

**ISISHWANKATHELO SEBHUNGA:
INGXELO EYILWAYO YOVAVANYO
LWEMPEBELELO YOKUSINGQONGILEYO
IProjekthi ecetywayo yoMbane owenziwe
ngeRhasi kwiZibuko laseRichards Bay,
uMasipala weNgingqi iMhlatuze,
KwaZulu-Natal
DFFE INOMBOLO YEREFERENSI:
14/12/16/3/3/2/2007**



1. Intshayelelo

IKarpowership SA (Pty) Ltd iceba ukwenza uMbane ngeRhasi kwiZibuko laseRichards Bay, kuMasipala weNgingqi iMhlatuze, kwaZulu Natal.

I-Triplo4 Sustainable Solutions iye yaqeshwa ukuba yenze uHlolo inike neNgxelo yeMpembelelo yokuSingqongileyo (S&EIR, ekwabizwa ngokuba yi-EIA) inkqubo efunwayo ngokoMthetho weSizwe woLawulo lokusiNgqongileyo we-107 we-1998, njengoko uhlonyelwe (NEMA).

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IProjekthi ecetywayo yeRhasi eyenza uMbane kwiNqanawe epehla uMbane kwiZibuko laseRichards Bay iye yaqulunqwa ukuphendula iSicelo seziPhakamiso (RFP) sobuchwephesha bokungakwazi ukwenza umbane usebenzisa iindlela ezintsha zeTekhnoloji phantsi kweNkqubo yokuFumana uMngcipheko ye-IPP (RMI4P) ekhutshwe liSebe leMithombo yeziMbiwa naMandla (DMRE) ukunciphisa ukusilela kokunqongophala kombane olukhoyo ngoku nakwixesha elizayo nolungiselelo olunyiniweyo,

olungathembekanga, nolwahlulo olulambathayo lobugcisa bangoku bokuvelisa umbane kunye nefuthe layo elibi kwezendalo nezoqoqosho.

INkqubo eNgxamisekileyo/yokuNciphisa uMngcipheko wokuThenga ukuThengwa koMbane (2000MW): kuZwelonke” ikwachongwe njengewonga leProjekthi eDityanisiweyo yeNkqubo-qhinga (i-SIP) phantsi koMthetho woPhuhliso lweZiseko zoPhuhliso, wama-2014 yiKomishoni kaMongameli yokuLungelelanisa iziSeko ezinguNdoqo. Ii-SIP zithathwa njengeprojekthi ezibalulekileyo kwezoqoqosho okanye kwezentlalo kuMzantsi Afrika uphela okanye ngokwengingqi nezithi ziphumeze isicwangciso sesizwe seziseko ezingundoqo kwaye ngenxa yesi sizathu, inokuphunyezwa ngokukhawuleza ngamagunya oMthetho olawulayo.

IsiCwangciso Sibonelelo eSimanyeneyo (IRP) 2019 sichonga umxube oyimfuneko wokuvelisa itekhnoloji ukuphendula isidingo sombane. Into ekhoyo kwinkqubo yokucwangcisa kukuzibophelela ekukhuseleni umbane, ukujonga iindleko kunye nokuzinza kwendalo. I-RMI4P iphumelele ekutsaleni izindululo zeprojekthi ezibandakanya indibaniselwano yetekhnoloji eyahluka-hlukeneyo ukubonelela ngemveliso enokuthunyelwa. Ezi zigqibo ziququzelela inkqubo yokuthengwa komthamo wombane ofunekayo. Ubume boMniki-maxabiso oKhethiweyo kwi-RMI4P yanikezelwa kwiiprojekthi ezisibhozo ngomhla we-18 kuMatshi 2021 kunye nezinye iiprojekthi ezintathu ngomhla woku-1 kuJuni 2021, ezizezi:

- ACWA Power Projects DAO (iSolar PV + BESS + IJenereytha yeDizili)
- Amandla e-Oya (iSolar PV + BESS + Jenereytha yeDizili + umoya oselunxwemeni)
- Umoyilanga Energy (iSolar PV + BESS + iRhasi yePetroleum engaManzi (LPG) Jenereytha + Umoya oselunxwemeni)
- Iprojekthi ezimbini zeMulilo iyonke (iinjini zeRhasi eziphinda-phiindayo + iSolar PV + iJeneyitha yeGesi) kunye (neSolar PV + BESS + iJenereyitha yeDizili + noMoya waselunxwemeni))
- Iprojekthi ezintathu zeKarpowership SA (Iinjini zeRhasi ezinemo yokuSetyenziswa ezineeTurbines zeRhasi eziBamba ubushushu).
- Ezinye iiprojekthi eziNtathu eziKhethiweyo zoMniki-maxabiso ziye zongezwa ngomhla woku-1 kuJuni wama-2021 kwi-Scatec (iSolar PV + BESS).

Iprojekthi yeRhasi eyenza uMbane kusetyenziswa iNqanawe epehla uMbane (Powership) kwiZibuko laseRichards Bay yenza inxalenye yezisombululo ezibonelelwa ngabafaki-maxabiso abakhethiweyo be-RMI4P ebonelela ngendibaniselwano yoluhlu lwethekhnoloji enokuqatshelwa apha ngasentla.

Irhasi, ngokwe-DMRE, ichongwe njengenye yeendlela ezifikelekayo nezithembekileyo zombane. Kubabizi-maxabiso abakhethiweyo abali-11, ngumbizi-maxabiso om-1 kuphela obize ixabiso eliphantsi, eqinisekisa ukufikeleleka kwerhasi kwiprojekthi yombane njengesixhobo esinakho ukuvulwa okanye sicinywe ngokwesidingo sombane.

Iprojekthi ezingama-28 zingeniswe ngezibizi-maxabiso ukuphendula i-RMI4P ngowama-22 kaDisemba 2020. Amaxabiso avavanyelwa ukuthotyelwa kweenqobo nemiqathango ze emva koko zavavanyelwa ixabiso eliphantsi kunye negalelo lophuhliso loqoqosho oluzinikeleyo. Iprojekthi yeNqanawe epehla uMbane (Karpowership) kwiZibuko laseRichards Bay yathi emva koko yabhengezwa njengenye yeziniki-maxabiso eziyimpumelelo kwezili-11 ezibhengezwe yi-DMRE. Ubume beprojekthi ye-Karpowership, xa inikwa iwonga njengomthengi okhethiweyo we-RMI4P, yahlelwa njengeProjekthi eDityanisiweyo yeNkqubo-qhinga (SIP) kwaye kufuneka ilawulwe, ithobele imiqathango njengoko ibekiwe kuMthetho woPhuhliso lweZiseko zoPhuhliso wama-23 wama-2014-iSihlomelo 7.1

2. ISICWANGCISO-NKQUBO SOLAWULO

I-NEMA iyamthintela umntu ekubeni aqalise umsebenzi odwelisiweyo ngaphandle kogunyaziso lokusingqongileyo.

IProjekthi iqalisa imisebenzi emininzi edweliswe kwiZaziso zoLuhlu lwe-EIA 1, 2 no-3 ka-2014 (njengoko zihlonyelwe) (“ukuDwelisa iZaziso”). Iimfuno zenkqubo zesicelo esinjalo kunye ne-EIA enxulumeneyo ekufuneka yenziwe, zimiselwe yiMimiselo ye-EIA, yowama-2014 ebhengezwe phantsi kwe-NEMA (njengoko ihlaziyiwe) (“iMimiselo ye-EIA”).

Okunye, iProjekthi iqalisa umsebenzi odweliswe phantsi koLawulo lokusiNgqongileyo kweSizwe: UMthetho woMgangatho woMoya wama-39 wama-2004 (NEMAQA) ofuna ilayisenisi yokukhupha umoya (AEL). Inkqubo efanayo ye-EIA echazwe yiMimiselo ye-EIA kufuneka isetyenziswe kwisicelo se-AEL, kunye nenani leemfuno ezongezelelweyo ezichazwe kwi-NEMAQA kunye neMimiselo yayo.

IMimiselo ye-EIA, ichaza iinkqubo ezimbini zogunyaziso. Kuxhomekeke kuhlobo lomsebenzi ocetywayo, mhlawumbi uHlolo oluSisiseko okanye inkqubo yoVavanyo lweMpembelelo yokusiNgqongileyo iyafuneka ukuze ufumane uGunyaziso lokuSingqongileyo (EA).

I-Triplo4 imisele ukuba iProjekthi ecetywayo yePowership eyenza uMbane ngeRhasi kwiZibuko laseRichards Bay yaqalisa imisebenzi kuDweliso lweZaziso 1-3 seMimiselo ye-EIA.

ITeyibhile 0-1: Imisebenzi edwelisiweyo

Umsebenzi	Inkcazelo eshwankathelweyo
Uluhlu lweZaziso 1	
11	Uphuhliso lwezibonelelo okanye iziseko zoncendo zokuhambisa nokusasazwa kombane— (i) ngaphandle kweendawo zasezidolophini okanye izakhiwo zemizimveliso ezinomthamo ongaphezulu kwama-33 kodwa ngaphantsi kwama-275 kilovolts; okanye (ii) ngaphakathi kweendawo ezisezidolophini okanye kwizakhiwo zemizimveliso ezinomthamo wama-275 kilovolti okanye ngaphezulu.

