



water & sanitation

Department
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

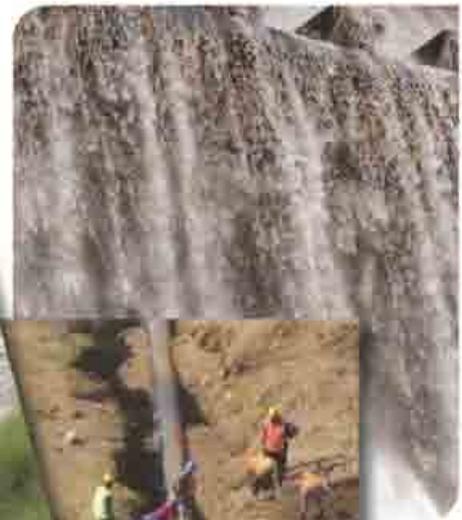
UVAVANYO LWEMPEMBELELO KOKUSINGQONGILEYO LWEPROJEKTHIYAMANZI YASEMZIMVUBU

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**ISISHWANKATHELO SE NGXELO YEMPEMBELELO
KOKUSINGQONGILEYO EQULUNQWAYO**

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uNovemba 2014

UVAVANYO LWEMPEMBELELO KOKUSINGQONGILEYO LWEPROJEKTHI YAMANZI YASEMZIMVUBU

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UVAVANYO LWEMPEMBELELO KOKUSINGQONGILEYO LWEPROJEKTHI YAMANZI YASEMZIMVUBU

**Inombolo yereferensi yeSebe Lemicimbi Yokusingqongileyo 14/12/16/3/3/2/677 (Isicelo
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14/12/16/3/3/2/678 (Isicelo sokuveliswa kombane)

14/12/16/3/3/1/1169 (Isicelo seendlela)

INGXELO YOVAVANYO LWEMPEMBELELO KOKUSINGQONGILEYO

Isishwankathelo Esisaqulunywanyo Sokuba Uluntu Luvakalise Izimvo Zalo

1. Intshayelelo

IProjekthi Yamanzi yaseMzimvubu yiprojekthi ehlangeneyo enemisebenzi eyahlukeneyo (unikezelo lwamanzi ezindlini, ezolimo, uveliso lombane, ezothutho, ezokhenketho, ulondolozo lwendalo kunye noshishino) futhi inikezela ngophuhliso lwezintlalo noqoqosho kule ngingqi. Injongo yolu Vavanyo Lwempembelelo kokusiNgqongileyo (EIA) kukuhlola oko kubandakanyeka kwiprojekthi nokudweliswe njengemisebenzi ekumele yenziwe kuMthetho woLawulo lokusiNgqongileyo kaZwelonke (NEMA) namisebenzi leyo iSebe Lemicimbi Yamanzi Nococeko (DWS) olunoxanduva kwanenjongo yokuyiphumeza. Inkqubo yoVavanyo Lwempembelelo kokusiNgqongileyo iza kuthi inikezele ngolwazi oludingwa ngabasemagunyeni kokusingqongileyo ukuze bakwazi ukwenza izigqibo malunga nokuba kufanele ngenene na iphunyezwe iprojekthi le okanye hayi, nangaphantsi kwezephi na iimeko xa iphunyezwa.

Le ngxelo yoVavanyo Lwempembelelo kokusiNgqongileyo yongeza kwiNgxelo Yokuhlela Umsebenzi. Ichaza iprojekthi ecetywayo kwakunye nobume bendawo eza kwenziwa kuyo, ize kananjalo ingenise oko kuthe kwafunyaniswa kwisigaba sesibini sophando (isigaba soVavanyo Lwempembelelo kokusiNgqongileyo). Ezona njongo ziphambili zoVavanyo Lwempembelelo kokusiNgqongileyo:

- Kukulhola ubunzulu bemiba ephathelele kokusingqongileyo kwakunye neempembelelo eziphawulwe kwisigaba sokuhlela umsebenzi, kugxininiswa kakhulu kwiimpembelelo ezimandla;*
- Kukunika iingcebiso malunga neendlela ezifanelekileyo zokwehlisa iimpembelelo ezingentlanga kwakunye nokuphucula iinzuzo, zize zifakwe kwiNkqubo yoLawulo lokusiNgqongileyo (EMPR) equlunqwayo; kunye*
- Nokusungula inkqubo yokuba uluntu luthathe inxaxheba neza kuthi inike onke amaqela anomdla nachaphazelekayo (I&APs) amathuba okuba azibandakanye athathe inxaxheba.*

2. Okunye ukugunyaziswa okudingekayo

Olu Vavanyo Lwempembelelo kokusiNgqongileyo luquka uhlolo oludingekayo ukuze kukwazi ukufakwa izicelo zoku kugunyaziswa kulandelayo nokudingekayo kwiprojekthi:

- **Imvume Yokusetyenziswa Kwamanzi**

Ulwakhiwo lwamadama kunye nolunye ulwakhiwo olunxulumene noko luquka iindlela ezahlukeneyo zokusetyenziswa kwamanzi ezidweliswe ngokwemimiselo yecandelo 21 yoMthetho kaZwelonke Wamanzi, ka-1998 (onguNombolo 36 ka-1998) (NWA). ISicelo Esihlangeneyo Semvume Yokusetyenziswa Kwamanzi (IWULA) siza kuqulunqwa ukuze singeniswe kwiSebe Lemicimbi Yamanzi Nococeko.

