

# ISIFINYEZO ESILULA

## Umbiko Wezemvelo Ozohlolwa Umphakathi

### I-Jindal Iron Ore Project YaseMelmoth

#### 1. ISETHULO

Lesi Sifinyezo Esilula (NTS) sifinqa Umbiko Womthelela Kwezemvelo (EIA) kanye Nohlelo Lokupathwa Kwezemvelo (EMPr) futhi silungiselelw i-Melmoth Iron Ore Project (MIOP). Le EIA kanye ne-EMPr kuzothunyelwa eMnyangweni Wezimbiwa Namandla waKwaZulu-Natal (DMRE) ukuze kufakwe iSicelo Selungelo Lokumba Umgodi (MRA). Le NTS itholakala ngesiNgisi nangesiZulu futhi iye yasabalalisa kubabambiqhaza ngenjongo yokubazisa nokubanika ithuba lokuphawula.

I-Jindal Iron Ore (Pty) Ltd (Jindal), ingeye-Jindal Steel and Power (Mauritius) Limited (74%) nozakwabo we-BBBEE yaseNingizimu Afrika, uMnu. Thabang Khomo (Pty) Ltd (26%). I-Jindal inamaLungelo Okuhlola Izimbiwa (PR) amabili kuMasipala Wendawo YaseMthonjaneni (LM) e-KZN. Umhlaba Osenyakatho (PR 10644) uwubukhulu obungu-8 467 ha bese Umhlaba Oseningizimu (PR 10652) ube ubukhulu obungu-11 703 ha. Ngaphambilini i-Jindal ike yahlola izimbiwa kulezi zindawo ze-PR, kodwa yawumisa lowo msebenzi ngo-2016. UKusimama kwakamuva kwentengo ye-iron ore kuye kwakhuthaza i-Jindal ukuba iphinde iqale i-Jindal MIOP futhi njengamanje yenya i-Bankable Feasibility Study (BFS).

Indawo ye-Jindal MIOP iqhele ngamakhilomitha awu-25 eningizimu-mpumalanga yeMelmoth, kuMasipala Wendawo YaseMthonjaneni (LM) eSifundazweni saKwaZulu-Natal (KZN) eNingizimu Afrika. I-Jindal ihlongoza ukumba imayini engumgodi ovulekile we-iron ore kanye nengqalasizinda yokucubungula kuleyo ndawo ukuze kumbiwe amathani ayizigidi eziwu-32 njalo ngonyaka (mtpa) e-iron ore azobe esecubungulwa kuyo le ndawo ukuze kukhiqizwe cishe u-7 mtpa we-iron ore concentrate. Kuhlongozwa ukuba i-Jindal MIOP yensiwe ngezigaba futhi lesi Sicelo Selungelo Lokumba Umgodi (MRA) sihlanganisa kuphela ukumba engxenjeni eseningizimu-mpumalanga Yomhlaba Oseningizimu (Umfanekiso 1). Nge-MRA i-Jindal ihlose ukuhlanganisa ama-PR ayo Emihlaba Esenyakatho Neseningizimu ukuze abe yiLungelo Lokumba elilodwa.

I-Jindal iqoke i-SLR Consulting (Ningizimu Afrika) (Pty) Ltd Njengomhloli Wezemvelo Ozimele, ukuba yenze inqubo ye-EIA kanye nokusingatha ukubamba iqhaza komphakathi (PPP) kwenzelwa i-MRA.

#### 2. IMIHLABA ETHINTEKAYO KU-MRA

Imihlaba elandelayo iyingxenye ye-MRA:

##### UMhlaba Osenyakatho

- Ingxenye 3 no-4 wePulazi No. 11 15831
- Ingxenye ye-Remaining Extent (RE) yePulazi iNtembeni 16921

##### UMhlaba Oseningizimu

- I-RE, Izingxenye 1, 2, 3, no-4 zePulazi i-Black Eyes 13385
- I-RE, Izingxenye 1, 2, no-3 zePulazi i-Goedgeloof 6106
- I-RE yePulazi i-Kromdraai 6110
- Ingxenye 3, 4, 5, 6, 7, 8, 12, 13, 14, 15, no-16 yePulazi i-Wilderness 6107
- Ingxenye ye-RE yePulazi i-Vergelegen 6104
- I-Goedertrow 89 No. 7806
- Ingxenye ye-Rem of Reserve No. 11 No. 15831

#### 3. UNGABANDAKANYEKA KANJANI?

Le EIA kanye Nombiko Wohlelo Lokupathwa Kwezemvelo (EMPr) kukhishiwe njengamanje njengengxenye yenkathi eyizinsuku ezingu-30 zokuhlola komphakathi kusukela ngomhla ka-**14 Julai kuya ku-14 Agasti 2023** ukuze kunikezwe Abanesifiso Nabathintekayo (I&APs) ithuba lokuphawula kunoma yisiphi isici sephrojekthi kanye nalokho okutholwe yinquo ye-EIA neye-EMPr. Konke ukuphawula okutholwe phakathi nenqubo yokuhlola kuzofakwa ku-EIA Nasembikweni Wokuphawula Nokuphendula ozothunyelwa ku-DMRE.

##### Ungabandakanyeka ngokuhlola i-NTS noma Umbiko:

UMBiko We-EIA nowe-EMPr uyatholakala kulezi zindawo ezilandelayo:

- Ukuya emhlanganweni womphakathi - 26 Julai 2023 eMari's Cottage, 17 Flight Street, Melmoth, kusukela ngo-09:00 kuze kuge u-21:00. Izethulo ezisemthethweni zizokwenziwa ngo-11:00, ngo-15:00 nango-18:00.
- Umbiko ophelele utholakala lapha <https://slrpublicdocs.datafree.co/public-documents/JindalMIOP>, ungangena kuwo usebenzisa umakalekhukhwini ongena ku-inthanethi ngaphandle kokusebenzisa idatha.
- Umbiko ophelele uyatholakala nalapha: <https://slrconsulting.com/public-documents>.
- Okubhalwe ephepheni kutholakala kulezi zindawo ezilandelayo:

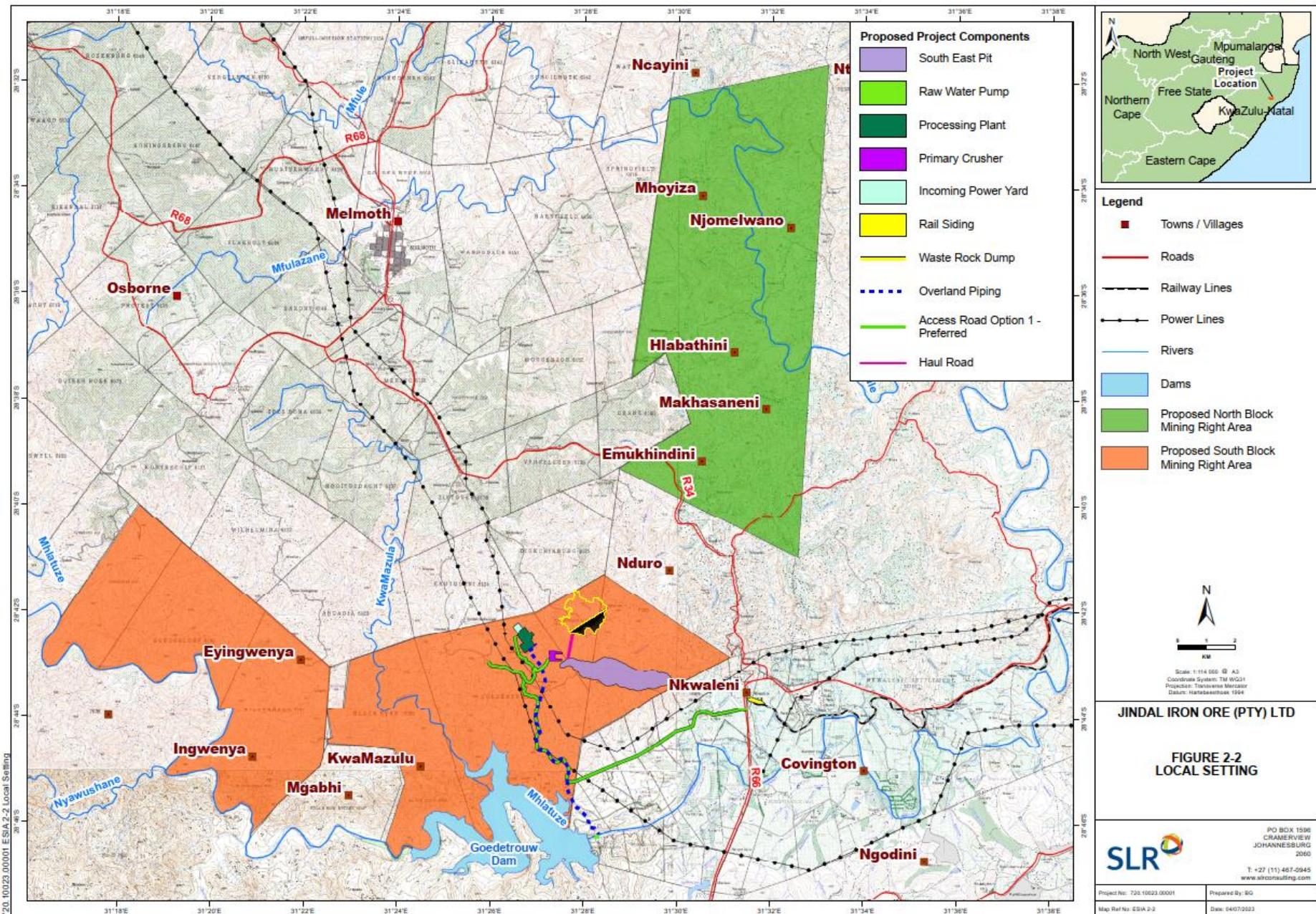
INDAWO	IKHELI
Entembeni Traditional Court	Ndundulu
Obuka Traditional Court	Obuka
Yanguye Traditional Court	Yanguye
Melmoth Public Library	21 Reinhold Street, Melmoth
Eshowe Public Library	1 Hutchinson Street, Eshowe
King Dinuzulu Public Library	875 Inkosi Ndwandwe Street, Eshowe
Nkwaleni Store	Nkwaleni
Jindal Africa Office	15 Arbor Street, Melmoth