12	Uphuhliso lweziseko ezingundoqo okanye izakhiwo ezinophawu olubonakalayo lwe-100 le- <i>square metres</i> okanye ngaphezulu phakathi komlambo okanye ngaphakathi kwama-32m yomlambo.
15	Uphuhliso lwezakhiwo kummandla wonxweme kawonkewonke apho indawo yophuhliso ingaphezulu kwama-50 e- <i>square metres</i>
17	Uphuhliso elwandle okanye kwichweba lechweba okanye ngaphakathi kwendawo esebenzayo yomlambo; ngokumalunga neziseko zophuhliso okanye izakhiwo ezinomda wophuhliso oziimitha ezingama-50 okanye ngaphezulu.
18	Ukutyalwa kwezityalo okanye ukubekwa kwayo nayiphi na imathiriyeli kwiindunduma okanye imiphezulu yesanti eveziweyo engaphezulu kwe-10 <i>leesquare metres</i> , ngaphakathi kwendawo esebenzayo.
19	Ukuzaliswa okanye ukufakwa kwayo nayiphi na imathiriyeli engaphezulu kwe-10 le- <i>cubic metres</i> , okanye ukugrunjwa, ukususwa okanye ukushenxiswa komhlaba, isanti, amaqokobhe, oonokrwece baselwandle abophukileyo, amatye okanye amatye angaphezulu kwe- <i>cubic metres ezili-10</i> ukusuka kumlambo.
19A	Ukuzaliswa okanye ukufakwa kwayo nayiphi na imathiriyeli engaphezulu kwe- <i>cubic metres ezi-5</i> , okanye ukugrunjwa, ukomba, ukususwa okanye ukushenxiswa komhlaba, isanti, amaqokobhe, oonokrwece baselwandle abophukileyo, amatye okanye amatye angaphezulu kwe- <i>cubic metres ezi-5</i> ukusuka— (i) kunxweme lolwandle; (ii) kummandla womlambo ovulekileyo, ichweba okanye umgama oziimitha ezili-100 emhlabeni kwindawo ebonisa ukuzala kwamanzi olwandle okanye ichweba, nokuba ngowuphi umgama omkhulu; okanye (iii) kulwandle

27	Ukucocwa kommandla oyihektare enye nangaphezulu, kodwa ngaphantsi kwehektare ezingama-20 zezityalo zemveli.
Uluhlu lweZaziso 2	
2	Uphuhliso nokusebenza okunxulumeneyo kwezibonelelo okanye izibonelelo zokuvelisa umbane ukusuka kwisixhobo esingahlaziyekiyo apho umbane ophumayo uziimegawathi ezingama-20 okanye ngaphezulu.
4	Uphuhliso nokusebenza okuhambelanayo kwezibonelelo okanye iziseko zophuhliso, ukugcinwa, okanye ukugcinwa nokuphathwa kwezinto ezinobungozi.
6	Uphuhliso lwezibonelelo okanye iziseko ezingundoqo zayo nayiphi na inkqubo okanye umsebenzi ofuna imvume okanye ilayisenisi okanye imvume elungisiweyo okanye ilayisenisi ngokomthetho wesizwe okanye wephondo olawula ukuveliswa okanye ukukhutshwa kwezinto ezikhutshwayo, ungcoliseko okanye amanzi amdaka.
7	Uphuhliso nokusebenza okunxulumeneyo kwezibonelelo okanye iziseko zothutho oluninzi lwempahla eyingozi— (i) ikwimo yerhasi, ngaphandle kwendawo yoshishino, kusetyenziswa imibhobho, edlula iimitha ezili-1 000 ubude, nomthamo wokuphuma kwamanzi ongaphezu kweetoni ezingama-700 ngosuku; (ii) Ikwimo yolwelo, ngaphandle kwendawo yoshishino, kusetyenziswa imibhobho, engaphezulu kwe-1 000 leemitha ubude, nomthamo we-mveliso ngaphezu kwe- <i>cubic metres</i> ezingama-50 ngosuku.
14	Uphuhliso kunye nokusebenza okunxulumeneyo— (ii) iqonga elimisiweyo; okanye (iii) nasiphi na esinye isakhiwo okanye iziseko ezingundoqo — phezu, ngaphantsi okanye ecaleni kwisisu solwandle.
Uluhlu lweZaziso 3 (KwaZulu Natal)	

10	Uphuhliso nokusebenza okunxulumeneyo kwezibonelelo okanye isiseko sogcino, okanye ukugcinwa nokuphathwa kwempahla eyingozi, apho ugcino olunjalo lwenzeka kwizikhongozeli ezinomthamo odityanisiweyo wama-30 kodwa ongadlulanga kwi- cubic metres ezingama-80.
12	Ukucocwa kommandla oziskwemitha ezingama-300 okanye ngaphezulu kwezityalo zemveli kwindawo echongiweyo ngokwejografi.
14	Uphuhliso lwe- (ii) iziseko ezingundoqo okanye izakhiwo ezinophawu olubonakalayo lwe-10 square metres okanye ngaphezulu; apho kwenzeka khona uphuhliso- (a) phakathi komlambo; (b) phambi kokubuyela umva kophuhliso; okanye (c) ukuba akukho kubuyiselwa umva kophuhliso olwamkelweyo, ngaphakathi kweemitha ezingama-32 zomlambo, kulinganiswe ukusuka ekupheleni komlambo.

Ugunyaziso lokuSetyenziswa kwaManzi ngokweCandelo lama-21 loMthetho waManzi weSizwe wama-36 we-1998 (NWA) luyafuneka *Iwazisekwa* liSebe lezaManzi noGutyulo ngoJulayi wama-2021.

3. Inkqubo yokusingqongileyo

IMimiselo ye-EIA ichaza indlela eneenkcukacha yenkqubo ye-S&EIR, equka izigaba ezibini: iSigaba sokuHlola kunye neSigaba soVavanyo lweMpembelelo (isigaba sangoku).

Inkqubo yeNgxelo yokuHlola kunye neNgxelo yeMpembelelo yokuSingqongileyo (S&EIR) efunekayo kwi-EA, yaqhutywa ngowama-2020-2021, ngokolandelwano lweziganeko apha ngezantsi:

- INgxelo yoHlola, kubandakanywa iSicwangciso soPhononongo kunye neSicwangciso sokuThatyathwa kweNxaxheba koLuntu (PP) esamkelweyo se-

EIA, yamkelwa liGunyabantu eliQoqelekileyo (CA), elileli Sebe lezamaHlathi, ukuLoba nokusiNgqongileyo (DFFE), ngomhla wesi-6 kuJanuwari wama-2021.

- Ingxelo yokuGqibela ye-EIA (EIAR) kunye neNngxelo yeNkqubo yoLawulo lokuSingqongileyo (EMPr) zangeniswa kwi-CA ngomhla wama-26 kuTshazimpuzi wama-2021. I-CA yasikhaba isicelo se-EA yaza yanika iKSA iRekhodi yoKwaliwa (RoR) ngomhla wama-23 kuJuni wama-2021.

Ngomhla we-13 kaJulayi 2021, i-KSA yabhena

ukwaliwa kwe-CA. Ngomhla woku-1 ku-Agasti 2022,

uGunyaziwe weZibheni (uMphathiswa) wasichitha isibheni waza wasebenzisa amagunya wakhe ngokweCandelo lama-43(6) le-NEMA. Isicelo sabuyiselwa kwi-CA, kunye nomyalelo wokujongana nezikhewu ezahlukeneyo ezibonwayo kunye neziphene nge-EIAR entsha ne-PPP ehambelana nayo, ukuze isicelo siqwalaselwe yi-CA.

I-CA yacebisa ukuba i-EIAR ehlaziyiweyo, ejongene nezikhewu ezahlukeneyo kulwazi, mayixhomekeke kwiNkqubo yokuThatha iNxaxheba koLuntu (PPP), mayingeniswe kwi-CA ukuze iphinde iqwalaselwe.

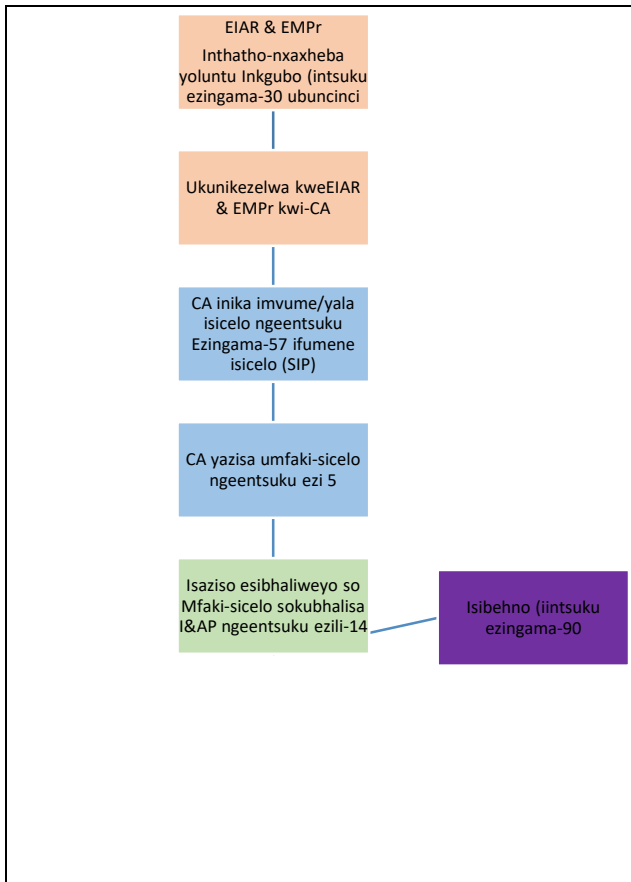
linjongo eziphambili ze-EIA zezi:

- Ukwazisa amaQela aNomdla naChaphazelekayo (I&APs) malunga neProjekthi ecetywayo kunye nenkqubo ye-EIA elandelwayo;
- Ukufumana izimvo kuma-I&APs (kubandakanywa abasemagunyeni abafanelekileyo kunye noluntu) kwaye uqinisekise ukuba yonke imiba, iinkxalabo kunye nemibuzo ephakanyisiweyo ibhalwe ngokupheleleyo kwaye isonjululwe kwiNngxelo ye-EIA;
- Ukuchonga nokuvavanya iimpembelelo ezibalulekileyo ezinokubakho ezinxulumene nophuhliso olucetywayo;
- Ukuqulunqa imilinganiselo yokunciphisa, ukuthintela, kunye/okanye ukunciphisa iimpembelelo kunye nokwandisa inzuzo yeProjekthi; kwaye.
- Ukuvelisa iNngxelo yokuGqibela ye-EIA eya kubonelela ngalo lonke ulwazi oluyimfuneko kwiGunyabantu elinobuchule ukwenza

isigqibo (kwaye phantsi kwaziphi iimeko) sokugunyazisa iProjekthi ecetywayo.