- **Iindawo ekwembiwa kuzo kunye neekwari**

Kuza kudingeka izinto zokwakha ezifana nesanti, igrabile namatye xa kusakhiwa amadama kwaneendlela. Kunokwenzeka ukuba zingoneli okanye zingabi zezilungileyo iindawo esele kufunyenwe imvume yokuba kungombiwa kuzo kunye neekwari esele zikhona kulo ndawo, ukuze kufumaneka kuzo zonke izinto zokwakha ezidingekayo kwaye kuza kudingeka ezinye iindawo ezintsha ezimbini ezizikwari zamatye kwakunye nezintandathu ekungakhiwa kuzo isanti ukwenzela iziza zedama laseNtabelanga nelaseLalini.

Ngokwemimiselo yoMthetho Wophuhliso Lwezibonelelo zeziMbiwa nePetroliyam, ka-2002 (uMthetho onguNombolo 28 ka-2002) (MPRDA), njengoko ulungisiwe, kwakunye neMimiselo Yophuhliso Lwezibonelelo zeziMbiwa nePetroliyam ekwisaziso sikarhulumente esingunombolo GNR 527 somhla we-23 ku-Epreli 2004, iSebe Lemicimbi Yamanzi Nococeko, ngenxa yesaziso sikarhulumente esingunombolo GNR 762 somhla we-25 kuJuni 2004, alizidingi iinkqubo zofako lwesicelo kwakunye nokwamkelwa kwamalungelo okanye iimvume ngokwamacandelo u-16, 20, 22, kunye no-27 oMthetho i-MPRDA. Nangona kunjalo ke kodwa, ngokwecandelo 106(2) loMthetho i-MPRDA, iSebe Lemicimbi Yamanzi Nococeko kudingeka ukuba liqulunqe iSicwangciso soLawulo lokusiNgqongileyo (EMPL) ukuze samkelwe ngokwemimiselo yecandelo 39 (4) lalo Mthetho.

Impembelelo yeekwari kwaneendawo ezintsha ekungombiwa kuzo yayiphandiwe yajongisiswa kuVavanyo Lwempembelelo kokusiNgqongileyo, kwaye kuza kuqulunqwa iZicwangciso zoLawulo lokusiNgqongileyo ukuze zamkelwe liSebe Lezibonelelo Zezimbiwa.

Ngokwemimiselo yesaziso sikarhulumente esingunombolo GN 704 soMthetho kaZwelonke Wamanzi, ka-1999, iindawo ekwembiwa kuzo kufuneka zibe ngaphaya komgama oyi-1:100 womda wokhukhuliseko womfula okanye zibe kumgama oyi-100m ukusuka kumda womfula, nokuba ngowuphi na owona mgama mkhulu. Kungoko ke kuza kudingeka imvume ekhululayo esuka kwiSebe Lemicimbi Yamanzi Nococeko njengoko iindawo ezi kuza kwembiwa kuzo ziza kuba kwindawo ephakathi komgama oyi-1:100 womda wokhukhuliseko (ngaphantsi kweqondo lonikezelo lamadama acetywayo). Oku kuza kufakwa kwiSicelo Semvume Yokusetyenziswa Kwamanzi.

- **liMvume Zezinto Ezingamagugu eSizwe**

Le projekthi icetywayo ibandakanya imisebenzi eliqela edweliswe ngokwecandelo 38 loMthetho kaZwelonke weZibonelelo Zamagugu eSizwe, onguNombolo 25 ka-1999 (NHRA), nodinga ugunyaziso ngabasemagunyeni abafanelekileyo abajongene nezinto ezingamagugu esizwe.

Kuye kwenziwa uVavanyo Lwempembelelo kwiZinto Ezingamagugu eSizwe (HIA) njengenxalenye yenkqubo yoVavanyo Lwempembelelo kokusiNgqongileyo. UVavanyo Lwempembelelo kwiZinto Ezingamagugu eSizwe lungeniswe kwiGunya Elilawulayo leZinto Ezingamagugu eSizwe lePhondo laseMpuma Koloni kwakunye nakwiQumrhu leZibonelelo Zamagugu eSizwe laseMzantsi Afrika (SAHRA) ukuze kwenziwe izigqibo ngokubhekiselele kwizibonelelo zamagugu esizwe.

- **IMvume yoLawulo lweNkunkuma**

Akukho Zicelo zeMvume yoLawulo lweNkunkuma (WML) ziyinxalenye yale nkqubo yoVavanyo Lwempembelelo kokusiNgqongileyo kwaye ukuba zikhona izicelo ezidingekayo, kuya kufuneka ukuba zenziwe ecaleni.

