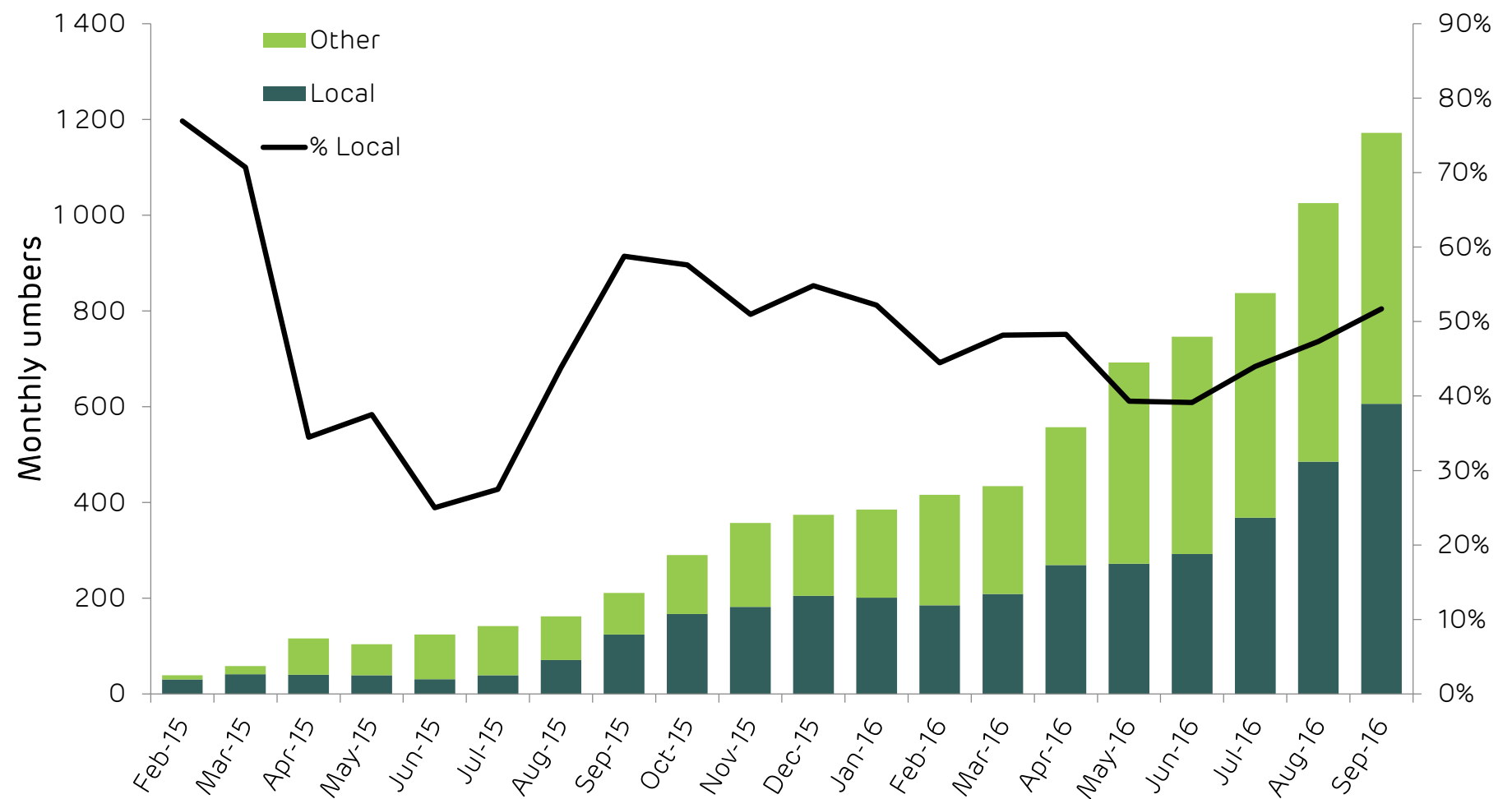


Water monitoring network



Local recruitment

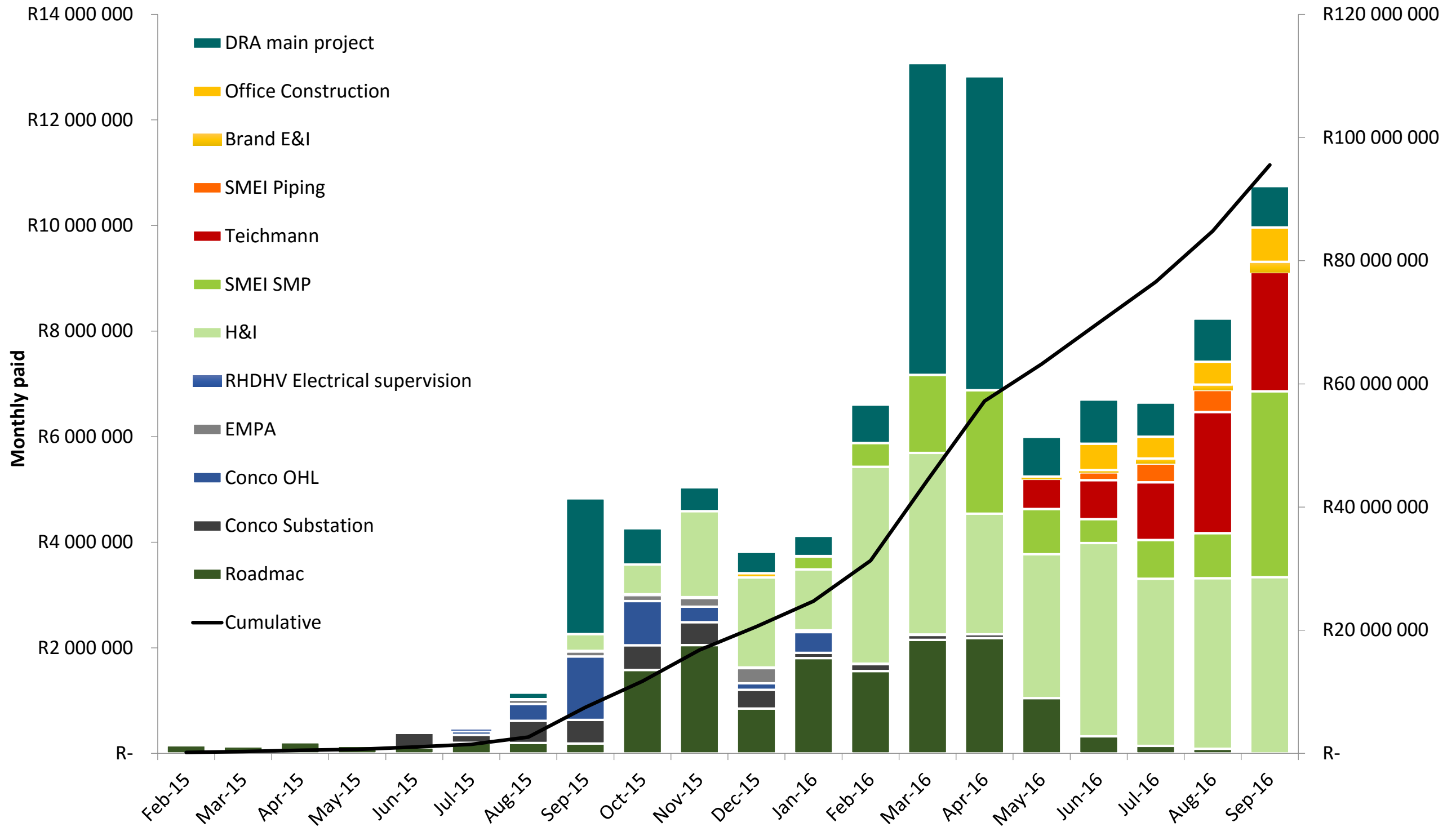
- Currently, during construction, Elandsfontein provides jobs to 1,025 people - almost half are resident within SBM
- 450 permanent full-time jobs will be available at the mine
 - both mining and plant operations recruitment has commenced for operations phase
- Training programme already been rolled out for the specific job requirements on site