Umfanekiso Error! No text of specified style in document.-1: Umbono weSiza seProjekthi



Umfanekiso Error! No text of specified style in document.-2: Inkqubo ye- EIR

Le Projekthi ikwiZibuko laseRichards Bay. Imi kufutshane neRichard's Bay Industrial Development Zone (RBIDZ) kuMasipala weNgingqi waseMhlatuze kwiPhondo laKwaZulu-Natal. Izibuko laseRichards Bay, elikwiWadi 2 kuMasipala weNgingqi waseMhlatuze, leliphuhlulume kwaye lilawulwa nguTransnet National Ports Authority (TNPA) ngokomsebenzi womqeshisi.

Izibuko laseRichards Bay limelene noMmandla woPhuhliso lwezoShishino laseRichards Bay (RBIDZ) – iMimandla eYodwa yoQoqosho (SEZ), eyilelwe ngokukodwa ukuvumela amashishini anxulumeneyo ukuba azinze kuMmandla woShishino.

IiNqanawe eziphehla uMbane (Powerships) ezicetywayo, i-FSRU, i-LNGC yethutyana kunye nombhobho werhasi, iya kufumaneka kwiZibuko lase-Richards Bay phantsi kolawulo lwe-TNPA. Ngelixa umzila wothumelo unqumla kwizakhiwo zika-Transnet kunye nezakhiwo zikaMasipala weNgingqi waseMhlatuze, kwaye isikhululo sokutshintsha esicetywayo sime kancinane kwizakhiwo se-South32 Aluminium Pty Ltd (esecaleni kwesikhululo esikhoyo saseBayside).

IiNqanawe eziphehla uMbane kunye neFSRU ziza kubekwa kumanzi akhuselweyo ngaphakathi kweZibuko laseRichards Bay. IiNqanawe eziphehla uMbane zibekwe ngaphakathi kwe-dead-end basin ekufuphi nasedokhsini / kwindawo yokuthula nokukhwelisa imithwalo kwiinqanawe.



Umfanekiso Error! No text of specified style in document.-3: Umbono weSiza seZibuko

4. Inkcazelo yeSiza nokuSingqongileyo



Umfanekiso Error! No text of specified style in document.-4: Umbono weNdlela zoThutho

Uphuhliso lwamashishini oluphuhlise kufutshane necandelo leZibuko apho iprojekthi ecetywayo ikhoyo iquka umnyibilikisi omkhulu we-aluminiyam (Bayside) kwakunye nesityalo sekhemikhali sephosphorous (Foscor). Izikhululo zeBidvest zikwimida yeZibuko, eMpuma yeprojekthi ecetywayo.

Ummandla wophononongo uwela phakathi kweNdawo yeZityalo ezohlukeneyo eziBalulekileyo edweliswe njengengenakubuyiselwa. I-Richards Bay Game Reserve, ekwanguMmandla weNtaka oBalulekileyo (IBA) imi ngaphantsi kwe-1km ukuya kumzantsi-ntshona wesiza, kwaye i-Enseleni Nature Reserve ibekwe malunga ne-10km kumntla wesiza. Lilonke, umzila ocetywayo wothumelo olusemhlabeni (indlela ekhethwayo) ibekwe kwiindawo ezinovakalelo oluphantsi, ikakhulu ngenxa yendawo ekuyo kwiindawo eziguqukileyo okanye kwiindawo eziwohloke kakhulu ezimelene neendawo eziguquliweyo.

UMasipala weNgingqi iMhlatuze unabemi abamalunga nama-351 531 kwaye waziwa ngokuba nabantu abakwinqanaba eliphezulu lemfundo.

5. Inkuthazo yeProjekthi

IProjekthi yeKarpowership iye yavela njengesombululo sengxaki yokunqongophala kombane eMzantsi Afrika. Ibe yimpendulo kwibhidii ekhutshwe yiDMRE ye-RMI14P. I-RMI14P yeyokwanelisa umsantsa wobonelelo lombane lwexeshana, ukuthomalalisa izithintelo zobonelelo

Lombane lwanguku nokunciphisa ukusetyenziswa kakhulu lweejenerayitha zedizili kusetyenziswe obunye ubuchwephesha bombane (Steenkamp & Weaver, 2022; DMRE, 2021a). Umbane oveliswe

ngProjekthi yeKarpowership uya kuba negalelo ekunciphiseni umthwalo kacimicimi wombane oneziphumo ezibi kwintlalo noqoqosho ngokubonelela ngombane ofunekayo othunyelwayo, onokunikezelwa kumthwalo osisiseko, umgangatho ophakathi naxa udingeka kakhulu.

IRMI14P, ibhengeze ukuba iProjekthi eManyanisiweyo yeNkqubo-qhinga, iyimpendulo ebalulekileyo kwingxaki yombane, kwaye ngokuhambelana negunya likarhulumente lokubonelela ngeenkono eziqinisekisa ukukhula koqoqosho lwintlalo nokuphila kakuhle ukuze kuxhamle uluntu lonke. Iprojekthi ecetywayo ye-Karpowership ihambelana ne-IRP 2019 apho isibonelelo senziwe ngerhasi kumxube wombane. Iinqanawe eziphehla umbane azimele ukuthatyathwa njengezithatha indawo yombane ovuselelekayo, zimele ukuthathwa njengobuchwephesha obuncedisayo kumbane ovuselelekayo, ezixhasa inguqu yokusuka kumalahle kunye nokunciphisa iimpembelelo ezimbi zokusingqongileyo ezinxulumene namalahle. Iprojekthi yeKarpowership izisa isisombululo kumbandela otshis'ibunzi wokunqongophala kombane, yona ithi, umbane unokuthunyelwa ngomyalelo xa ukunikezelwa kombane kuphantsi koxinzelelo.

Ukongeza, iprojekthi iya kukhokelela kwiimpembelelo ezilungileyo eziphindaphindayo kuqoqosho lwengingqi ngexesha lolwakhiwo kunye nenqanaba lokusebenza. I-Karpowership iya kudlala indima entle kuqoqosho lwengingqi ngezakhono-, ushishino- kunye neenkqubo zophuhliso lwababoneleli. Iimpembelelo ezithe ngqo, ezingathanga ngqo, neziphenjelelwayo zezoqoqosho zeprojekthi kwingqesho, ukwenziwa kwengeniso, imveliso entsha kunye nexabiso lezoqoqosho liya kuba lihle. Oku kuya kubandakanya uphuhliso lwezakhono nophuhliso lwezakhono ngokubhekiselele.

Kufezekiso lwenguqu enobulungisa eMzantsi Afrika. Ngoko ke kucingelwa ukuba iprojekthi yeKarpowership iya kubangela impembelelo entle yentlalo-qoqosho xa kuqwalaselwa inkitha yeempembelelo zoqoqosho kunye nokusingqongileyo.

Kubalulekile ukuba siyibethelele into yokuba iprojekthi yeKarpowership ikwizibuko elisebenzayo, eliikuMmandla woQoqosho oKhethekileyo weZibuko laseRichards Bay, ethathwa njengeyona ndawo iphambili elungiselela ngokukodwa icandelo lombane nelaselwandle

Nangona kunjalo, ukwenza izinto ngenkathalo nangokuzinzileyo kule projekthi icetywayo kuyafunwa ngokweemfuno zeNEMA nemithetho yokusingqongileyo, neMithetho yeMigaqo-nkqubo neziKhokelo. Ukongeza, kufuneka kuqatshelwe ukuba kusetyenzwa ngenkathalo. Ngako oko, luninzi uvavanyo lwempembelelo kwiinkalo ezininzi olwenziweyo ziingcali njengexalenye yenkqubo ye-EIA, ukuhlanganiswa kwezinto ezifunyanisiweyo zeengcali kwaqinisekiswa kunye nokusetyenziswa kombono we-polycentric kuvavanyo lwempembelelo kwasetyenziswa. Iimpembelelo ezimbi nezilungileyo zichongiwe, zaze zaphetshwa zonke iimpembelelo ezingalunganga ukuze kuncitshiswe impembelelo, nezindululo zolawulo ezingezinye zinikezelwe ngokweEMPr. Zonke iingcali, ziyixhasile iprojekthi kwaye akukho ziphene zibulalayo ziboniweyo. Indlela yokujonga i-polycentric inike ingqwalasela kuyo yonke imiba efanelekileyo, kubandakanywa iimpembelelo ezinokuthi zibe nazo iprojekthi ecetywayo kwindawo kunye nakuluntu ngokubanzi.

Kukho elinye ithuba lophando lwenzululwazi kunye neenkqubo zokubeka iliso ukwazisa ulawulo olulungelelanisiweyo kumjikelo wobomi bale projekthi, kunye neeprojekthi ezifanayo ezisezibukweni. Ingcali yokuZinziseka, esekelwe kumagalelo eeNgcali, ivavanye ngokuzimeleyo iprojekthi ngokwejografi, ngokwasemzimbeni, ngokwebhayoloji, ezentlalo, ezoqoqosho nenkcubeko kwinkalo yokusingqongileyo ngokusetyenziswa kweendlela ezintathu eziye zancedisa ekuhlanganiseni, nokudibanisa, nokuqulunqa ulwazi lobugcisa ngeenjongo zokwenza izigqibo. Esi sigqibo silandelayo kwafikelelwa kuso: “Ngenxa yokuba iingcali ezithathe izifundo zobungcali ziye zakuxhasa ukunikezelwa kogunyaziso lokusingqongileyo, ngeemfuno ezahlukeneyo zokuthomalalisa nokulawula, ndiyayixhasa le projekthi inikwe isigunyaziso sokusingqongileyo, ukuba kukho ukuthomalalisa okuyimfuneko nezindululo

zolawulo zixhasiwe. Izindululo ezinikelwe kule ngxelo zinika ithuba elongezelelekileyo lokunciphisa iimpembelelo ezingalunganga zale projekthi kokusingqongileyo nokwandisa igalelo elincomekayo nelifa elinokuthi iKarpowership SA ifake isandla kolu luntu.”