- **limvume zokususwa kwemithi ekhuselweyo**

lintlobo zemithi ekhuselweyo ngokwemimiselo yoMthetho Wamahlathi kaZwelonke (uMthetho onguNombolo 84 ka-1998) ezikule ndawo yeprojekthi zithe zaphawulwa. Kufanele ukuba kufunyanwe imvume kwiSebe loLimo Namahlathi (DAFF) ukuze kukwazi ukuphazanyiswa, ukonakalisa okanye ukuyisusa lo mithi.

3. **limfuno kunye nemfuneko**

Idama elinamanzi kuMlambo uMzimvubu kwiMpuma Koloni yaseMzantsi Afrika likwenye yeendawo ezihluphekileyo nezingenaphuhliso lungako apha elizweni. Kungoko ke uphuhliso lwendawo ukuze kukhawuleziswe inkqubo yokuphucula umgangatho wabantu ngokwasentlalweni nakwezozoqosho lwathi lachongwa njengelinye lamaphulo aphambili kaRhulumente wePhondo laseMpuma Koloni.

Ngokuhambelana neSikhokelo sikaZwelonke Sophuhliso Oluzinzileyo (NFSD) (seSebe Lemicimbi Yokusingqongileyo, (sika-2010), kudingeka ukuba ukusetyenziswa kwemali okunxulumene nolwakhiwo lwezoqoqosho lujoliswe kwiindawo ezichongwe njengeziphambili nezinamathuba okuphuhlisa ezoqoqosho noluza kuthi lwanelise iimfuno zoluntu ngokubanzi ngokulinganayo. Oko kudingekayo nokufunekayo kwindawo ethile kuchongwa kuze kugqitywe ngako ngendlela equka umntu wonke ngexesha lokuqulunqwa kweZicwangciso Ezihlangeneyo Zophuhliso (IDPs).

- **IZicwangciso Ezihlangeneyo Zophuhliso**

Bonke ooMasipala beNgingqi abathathu, owase-OR Tambo, owase-Alfred Nzo kunye nowase-Joe Gqabi, abachatshazelwayo yile Projekthi Yamanzi yaseMzimvubu, bapapashe iZicwangciso Ezihlangeneyo Zophuhliso ezibanzi. Zonke ezi Zicwangciso Ezihlangeneyo Zophuhliso zithathu zooMasipala beNgingqi (iSicwangciso Esihlangeneyo Sophuhliso sase-Alfred Nzo, sika-2010; esase-Joe Gqabi, sika-2012/13; nesase-OR Tambo, sika-2012-17) zibhekisa kuxanduva loMasipala weNgingqi ngokunxulumene nokucwangcisa, ukuphumeza, ukwenza umsebenzi kunye

nolungiso lweenkonzo zamanzi nezococeko. ISicwangciso Esihlangeneyo Sophuhliso sase-Alfred Nzo siphakamisa ukuba “kumakhaya aqikelelwa kwi-127 878 malunga namakhaya ayi-70 000 afumana inkonzo yamanzi ngandlela thile, nanto leyo ethetha ukuba i-45.2% yabemi abanamanzi okusela bawafumanayo nangayiphi na indlela.” Ngaphezu koko, “Iindawo zokuhlala ezikwiindawo zasezilalini zisaxhomekeke kakhulu kwimithombo yamanzi engaphuhliswanga ngoko ke kusekho umceli-mngeni omkhulu ngokunxulumene nokwanelisa iimfuno zamanzi”. Oku kuchaza imfuneko yeminye imithombo yamanzi, namithombo leyo eza kuthi inikezwe yile Projekthi Yamanzi yaseMzimvubu.

Kungoko ke kumele ukuba le Projekthi Yamanzi yaseMzimvubu yaziswe njengenkqubo ehlangeneyo yophuhliso yasekuhlaleni nalapho imisebenzi ekumacandelo awohlukeneyo ithi ihlanganiswe ukuze kukwazi ukuphumeza intsebenziswano egqibeleleyo phakathi kwayo.

- **ISicwangciso sikaZwelonke Sophuhliso (NDP)**

Umbono kaRhulumente waseMzantsi Afrika ngokunxulumene necandelo lamanzi kukuba ngaphambi konyaka ka-2030, bonke abemi baseMzantsi Afrika bakwazi ukufumana amanzi awoneleyo nakhuselekileyo kwakunye nococeko olululo ngendlela engaxabisayo.

KwiSicwangciso sikaZwelonke Sophuhliso (NDP) (IKomishana kaZwelonke Yocwangciso, ka-2011: 181), uphuhliso olunokuthi lunikezelwe nguMzimvubu lwathi laqaqanjiswa nangakumbi: “uphuhliso kulwaxhiwo olunxulumene namanzi [lwaseMzimvubu] lungathi luxhase ezolimo, unikezelo ngamanzi ezindlini, uveliso lombane, ezothutho kunye nezokhenketho xa ngaba lucwangciswe ngendlela ehlangeneyo kwanangokubambisana.” ISicwangciso sikaZwelonke Sophuhliso siphakamisa ukuba “Kwiindawo ezingaphuhliswanga iinkqubo ezifana nophuhliso olucetywayo olunemisebenzi eyahlukeneyo nolunxulumene nedama elitsha kuMlambo uMzimvubu, kufanele nalo lube kwizinto eziphambili ekumele zenziwe kwindawo ebingaphuhliswanga” (IKomishana kaZwelonke Yocwangciso, ka-2011: 160-161).