Ukuze uthole imininingwane eyengeziwe sicela uthinte lo muntu:

KUQONDISWE KU: Ms Genie de Waal

I-meyili: [genie.dewaal@zutari.com](mailto:genie.dewaal@zutari.com)

**UKUPHAWULA KUDINGEKA NGOMHLA KA-14 AGASTI 2023**



Umfanekiso 2: Ukhwakheka okuhlongozwayo kwe-Jindal MIOP

## 4. INCAZELO YEPHROJEKTHI

I-Jindal ihlongoza okulandelayo kwe-Jindal MIOP:

- Ukumba emgodini ovulekile engxenyeni eseningizimu-mpumalanga yoMhlaba Oseningizimu (obizwa ngokuthi Umgodi Oseningizimu-mpumalanga) Izilinganiso zokugcina Zomgodi Oseningizimu-mpumalanga ngemva kweminyaka ewu-25 cishe ziyo amamitha awu-4 000 empumalanga kuya entshonalanga, amamitha awu-1000 enyakatho kuya eningizimu namamitha awu-550 ukujula.
- Ukumba amathani angaphezu kwezigidi eziwu-800 e-ore eminyakeni engaba ngu-25 okukhiqiza amathani acishe abe izigidi eziwu-32 ngonyaka (mtpa) e-iron ore.
- I-waste rock dump (WRD) ukuze kulahlwe amatshe angadingeki. I-WRD iklanyelwe ukuba ibe nobude obungamamitha awu-251 futhi ithatha indawo engaba ngu-204 Ha. I-WRD ihlinzeka ngendawo yokugcina izinto eziyigidi eziwu-194 m<sup>3</sup> ezosetshenziswa iminyaka engu-25.
- Umshini wokucubungula ozogaya futhi uhlukanise izinto ngozibuthe ukuze kukhiqizwe cishe u-7 mtpa we-concentrate ezobe isithunyelwa kwamanye amazwe (bambalwa abantu abayithengayo kuleli).
- Ingqalasizinda ehambisana nalokhu ezosekela imayini izohlanganisa: ilebhу, indawo yokulayisha esitimeleni, imigwaqo, intambo kagesi kanye nesiteshi esincane, amapayipi amanzi, ingqalasizinda yokulawulwa kwamanzu emvula, amapayipi e-concentrate, amahhovisi, indlu yokushintsha, izindawo zokusebenza kanye nocingo lokubiya (phakathi kokunye).
- Isibalo samanzi adingekayo singamamitha awu-1 500<sup>3</sup>/h, ngokusekelwe emsebenzini wesikhungo waminyaka yonke. Lokhu kulingana no-11.56 Gl/a. Nokho indawo okuqoqana kuyo amanzi eMhlathuze, njengamanje ithwele kanzima, ngenxa yalokho kudingeka kuholiwe izindlela ezihlukahlukene njengengxenye yeSicelo Selayisensi Yokusebenzisa Amanzi (WULA).
- Ukuthuthukisa umzila wesitimela phakathi kweNkwalini Siding kanye ne-Richards Bay Port ukuze kuthuthwe i-iron ore concentrate (ingxene yomsebenzi ohlukile).
- Okusadaka okuvela emshinini ocubungulayo kuzolahlw endaweni egcina izinsalela (TSF) (nalokhu kuyingxene yomsebenzi ohlukile).

Ukwakheka okuhlongozwayo kwe-MIOP kungabonwa eMfanekisweni 1.

## 3. INQUBOMGOMO KANYE NOKOMTHETHO

Ngaphambi kokuqala kwe-Jindal MIOP okuhlongozwayo, kudingeka Ukugunyazwa Kwezemvelo okuvela kulezi ziphatimandla ezifanele:

- ISicelo SeLungelo Lokumba esivela e-DMRE ngokuvumelana noMthetho We-Mineral and Petroleum Resources Development Ka-2002 (uMthetho No. 28 Ka-2002) (MPRDA).
- Ukugunyazwa Kwezemvelo okuvela e-DMRE ngokuvumelana noMthetho We-National Environmental Management Ka-1998 (uMthetho No. 107 Ka-1998) (NEMA), njengoba uchibiyelwe.
- ILayisensi Yokulawulwa Kwemfucuza (WML) evela e-DMRE ngokuvumelana noMthetho We-National Environmental Management Waste Ka-2008 (uMthetho No. 59 Ka-2008) (NEM:WA).
- ILayisensi Yokusebenzisa Amanzi (WUL) evela eMnyangweni Wezamanzi Nokuthuthwa Kwendle (DWS) ngokuvumelana

noMthetho Wezamanzi Kazwelone Ka-1998 (No. 36 Ka-1998) (NWA).

Inqubo yokuhola ezemvelo kanye neye-EIA, eyenziwa ngokuvumelana Nemithethonqubo Ye-EIA, 2014, yensiwe ukuze isize ekuthathweni kwesinqumo se-DMRE. UMBiko We-EIA nowe-EMPr uhlola izinkinga ezingase zibe khona ngokupathelene ne-Jindal MIOP ehlongozwayo futhi uthole izinkinga ezingase zibe nkulu kanye nezixazululo ukuze kuncishiswe umthelelo ngokusemandleni.

## 4. ISIDINGO NOKUFISELEKA KWEPROJEKTHI

Izici eziyinhloko zoMhlahlandlela Wesidingo Nokufiseleka zidingidwa ezingxenyeni ezilandelayo:

### Ukusetshenziswa Kwemvelo Ngendlela Esimeme Kanye Nokusetshenziswa Kwezimbiwa

Indawo ehlongozwayo ye-Jindal MIOP iwumhlaba 'okungakhwanga lutho' kuwo (Umfanekiso 2) futhi imiphumela yocwaningo lwezinhlolo zezinto eziphilayo ibonisa ukuthi indawo ekhonjiwe yephrojekthi okuzokwenziwa kuyo i-Jindal MIOP ihlotsaniswa nezinye zezinhlolo zeziwlane okudingeka zivikelwe (SCC). Ukkukhuliswa Komgodi Oseningizimu-mpumalanga kanye ne-WRD kuzoholela ekulahlekeni kwe-Moist Coast Hinterland Grassland (Esengozini) kanye ne-Dry Coast Hinterland Grassland (Esengcupheni). Nokho, ngenxa yokuba kwalo mhlaba amadlelo kuso sonke isifunda lezi zindawo ezinotshani ngokwezinga elithile beseziqalile ukonakala/ukushintsha.



Umfanekiso 2. Isithombe SoMhlaba Oseningizimu uma umi enyakatho

Ucwanningo Iwe-Terrestrial Ecology luye Iwensiwa ukuze kuqondwe umthelela ongase ube khona endaweni enotshani kanye nokuxhumana okuhubekayo nababambiqhaza basendaweni futhi ukusetshenziswa kohlelo lokupathwa kwendawo enotshani ngendlela esimeme kuzoba semqoka ekuqinisekiseni ukuthi indawo enotshani esaphelele ayonakaliswa. Kuzabaluleka nokulwa nezitshalo ezivela kwenye indawo ezihlobana nokushintsho emvelweni, okubangelwe ukumba kanye nokudla kwemfuyo ngokweqile, kanye nokusetshenziswa kohlelo lokulwa nezitshalo ezivela kwenye indawo.

Umsebenzi wokumba uzodinga amanzi asetshenziswa emshinini wokucubungula, ukulawulwa kothuli, ukugezwa kwezimoto, endlini yokushintsha kanye nasehhovisi. Ukuhlolwa kokutholakala kwamanzu kuye kwensiwa futhi ukudonswa kwamanzu endaweni okuqoqana kuyo amanzi eMhlathuze kuye kwahlolwa. Indawo okuqoqana kuyo amanzi eMhlathuze ithwele kanzima futhi ngenxa yalokho i-DWS ingase icabangele kuphela izindawo ezintsha uma abafake isicelo besiza ekuzeni nezixazululo, okuzobe sekukhiqiza amanzi engeziwe endaweni aqoqana kuyo. Lezi zindela zizodinga ukuhlolwa okwengeziwe uma kwenzeka iLungelo Lokumba ligunyazwe futhi zizoxhomeka ekugunyazweni yi-DWS isebezisa i-WULA. Izidingo zamanzu cishe zizoncipha njengoba umgodi ujula

ngenxa yokusetsenziswa ngokuphindaphindiwe kwamanzi aqoqana emgodini.