6. Inkcazo yeProjekthi

IProjekthi ibandakanya ukuveliswa kombane ngeenqanawa ezimbini zoMbane ezibotshelwe kwiZibuko laseRichards Bay, ezondliwa ngerhasi yendalo esuka kwinqanawa yesithathu, iYunithi yokuGcina ukuFaka nokuVuselelwa ngokutsha (FSRU). Ezi nqanawa zintathu ziyakubotshelwa kwizibuko ukulungiselela iProjekthi elindelekileyo iminyaka engama-20 yokuphila. IsiThuthi seRhasi yeNdalo eNyibilikisiweyo (LNGC) iya kuzisa irhasi yendalo enyibilikisiweyo (LNG) ize iyikhuphele kwi-FSRU malunga neentsuku ezingama-20 ukuya kwezingama-30, kuxhomekeke kumbane ofunekayo ogqitywe ngumthengi, u-ESKOM. I-FSRU igcina i-LNG ize ijike ulwelo lube kwimo yerhasi (iRhasi yeNdalo) xa ifunwa nguMbane (uRegassification). Irhasi yendalo iya kukhutshelwa isuka kwiFSRU isiwe kwiiNqanawe eziphehla uMbane ngombhobho werhasi engaphantsi kolwandle.

Umthamo woyilo weProjekthi ngama-540MW. Umbane uya kuveliswa kwiiNqanawe eziphehla uMbane (Powerships) ngee-injini ezingama-27 eziphindaphindayo, nganye inegalelo lobushushu elingaphezulu kwe-10MW (umthamo woyilo we-18.32MW nganye ikwisakhono esipheleleyo). Ubushushu obuveliswa kukusebenza kwee-injini eziphindaphindayo buyabanjwa, kwaye loo mandla asetyenziswa ukwenza umphunga ukuqhuba iinjini zomphunga ezintathu nganye inegalelo lobushushu elimalunga ne-15.45MW. Umthamo wekhontrakthi oyi-450MW, ongenako ukugqithiswa phantsi kwemiqathango ye-RMIPPPP, uya kukhutshwa ngentambo yothumelo eyi-132kV kumgama omalunga ne-3.6km. Umbane uya kukhutshwa kwisiKhululo soMbane ukuya kwisikhululo esincinci sase-Impala, kusetyenziswa indawo yoqhagamshelo (ifuna isikhululo esitsha sokutshintshela) kufutshane neSikhululo esikhoyo saseBayside, esondla umbane kuthungelwano lwesizwe.

7. Iindlela ezingezinye

IMimiselo ye-EIA, yowama-2014 (njengoko ilungisiwe) ifuna ukuba zonke iinkqubo ze-S&EIR zichonge

kwaye zichaze ezinye iindlela ezinokwenzeka nezisengqiqweni. Iindlela ezininzi ezizezinye ziye zachongwa kwaye zaqwalaselwa ukuza kuthi ga ngoku

kwaye abekwe kude kunenye indawo yesi-2 ukusuka elunxwemeni lwesanti olunovakalelo. Esi sikhundla singomnye samkelwa yi-TNPA kwaye ngokuhambelana nesicwangciso sabo sezibuko

ITafile 0-2: Iindlela ezizezinye zivavanyiwe

Iindlela ezizezinye	Izizathu zihlolisiwe
<p>Enye Indlela: Inqanawe ephehla uMbane Inqanawe ephehla uMbane (Powership) e1-2 ibekwe kufutshane nodonga lwesanti olubuthathaka kude nonxweme, oluya kufuna intambo yokuhambisa ixesha elide kunye nenqaba ephezulu.</p>	<p>Le yenye indlela enokwenzeka, nangona kunjalo ithathwa njengengafanelekanga kwiimbono zobunjineli nezokusingqongileyo.</p>
<p>Ubeko Olulolunye: Imizila yokuThumelo - Indlela ibekwe kumlinganiselo omkhulu wobude bayo phakathi kwemigxobhozo, kwaye inqumla kwiindidi ezimbini zezityalo eziseMngciphekweni ngokuBalulekileyo: Ihlathi leMangrove kunye neHlathi loMgxobhozo.</p>	<p>Ithathwa njengesiphene esibulalayo kwaye ke ayixhaswanga</p>

INqanawe ephehla umbane kwakunye neMbhobho weRhasi yindlela yesi-2: ithathwa njengento engafanelekanga kakhulu kwiimbono zobunjineli nezokusingqongileyo, njengoko iiNqanawe eziphehla uMbane kunye neenkqubo zokubophelela zibekwe kufutshane ne-santi ebuthathaka kude nonxweme, okuya kufuna intambo yothumelo olude kunye nenqaba ephezulu.

Ukuhambisa:

Indlela engenye 1 (Ekhethwayo): Uninzi lwendlela ibekwe kwiindawo ezinovakalelo lwendalo oluphantsi ukuya koluphakathi, kwaye iza kunqumla kwimigxobhozo enovakalelo oluphezulu namahlathi asemgxobhozweni, kwaye inxalenye enkulu yale ndlela ilandelayo ilandela indlela ekhoyo yentambo yombane. Le ndlela ingenye inikezela ngendlela emfutshane ukuya kwindawo yokugqibela.

Enye indlela 2: Le ndlela inqumla imimandla ebikhe yatshintshwa ngokwembali, nangona kunjalo ezi ndawo zisathathwa njengezinovakalelo oluphezulu. Ngaphaya koko, le ndlela yendlela yothumelo ecetywayo ibekwe kumlinganiselo omkhulu wobude bayo phakathi kwemigxobhozo, kwaye inqumla kwiintlobo ezimbini zezityalo eziseMngciphekweni wokuTshabalala: Ihlathi leMangrove kunye neHlathi loMgxobhozo. Ezi zinovakalelo oluphezulu kakhulu kwaye ngenxa yoko, zinokuthathwa njengesiphene esibulalayo kwaye ke le ndlela ingenye ayixhaswanga.

Ezi ndlela zilandelayo zaqwalaselwa kwi-EIA:

7.1. Ezinye iindlela zokubeka

Elwandle:

INqanawe ephehla umbane eKhetheziweyo kunye noMbhobho weRhasi yenye yeendlela zoku-1: IiNqanawe eziphehla uMbane (-Powerships) zibekwe ngaphakathi kwe-*dead-end basin*, kwaye zibekwe kufutshane nenqaba yokuqala yomzila wothumelo. Amagunya abekwe kumhlaba ongundoqo *‘wepromontory’* ekufuphi nesikhululo semangrove,

7.2. Ukuyilwa kwezinye iindlela

Umbobho wothumelo ocetywayo unokwakhiwa nokuba kunge-*monopole okanye ngentsimbi ye-lattice*, ngokusekwe kwiimfuno zokugqibela zoyilo lobunjineli, iTopografi kunye neziphumo zovavanyo lwe-*geotechnical*. Njengoko kubonakala ukuba zininzi iilethisi ezifuna ukususwa kuneemopolos, iimonopole ibe zezona zikhethwayo.

7.3 Iindlela ezizezinye zeTekhnoloji: I-Petroli

IiNqanawe eziphehla uMbane (Powerships) eziza kuthunyelwa ziya kuvelisa umbane kusetyenziswa iinjini ze-Wärtsilä ezisebenza ngokukodwa kwirhasi yendalo. I-Wärtsilä iqhuba uphando olunzulu malunga nokusetyenziswa kwemithombo eyahlukeneyo yamafutha ngaphakathi kweenjini zayo, iphucula

isenza ngcono itekhnoloji yabo ukuze ibe lulutho nakwixesha elizayo. UWärtsilä wenze inkqubela phambili ebonakalayo ekusebenziseni irhasi yehydrojeni ukwenza umbane ngobuchwephesha benjini; Ngelixa sele kukwazi ukusebenzisa umxube we-hydrogen kunye nerhasi yendalo, obu bugcisa busebutsha kwaye buphantsi kophando olungqongqo nophuhliso lwemisebenzi ye-hydrogen, kwaye iziphumo zolo phando kunye nophuhliso (R&D) zilindelwe kwiminyaka ezayo.

7.4 Indlela emayingathathwa

Inketho yokungawuphumezi umsebenzi o.k.k. enye indlela "emayingahanjwa" nayo iye yaqwalaselwa. Ngokumalunga neProjekthi, oko kuya kuthetha ukuba imeko ekhoyo iya kuba yengamelanga. Ngeli xesha uncedo yolu khetho ikukuba akusayi kubakho zimpembelelo zimbi kokusingqongileyo okanye kwezentlalo, kwakhona akunakubakho nzuzo intle yezentlalo noqoqosho kwakunye nokusasazwa kobuxhakaxhaka bobuchwephesha bamandla atshintshayo ngokuhambelana neenjongo zoMzantsi Afrika zeNguqu yoMbane oLungileyo.

Ngokusekelwe kwiziphumo zophando lweengcali ezizimeleyo, iprojekthi ecetywayo ayisayi kuba neziphumo ezibi kakhulu zokuchaphazeleka kokusingqongileyo okanye kwezentlalo, ibonelele ngamanyathelo okunciphisa andululwe yi-EAP kunye neengcaphephe, njengoko ziqulathwe kwiCandelo lesi-8 lengxelo eyilwayo ye-EIA kunye ne-EMPr, ziyaphunyezwa.

Enyanisweni, iprojekthi ecetywayo iya kuba neempembelelo ezintle zokusingqongileyo ngenxa yamanyathelo okunciphisa abandakanya uphando ngendalo nophuculo oluya kulandela ixesha elide oluphuma kulwazi oluphuculweyo. Iimpembelelo ezimbi zokusingqongileyo ezibangelwa ngucimicimi wombane, ukunciphisa kombane okanye ukusetyenziswa kwemithombo yamafutha eyingozi ngakumbi kokusingqongileyo nazo ziya kuphetshwa.