- **ISicwangciso sikaZwelonke Sophuhliso Lwendawo (NSDP)**

ISicwangciso sikaZwelonke Sophuhliso Lwendawo sijolise ekuncediseni urhulumente ekubeni akwazi ukuphumeza ezi njongo kwaneenqobo ezilandelayo zophuhliso elizweni:

- Ukugxininisa kutyalo-mali olusisigxina kwiindawo ezinamathuba ophuhliso. Kukholelwa ekubeni ezi ndawo zinganikezela ngamathuba aphezulu anxulumene nokukhula kwezoqoqosho kunye nokuliwa kwendlala; kunye
- Nokuqinisekisa ukuba abahlali kwiindawo ezingenamathuba abhekelephi bayazinikwa iinkonzo zikawonke-wonke ezisisiseko, kugxininiswe nangakumbi kuphuhliso lwabantu, kunye nezibonelelo zentlalo. Kukholelwa ukuba ukubakho kweqondo eliphezulu lendlala endaweni oko akuthethi ukuba indlela le inokoyiswa ngokuchanekileyo kulo ndawo.

- **IiProjekthi Ezihlangeneyo Ezicwangcisiweyo (SIP)**

ISicwangciso Sokukhula Esitsha sibeka injongo ekukuvelisa imisebenzi emitsha ezizizigidi ezihlanu (5) ngo-2020, ukukhangela iingxaki zolwaxhiwo kuqoqosho size kananjalo sikhombe amathuba kumacandelo athile (“ezona zinto ziqhuba uveliso lwemisebenzi”). Eyokuqala into

eqhuba uveliso lwemisebenzi lulwakhiwo: ukubeka isiseko solwakhiwo oluphezulu nokwakhiwa kwamathuba emisebenzi. Ukuze ikwazi ukujongana nale miceli-mngeni kwakunye neenjongo, iKhabinethi yasungula iKomishana kaMongameli Yoququzelelo Lolwakhiwo (PICC). Ngaphantsi kweengcebiso zale komishana, kuye kwasungulwa iiprojekthi ezicwangcisiweyo zolakhiwo (SIPs) ezili-18. Ezi projekthi zichaphazela ulwakhiwo olunxulumene nezentlalo kunye nezoqoqosho kuwo onke amaphondo alithoba, kugxininiswa kakhulu kwiingingqi ezisilela emva. IProjekthi Yamanzi yaseMzimvubu iyi-SIP3.

- **Amathuba empumelelo ngokuphathelele kwezemali nezoqoqosho**

Amathuba empumelelo ngokuphathelele kwezemali angachazwa njengokukwazi ukwenza ingeniso eyaneleyo ukuze ukwazi ukuhlawula iindleko zokwenza umsebenzi uze kananjalo wenze ingeniso. Amathuba empumelelo ngokuphathelele nezoqoqosho wona angalinganiswa ngokweenzuzo ezintle ezinxulumene noqoqosho neziya kuthi zinikezelwe yiprojekthi leyo icetywayo. Aquka ukuchongwa kunye nokubalwa kwazo zonke iinzuzo ezilindelekileyo kwaye aquka nohlalutyo lweenzuzo xa zithelekiswa neendleko kusetyenziswa iindleko zamathuba.

Amathuba empumelelo ngokuphathelele kwezemali ayiyonto isidingo kwiprojekthi elolu hlobo, njengoko ingeyiyo injongo yeprojekthi ukwenza ingeniso ngemali etyaliweyo, koko ikukwenza igalelo kuphuhliso lwendawo leyo yeprojekthi. Injongo yeprojekthi kukuba ibe yimpumelelo ngokuphathelele kwezoqoqosho, ngokuthi iinzuzo ezithe ngqo nezo zingathanga ngqo ngokwezentlalo kunye nezoqoqosho zibe ngaphezulu kweendlelo zeprojekthi le ngokwasezimalini. Olu Vavanyo Lwempembelelo kokusiNgqongileyo ke ngoko lujonga kuphela amathuba empumelelo ngokuphathelele kwezoqoqosho.

4. Inkcazelo ngeprojekthi

Umda weprojekthi uthatha iiNgingqi zooMasipala ezintathu ezizezi, iNgingqi kaMasipala i-Joe Gqabi esemntla-ntshona, iNgingqi kaMasipala i-OR Tambo esemazantsi-ntshona kunye neNgingqi kaMasipala i-Alfred Nzo esempuma nasemntla-mpuma.