Encouraging local manufacturing



Local spend with SBM

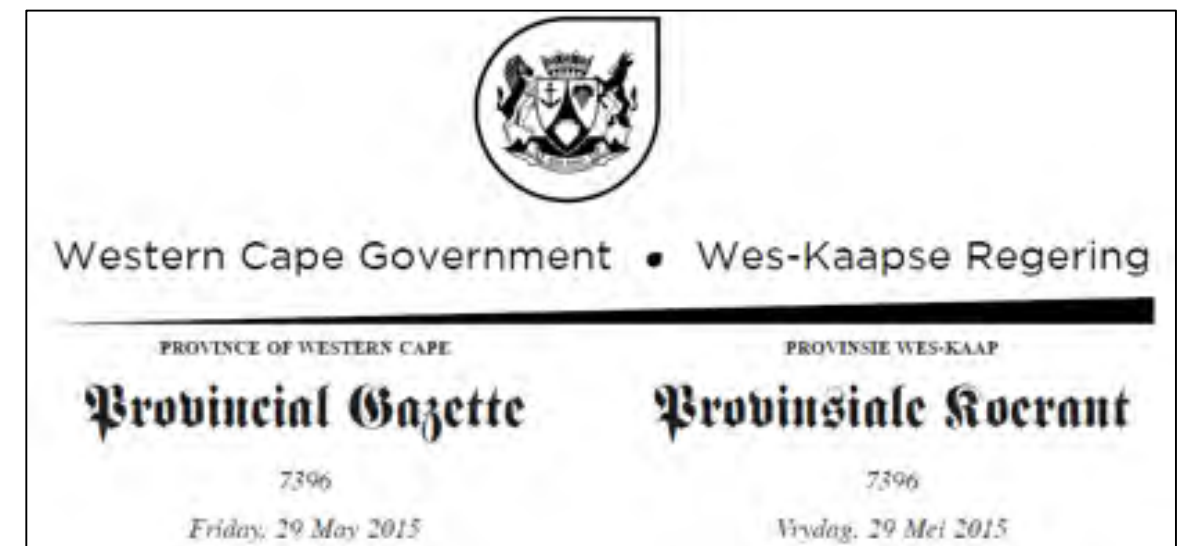


Greenheart Foundation

- Foundation was established by Kropz as a non-profit entity through which its community and sustainability initiatives will be directed
- GF focuses on social, charitable and environmental initiatives in and around the areas in which Kropz invests, develops and works
- More than R1 million donated to upgrade Hopefield Thusong Centre, including R200 000 for musical instruments for 2016
- R35 million being budgeted for a drug and alcohol rehabilitation centre in the SBM area

Caring for our heritage

- Collaboration with Heritage Western Cape for the protection of the Elandsfontein Fossil Beds, a portion of the property
- Appointed full time archaeology/palaeontology team as part of Heritage Management Plan



World-class safety performance

- 1,778,622 manhours worked for total project (as at 21 October)
- LTIFR = 0.22
- 424 accident free days on plant site
- Recently achieved 1,000,000 lost time injury free hours on plant site



Caring for our wildlife

- Game management programme with University of Pretoria
- 6 monthly game counts
- Access road built along fenceline



Search and rescue of sensitive vegetation

- Search and rescue of Species of Conservation Concern
- Mulching of vegetation
- Search and rescue of bulbs
- Propagation of species at offsite nursery