Iimpembelelo ezilungileyo kakhulu ezincomekayo kwezentlalo noqoqosho aziyi kufezekiswa kwimeko yokungahambeki. Utshintsho olunobulungisa kwezentlalo lwabasebenzi abahluphekayo, nabangaqeqeshelwanga msebenzi, nabantu abangahoywanga nokujoliswe kuko nguRhulumente kumxube wonikezelo lombane oluzinzileyo nako akuyi kwenzeka kumxholo weProjekthi yeKarpowership

ePort of Richards Bay. Inzuzo elahlekileyo yokuba nombane ophuma kwirhasi yendalo, inciphisa uzinzo nokomelela kweegridi zombane, ngaloo ndlela kuncitshiswa utshintsho lombane ekuququzeleleni ukusasazwa ngokukhawuleza kwemithombo yombane ahlaziyekayo. Umbane unokuthunyelwa kuthungelwano lwesizwe ukuze uhlangabezane nombane odingekayo ngoku, kwixesha elizayo, imfuno eyongeziweyo yombane elizweni ayisayi kufumaneka ukunqanda ukuhla koqoqosho okuyintlekele nokonakala okuyanyaniswa nokucinywa kombane okusisiphumo sokunqongophala okuhlala kunyuka kombane. Ucimicimi wombane okuqhubekayo uya kuba nefuthe elibi kwintlalontle yesininzi sabemi boMzantsi Afrika, kuqoqosho ngokubanzi ngokunjalo nakwizimvo zabatyali-zimali basekhaya nabamazwe ngamazwe. Amathuba okuvuselela uqoqosho ngengqesho, iinkqubo zophuhliso lwentlalontle, iibhasari zemfundo, ezinye iinkqubo zemfundo, iinkqubo zophuhliso lwezakhono nokuthengwa kwempahla kubathengisi basekuhlaleni lo gama amacandelo oqoqosho ngokubanzi afana noshishino, ukhenketho nolonwabo nawo aza kujongana nemiqobo yohlumo. Iinzuzo zokusingqongileyo zibalulekile kwaye iingenelo zentlalo nezoqoqosho zoyisa kakhulu iimpembelelo ezincitshisiweyo zokusingqongileyo nezentlalo noqoqosho.

Xa ubuncinci obunokuba khona umngcipheko wokusingqongileyo nentlalo-qoqosho ngokuthomalalisa kuthelakiswa neenzuzo ezinokuthi zibe khona kokusingqongileyo kunye nentlalo-qoqosho, akukho khuphiswano.

Indlela yokungahambeli ke ngoko ayihambelani nemithetho-siseko yophuhliso oluzinzileyo ngokunxulumene nobonelelo lombane oluwela phantsi kwe-SDG 7: Umbane ofikelekayo nococekileyo kunye ne-SDG 8: uMsebenzi oLungileyo kunye noHlumo loQoqosho. Ngoko ke luluvo oluqiqiweyo lwe-EAP ukuba iProjekthi ecetywayo ye-540MW yeRhasi eyenza uMbane, kufuneka igunyaziswe ngokuxhomekeke kwimiqathango ecetywayo kwiCandelo le-9.2, ebandakanya ukuthotyelwa kwe-EMPr. Yiyo loo nto enye indlela "yokungahambi" ingakhuthazwa

8 Uthethathethwano nabachaphazelekayo

Uthethathethwano nabachaphazelekayo licandelo eliphambili lenkqubo ye-S&EIR kwaye lwenziwa ngokuhambelana neemfuno zeMimiselo ye-EIA.

Amaxesha othethathethwano nabachaphazelekayo abandakanya oku kulandelayo:

- Isaziso sokuqala nokungeniswa kwe-BID;
- Ixesha lezimvo zoluntu ngokusesikweni kwingxelo eyidrafi ye-EIA

Imisebenzi engundoqo yothethathethwano nabachaphazelekayo ngexesha leenkqubo ze-EIA ishwankehlwa kwiTafile.

ITheyibhile **Error! No text of specified style in document.-2:** IsiShwankathelo sokuBandakanywa kwabaChaphazelekayo:

Imisebenzi

Umsebenzi	Umhla
Isaziso sokuqala	
Isibhengezo-ntengiso, uXwebhu loLwazi lweMveli (BID), iZaziso zeSiza, iiflaya, amaphetshana ezaziso, izaziso zikanomathotholo	24 -28 Oktobha 2022
lintlanganiso zokubonisana	24 Oktobha – 09 Novemba 2022
Uvavanyo lweMpembelelo	
Uyilo lweXesha lokuHlola lwe-EIAR	10 Novemba – 13 Disemba 2022
lintlanganiso zikawonke-wonke nezibanjwa ngobuchwepheshe bale mihla	25 Novemba 2022

9. Uvavanyo lweempembelelo ezinokuthi zibe khona

9.1 IziFundo zeeNgcali kwakunye neeNgxelo zobuGcisa

Uphononongo lweengcali lwenziwa ukuphanda iimpembelelo ezinokuthi zibe khona ngokuthe ngqo, ezingathanga ngqo kunye nezongezelekayo:

I-Hydrology kunye noVavanyo loMda weZikhukula woNyaka we-1:100

- I-Hydrology kunye noVavanyo loMda weZikhukula we1:100
- Uvavanyo lwasemanzini
- Uvavanyo lwe-Hydropedoloji
- UVavanyo lweGeohydroloji
- UVavanyo loMncono waManzi

- Ukucaciswa kwemigxobhozo kunye noVavanyo lokuSebenza
- UVavanyo lweLifa leMveli nePalaeontoloji
- UVavanyo lweZilwanyana eziphila emhlabeni
- Uvavanyo lwe-Avifauna
- Ingxelo yeNgxoxo phantsi kwamanzi esisiseko
- Ingxelo yoVavanyo lweNgxolo phantsi kwamanzi
- Ingxelo yeLifa leMveli phantsi kwamanzi
- UVavanyo lweNdalo yoLwandle kunye neNgxelo yeMpembelelo yezokuLoba
- UVavanyo lweNkomo zaseLwandle
- UVavanyo lwamachweba kunye nonxweme
- Izithuthi zibandakanya Ezaselwandle
- Ingxelo ye- *Thermal Plume Modeling*
- UVavanyo lweMpembelelo yoMgangatho woMoya
- UVavanyo lweMpembelelo yeNgxolo eAmbient
- UVavanyo lweMpembelelo yoTshintsho lweMozulu
- UVavanyo lweMpembelelo yoQoqosho lweNtlalo
- Ingxelo yokuBandakanya kweNgcali zabalobi abasakhasayo
- Uzinzo
- UVavanyo lweMpembelelo kwezoKhenketho
- UVavanyo lweMpembelelo eBonakalayo
- Ufakelo lweNgcipheko eziMakhulu
- Indima yegesi kwiNguquko yoLungelo
- Iindleko zeRhasi xa zithelekiswa neendlela ze- *Renewable energy*

Kuzo zonke iimpembelelo ezinokubakho ezibalulekileyo, ukubaluleka kwempembelelo elindelekileyo kuye kwahlelwa kunye nemilinganiselo yokunciphisa ekhuthazwayo kwiTafile

9.2 Ukubaluleka kweMpembelelo

Ukubaluleka kokuchaphazeleka okunokwenzeka kweProjekthi ecetywayo kwamiselwa ukuze kuncedwe abathathi bezigqibo. Amanqaku eempembelelo ewonke, kucingwa ukuba kuthathwe amanyathelo okunciphisa (jonga iCandelo 9.3.2) aphunyezwa ngokufanelekileyo, ngala:

- Akukho zimpembelelo zibalulekileyo okanye zingabalulekanga okanye imingcipheko echongiweyo kuphononongo lweengcaphephe oluqhutywe ngokwemigaqo yezothutho, izithuthi zaselwandle, ufakelo lwezinto ezinengozi ezinkulu, i-hydroloji, i-geohydroloji, i-hydropedoloji, emanzini, ukhenketho kunye nemiba yembonakalo. Iimpembelelo nemingcipheko ephantsi kakhulu kunye/okanye engabalulekanga kakhulu ichongiwe kwimigxobhozo, inzululwazi yezinto zakudala,

inzululwazi yezinto zakudala engaphantsi kwamanzi, ukukhutshwa kwe-atmosfera, ingxolo yomhlaba, ukhenketho kunye neempembelelo ezibonakalayo kunye nentlalo-qqoqosho.

- Iimpembelelo zezityalo nezilwanyana ezisemhlabeni zisusela phantsi kakhulu ukuya kutsho ngaphantsi.
- Iimpembelelo eziPhakathi zaxelwa malunga nefuthe kwi-ikholoji yolwandle kwindawo efumana amanzi ngenxa yokukhutshelwa kwamanzi okupholisa okanye ukwanda kwamanqanaba, ingxolo nokungcangcazela nefuthe leempembelelo kwiinkonzo ze-ikhosistim ngexesha lesigaba sokusebenza.
- Iimpembelelo ezilungileyo ezisezantsi ukuya kweziphezulu kakhulu zaboniswa kwimiba enxulumene noShishino lwezoKhenketho kunye nohlolo lwezentlalo noqqoqosho lubonise iimpembelelo ezininzi ezilungileyo ukusuka kweliphakathi, eliphakathi ukuya phezulu ukuya phezulu.