Isiza seDama laseNtabelanga esicetywayo sikwisithuba esimalunga neekhilomitha ezingama-25 empuma kwedolophu yaseMaclear nasemantla kwendlela engu-R396. Isiza seDama laseLalini elicetywayo sikwisithuba esimalunga neekhilomitha ezili-17 emntla-mpuma kwedolophu encinci yakuTsolo. Zozibini ezi ziza zikuMlambo waseTsitsa, olisebe lomlambo uMzimvubu (naku**Mboniso 1**).

Ulwakhiwo lwezibonelelo zamanzi olucetywayo luquka:

- Idama elikwisiza saseNtabelanga nelingagcina amanzi angumthamo ozizigidi eziyi-490 m³;
- Idama elikwisiza saseLalini nelingagcina amanzi amalunga nomthamo ozizigidi eziyi-490 m³;
- Itonela kunye nendlu yoveliso lombane ekwisiza sedama laseLalini ezilungiselelwe ukuveliswa kombane;
- Kuza kudingeka iindonga ezilawula amanzi ezintsha ezintlanu zokujonga umlinganiselo wokuhamba kwamanzi angena kwanalawo akhutshwa ngamadama. Ezi ndawo zilawula

ukuhamba kwamanzi ziza kubaluleka ekubekeleni iliso kwanasekuphumezeni indawo yogcino kwakunye nokusebenza kwamadama.

- *Imisebenzi yokucocwa kwenkunkuma emanzini kwiziza zamadama;*
- *Indawo yokuhlala yabasebenzi abasebenza kwiziza zamadama; kunye*
- *Neziko lolwazi kwiziza ngasinye sedama.*

IDama laseNtabelanga liza kunikezela ngamanzi alungele ukuselwa ngabantu abayi-539 000, nani elo ekulindleke ukuba lenyuke liye kutsho ku-730 000 ngo-2050. Ulwakhiwo lonikezelo ngamanzi asezindlini luza kuquka:

- *Ulwakhiwo lwesakhiwo esingena emlanjeni kunye nemisebenzi enxulumene noko;*
- *Imisebenzi yokucoca amanzi engingqini kwiDama laseNtabelanga;*
- *Uhambiso lwamanzi amaninzi alungele ukuselwa ukujongana neemfuno zamanzi asezindlini nakwiindawo zoshishino (imibhobho eyahlukeneyo yokuhambisa amanzi);*
- *Amachibi okugcina amanzi amaninzi acociweyo nakwiindawo ezikhethwe ngobuchule; kunye*
- *Nezikhululo zokumpompa amanzi.*

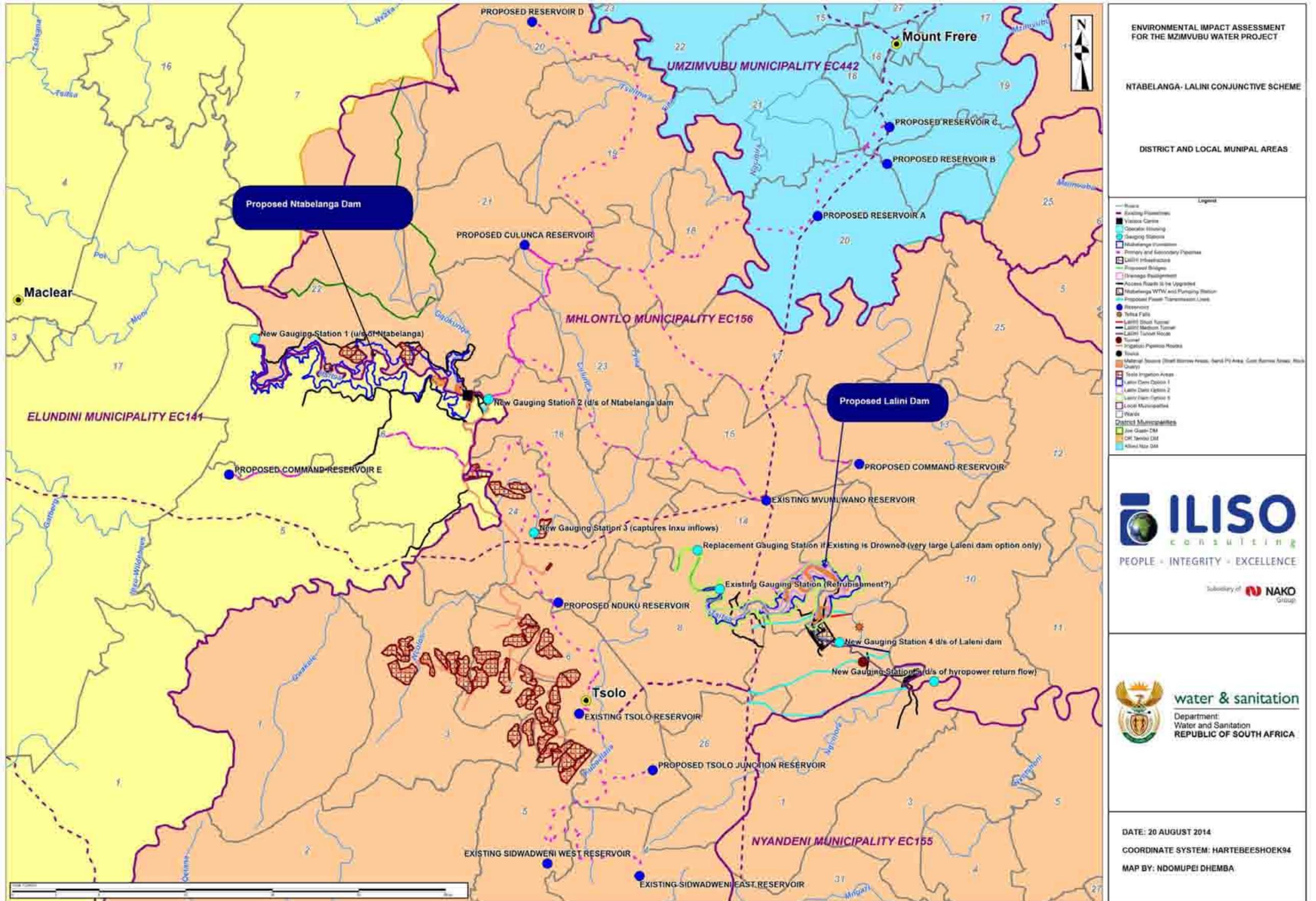
Kananjalo iDama laseNtabelanga liza kunikezela ngamanzi okunkcenceshela umhlaba olimekayo omalunga nehektare eziyi-2 900. Le projekthi iquka ulwakhiwo lokuhanjiswa kwamanzi amaninzi kunye nonikezelo ngamanzi angacocwanga.