#### Ukuthuthukiswa Okufanele Komnotho Nomphakathi

Cishe i-Jindal MIOP izoba ngenye yamaphrojekthi amakhulu angaphandle atshala imali eNingizimu Afrika eminyakeni yamuva. Imayini izodala ngokuqondile amathuba emisebenzi abantu abangaba ngu-800 kanye nemisebenzi engaqondile yabantu abangaba ngu-1 600 phakathi nesigaba sokusebenza. UHulumeni WaseNingizimu Afrika, omasipala besifundazwe nabasendaweni bazothola inkokhelo enezelwe evela ekumbiweni komgodi, intela, izimvume kanye nezindleko.

Umqulu Wezimayini, 2018, washicilelw ngoSepthemba 2018 futhi ubhekwa njengethulizi lokugqugquzel ushintsho lwemboni yemayini nezimbiwa. Ngokuyinhloko, Umqulu Wezimayini usekelwe esiqinisekisweni sokuthi umcebo wezimbiwa wezwe ungowazo zonke izakhamuzi futhi labo abahlala eduze kwemithombo yezimbiwa kufanele bathole izinzuso zokuthuthukiswa komnotho womphakathi ekumbiweni nasekucubungulweni kwezimbiwa. Njengoba kunjalo ngezinye izinkampani zezimayini eNingizimu Afrika, i-Jindal ibophekile ukuba ithobele lo Mqulu Wezimayini.

Ukwenezelu kulokhu, Uhlelo Lokuthuthukiswa Kwezwe LaseNingizimu Afrika lihlose ukuqedu ububha kanye nokunciphisa ukungalingani ngo-2030. I-Jindal MIOP ehlongozwayo ingafaka isandla ekuphumelelisweni kokuthuthukiswa komnotho kanye nokukhula okubandakanya wonke umuntu kusetsenziswa imali engenayo kanye nentela futhi kudalwe amathuba emisebenzi. Ngokusetsenziswa Kohlelo Lomphakathi Nemisebenzi (SLP), iprojekthi ehlongozwayo ingafaka isandla kumaphrojekthi akhonjiwe kusetsenziswa uhlelo Lokuthuthukiswa Komnotho Wasendaweni (LED) olwensiwe uMasipala Wendawo YaseMthonjaneni (LM), oluzobe seluletha izinzuso eziqondile emiphakathini ethintwa ukwakhiwa kwephrekthi.

Okubaluleke nakakhulu, i-Jindal MIOP ehlongozwayo kumele ithathe izinyathelo zokunciphisa noma yimiphi imithelela emibi kwezolimo (Umfanekiso 3) kanye nokuthuthukiswa kwezokuvakasha, njengoba kokubili lokhu kubhekwa njengezimboni ezisemqoka emnothweni kamaspala.



Umfanekiso 1 Ukukhiquzwa Komoba Ngaphansi Komshini Wokunisela eNkwalini Valley

#### 5. UKUBAMBA IQHAZA KOMPHAKATHI OSEKWENZIWE KUZE KUBE MANJE

Ukubamba iqhaza komphakathi okulandelayo kuye kwensiwa kuze kube manje:

- Umhlangano owandulela ukufakwa kwesicelo obanjwe ne-DMRE kanye nokugunyazwa Kohlelo Lokubandakanya Ababambiqhaza – 3 Mashi 2021.
- Ukuhumana njalo ne-Zulu-Entembeni Traditional Authority.
- Ukuthuthukiswa nokubuyekezwu okuhubekayo kwemininingwane Yabanesifiso Nabathintekayo (I&AP);
- Ukwaziswa kwama-I&AP, kuLanganise abanikazi bemihlabu, iziphathimandla zikhulumeni nezendabuko – 17 Juni 2021;
- Ukusabalalisa Kwedokhumenti Enolwazi Lwesizinda (BID), ngesiNgisi nangesiZulu, kusukela ngomhla ka-17 Juni 2021;
- Ukhusicilelw kwezikhangiso;
  - I-The Mercury, 15 Juni 2021, IsiNgisi;
  - I-Eyethu Baywatch - 16 Juni 2021, IsiNgisi;
  - Isolezwe - 18 Juni 2021, IsiZulu;
  - I-Zululand Observer - 21 Juni 2021, IsiNgisi;
- UkuFakwa kwezaziso ezindaweni ezihlukahlukene eMelmoth, Eshowe NaseMhlabeni Oseningizimu;
- Imihlangano Yokunika Umphakathi Ulwazi eMelmoth (18 Agasti 2021) kanye naku-MS Teams (6 Julai 2021);
- Imihlangano engu-24 yababambiqhaza kanye nabaholi bendabuko nemiphakathi yabo, abalimi, osomabhizinisi basendaweni kanye neziphatimandla (eyabanjwa phakathi kukaJuni no-Agasti 2021);
- Izikhangiso zomsakazo;
  - I-Cora 100.40 fm – 15 kuya ku-19 Juni 2021;
  - Izwi Lomzansi 98.0 fm – 21 kuya ku-23 Juni 2021;
- Umbiko Wezemvelo wakhishwa izinsuku ezingu-30 ukuze uhlolwe umphakathi kusukela ngomhla ka-16 Febhuari kuya ku-18 Mashi 2022;
- Umbiko we-EIA nowe-EMPr usukhishiwe manje ukuze uhlolwe umphakathi izinsuku ezingu-30 kusukela ngo-14 Julai kuya ku-14 Agasti 2023.

#### 6. UKUHLAZIYA

#### OKUHLUKILE

Kuye kwensiwa ukuhlola ukuze kuqondwe ukuphumelela kokumbiwa koMhlaba Oseningizimu kuqala kunalowo Osenyakatho. Ngenxa yobunzima bokufinyelela uMhlaba Osenyakatho kuye kwensiwa umsebenzi owengeziwe oyisisekelo kanye nomklamo oningiliziwe woMhlaba Oseningizimu. Ukwenezelu kulokhu, uMhlaba Oseningizimu unemigwaqo engcono, unezintambo zakwa-Eskom eseziKhona kakade eduze kwendawo ethandwayo yesikhungo futhi yiwona ofinyeleka kangcono eNkwalini Rail Siding (indlela ehlongozwayo yokuthutha i-concentrate iye eRichards Bay). Ngakho, uhlelo Iwamanje ukwenza Isigaba 1 Sokumba engxenyeni eseningizimu-mpumalanga yoMhlaba Oseningizimu. Okunye okuhlukile okuye kwacatshanelwa kuLanganisa:

- Umgodi ovulekile (okuyiwo okhethwayo) uma uqhathaniswa nongaphansi komhlaba;
- Izikali ezihlukile zokumba: 20, 24, 28 noma 32 mtpa (okukhethwayo);
- Ukwakheka kwalo mhlaba okuhlukile ngokuvumelana ne-WRD, imigwaqo yokufinyelela kanye nesikhungo sokucubungula (ngisho noma izinketho zilinganiselwe ngenxa yomhlaba onezintaba):

- Okuhlukile "okungeke kusetshenziswe", kucatshanelwa imiphumela kwezenhlahlo nakwezemvelo engase ivale uma ukwakhwa kungaqhubeiki.

Ngale nqubo indlela ehlukile iye yahlolwa futhi ihlanganisiwe eMfanekisweni 1.

## 7. YIZIPHI IZINTO ZEMVELO NEZENHLALO EZIBUCAYI NGOKUYINHLOKO?

Isimo sendawo engokoqobo, isimo sezinto eziphilayo kanye nesimo sezenhlahlo sendawo engase ithinteksi siye saphenywa ukuze kuhlolle umthelela. Umbiko we-EIA wethula okutholwe uphenyo oluye lwenziwa. Isifinyezo salokho okutholiwe sikulezi zingxene ye eziandelayo futhi kuvezwe eMfanekisweni 8.

### 7.1 Indawo Engokoqobo

Indawo yaseMthonjaneni LM inesimo sezulu esifudumele nesinomswakama, esikusekela kahle ukulima okwensiwa endaweni. Indawo yaseMthonjaneni LM ithola amazinga okushisa ansuku zonke aphakathi kuka-16°C no-20°C, futhi isilinganiso semvula siphakathi kuka-2 000 mm no-2 400 mm njalo ngonyaka.

Ngokuphatelene nokuma kweMelmoth, ingamamitha angu-800 ngaphezu kwezinga lamanzi futhi izungezwe izintaba eziphansi zetshe lesihlabathi kanye nezigodi zetshe lodaka. Umumo wamatshe endawo uye wabangela ukwakheka okuhlukahlukene komhlaba, kusukela emithambekeni kuye emaggumeni aphakeme atholakala ezigodini. Kokubili uMhlaba Osenyakatho Noseningizimu uqukethe amagquma. Ukuchazwa koMhlaba Osenyakatho Noseningizimu kubonisa ukuthi lo mhlaba ufaneleka kangcono ukuba ngamadlelo emfuyo, zincane kakhulu izindawo ezinomhlaba ofanelekela ukutshalwa kwesivuno.