Indlela yokujonga i-polycentric kwi-EIA ecetywayo yeprojekthi ifuna ukuqwalaselwa okupheleleyo yonke imiba efanelekileyo, kubandakanywa iimpembelelo ezinokubakho iprojekthi ecetywayo enokuba nazo kwindawo yasekhaya nakuluntu ngokubanzi. ICandelo lesi-2(4)(b) le-NEMA lichaza ukuba ulawulo lweNdalo kufuneka ludityaniswe, luvume ukuba zonke izinto ezisingqongileyo lunxibelelene, kwaye kufuneka luthathele ingqalelo iziphumo zezigqibo kuzo zonke iinkalo zendalo esingqongileyo kunye nabo bonke abantu abakungqongileyo. Uphuhliso oluzinzileyo ngokwe-NEMA lufuna ukudityaniswa kwemiba yezentlalo, yezoqqoqosho, neyendalo ekucwangciseni, ekuphunyezweni nasekuvavanyweni kweeprojekthi ezicetywayo, imiba efanelekileyo, kubandakanywa iimpembelelo ezinokubakho iprojekthi ecetywayo enokuba nazo kwindawo yasekhaya nakuluntu ngokubanzi. ICandelo lesi-2(4)(b) le-NEMA lichaza ukuba ulawulo lweNdalo kufuneka ludityaniswe, luvume ukuba zonke izinto ezisingqongileyo lunxibelelene, kwaye kufuneka luthathele ingqalelo iziphumo zezigqibo kuzo zonke iinkalo zendalo esingqongileyo kunye nabo bonke abantu abakungqongileyo. Uphuhliso oluzinzileyo ngokwe-NEMA lufuna ukudityaniswa kwemiba yezentlalo, yezoqqoqosho, neyendalo ekucwangciseni, ekuphunyezweni nasekuvavanyweni kweeprojekthi ezicetywayo, ukuqinisekisa ukuba uphuhliso lubonelela iimfuno zesizukulwana sangoku nesexesha elizayo.

Uhlolo oluzimeleyo lozinzo lwengcali ngoko luthathele ingqalelo kokubini okulungileyo nokubi iimpembelelo zokwenyani nezinokubakho kwimiba yejografi, ngokwasemzimbeni, yebhayoloji, yezentlalo, yezoqqoqosho, neyenkcubeko yokusingqongileyo kwindlela ebanzi nequka konke:

- Uyakuvuma ukuba okusingqongileyo yinkqubo entsonkothileyo neguqukayo
- Yamkela ubudlelwane obunxibelelene bezentlalo nendalo kunye nentlalo-qqoqosho.
- Ichonge imingcipheko neziphumo zeendlela ezizezinye kunye nokhetho lokunciphisa imisebenzi, ukunciphisa iimpembelelo ezingalunganga, ukwandisa iinzuzo, kunye nokukhuthaza ukuthotyelwa kwemithetho-siseko yolawulo lokusingqongileyo njengoko kuchaziwe kwiCandelo lesi-2 le-NEMA.

ITheyibhile 0-4 ngezantsi lushwankathela iimpembelelo ezivavanyiweyo kwi-EIA, kuquka nokubaluleka kwazo ngaphambili nangasemva kokuphunyezwa kwemilinganiselo yokunciphisa ebalulekileyo.

Table 0 4: Summary of Impacts

Impembelelo enokwenzeka kunye noMngcipheko	Ukubaluleka	
	Ukunciphisa kwangapambili	UkuNcits hiswa kwePosi
Iimpembelelo zeHydrology (iCandelo 7.5.1)		
Ukuphazamisa indawo ye-vadose ngexesha lokumba umhlaba / imisebenzi yokuzalisa	Ngaphakathi/Ayinamsebenzi	Ngaphakathi/Ayinamsebenzi
Ukuvezwa kwemihlaba, okukhokelela ekunyukeni kwamanzi okwandayo kwiindawo ezicociweyo kunye nokukhukuliseka kwemijelo yamanzi	Phantsi	Ngaphakathi/Ayinamsebenzi
Ungcoliseko lwamanzi aphezu komhlaba kunye nentlenga	Phantsi	Ngaphakathi/Ayinamsebenzi
Ukuphazamiseka komhlaba kunye nokhukuliseko kunye nentlenga kwimijelo yamanzi ekufutshane (isigaba sokusebenza)	Ngaphakathi/Ayinamsebenzi	Ngaphakathi/Ayinamsebenzi

Ukutshintsha ukuchitheka kwesikhululo (iziganeko kuphela; isigaba sokusebenza)	Ngaphaka thi/ Ayinamse benzi	Ngaphaka thi/ Ayinamse benzi
Ukuvuza kwizithuthi okwenzeka ngexesha lokulungiswa kwentambo yothumelo (isigaba sokusebenza)	Ngaphaka thi/ Ayinamse benzi	Ngaphaka thi/ Ayinamse benzi
Iimpembelelo zamanzi (iCandelo 7.5.2)		
Ukususwa kwezityalo ezingaselunxwemeni kunye nendawo yokuhlala echaphazela uzinzo lwebhanki; Ukuphazamiseka kwenkangeleko yomhlaba wendalo okukhokelela ekwandeni kweentlobo zezityalo zamanye amazwe; Ilahleko yezityalo zasemanzini kunye nendawo yokuhlala.	Phakathi	Phantsi
Utshintsho kwimibhobho yendalo yokukhupha amanzi enokuthi ikhokelele ekudimeni okanye ekwandeni kweepateni zokubaleka.	Phakathi	Phantsi
Ukuvuza kwiimoto kunye noomatshini. I-oyile kunye nokuchitheka kwamafutha ezimotweni (isigaba sokwakha)	Phakathi	Phantsi
Ukuvuza kwiimoto kunye noomatshini. I-oyile kunye nokuchitheka kwamafutha ezimotweni (Isigaba sokuSebenza)	Phantsi	Phantsi
Utshintsho ekubunjweni kweentlobo ngenxa yokulahleka kwendawo yokuhlala yasemanzini, utshintsho kubulunga bamanzi.	Phantsi	Phantsi
Iimpembelelo ze-Hydropedology (Icandelo 7.5.3)		

Ukulungiswa kwesiza kunempembelelo kwiinkqubo zokungena komhlaba, umgangatho womhlaba, ubume bomhlaba kunye nokukwazi komhlaba	Ngaphaka thi/ Ayinamse benzi	Ngaphaka thi/ Ayinamse benzi
Ukuphazamisa indawo ye-vadose ngexesha lokumba umhlaba / imisebenzi yokuzalisa	Phantsi	Ngaphaka thi/ Ayinamse benzi
Ukubekwa kwemihlaba emitsha kwindawo, ukuguqula iinkqubo ezikhoyo zokuqukuqela komhlaba ezinefuthe kwiinkqubo zokungena komhlaba, umgangatho womhlaba, ubume bomhlaba kunye nokukwazi komhlaba.	Phantsi	Ngaphaka thi/ Ayinamse benzi
Ukucocwa kwezityalo & nokugcinwa komhlaba okunefuthe kwiinkqubo zokungena komhlaba, umgangatho womhlaba, ubume bomhlaba kunye nokukwazi komhlaba	Phantsi	Ngaphaka thi/ Ayinamse benzi
Umgangatho wamanzi angaphezulu (umgxobhozo).	Phantsi	Ngaphaka thi/ Ayinamse benzi
Umgangatho womhlaba	Phantsi	Ngaphaka thi/ Ayinamse benzi
Ukwembiwa kuya kuphazamisa iinkqubo zokungena komhlaba	Phantsi	Ngaphaka thi/ Ayinamse benzi
Ukuchitheka kwe-oyile nezibaso kuchaphazela umgangatho womhlaba	Phantsi	Ngaphaka thi/ Ayinamse benzi
Iimpembelelo zeGeohydrology (iCandelo 7.5.4)		
Ukuphazamisa indawo ye-vadose ngexesha lokumba umhlaba / imisebenzi yokwakha	Phantsi	Ngaphaka thi/ Ayinamse benzi
Ukungcoliseka kwe-Hydrocarbon yendawo	Phantsi	Ngaphaka thi/

ye-vadose (isigaba sokwakha)		Ayinemsebenzi
Ungcoliseko lwamanzi aphezu komhlaba kunye nentlenga ukusuka kule misebenzi ilandelayo yokwakha	Phantsi	Ngaphakathi/Ayinemsebenzi
Iimpembelelo kubasebenzisi bamanzi aphantsi komhlaba	Ngaphakathi/Ayinemsebenzi	Ngaphakathi/Ayinemsebenzi
Ukuthotywa kwamanzi okwexeshana kumanzi aphantsi komhlaba (ukuba kuyenzeka)	Phantsi	Ngaphakathi/Ayinemsebenzi
Ukungcoliseka kwe-Hydrocarbon yendawo ye-vadose (isigaba sokusebenza)	Ngaphakathi/Ayinemsebenzi	Ngaphakathi/Ayinemsebenzi
Impacts to downstream groundwater users (operational phase)	Ngaphakathi/Ayinemsebenzi	Ngaphakathi/Ayinemsebenzi
Iimpembelelo zoMgxobhozo (iCandelo 7.5.5)		
Indawo yokuhlala ethe ngqo kwiimodelo zabasebenzisi ukuba basebenzise amanzi aphantsi komhlaba (icandelo elisebenzayo) Uqinisekiso – Impembelelo ethe ngqo	Phakathi-Phantsi	Phantsi
Umgangatho waManzi (uNgcoliseko) – impembelelo ethe ngqo	Phakathi-Phantsi	Phantsi
Ukuguqulwa kwendawo ekugcinwa kuyo amanzi (indawo yokugubungela umhlaba kunye nokubaleka kwamanzi) – impembelelo engathanga ngqo	Phantsi	Isezantsi kakhulu
Umgangatho waManzi (uNgcoliseko) – impembelelo engathanga ngqo	Phantsi	Isezantsi kakhulu
Iimpembelelo ze-Archaeology kunye nePalaeontology (Icandelo 7.5.6)		
Akukho mpembelelo		
Iimpembelelo zeNzululwazi yeNdalo ePhakamileyo (iCandelo 7.5.7)		