Malunga nehektare eziyi-2 450 zomhlaba ongalulungela kakhulu ulimo olunkcenceshelwayo zikwindawo yakuTsolo zize ke ezinye zibe ngakwiDama laseNtabelanga elicetywayo nangasemlanjeni, kufutshane nelali yaseMachibini, eyaseNxotwe, eyaseCulunca, eyaseNtshongweni, eyaseCaba, eyaseKwatsha neyaseLuxeni.

Kuza kubakho umzi-mveliso omncinci woveliso lombane kwiDama laseNtabelanga noza kuvelisa phakathi kwe-0.75 MW kunye ne-5 MW (umyinge oyi-2.1 MW). Oku ke kuza kuquka umbhobho ohamba amanzi angacocwanga osuka edamini ukuya kwisakhiwo esineenjini zokuvelisa umbane kunye nezinye izixhobo ezinxulumene nazo, kwakunye nomnye umbhobho okhuphela ngaphandle obuyela emva emlanjeni ngezantsi nje kodonga lwedama. Kulindleke ukuba ifuthe loku lifane nelo lesikhululo sokumpompa amanzi.

Umzi-mveliso ovelisa umbane kwiDama laseLalini elicetywayo kunye netonela (zisetyenziswa ndawonye neDama laseNtabelanga) uza kuvelisa umbane okumyinge we-37.5 MW xa

usetyenziswa ngengesikhululo soveliso lombane ngokusisiseko nokuya kutsho kwi-150 MW xa usetyenziswa njengesikhululo soveliso samaxesha apho udingeka kakhulu umbane. Uveliso lombane ngokusisiseko kuthetha ukuveliswa kombane iyure ezingama-24 ngosuku ngelixa uveliso lombane ngamaxesha apho udingeka kakhulu umbane (150MW) luthetha umzi-mveliso osebenza iyure ezine-4 ukuya kwezisi-8 ngosuku ngamaxesha apho umbane udingeka ngamandla. Umzi-mveliso wombane uza kudinga umbhobho wamanzi (omalunga ne-4.6 km) kunye netonela



nakuMboniso 1: IProjekthi Yamanzi yaseMzimvubu

(I emalunga ne-3.2 km) edibanisa idama kunye nomzi-mveliso wombane emazantsi edama nangezantsi komwonyo.intambo zombane ezihambisa umbane neziza kudibanisa isikhululo sombane saseLalini kunye negridi yakwa-Eskom esele ikhona ziza kuba bubude obumalunga ne-13 km.

Indawo eza kube igcwalise ngamadama iza kuzivala ezinye iindlela. Ngoko ke kuza kudingeka ukuba iindlela zasekuhlaleni ezimalunga ne-80 km zijikelwe kwezinye indawo zize neebhulorho ezimbini ezingaphezu koMlambo iTsitsa kufuneka ukuba zakhiwe ngokutsha. Kananjalo, ezinye iindlela zalapho ekuhlaleni ziza kuphuculwa ukuze zikwazi ukufikelela kwiziza zamadama futhi zikwazi ukuxhasa uphuhliso lwezentlalo noqoqosho kwindawo leyo. Ulwakhiwo lweendlela luza kufana kakhulu neendlela esele zikhona kananjalo kusetyenziswe izinto zokwakha ezifanayo.