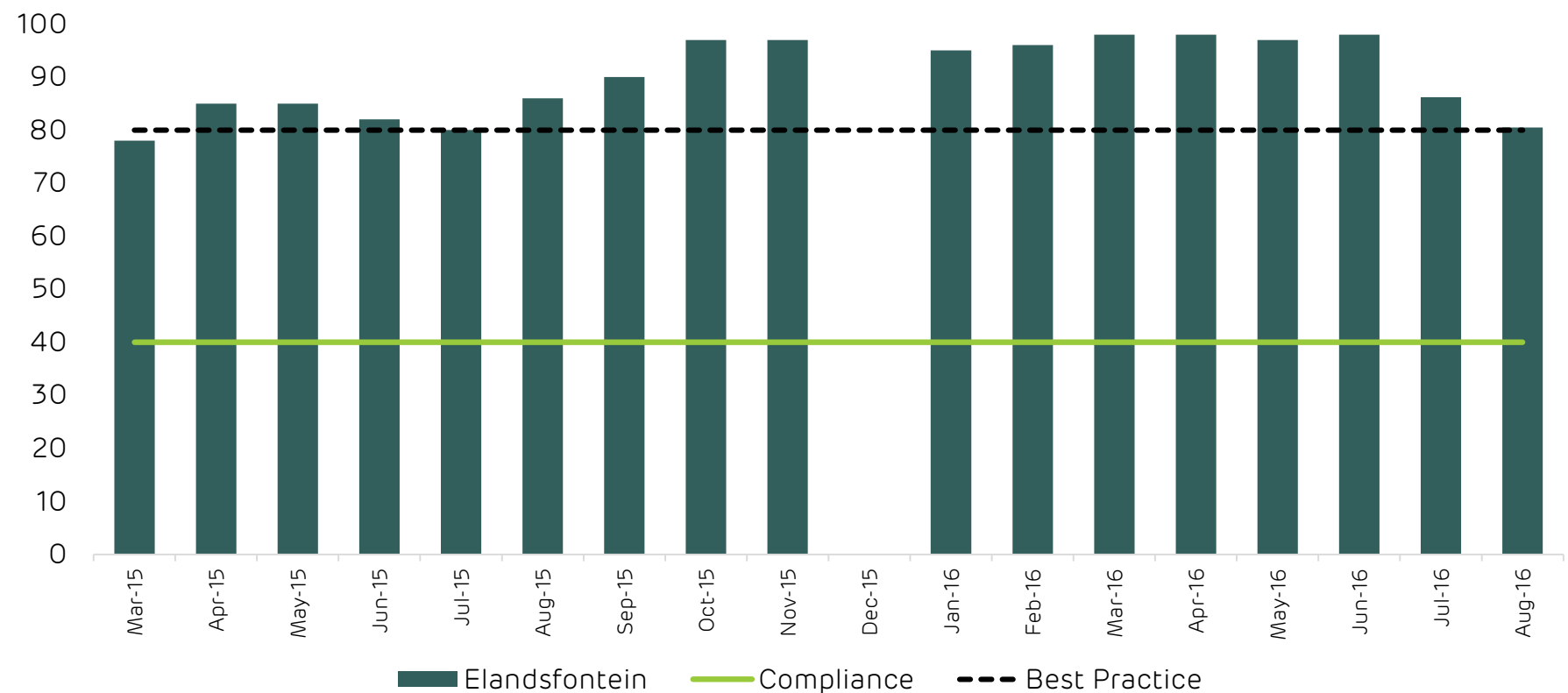


Commencement of early rehabilitation



Commitment to continuous monitoring

- Monthly audits by independent Environmental Control Officer
- Medical surveillance programme and occupational hygiene sampling (personal monitors)
- Voluntary monitoring arrangement with Cape West Coast Biosphere
- Dust, noise and vibration baseline monitoring program
- Establishment of detailed water monitoring network
- Monitoring (through SBWQFT) of Geelbek water quality and macrofauna