Ilahleko yendawo yokuhlala elungisiweyo (Isigaba Sokwakha)	Phakathi-Phantsi	Phantsi
Ilahleko yeebhedi zeengcongolo (iSigaba soKwakha)	Phakathi	Phantsi
Ilahleko yamadlelo (iSigaba soKwakha)	Phakathi-Phantsi	Phantsi
Ilahleko yezihluma lindi zoLondolozo lweNdalo (i-SCC) (iSigaba soKwakha)	Phakathi	Phantsi
Ilahleko yeFauna SCC (iSigaba soKwakha)	Phakathi	Phantsi
Ilahleko yeentlobo ngeentlobo zezinto eziphilayo ngokubanzi (iSigaba soKwakha)	Phakathi-Phantsi	Phantsi
Ukwahlulwa (Isigaba Sokwakha)	Phakathi-Phantsi	Phantsi
Uhlasele lweentlobo zamanye amazwe (iSigaba soKwakha)	Phezulu	Phantsi
Ilahleko yendawo yokuhlala elungisiweyo (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ilahleko yeebhedi zeengcongolo (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ilahleko yamadlelo (iSigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ukulahleka kweentyatyambo SCC (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ilahleko yeFauna SCC (iSigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ilahleko yezityalo nezilwanyana ezohlukeneyo ngokubanzi (iSigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ukwahlulwa (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Uhlasele lweentlobo zamanye amazwe (Isigaba sokuSebenza)	Phezulu	Phantsi
Iimpembelelo ze-Avifauna (Icandelo 7.5.8)		
Amandla: Ilahleko yendawo yokuhlala (iSigaba soKwakha)	Phakathi-Phantsi	Phakathi-Phantsi

Amandla: ukuphazamiseka kwabantu (iSigaba soKwakha)	Phakathi	Phakathi-Phantsi
Umzila woThutho: Ilahleko yendawo yokuhlala (iSigaba soKwakha)	Phakathi-Phantsi	Phantsi-kakhulu
Iziseko zophuhliso: ukuphazamiseka kwabantu (iSigaba soKwakha)	Phakathi	Phakathi-Phantsi
Ilahleko yendawo yokuhlala: Iziseko zophuhliso (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi-kakhulu
Iziseko zeprojekthi: ungquzulwano (Isigaba sokuSebenza)	Phakathi-Phezulu	Phakathi-Phantsi
Isiseko seprojekthi: umbane (iSigaba sokuSebenza)	Phakathi-Phantsi	Phakathi-Phantsi
Amandla: ungcoliseko lokukhanya (Isigaba sokuSebenza)	Phantsi	Phantsi
Amandla: iimpembelelo zengxolo kunye nokungcangcazela (Isigaba sokuSebenza)	Phakathi	Phakathi
Amandla: ukuphazamiseka kwabantu (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi-kakhulu
Iimpembelelo zengxolo ngaphantsi kwamanzi (iCandelo 7.5.9)		
Ayikho Impembelelo		
Iimpembelelo ze-Archaeology yangaphantsi kwamanzi (Icandelo 7.5.10)		
Amathuba asezantsi kakhulu eLwandle kunye nemithombo yeLifa leMveli yeNkcubeko eNgaphantsi kwamanzi	Ngaphakathi/Ayinamsebenzi	Ngaphakathi/Ayinamsebenzi
Iimpembelelo zoNxweme, ichweba kunye neNdalo yeNdalo yaseLwandle (ICandelo 7.5.11)		
Ukuphazamiseka okanye ilahleko yechweba lechweba kunye nezilwanyana	Phakathi-Phantsi	Phantsi

zaselwandle (Isigaba sokwakha)		
Utshintsho kumgangatho wamanzi ngenxa yomsebenzi wokwakhiwa kwamanzi	Phakathi	Phakathi-Phantsi
Ukuphazamiseka kwi-ecology yamachweba ajikelezileyo, kunye nokuloba kunye nemariculture, ngenxa yokwanda kwamanqanaba engxolo.	Phakathi-Phantsi	Phakathi-Phantsi
Iimpembelelo ze-Avifauna (Amandla kunye nentambo yoThutho)	Phakathi	Phakathi-Phantsi
Ilahleko yeentlobo zezilwanyana eziNxibeleleyo (isigaba sokwakha)	Phakathi	Phantsi
Ungcoliseko lwenkunkuma eqinileyo (Isigaba sokuSebenza)	Phakathi-Phantsi	Phantsi
Ungcoliseko lwemichiza oluvela ukuchitheka kwezinto ezinobungozi (Isigaba soKwakha)	Phakathi-Phezulu	Phakathi-Phantsi
Ukuthathwa kwamanzi okupholisa kwizinto eziphila elwandle kwindawo ejikelezileyo yamanzi (Isigaba sokuSebenza)	Phakathi	Phakathi-Phantsi
Ukukhutshwa kwamanzi okupholisa kwichweba/kwizinto eziphilayo zaselwandle (Isigaba sokuSebenza)	Phakathi-Phezulu	Phakathi
Iziphumo kwi-stuarine ejikelezileyo/i-ecology yolwandle ngenxa yokwanda kwengxolo ephantsi kwamanzi kunye nokungcangcazela (Isigaba sokuSebenza)	Phakathi-Phezulu	Phakathi
Iziphumo kwi-stuarine ejikelezileyo/i-ecology yaselwandle ngenxa	Phakathi-Phezulu	Phakathi-Phantsi

yokwanda kongcoliseko lokukhanya (Isigaba sokuSebenza)		
Iziphumo zeempembelelo zokusebenza ezidityanisiweyo kwiinkonzo ze-ikhosistim (ukuloba kunye ne-mariculture)	Phakathi	Phakathi
Ungcoliseko lwekhemikhali oluvela ekuchithekeni okunxulumene nolwakhiwo lwezinto ezinobungozi kunye nemisebenzi yokuthumela ngenqanawa (Isigaba sokuSebenza)	Phezulu	Phakathi-Phantsi
Iziphumo zeengozi zentlekele kwi-stuarine/i-ikholoji yolwandle, i-avifauna kunye neenkono ze-ikhosistim (iSigaba sokuSebenza)	Phantsi	Phantsi
Iimpembelelo zomoya kunye nemingcipheko (iCandelo 7.5.13)		
SO ₂ ; NO ₂ and PM ₁₀	Phantsi	Phantsi
Iimpembelelo zeNgxolo eMhlabeni kunye nemingcipheko (iCandelo 7.5.14)		
Iimpembelelo zengxolo ezivela kwimisebenzi yokwakha	Phakathi-Phantsi	Phantsi
Iimpembelelo yengxolo evela kwimisebenzi yokusebenza	Phakathi-Phantsi	Phantsi
Iimpembelelo zoTshintsho lweMozulu kunye nemingcipheko (iCandelo 7.5.15)		
Igalelo kutshintsho lwemozulu	Phantsi (Okuhle)	Phantsi (Okuhle)
Iimpembelelo zentlalo noQoqosho kunye nemingcipheko (iCandelo 7.5.16)		
Ukutshintsha kwezinto eziphilayo kunye nemozulu kwiimpilo zoluntu	Phantsi	Phantsi (Okuhle)
Uqoqosho, kunye nempilo yabalobi basekuhlaleni	Phakathi	Phakathi (Kakuhle)

kwingingqi (hayi nje abalobi abakwindawo yezibuko)		
Ukuncitshiswa kokhenketho kunye nemisebenzi enxulumeneyo kwindawo kaMasipala nakwingingqi ngokubanzi.	Phakathi	Phantsi (Okuhle)
Ukwanda kwemfuno yeziseko zophuhliso zikamasipala, iinkonzo zentlalontle kunye nolwaphulo-mthetho olunxulumene nabasebenzi bokwakha kunye nabafuna umsebenzi (isigaba sokwakha)	Phantsi	Phantsi
Ukwanda kwemfuno yeziseko zophuhliso zikamasipala, iinkonzo zentlalontle kunye nolwaphulo-mthetho olunxulumene nabasebenzi bokwakha and job seekers (Operational phase)	Phakathi	Phakathi
Ukugqithiselwa kwezakhono kunye nophuhliso (iSigaba soKwakha)	Phantsi (Okuhle)	Phakathi (Kakuhle)
Ukugqithiselwa kwezakhono kunye nophuhliso (iSigaba sokuSebenza)	Phantsi (Okuhle)	Phantsi (Okuhle)
Uvakalelo lwendawo efunyenwe ngenxa yeziphumo ezibonakalayo kunye nengxolo	Phantsi	Phantsi
Ukunyuka kwemveliso yezoqoqosho, ixabiso, ingeniso kunye nengqesho ngexesha lokwakha kunye nokusebenza	Phezulu (Kuhle)	Phezulu (Kuhle)
Iimpembelelo zoKhenketho kunye nemingcipheko (iCandelo 7.5.17)		

Impembelelo enokubakho yengxolo engalunganga kwiZibuko laseRichards Bay kwimisebenzi yokhenketho lwaselwandle	Phantsi	N/A
Ukuchaphazeleka okunokubakho okungalunganga okubonakalayo kunye nengxolo kukhenketho kwiZibuko laseRichards Bay	Phantsi	N/A
Iimpembelelo ezintle ezinokubakho zobonelelo lombane lweKarpowerships kushishino lwendwendwe nokhenketho eRichards Bay	Phezulu kakhulu (Kakuhle)	Phezulu kakhulu (Kakuhle)
Iimpembelelo ezintle ezinokuthi zibe kho kuKhenketho lwaMandla noShishino eRichards Bay	Phantsi (Okuhle)	Phantsi (Okuhle)
Iimpembelelo zendlela (iCandelo 7.5.18)		
Akho Mpwmbelelo		
Iimpembelelo eziBonakalayo (Icandelo 7.5.19)		
Akho Mpwmbelelo		
UMngcipheko oMkhulu woFakelo lweeNgozi (iCandelo 7.5.20)		
Akho Mpwmbelelo.		
Iimpembelelo zeZithuthi zaseLwandle kunye noMngcipheko (Icandelo 7.5.21)		
Akho Mpwmbelelo		