Iprojekthi le kulindeleke ukuba ixabise imali eziibhiliyoni eziyi-R 12.45 kwaye kulindeleke ukuba kwenziwe ingeniso eyimali eziibhiliyoni eziyi-R5.9 ngonyaka ngenxa yeprojekthi le ngexesha lokuba kusakhiwa, kuze kwenziwe ingeniso eyimali eziibhiliyoni eziyi-R1.6 ngonyaka xa sele isebenza iprojekthi. Iza kudala amathuba amatsha omsebenzi ayi-3 880 wabantu abanezakhono kwakunye ne-2 930 yamathuba omsebenzi yabantu abangenazakhono ngexesha lokuba kusakhiwa.

5. Iindlela ezingezinye

Ezi ndlela zingezinye ngokuphathelele kwiprojekthi le zaye zaqwalaselwa kwiSigaba Sokuhlela Umsebenzi:

- *Ukwakhiwa amadama amancinci;*
- *Ukwakhiwa kwemithombo yamanzi yangaphantsi komhlaba;*
- *Unikezelo lwamanzi ngamatanki amanzi emvula;*
- *Iziza ezingezinye zamadama;*
- *Ezinye iintlobo zamadama; kunye*
- *Imithombo embalwa emincinci yamanzi endaweni yedama.*

Nazi iindlela ezingezinye ezathi zaqwalaselwa kwisigaba sovavanyo lwempembelelo:

5.1 Iindlela zokuvelisa umbane

KwiDama laseLalini, emazantsi kweDama laseNtabelanga kodwa emantla kweeNgxangxasi zaseTsitsa, kulapho kucetywa ukuba uveliswe khona umbane. La madama mabini aza kusetyenziswa ndawonye ngendlela ehlangeneyo ngenjongo yokuphucula uzinzo kwezoqoqosho lwale nkqubo ngokubanzi. Amanzi asuka kwiDama laseLalini aza kudluliselwa kumzi-mveliso wokuvelisa umbane osemazantsi kweeNgxangxasi zaseTsitsa, nekuza kuthi ke emva koko amanzi lawo ebesetyenziswa kuveliso lombane abuyiselwe kwasemlanjeni.

Ukuveliswa kombane kunokuphunyezwa ngendlela yoveliso olusisiseko kuphela, olwamaxesha odingeka kakhulu umbane ngokuthe rhoqo okanye ngamaxesha athile odingeka kakhulu umbane.

Kungaveliswa ukuya kutsho kwi-37.5 MW ukuba ngaba kusetyenziswa njengendlela yesikhululo sombane ngokusisiseko nokuya kutsho kwi-150 MW xa sisetyenziswa njengesikhululo sombane ngamaxesha apho udingeka kakhulu umbane. Umahluko kwezi ndlela zimbini uya kuba kubukhulu kunye namaxesha okuhamba kwamanzi abuyiselwa emva kuMlambo iTsitsa, kwakunye nobungakanani bengeniso eyenziwayo. Uveliso ngendlela esisiseko kuya kubangela ukukhutshwa okuthe gqolo kwemithamo yamanzi, ngelixa uveliso ngendlela yamaxesha odingeka kakhulu umbane luya kubangela ukukhutshwa ngemithamo emikhulu iiyure ezimbalwa ngosuku.

5.2 Ezinye iitonela kunye neendlela zeentambo zombane ezinxulumene noko

Kujongwa iindlela zeentambo zombane ezingezinye ezintathu, ezihlanganisa umzi-mveliso wokuvelisa umbane osemazantsi kweDama laseLalini kunye negridi. Ezi ndlela zeentambo zombane zintathu zidibanisa kubude beetonela ezintathu ezingakho (okanye kudibaniso lweetonela zemibhobho) ezisuka kwiDama laseLalini ukuya kumzi-mveliso wokuvelisa umbane. Ubungakanani bombane oveliswayo buya kuxhomekeka kwintloko ekhoyo, neyonyukayo ngokomgama osemazantsi kweeNgxangxasi zaseTsitsa kwakunye nobude obongeziweyo obuhambelanayo betonela.

Indlela engenye yoku-1 iquka itonela ebubude obuyi-2.1 km kunye nentambo yombane ebubude obuyi-7.1 km. Indlela engenye yesi-2 iquka itonela ebubude obuyi-4.9 km kunye nentambo yombane ebubude obuyi-10.2. Indlela engenye yesi-3 iquka umbhobho omalunga ne-4.6 km ubude kunye neetonela ebubude obuyi-3.2 km kwakunye nentambo yombane emalunga ne-13 km ubude.