Umfanekiso 4. Idamu Lase-Goedertrouw

Imininingwane yamanzi angaphansi komhlaba evela ku-DWS National Groundwater Archive eqhele ngamakhilomitha awu-5 e-Jindal MIOP ibonise ukuthi amazinga amanzi angaphansi komhlaba aphakathi kwamamitha angu-2.1 kuya kwangu-56.4 ngaphansi kwezinga lomhlaba (mbgl). Amazinga amanzi angaphansi komhlaba akalwe nge-Golder (2016) phakathi ne-hydrocensus eMhlabeni Oseningizimu abonise izinga elivamile lamanzi angaphansi komhlaba elingu-45 mbgl. Eduze kwe-TSF, okuyindawo esezansi eduze nomfula uMhlathuze, amanzi angaphansi komhlaba ngokuvamile aba mancane kakhulu (< 5mbgl). Ukuhamba kwamanzi angaphansi komhlaba esifundeni kuye kwatholakala ukuthi kusuka entshonalanga kuye empumalanga kodwa endaweni ukuhamba kwavo kungase kuhluke. Ngokwe-Golder (2016), imiphumela yekhwalithi yamanzi etholwe ngaleso sikhathi yonke ibingaphansi kweMihlahlandlala Yokusebenzisa Endaweni, okwenza amanzi angaphansi komhlaba abe umthombo wamanzi osebenzisekayo. Ngokuphatelene nekhwalithi yamanzi angaphansi komhlaba yale nqubo ye-EIA akukho ukufinyelela okunikeziwe endaweni yomgodi futhi ngenxa yalokho ayikho imininingwane yamakhemikhali amanzi asendaweni yomgodi. Amasampula aqoqwe emithonjeni yamanzi ye-TSF egujwe ngo-

2022 (yi-SLR) abonise ukweqiwa okuningana kwemihlahlandlala yekhwalithi yamanzi ye-SANS 241:2015. Ukweqa kuvamile kwikhwalithi yamanzi ezindaweni okulinywa kuzo isivuno.

Ngokuphatelene namanzi angapezulu ezimpophoma eMhlabeni Osenyakatho phakathi kwendawo okuqoqana kuyo amanzi e-quaternary (QC) W12B, W12C ne-W12D athululela eMfuleni iMfule bese ehama njalo aye eningizimu-mpumalanga ayohlangana noMfula uMhlatuze. IDamu i-Goedertrouw liseMfuleni uMhlatuze (Umfanekiso ). Ukuthathwa kwesampula lamanzi aphezulu kwensiwa yi-SLR ngoMeyi 2021 lapho kwathathwa khona amasampula amanzi ayisithupha eziteshini zokuqapha ikhwalithi ezesendaweni yePhrojekthi. Imiphumela yokuhlaziya kwekhwalithi yamanzi yaqhataniswa nemihlahlandlala yokunisela ye-DWS, amanzi emfuyo kanye nezinto eziphilayo zasemanzini kuflanganise nemihlahlandlala ye-SANS 241 yamanzi aphuzwayo. Imihlahlandlala ye-DWS iqine kakhulu ngoba ilandela indlela engenazingozi ngokuvumelana nezimfuneko zesivuno esizwela kalula. Imiphumela yekhwalithi yamanzi ibonise ukwedlulela kwe-aluminium, i-copper, i-mercury, i-pH kanye ne-

Total Cyanide concentrations kuzo zonke izindawo eziyisithupha zokuhlola amanzi.

### 7.2 Indawo Yezinto Eziphilayo

I-Melmoth iwela ngaphansi kwesifunda sezimbali sase-Maputoland-Pondoland futhi siyindawo ebaluleke kakhulu ngenxa yezeitshalo ezitholakala kuleyo ndawo. Izindawo Ezisemqoka Zezinto Eziphilayo Ezinhlobonhlobo (CBA) kanye Nezindawo Ezisekela Imvelo (ESA) zitholakala kokubili eMhlabeni Osenyakatho Noseningizimu okwensiwa kuwo ucwaningo.

Ngemva kokuhlolwa kokuqala kwendawo kwatholwa imiphakathi emihlanu yezeitshalo ezihlukile eMhlabeni Oseningizimu, ehlanganisa:

- Umphakathi 1: I-Ngongoni Veld/I-Eastern Valley Bushveld Open Savannah;
- Umphakathi 2: I-Eastern Valley Bushveld Thicket/I-Ngongoni Veld Closed Woodland (Umfanekiso 5);
- Umphakathi 3: I-Degraded Ngongoni Veld/I-Eastern Valley Bushveld Open Savannah;
- Umphakathi 4: I-Degraded Eastern Valley Bushveld Thicket/I-Ngongoni Veld Closed Woodland;
- Umphakathi 5: I-Secondary Open Savannah/I-Thicket/I-Closed Woodland.



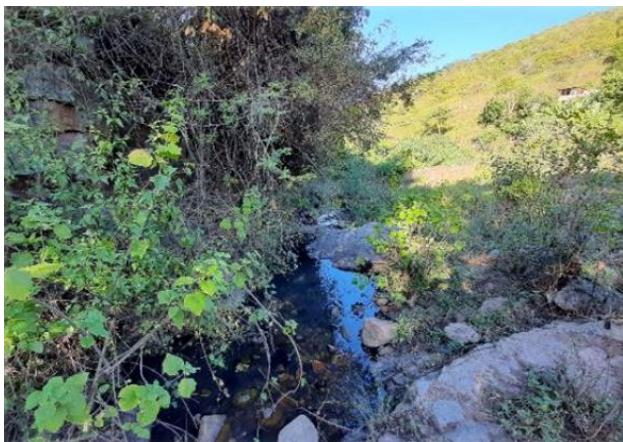
Umfanekiso 5 Umphakathi 2 - I-Dense Closed Thicket (UMhlaba Oseningizimu Ephakathi)

Kwatholwa imiphakathi emihlanu eyengeziwe yezitshalo eMhlabeni Osenyakatho, kuhlanganise:

- Umphakathi 6: I-Ngongoni Veld/I-Northern Zululand Sourveld Open Savannah;
- Umphakathi 7: I-Scarp Forest /I-Northern Zululand Sourveld Thicket/I-Ngongoni Veld Closed Woodland;
- Umphakathi 8: I-Degraded Ngongoni Veld Closed Woodland/I-Northern Zululand Sourveld Thicket;
- Umphakathi 9: I-Degraded Ngongoni Veld/I-Northern Zululand Sourveld Open Savannah;
- Umphakathi 10: I-Secondary Open Savannah/I-Thicket/I-Closed Woodland

Imiphakathi emine kweyishumi esemephini ibhekwa njengefanelana nezimo zemvelo futhi Ibaluleke Kakhulu Emazingeni Emvelo (SEI) (Imiphakathi 1, 2, 6 no-7). Imiphakathi yezitshalo eyisithupha ese Iphakathi Nendawo Kuya Kwephansi kakhulu ku-SEI. Ukwenezela ekubeni sesimweni semvelo esihle kuya kwesiphakathi nendawo imiphakathi emine yezitshalo inamathuba amakhulu okusekela izimbali ze-SCC ezihlukahlukene ezsengozini yokushabalala, eziyivela kancane, noma ezikhula kuphela kulezi zindawo. Ngemva kokuhlolwa kokuqala kwale ndawo, kwaqinisekiswa ukuvela kwama-SCC amabili endaweni eyi-savannah evulekile/endaweni enotshani, okungukuthi Izitshalo Ezizwela Kalula 191 (Ezsengozini) kanye ne-Moraea graminicola subsp. graminicola (Ecishe Ibe Sengozini, Ekhula Kuphela ENingizimu Afrika). Ukwenezela ezinhlotsheni ezimbili zeztshalo ezsengozini ezikhula kule ndawo, ezivikelwe ngaphansi kwe-National Environmental Management: Biodiversity Act (NEM:BA), kunezinhlobo eziningana zeztshalo ezivikelwe ngaphansi kwe-Natal Conservation Ordinance kanye ne-National Forest Act ezizodinga izimvume zeztshalo ezifanele eziphathimandleni ezifanele (okungukuthi, uMnyango Wezamahlathi, Wezokudoba Kanye Nezemvelo (DFFE) kanye nEzemvelo KwaZulu-Natal Wildlife (EKZNW)).

Ama-SCC amaningana akule ndawo aye aphawulwa njengavela endaweni ecwaningwayo futhi adinga ucwaningo olwengeziwe oluzokwensiwa ongoti abafanele, kuzodingeka kuxazululwe noma yimiphi imithelela engase ibe khona ehlobana nezinhlobo ezithile.



Umfanekiso 6 Isithombe somfudlana ohamba uyothululela eMfuleni Omkhulu (UMhlaba Oseningizimu)

EMhlabeni Oseningizimu, kwatholakala ingqikithi yemifula/imifudlana engu-599 kanye nezindawo ezimanzi ezingu-22 endaweni ecwaningwayo (Umfanekiso 6). EMhlabeni Osenyakatho kwatholakala ingqikithi yemifula/imifudlana engu-331 kanye nezindawo ezimanzi ezingu-63.

Ukuholowa komfula ophakeme nempilo yezinto ezihlala emanzini eMhlabeni Osenyakatho kubonisa ukuthi ohamba uyofika eMfuleni iMfule futhi udabule kulo Mhlaba usesimweni esingokwemvelo nesilinganiso esiphezulu se-Ecological Importance and Sensitivity (EIS). Imisebenzi yamanje iveau njengaleyo engase ithinte impilo yohlelo Iwenhlalo yasemaphandleni, ukufika kweztshalo zakwezinye izindawo kanye nokulaxazwa kwemihlabu okulinywa kuyo.