Offset

Elandsfontein will protect 15ha for every hectare disturbed over life of mine

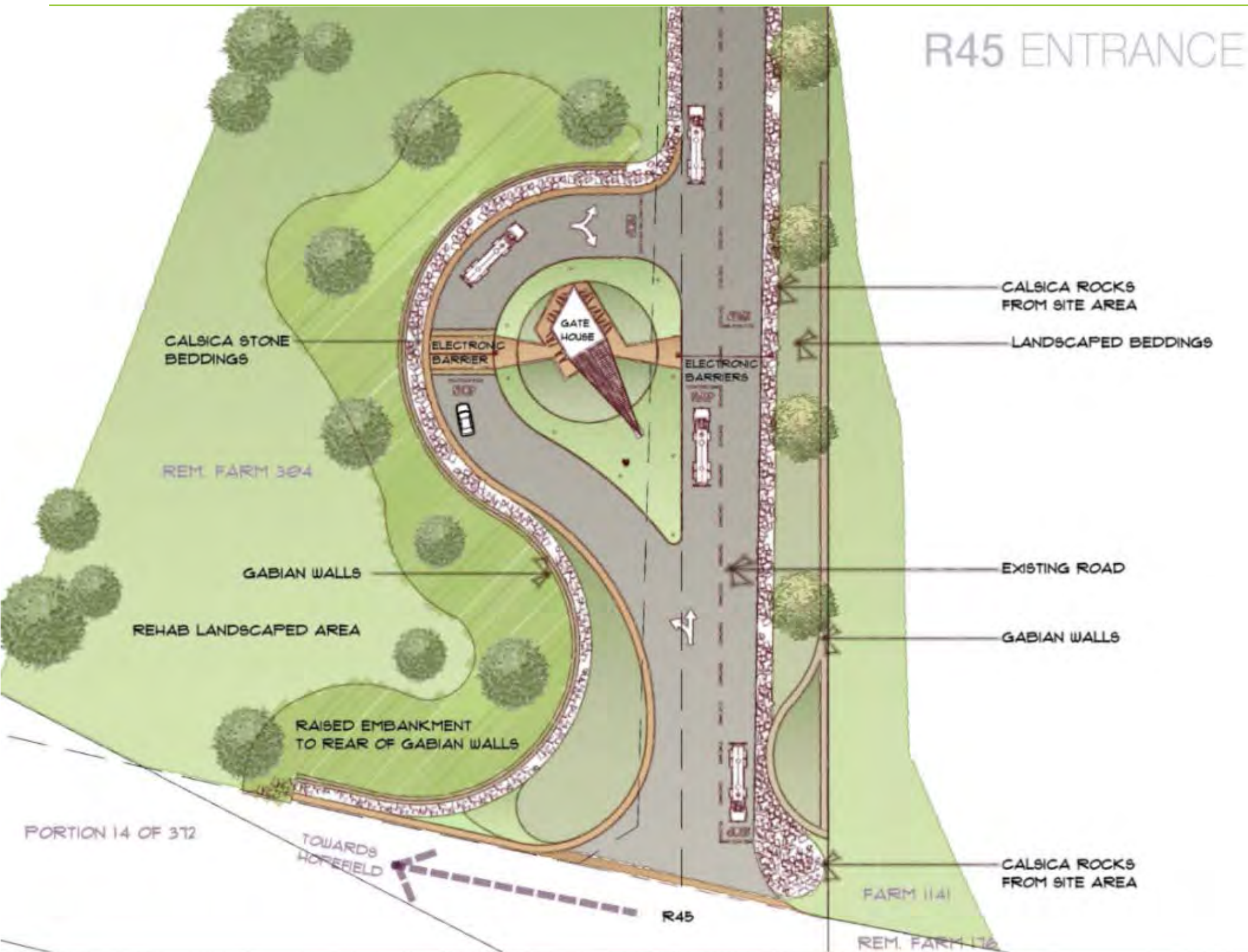
- Initially 1,500ha of offset land will be protected for mine development
 - land has been identified and secured
- Offset based on incremental acquisition and management of land over life of mine