9.3 Amanyathelo anguNdoqo wokuNciphisa

Uluhlu lwemigangatho yokunciphisa (ukuphepha, ukunciphisa, ukubuyisela kwisimo sangaphambili kunye nokunciphisa) kwasetyenziswa. Ukuthomalalisa uyilo olungundoqo olucetywayo ukulungisa iimpembelelo zendlela yokudlula zishwankathelwa ngezantsi:

Ukuphepha

La manyathelo alandelayo ajolise ekuthinteleni iimpembelelo ezithile:

- Ukujonga iNdlela yesi-2 yothumelo lwendlela njengoko le ndlela inqumla kwiintlobo ezimbini zezityalo eziseMngciphekweni wokuTshabalala: Ihlathi leMangrove kunye neHlathi loMgxobhozo. Ezi zinovakalelo oluphezulu kakhulu kwaye ngenxa yoko, zinokuthathwa njengesiphene esibulalayo ekufuneka siphetshwe.
- Ukubekwa kweenqanawa ezi-2 kufutshane nodonga lwesanti olunovakalelo kwaye kude nonxweme, nto leyo eya kufuna intambo yothumelo ende kunye nenqaba ephuzulu. Le ndlela inokuthi inokwenzeka iye yajongwa njengoko ijongwa njengengafanelekanga kangako kubunjini kunye neembono zokusingqongileyo.
- Ukulungelelaniswa komzila wothumelo ecaleni kweendawo ezitshintshileyo okanye eziphazanyisiweyo, kunye neenkonzo ezikhoyo.
- Ukusetyenziswa kwezixokelelwano zamanzi ezisondeleleneyo ezingabandakanyi ukusetyenziswa kweklorini yebiocides ngako oko nakuphi na ungcoliseko olunokubakho kummandla wolwandle.

Ukuthoba

- Uyilo lwee-Powerships lubonelela ngokunciphisa ingxolo eyakhelwe-ngaphakathi umz. i-hull ephindwe kabini kunye ne-anti-vibration mounts;
- Ukulawulwa kwezantya zamanzi angaguqukiyo nokubekwa kwamanzi angena kuwo ngaphandle kwemeko-bume epholileyo ukunciphisa iimpembelelo kwi-ikhosistim yolwandle;
- Ukulinganisa okuhamba ngeenqanawa kunye nezivumelwano ze-TNPA malunga neFSRU nokubekwa kwePowership zaqinisekisa eyona ndawo igqwesileyo yenqanawa ukunqanda ukungqubana kwezithuthi zaselwandle nokulungelelaniswa nokucwangciswa kweZibuko le-TNPA.
- Imilinganiselo eyahlukeneyo iye yamiselwa ngokweEMPr yesigaba sokwakha nesokusebenza ukunciphisa iimpembelelo.

Ukubuyisela kwisimo sangaphambili

Ukubuyisela kwisimo sangaphambili kuchaziwe kuyo nayiphi na indawo ethe yaphazamiseka ngexesha lolwakhiwo ngokwemiqathango enikelwe kwi-EMPr. Umzekelo, ngokumalunga nokubuyiselwa kwisimo sangaphambili somgxobhozo, ukuba amanyathelo okubuyisela kwisimo sangaphambili aphunyezwe ngempumelelo, malunga nehektare ezingama-23.3 ezilingana nemigxobhozo ziya kuphuculwa xa kuthelekiswa nemeke yangoku.

Okunye, i-EMPr necebo lokubuyisela kwisimo sangaphambili sikwabonelela ngokulondolozwa kweendawo ukuthintela ukuthotywa komgangatho wayo ngeli xesha kusetyenzwa.

10. Isiphelo noMkhombandlela

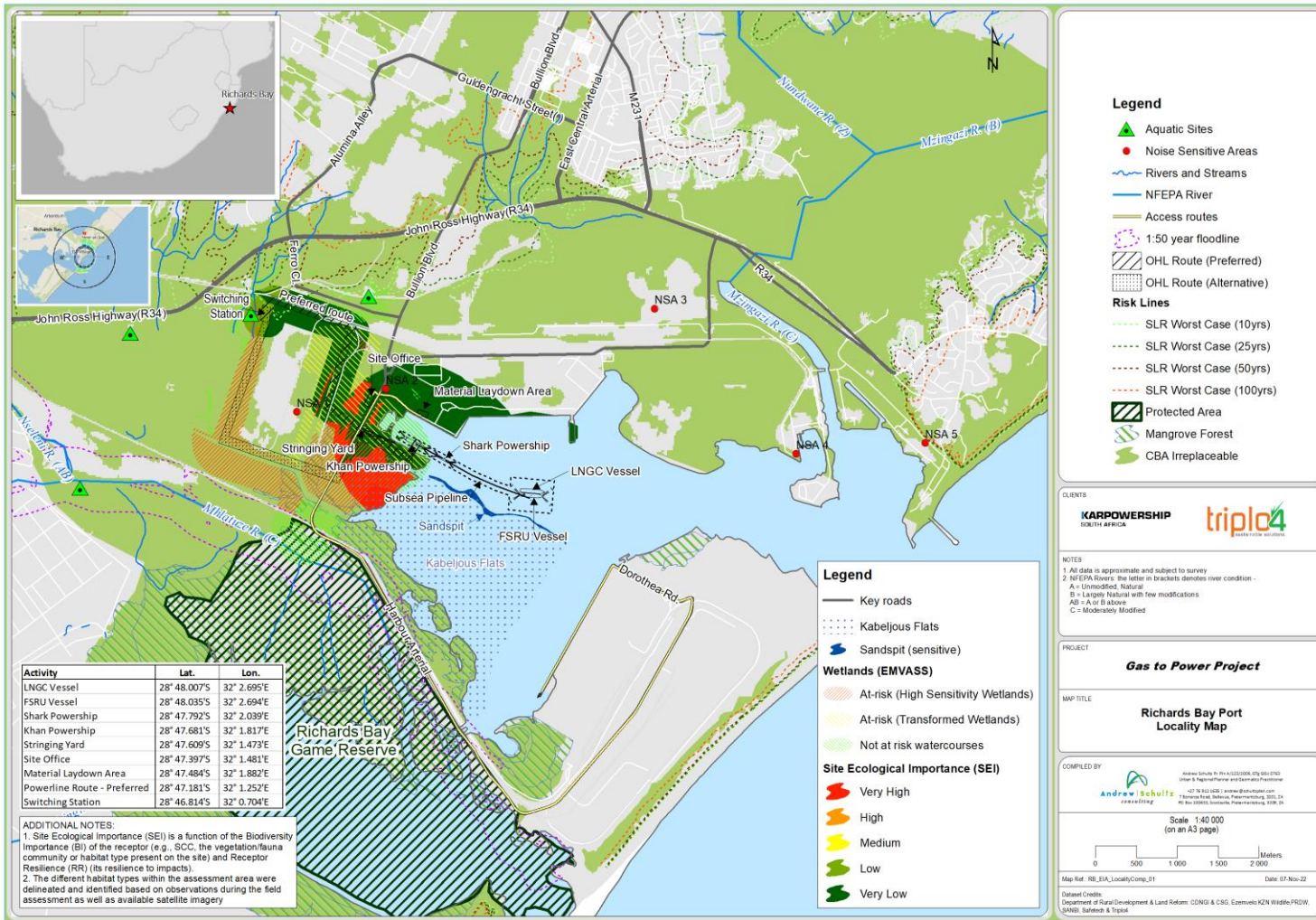
Olu qulunqo lweNgxelo ye-EIAR ichonge yaze yavavanya iimpembelelo ezinokuthi zibe kho kwibhayoloji nakwintlalo-qqosho eyayanyaniswa neProjekthi eCetywayo yeNqanawe ephehla uMbane owenziwe ngeRhasi kwiZibuko laseRichards Bay.

ILuluvo lweqela leprojekthi ye-EIA, ebandakanya abasayinileyo apha ngezantsi, ukuba onke amacandelo esi sicelo, kubandakanywa i-EIR eneengxelo eziqhotyoshelweyo zeengcali ezizimeleyo, i-EMPr, inkqubo yentatho-nxaxheba yoluntu kunye namaxwebhu axhasayo ukuthobela izikhokelo ezifanelekileyo kwaye iqulathe lonke ulwazi olufunekayo ngokwemigaqo ye-GN 982 ukwenza isigqibo esisekelwe kulwazi ngugunyaziwe ofanelekileyo.

Luluvo oluqiwiweyo lwe-EAP lokuba iprojekthi yeRhasi eyenza uMbane kwiNqanawe ephehla uMbane yamkelekile, ayisayi kudala iimpembelelo ezingamkelekanga kokusingqongileyo kwaye

inokugunyaziswa ngokufanelekileyo ngokuxhomekeke ekuphunyezweni kwemilinganiselo yokunciphisa kunye nolawulo ebekwe kwi-EMPr. Olu luvo lufikelelwe ngokuthathelwa ingqalelo kwezi:

- uphononongo lweengcali ezizimeleyo, ingcali nganye iqukumbela uvavanyo lwayo ngengxelo exhasayo yophuhliso olucetywayo (okt. akukho ziphene zibulalayo zichongiwe),
- amagalelo azimeleyo kwimfuno kunye nomnqweno,
- iimpembelelo ezichongiweyo ngokwembono enkulu yendalo, yentlalo, yoqoqosho neyenkcubeko ngokwejografi, ngokwasemzimbeni, ngokwebhayoloji, ngokwentlalo, ngokoqoqosho nangokwenkcubeko;
- Ukukwazi ukunqanda okanye ukunciphisa iimpembelelo ezingalunganga nokwandisa iimpembelelo ezilungileyo, ngokusebenzisa phakathi kwezinye izinto isicwangciso sophuhliso lwentlalo, noqoqosho, nokuncitshiswa kocimicimi wombane.



Umzobo 0 5: Isishwankathelo seNdawo yeProjekthi – iGesi ukuya kuMbane ngePowership kwiPort of Richards Bay