Isisekelo socwaningo lomhlaba omanzi kanye nezinto eziphilu emanzini eMhlabeni Oseningizimu (PR 10652) siveze ukuthi imizila eminingi yamanzi kule ndawo iyimifula nemifudlana. Imifula nemifudlana iphakathi kwezigaba zemvelo ezisuka ku-D (Isimo Esibi) ziye ku-A (Isimo Esingokwemvelo). Ama-EIS amanangi Asezansi kuya Kwaphakathi nendawo, ngaphandle kwalawo afinyelela uMfula uMhlatuze, abhekwa njengayi-EIS Ephuzulu. Ingqikithi yemihlabu emanzi yafakwa emephini eMhlabeni Oseningizimu. Lokhu kwahlanganisa izigodi ezingu-11 eziwumhlabu omazi ongenayo imizila yamanzi kanye namaxhaphozi angu-12. Lena iphakathi kwezigaba zemvelo ezisuka ku-D (Isimo Esibi) kuya ku-C (Isimo Esiphakathi Nendawo) nezisuka ku-EIS Ephansi kuya Kwephakathi Nendawo.

## 7. Isimo Somnotho Womphakathi

Indawo ezungeze i-MIOP ehlongozwayo ibhekwa njengendawo esemaphandleni/ indawo engelona idolobha, futhi cishe u-70% womhlaba uphethwe amakhosi neziphathimandla zendabuko. Ukuphela kwendawo ethuthukile kwezicwaningwayo yi-Melmoth (maphakathi nentshonalanga yendawo ecwaningwayo), ecishe ibe ngamakhilomitha angu-15 uma uya enyakatho yentshonalanga ye-Jindal MIOP ehlongozwayo.

Kunemiphakathi eminingana ehlala endaweni ehlongozwayo ye-Jindal MIOP futhi amakhaya amanangi anezindlu zeztini kanye nezakhiwe ngendlela yendabuko (Umfanekiso 7).

Kukhona izindawo ezintathu zeziPhathimandla Zendabuko eMthonjaneni LM:

- IBiyela KwaYanguye Traditional Authority isenyakatho-mpumalanga kamaspala.
- IZulu-Entembeni Traditional Authority iseningizimu-mpumalanga kamaspala.
- IBiyela-Obuka Traditional Authority ingaseMpumalanga kamaspala.

Kokubili uMthonjaneni kanye noMlalazi LM zinomnotho oncike kakhulu embonini yezolimo, eyokukhiqiza kanye neyezimayini.

Kulabo masipala ababili iningi labantu abafuna umsebenzi linomatikuletsheni futhi amathuba okuthola umsebenzi aphakeme eMthonjaneni kunaseMlalazi. Nokho, iholo lonyaka elivamile

lekhaya lisesigabeni esiphansi seholo, okuyiholo lonyaka elingaphansi kuka-R40 000.

Umkhiqizo wezolimo eMihlabeni Esenyakatho Neseningizimu uphelela nje kowokuziphilisa, amasimu aphakathi kuka-5 no-10 ha. IMihlabi Esenyakatho naseNgingizimu ayiweli ngaphansi kwe-High Potential Agricultural Area (HPAA) ngisho noma indawo yase-Jindal MIOPI izungezwe izindawo ezinamathuba amakhulu okulima. Indawo edume kakhulu yomkhiqizo eningizimu-mpumalanga yomngcele Womhlaba Oseningizimu, yisifunda saseNkwalini. Kule ndawo, kukhiqizwa izitshalo ezihlukahlukene eziniselwayo ezihlanganisa okusawolintshi, ama-macadamia, ubhanana kanye ne-passion fruit. Ezinye izindawo zinomoba oniselwayo. Amahlathi nezitshalo ezidayiswayo kutholakala ngasenyakatho yoMhlaba Oseningizimu.

Bobabili omasipala babonisa ithuba elincane lokuncipha kwenani labantu eminyakeni engu-30 ezayo okuyinto cishe ebangelwa ukuhamba kwabantu endaweni beyofuna amathuba emisebenzi emadolobheni aseduzane, njengasEmpangeni nase-Richards Bay. Kunobufakazi bokuthi ukuthuthuka kwamazinga emfundu kuye kwabangela ukuba intsha eqeqeshiwe ishiye amakhaya ihambe iyofuna umsebenzi kwezinye izindawo.

Iningi labantu, kuwo womabili ama-LM, liseminyakeni yokusebenza engu-15 kuya ku-64. Nokho, lokhu kusayisilinganiso esiphansi futhi kubangela umthwalo wokuncika kakhulu endaweni. Kubalulekile kulesi simo ukuba amathuba emisebenzi abe khona ukuze kusekelwe amakhaya anomzali oyedwa onakekela abantu abaningi. Ikhaya elivamile liba nabantu abangapezu kwabangu-4.

Kuwo womabili la ma-LM, zingaphansi kukahhafu izindlu ezithola amanzi kamasipala. Ukuthola amazinga ayisisekelo okuthuthwa kwendle nakho akukuhle kubo bobabili omasipala futhi cishe ingxeny yezindlu azinazo izindlu zangasese ezishaywayo. Ukuncika kakhulu ezindlini zangasese zomgodi kuyinto ekhathazayo ngoba ukungasingathwa kahle kwendle kungabangela izifo. Izindlu ezingaphezudlwana kweyodwa kwezintathu ethola amasevisi okuthuthwa kukadoti okwenziwa omasipala. Bangaphansi kuka-20% abantu abanogesi emakhaya abo. Ezinye izindlu zincike kupharafini ukuze zipheke futhi zikhanyise.



**Umfanekiso 7 Izindlu Zendabuko Zakule Ndawo**

Sekuphele iminyaka engaba ngu-200 abantu bakwaZulu behleli endaweni yaseMelmeth futhi izakhamuzi eziningi zisabambelele ngokuqinile emasikweni endawo. Izindawo zasemaphandleni (Umfanekiso 7) ziye zahlala emindenini izizukulwane eziningi futhi abantu abaningi banamathele ngokuqinile emhlabeni onamathuna, izinto zobuciko nezinto zesiko okungenzeka zikhona. Luye lwazanywa Ucwanningo Oluphelele Lwamagugu, nokho ngenxa yezingxabano zomphakathi ngasendaweni yePhrojekthi,

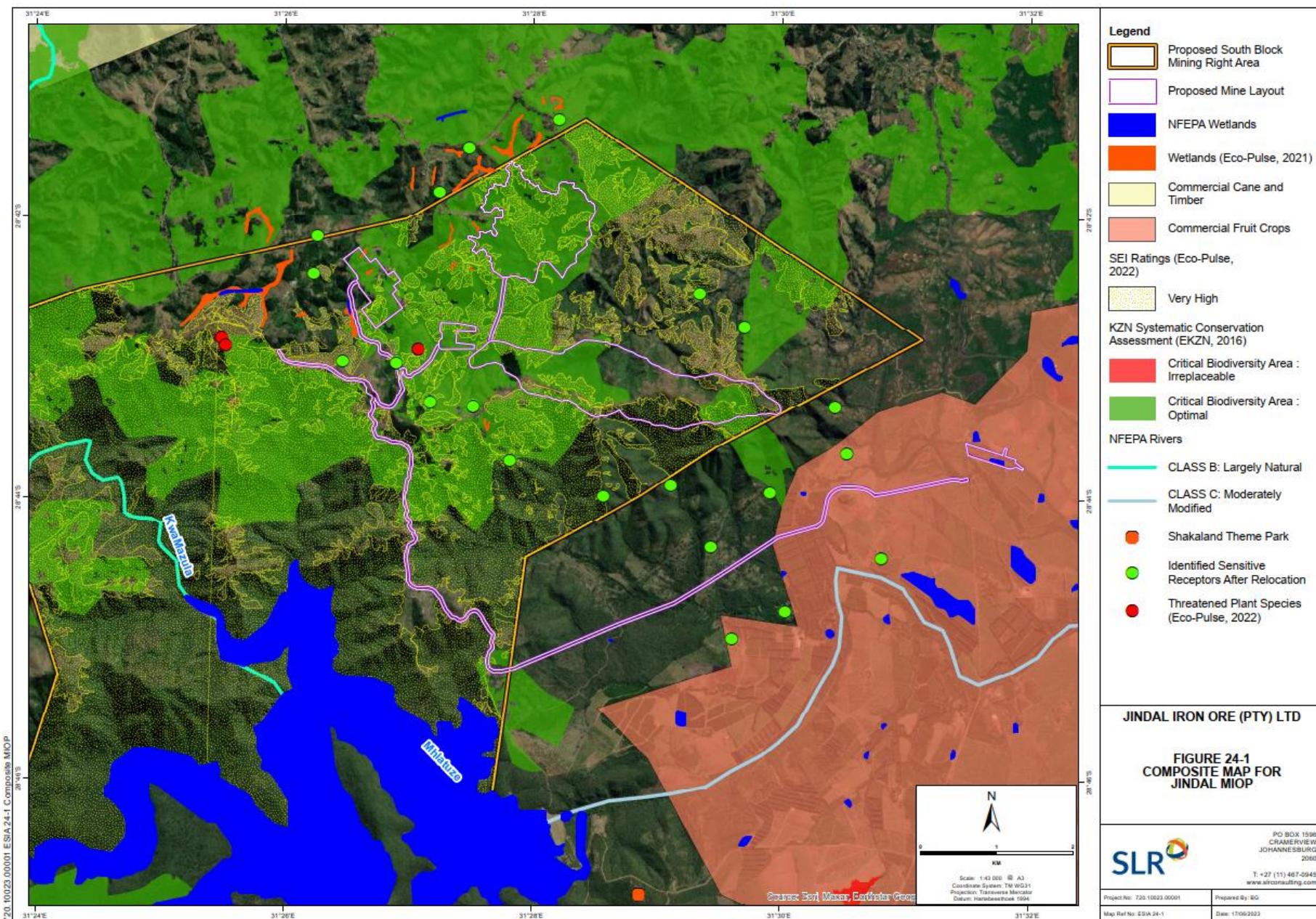
kuye kwangakwazeka ukuya kule ndawo. Ezingxoxweni ezaba khona kwaqinisekiswa ukuthi imingcwabo yenziwa kulandelwa amasiko nokuthi amathuna ngokuvamile aba sekhayeni lomndeni. Izinhlolovo ezengeziwe zizodingeka ukuze kutholakale zonke izinsiza ezingokwesiko noma zamagugu eziwela ngaphansi kwendawo ye-Jindal MIOPI njengengxenye yenqubo yokubekwa kabusha endaweni.