- Plan based on NEMA Offset Policy and classification of site flora
- Final details to be agreed by heads of SANParks and Elandsfontein
- Need to finalise management agreement for protected areas



OUR LEGACY

What we will leave behind

Well considered mine entrance – future tourism



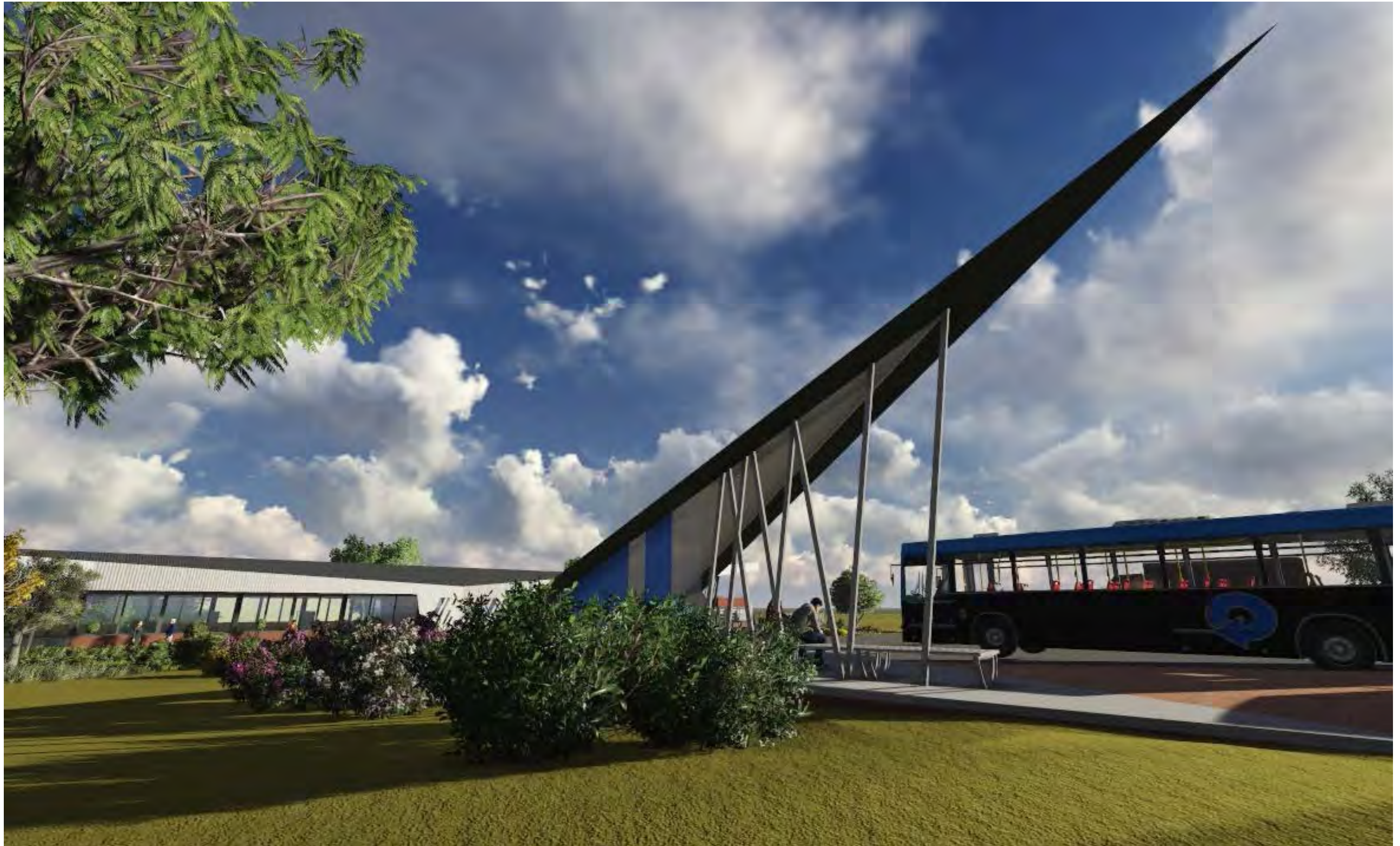
Well considered mine entrance: future tourism



Well considered mine entrance: future tourism



Bus access to new Tourism Hub: school tours and groups



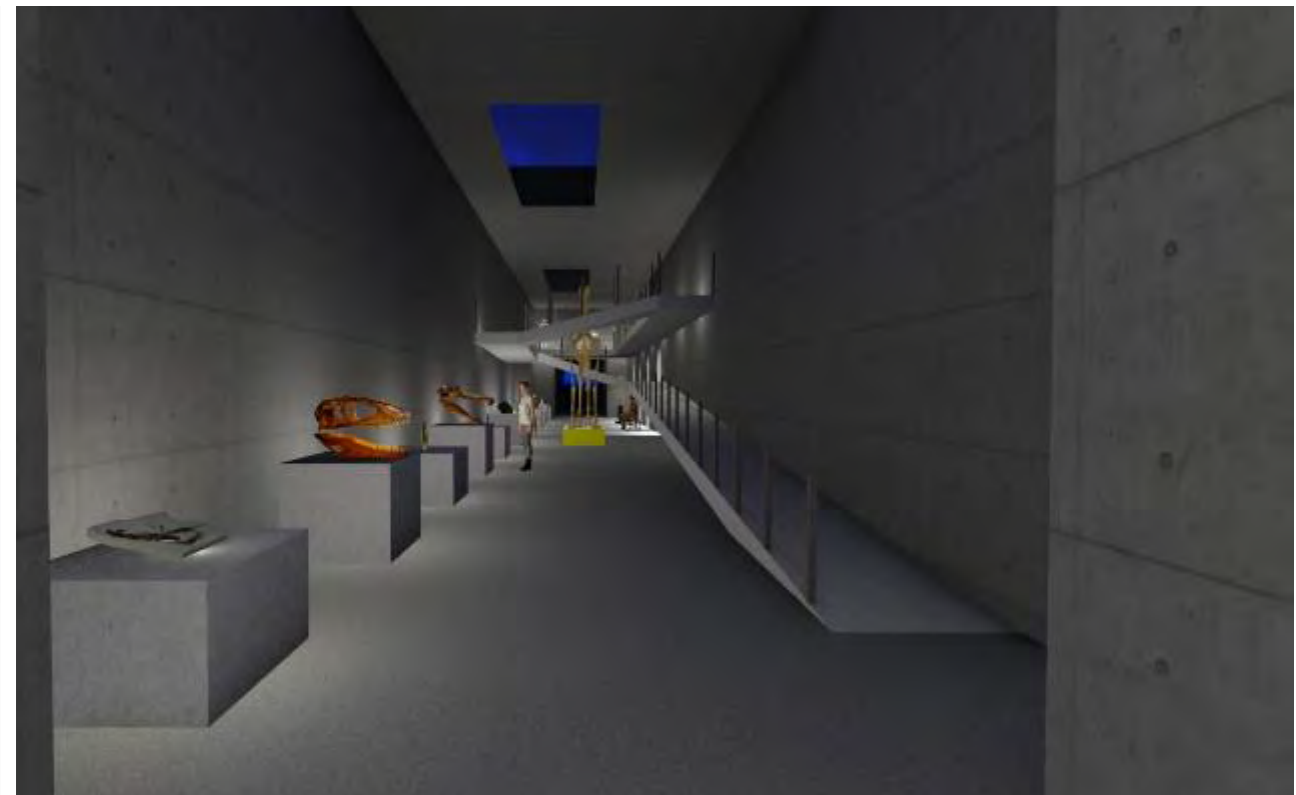
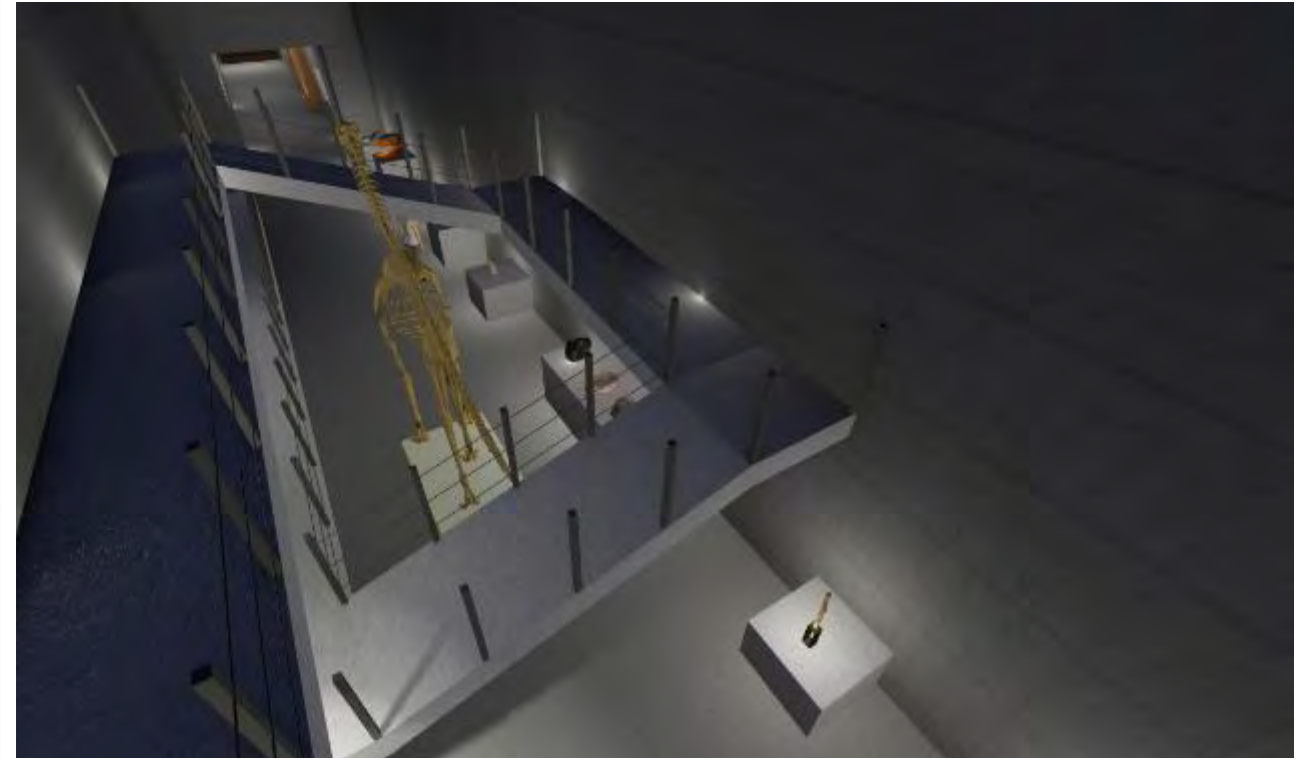
Mine office: future Tourism Hub



ROM stockpile tunnel: future Fossil Museum



ROM stockpile tunnel: future Fossil Museum



ROM stockpile tunnel: future Fossil Museum



Knowledge centre for mining and sustainability

World class conference centre and lodge



Thank You