## 5. UCWANINGO LONGOTI

Kuye kwensiwa ucwaningo longoti olulandelayo ukuze kutholwe umthelela:

- Ucwanningo Lwamanzi Angaphansi Komhlaba;
- Ucwanningo Lwamanzi Angaphezulu;
- Ucwanningo Lwezinto Eziphila Emhlabeni;
- Ucwanningo Lwezinto Eziphila Emanzini;
- Ucwanningo Lwekhwalithi Yomoya;
- Ucwanningo Lomsindo;
- Ucwanningo Lwenhlabathi, Amandla Omhlaba Kanye Nokusetshenziswa Komhlaba;
- Ucwanningo Lokubuka;
- Ucwanningo Lwedgesi Ebamba Ukushisa Kanye Nokushintsha Kwesimo Sezulu;
- Ucwanningo Lukuhumisa Nokushukumisa;
- Ucwanningo Lwezinto Zasendulo Ezisendaweni;
- Ucwanningo Lwempilo Yomphakathi;
- Ucwanningo Lwamagugu Amasiko;
- Ucwanningo Lokucinana Kwezimoto;
- Ucwanningo Lomnotho Womphakathi;
- Ukuvala Nesibopho Sezimali.

Okutholakele kule kuhlola kufakiwe kuThebula 1, Thebula 2 neThebula 3.



Umfanekiso 8 Imephu ye-Jindal MIOP yokuzwela kalula

## 8. OKUTHOLWE KU-EIA KANYE NOKUNCONYELWAYO KWE-JINDAL MIOP

Ukuholowa komthelela kwenzelwa ukuqonda imithelela engase ibe khona ehlobana nokwakha okuhlongozwayo, izigaba ze-Jindal MIOP zokusebenza kanye nokuyeka ukusebenza.

Lokhu okutholakele kulokhu kuhlolwa komthelela, okuhlanganisa nokutholwe ongoti, kufinyezwe kuThebula 1, Thebula 2 nakuThebula 3.

### Isigaba Sokwakha

Phakathi nesigaba sokwakha kukhona imithelela eminingana emvelweni kanye nasemnothweni womphakathi engase ivele lapho ukwakhiwa kwephprojekthi kuqala. Imithelela eminingi engase ivele ingancishiswa ibe ephakathi nendawo noma ibe mincane kakhulu, nokho, kukhona imithelela eminingana ezoqhube ka imikhulu ngisho noma sekwenziwe imizamo yokuyinciphisa. Le mithelela emikhulu ihlobene ikakhulu nemithelela emvelweni ezwela kalula endaweni ye-Jindal MIOP nasezindaweni ezizungezile (IThebula 1). Imithelela ephawuleka kakhulu ihlobene nokulahleka kwekhaya lezinto eziphilayo, ukulahleka kwe-SCC kanye nemithelela ezinqbweni zemvelo. Ngokusekelwe emihlahlandeleni yokusebenza kahle, kuzodingeka kwensiwe ushintsho ezintweni eziphilayo ukuze kusingathwe imithelela uma isicelo sigunyazwa. Kutuswa ukuba imithelela ehlala isikhathi eside emhlabeni nasemanzini aphuzwayo iphenywe futhi isingathwe njengengxenye yophenyo loshintsho olwenziwa ezintweni eziphilayo. Izimvume zezitshalo ezivikelwe kuzodingeka zitholwe eziphathimandleni ezifanele. Umthelela ekubukekeni kwemvelo unzima kakhulu ukubhekana nawo ngenxa yobukhulu bephprojekthi futhi uqhubeka uyinto ebalulekile.

Omunye umthelela omkhulu uhlotshanisa nokuthuthelwa kwabantu kwenye indawo ukuze ukwakhiwa kwemayini kuqale. Lokhu kuzohlanganisa imfuneko yokuthutha amathuna okungase kuthinte iminden kanye nezizukulwana ezilandelayo. Ukuthuthelwa kwabantu kwenye indawo, uma kwenzenka iprojekthi iqhubekile ike ifike lapho, kuzokwensiwa ngokuvumelana nemihlahlandela efanele njengengxenye ye-Resettlement Action Plan (RAP) (inqubo ehlukile ku-EIA kanye nesicelo sokugunyazwa kwezemvelo). Inani lamakhaya okuzodingeka athuthelwe kwenye indawo cishe lizofika ku-350 kuye ngemiphumela yezingxoxo nomphakathi ngokuphathelene nokuthuthela kwenye indawo. Le nqubo izobangela ukucindezeleka emiphakathini ethintekayo futhi ibaluleke kakhulu. I-RAP kanye nokuthuthwa kwabantu okuhlobene nayo kuzomele kuqedwe ngaphambi kokuba kwensiwe noma yimuphi umsebenzi owandulela ukwakha. Ukwenezela kulokho, imithelela kwezenhhalo ehlobana ne-Jindal MIOP kudingeka iqondwe kucatshangelwa ezombusazwe zomphakathi ngokuphathelene nezemvelo kanye nemiphakathi ethintekya ngokuqondile. Ingozi yokuphazamisa ezenhhalo nezombusazwe ekwakhiwi kanye nasekusebenzeni kwe-Jindal MIOP iqhubeka iphezulu ku-Area of Influence (AoI) ngenxa yokungazinzi komphakathi kanye nemibango yezombusazwe endaweni.

Uhlobo nobukhulu bokwakhiwa okuhlongozwayo cishe kuzoba nomthelela omuhle emnothweni womphakathi ngokudaleka kwamathuba emisebenzi (kulinganiselwa ukuthi kuzodala imisebenzi engu-57 939, engu-26 437 kuyo kulindeleke ukuthi kubeyimisebenzi eqondile, engu-14 438 kubo yimisebenzi engaqondile bese engu-17 064 ivele ngenxa yokudaleka kwemisebenzi eqondile – UrbanEcon, 2023), ngisho noma lokhu kuzokwenzeka isikhathi esifushane (cishe iminyaka engu-5).

Nakuba iprojekthi yalolu hlobo kulindeleke ukuba idale amathuba emisebenzi endaweni kanye nasemiphakathini ezungezile, ukuthuthwa kwempahla okwenziwa abahlinzeki bezinkonzo kanye namazinga amakhono amalungu omphakathi kuzonquma izinga la mathuba aduliselwa ngalo emphakathini.

IThebula 1 Isifinyezo Semithelela Yesigaba Sokwakha Etholakele Kanyo Nezilinganiso Zangaphambi Nangemva Kokunciphisa

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
<b>Imvelo</b>		
Umthelela wobuningi bamanzi angaphansi komhlaba	Uphansi kakhulu -	Uyaphawuleka -
Umthelela kwikhwalithi yamanzi angaphansi komhlaba	Uphansi -	Uyaphawuleka
Ikhwalithi enciphile yamanzi aphezulu	Uphakathi nendawo -	Uphansi -
Ukushintshwa kwezindlela zokuthulula nokugeleza kwamanzi	Uphakathi nendawo -	Uphansi -
Umthelela wezikhukhula (kwingqalasizinda)	Uphakathi nendawo -	Uphansi -
Uqondile - Umthelela ezitshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	Uphezulu kakhulu -	Uphezulu -
Awuqondile - Umthelela ezitshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	Uphezulu -	Uphakathi nendawo -
Uqondile - Umthelela ohlotsheni lwezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	Uphezulu -	Uphakathi nendawo -
Awuqondile - Umthelela ohlotsheni lwezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	Uphakathi nendawo -	Uphakathi nendawo -
Uqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	Uphezulu -	Uphezulu -
Awuqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	Uphakathi nendawo -	Uphakathi nendawo -

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
Ukulahleka okungokoqobo noma ukushintsha kwendawo ehlala amanzi	Uphakathi nendawo	Uphakathi nendawo
Ukushintsha kwezinquo zamanzu nomumo womhlaba	Uphakathi nendawo	Uphansi -
Umthelela ezindaweni ezimanzi nasezintweni eziphila emanzini ngenxa yokuncipha kwekhwalithi yamanzi	Uphakathi nendawo	Uphansi -
Umthelela ukuxhumaneni kwemvelo kanye/noma ukuphazamiseka kwemvelo	Kuphakathi nendawo- Kuphansi	Uphansi -
Umthelela kwikhwalithi yomoya ohlanzekile	Uphakathi nendawo	Uphansi -
Umthelela emazingeni omsindo	Uphansi -	Uphansi kakhulu -
Umthelela ekushintsheni kokusetshenziswa komhlaba, ukusuka ekulimeni kuye ekumbeni	Uphakathi nendawo -	Uphansi -
Umthelela wokulahleka kanye/noma ukuncipha kwamandla amanje omhlaba	Uphezulu -	Uphansi -
Umthelela wokwanda kokuguguleka kwenhlabathi	Uphezulu -	Uphakathi nendawo -
Umthelela wokucinana kwenhlabathi	Uphezulu -	Uphakathi nendawo -
Umthelela wokungcola kwenhlabathi	Uphezulu -	Uphansi -
Umthelela wokubukeka kwendawo	Uphezulu -	Uphezulu -
Umthelela wephrojekthi ekushintsheni kwesimo sezulu	Uphansi -	Uphansi -

#### Umnotho womphakathi

Ukulahleka kwezinto zasendulo ezilondolozekile	Uyaphawuleka	Uyaphawuleka
Umthelela wokushintsha izinqubo zokulima, izinketho zemakethe kanye nemithombo yomsoco	Uphezulu kakhulu -	Uphakathi nendawo -
Ukuchayeka esifweni se-vector-bone nese-zoonotic	Uphakathi nendawo -	Uphansi -
Ushintsho ekufinyeleleni ezokwelapha	Uphezulu kakhulu -	Uphezulu kakhulu +
Ukulahleka kwezindawo zamagugu amasiko	Uphezulu kakhulu -	Uphakathi nendawo -
Ukuthuthwa kwamathuna	Uphezulu kakhulu -	Uphezulu -
Umthelela kubasebenzisi bomgwaqo kanye nokuphepha emgwaqweni	Uphansi -	Uphansi -
Ukufika kwabantu abazosebenza / ukutheleka kwabafuna imisebenzi	Uphansi -	Uphansi Kakhulu -
Ukubekwa kabusha kanye nokuthuthelwa kwenye indawo	Uphezulu -	Uphakathi nendawo -
Ukuthuthukiswa komphakathi nendlela yokuphila	Uphakathi nendawo -	Uphansi -
Ibhizinisi - imithelela - embonini yezolimo	Uphezulu -	Uphakathi nendawo -
Ibhizinisi - imithelela kwezokuvakasha	Uphezulu -	Uphakathi nendawo -
Umthelela emnothweni wasendaweni nowasesifundeni	Uphezulu +	Uphezulu +

#### Isigaba Sokusebenza

Phakathi nokusebenza (iThebula 2) kunemithelela emibili engase ibe khona ebulokhu ikhathaza ababambiqhaza; ikhwalithi yomoya (uthuli), kanye nokutholakala kwamanzi. Imodeli yekhwalithi yamanzi ibonisa ukuthi amazinga othuli ezindaweni ezipunqezile okulinywa kuzo cishe izoba ngaphakathi kwamazinga alawulekayo. Nokho, kuzobaluleka kakhulu uma i-Jindal MIOP igunyazwa, ukuba iqaphe ngokuqhubekeyo ukuze kuqondwe ukuthi imiphumela yemodeli inembile yini futhi kuqinisekiswe ukuthi izinyathelo ezengeziwe yokunciphisa ziyanthathwa uma kwenzeka amazinga abe ngaphezu kwalokho obekulindelwe.

Mayelana nokutholakala kwamanzi, kuye kwahlolwa ukudonswa kwamanzi endaweni aqoqana kuyo eMhlathuze, nokho, indawo okuqoqana kuyo amanzi eMhlathuze ithwele kanzima njengamanje futhi ngenxa yalokho i-DWS ingase icabangele kuphela izindawo ezintsha uma abafake isicelo besiza ngezixazululo ezizokhiqiza amanzi engeziwe endaweni aqoqana kuyo. Lezi zixazululo zizohlolwa nge-WULA.

Eminye imithelela engase ibe khona ngemva kokunciphisa ehlobana nesigaba sokusebenza ihlanganisa ukuncipha kwamazinga amanzi angaphansi komhlaba ngenxa yokususwa kwamanzi emgodini ovulekile, ukulahleka okwengeziwe noma ukushintsha kwendawo ehlala amanzi njengoba umgodi ovulekile kanye nomsebenzi we-WRD ukhula kanye nemithelela yokubukeka eqhubekayo. Kukhona nethuba lemithelela emihle ngokuphathelene nokudalwa kwemisebenzi, ukuthuthukiswa komnotho, kanye nemithelela engase ibe mihle ngenxa

yokuthuthukiswa kwemigwaqo. Omunye wemithelela emihle kakhulu phakathi nesigaba sokusebenza kuzoba umthelela omuhle obangelwa ukusebenza i-iron, kanye nensimbi, embonini yamandla avuselelwayo. Umnotho womhlaba jikelele ngeke ukwazi ukukhiqiza izinga eliphansi lomoya ongcolisayo we-GHG ngaphandle kokwandisa kwengqalasizinda yamandla avuselelwayo, okudinga insimbi.

Ngokuphathelene nemithelela emihle, imayini kulindeleke ukuba ibangele imisebenzi yesikhathi esigcwele engu-800 (FTE) ngesikhathi sokusebenza ezohlanganisa imisebenzi yabanamakhono, abanamakhono alinganiselwe kanye nabangenawo amakhono. Kulinganiselwa ukuthi umthelela wokukhiqiza kwamapulazi adayisa imikhiqizo, ngenxa yemayini, uzoba phansi okusho ukuthi izoba mbalwa imisebenzi elahlekayo ngenxa yalokhu. Noma yikuphi ukulahleka kwemisebenzi embonini yezolimo kuzovalwa ukuvuleka kwamatubha emisebenzi okubangelwa yimayini.

#### **IThebula 2 Isifinyezo Semithelela Yesigaba Sokusebenza Etholakele Kanye Nezilinganiso Zangaphambi Nangemva Kokunciphisa**

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
<b>Imvelo</b>		
Umthelela kwikhwalithi yamanzi angaphansi komhlaba	<b>Uphezulu kakhulu -</b>	<b>Uphezulu -</b>
Umthelela kwikhwalithi yamanzi angaphansi komhlaba	<b>Uyaphawuleka</b>	<b>Uyaphawuleka</b>
Ikhwalithi enciphile yamanzi aphezulu	<b>Uphezulu -</b>	<b>Uphakathi nendawo -</b>
Ukushintshwa kwezindlela zokuthulula nokugeleza kwamanzi	<b>Uphakathi nendawo -</b>	<b>Uphansi -</b>
Umthelela wezikhukhula	<b>Uphakathi nendawo -</b>	<b>Uphansi -</b>
Uqondile - Umthelela ezitshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	<b>Uphezulu -</b>	<b>Uphakathi nendawo</b>
Awuqondile - Umthelela ezitshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	<b>Uphezulu -</b>	<b>Uphakathi nendawo -</b>
Uqondile - Umthelela enhlotsheni vezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	<b>Uphezulu -</b>	<b>Uphakathi nendawo -</b>
Awuqondile - Umthelela ohlotsheni Iwezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	<b>Uphakathi nendawo -</b>	<b>Uphakathi nendawo -</b>
Uqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	<b>Uphakathi nendawo -</b>	<b>Uphakathi nendawo -</b>
Awuqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	<b>Uphakathi nendawo -</b>	<b>Uphakathi nendawo -</b>
Ukulahleka okungokoqobo noma ukushintsha kwendawo enamanzi aphuzwayo	<b>Uphezulu</b>	<b>Uphezulu</b>
Ukushintsha kwezingqubo zamanzi nomumo womhlaba	<b>Uphezulu</b>	<b>Uphakathi nendawo</b>
Umthelela ezindaweni ezimanzi nasezintweni eziphila emanzini ngenxa yokuncipha kwekhwalithi yamanzi	<b>Uphezulu</b>	<b>Uphakathi nendawo</b>
Umthelela ekuxhumaneni kwemvelo kanye/noma ukuphazamiseka kwemvelo	<b>Uphakathi nendawo -</b>	<b>Uphansi -</b>
Umthelela kwikhwalithi yomoya ohlanzekile - impilo yomphakathi	<b>Uphezulu - kuya Phakathi Nendawo</b>	<b>Uphakathi nendawo - kuya Phansi -</b>
Umthelela kwikhwalithi yomoya ohlanzekile - izitshalo eziphaliswayo	<b>Uphansi -</b>	<b>Uphansi Kakhulu -</b>
Umthelela kwikhwalithi yomoya ohlanzekile - ukuqhumisa	<b>Uphakathi nendawo -</b>	<b>Uphansi -</b>
Umthelela emazingeni omsindo	<b>Uphezulu -</b>	<b>Uphakathi nendawo -</b>
Umthelela ekushintsheni kokusetshenziswa komhlaba, ukusuka ekulimeni kuye ekumbeni	<b>Uphezulu -</b>	<b>Uphansi -</b>
Umthelela wokulahleka kanye/noma ukuncipha kwamandla amanje omhlaba	<b>Uphakathi nendawo -</b>	<b>Uphansi -</b>
Umthelela wokwanda kokuguguleka komhlaba	<b>Uphakathi nendawo -</b>	<b>Uphansi Kakhulu -</b>
Umthelela wokucinana kwenhlabathi	<b>Uphezulu -</b>	<b>Uphakathi nendawo -</b>
Umthelela wokungcola kwenhlabathi	<b>Uphezulu -</b>	<b>Uphansi -</b>
Umthelela wokubukeka kwendawo	<b>Uphezulu kakhulu -</b>	<b>Uphezulu -</b>
Umthelela wephrojekthi ekushintsheni kwesimo sezulu	<b>Uphezulu +</b>	<b>Uphezulu +</b>
Umthelela wokushukuma komhlaba, ukuqhumisa emoyeni namatshe andizayo ngenxa yemisebenzi yokuqhumisa	<b>Uphezulu -</b>	<b>Uphansi -</b>

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
<b>Umnotho womphakathi</b>		
Umthelela wokushintsha izinqubo zokulima, izinketho zemakethe kanye nemithombo yomsoco	Uphezulu kakhulu -	Uphakathi nendawo -
Ukuchayeka esifweni se-vector-bone ne-zoonotic	Uphakathi nendawo -	Uphansi -
Ushintsho ekufinyeleleni ezokwelapha	Uphezulu kakhulu -	Uphezulu kakhulu +
Ukulahleka kwezindawo zamagugu amasiko	Uphezulu kakhulu -	Uphakathi nendawo -
Ukuthuthwa kwamathuna	Uphezulu kakhulu -	Uphezulu -
Umthelela kubasebenzisi bomgwaqo kanye nokuphepha emgwaqweni	Uphezulu kuya Phakathi Nendawo -	Uphakathi Nendawo kuya Phezulu +
Ukufika kwabantu abazosebenza / ukutheleka kwabafuna imisebenzi	Uphakathi nendawo -	Uphansi -
Ukuthuthukiswa komphakathi nendlela yokuphila	Uphakathi nendawo +	Uphezulu +
Ibhizinisi - imithelela kwezokuvakasha	Uphakathi nendawo -	Uphakathi nendawo -
Umthelela emnothweni wasendaweni nowasesifundeni	Uphezulu +	Uphezulu +

#### Isigaba Sokuya Ukusebenza

Lapho kuyekwa ukusebenza futhi kuvalwa (**Error! Reference source not found.**) i-Jindal MIOP imithelela eminingi izophela, futhi izinga l emithelela lizoba phansi kuya kwenganakeki (izoba mbalwa imithelela ephakathi nendawo) uma nje ingqalasizinda iyekiswa futhi ivuselelw ngokuvumelana Nohlelo Lokuvala olugunyaziwe kanye Nohlelo Lokuvuselela oluhambisana nalo. Imithelela yokubukeka ehlobene ne-Jindal MIOP izoba yingxene yendawo unomphela kodwa ingancishiswa ngezinga elithile ngokuvuselelw. Umthelela obalulekile lapho kuyekwa ukusebenza kuzoba umthelela ongase ube mubi endaweni ngenxa yokulahleka kwemisebenzi kanye nezinzuoz ezhlobene nokusebenza kwe-Jindal MIOP emnothweni wasendaweni. Nokho, uma kulawulwa kahle futhi kuhlelwa kahle ngaphambi kwesikhathi, kusetshenzisa Uhlelo Lokuvala imayini, imithelela engemihle emiphakathini yasendaweni kanye namadolobha asondele ingancishiswa kakhulu.

#### IThebula 3 Isifinyezo Semithelela Yesigaba Sokuya Ukusebenza Nokuvala Etholakele Kanye Nezilinganiso Zangaphambi Nangemva Kokunciphisa

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
<b>Imvelo</b>		
Umthelela kwikhwalithi yamanzi angaphansi komhlaba	Uphansi -	Uyaphawuleka -
Umthelela kwikhwalithi yamanzi angaphansi komhlaba	Uyaphawuleka	Uyaphawuleka
Ikhwalithi enciphile yamanzi aphezulu	Uphakathi nendawo -	Uphansi -
Ukushintshwa kwezindlela zokuthulula nokugeleza kwamanzi	Uphakathi nendawo -	Uphansi -
Umthelela wezikhukhula	Uphakathi nendawo -	Uphansi -
Uqondile - Umthelela eztshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	Uphakathi nendawo -	Uphansi -
Awuqondile - Umthelela eztshalweni, emiphakathini kanye nemithelela ezimisweni zemvelo ezsengozini kanye nokuvikelwa kwezinto eziphilayo	Uphezulu -	Uphakathi nendawo -
Uqondile - Umthelela ohlotsheni lwezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	Uphakathi nendawo -	Uphansi -
Awuqondile - Umthelela ohlotsheni lwezinto eziphilayo kanye nokuvikelwa kwalezo ezsengozini	Uphakathi nendawo -	Uphansi -
Uqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	Uphakathi nendawo -	Uphakathi nendawo -
Awuqondile - Umthelela ezinqbweni zemvelo zasendaweni nezasesifundeni	Uphakathi nendawo -	Uphansi -
Ukulahleka okungokoqobo noma ukushintsha kwendawo ehlala amanzi	Uphakathi nendawo -	Uphakathi nendawo -
Ukushintsha kwezinqubo zamanzi nomumo womhlaba	Uphakathi nendawo -	Uphansi -

Umthelela Ongase Ube Khona	Awuncishisiwe	Uncishisiwe
Umthelela ezindaweni ezimanzi nasezintweni eziphilu emanzini ngenxa yokuncipha kwekhwalithi yamanzi	Uphakathi nendawo -	Uphansi -
Umthelela ekuxhumaneni kwemvelo kanye/noma ukuphazamiseka kwemvelo	Kuphakathi nendawo- Kuphansi -	Uphansi -
Umthelela kwikhwalithi yomoya ohlanzekile	Uphakathi nendawo -	Uphansi -
Umthelela emazingeni omsindo	Uphansi -	Uphansi kakhulu -
Umthelela ekushintsheni kokusetshenziswa komhlaba, ukusuka ekulimeni kuye ekumbeni	Uphezulu -	Uphansi -
Umthelela wokulahlekwa kanye/noma ukuncipha kwamandla amanje omhlaba	Uphakathi nendawo -	Uphansi -
Umthelela wokwanda kokuguguleka komhlaba	Uphezulu -	Uphakathi nendawo -
Umthelela wokucinana kwenhlabathi	Uphezulu -	Uphakathi nendawo -
Umthelela wokungcola kwenhlabathi	Uphezulu -	Uphansi -
Umthelela wokubukeka kwendawo	Uphezulu -	Uphakathi nendawo -
Umthelela wephrojekthi ekushintsheni kwesimo sezulu	Akuhloiwanga	
Umnotho womphakathi		
Umthelela wokushintsha izinqubo zokulima, izinketho zemakethe kanye nemithombo yomsoco	Uphezulu kakhulu -	Uphakathi nendawo -
Umthelela kubasebenzisi bomgwaqo kanye nokuphepha emgwaqweni	Uphansi -	Uphansi -
Ukufika kwabantu abazosebenza / ukutheleka kwabafuna imisebenzi	Uphansi -	Uphansi Kakhulu -
Ukuthuthukiswa komphakathi nendlela yokuphila	Uphakathi nendawo -	Uphansi -
Ibhizinisi - imithelela kwezokuvakasha	Uphezulu -	Uphakathi nendawo -
Umthelela emnothweni wasendaweni nowasesifundeni	Uphakathi nendawo -	Uphansi -

## UHLELO LOKULAWULWA KWEMVELO

Ngokusekelwe emiphumeleni Yokuholola Kwemithelela kanye, nalapho kusebenza khona, izincomo zongoti, ukulawulwa okuhlongozwayo kwezinjongo nemiphumela ye-Jindal MIOP ehlongozwayo kuolanganisiwe ku-EMPr. Izinjongo eziqondile zezemvelo kanye nezinyathelo zokulawula, ukunciphisa noma ukuvimbela imithelela engase ibe khona zichazwe njengezinciphisa imithelela engemihle noma njengezithuthukisa imithelela emihle phakathi nazo zonke izigaba zokuhlela, ukuklama, ukwakha, ukusebenza nokuyeka ukusebenza.

## ISIPHETHO NEZIPHAKAMISO

Inqubo epelele Yokuholola Imvelo neye-EIA yensiwe yinkampani ezimele, i-SLR Consulting (Ningizimu Afrika) (Pty) Ltd isizwa ongoti njengoba kuchaziwe ngaphambili.

Okutholakele kubonisa ukuthi nakuba kunemithelela emibi kanye nezinzuze ze-Jindal MIOP, ukucabanga ngokucophelela kuyadingeka ezicini eziningana eziyinhloko kuolanganise ukulawulwa kwemithelela ezintweni eziphilayo (kanye nezinhlelo ezihmabisana nakho), imithelela kwikhwalithi yomoya nekhwalithi yamanzi (ikakhulukazi ngokuphathelene nezindawo okulinywa kuzo izinto ezidayiswayo), isilinganiso samanzi ngokuphathelene nokuncipha kwamanzi angaphansi komhlaba, izinkinga zokutholakala kwamanzi, ukuthuthukiswa kwezinzuze zasempakathini, kanye nohlelo olufanele lokuvala.

Lokho kusho ukuthi, okutholakele ekuhlolweni komthelela kubonisa ukuthi ingase ibe khona imithelela ebalulekile kuzo zonke izigaba zephrojekthi, nokho, uma i-EMPr isetshenziswa kahle, kuhlelwe ngokucophelela futhi kuxoxwe ngokuhubekayo nabo bonke ababambiqhaza kanye nabo bonke abanye abathintekayo, ngeke sibe khona isizathu semvelo, sezenhlalo noma somnotho esibangela ukuba iphrojekthi ingaqhubeki.