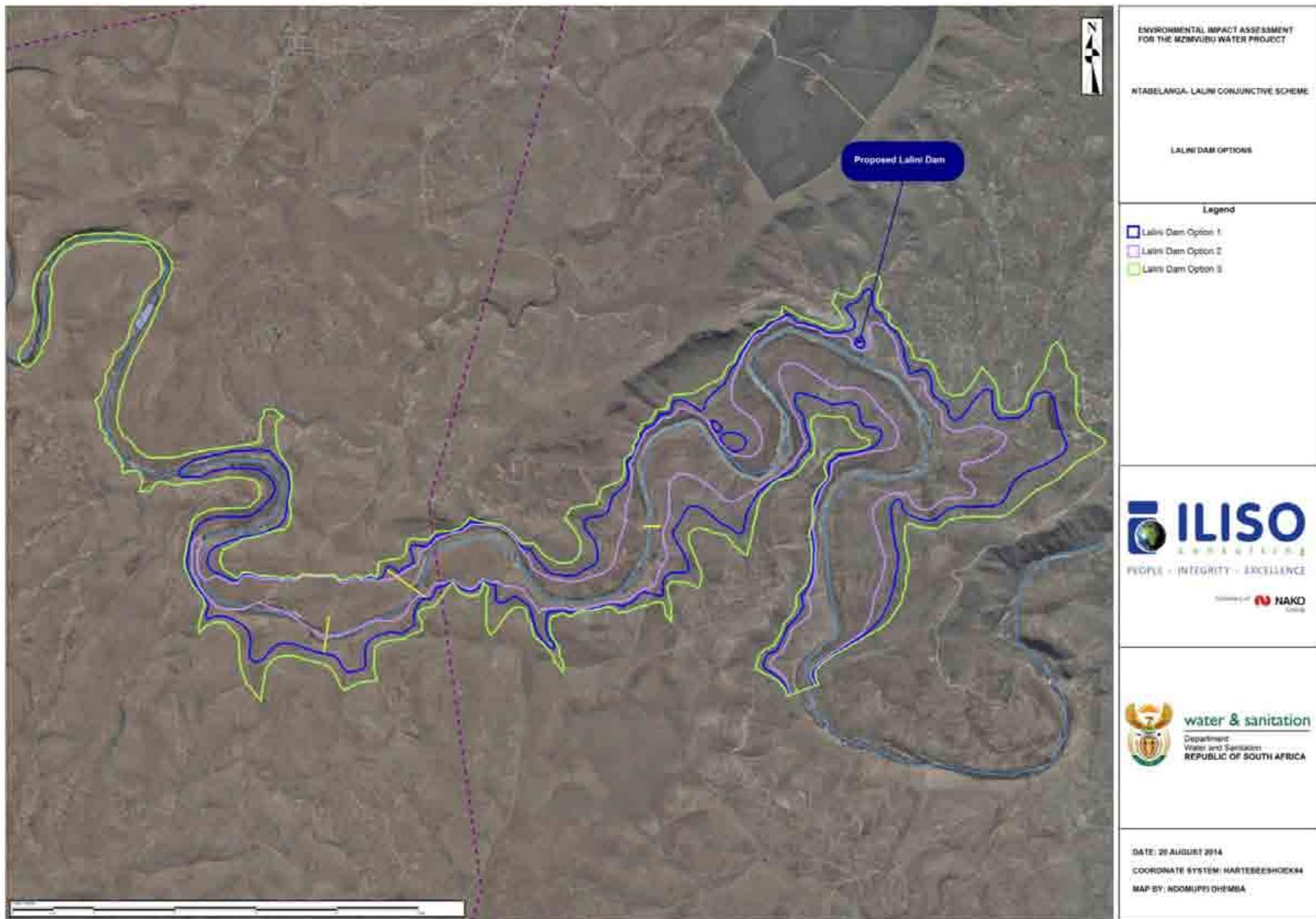
5.3 Ubukhulu obahlukileyo bamadama

Zintathu iindidi zobukhulu bamadama obucetywayo ngokunxulumene neDama laseLalini, njengoko kubonisiwe (naku**Mboniso 2**) kwaye buqwalaselwe kuVavanyo Lwempembelelo kokusiNgqongileyo.

Ubukhulu obahlukileyo bamadama	Unikezelo Olukumgangatho Ogcweleyo (iimitha ngaphezulu komgangatho wolwandle)	Umgca omiselweyo (iimitha ngaphezulu komgangatho wolwandle)
Ubukhulu boku-1 beDama laseLalini (nobubobona bukhethwayo ngokwezobugcisa)	763.61	768.61
Ubukhulu besi-2 beDama laseLalini	752.42	757.42
Ubukhulu besi-2 beDama laseLalini	778.07	782.57

Ngokuphathelele kulungelelaniso lweendlela, iindlela zemibhobho yamanzi kwakunye neendawo zamadama okugcina amanzi, akukho zindlela/zindawo zingezinye ezathi zachongwa ngexesha ekwakusenziwa uphando lokukhangela ukuba ingasebenza na iprojekthi le. Indlela elwenziwa ngayo uvavanyo lwempembelelo yayikukukhangela naziphi na iindawo ezibuthathaka ekumele ukuba zilunyukelwe, ukuze ziqwalaselwe liqela leengcali, kuze kuthi apho kufanelekileyo, zicebise malunga nokunxaxha okungabakho.

Kananjalo into yokuba iprojekthi le ingabikho kwaphela nayo yaqwalaselwa.



nakuMboniso 2: KwiDama laseLalini Ubukhulu obahlukileyo bamadama

6. Ukuthatha inxaxheba koluntu kwisigaba soVavanyo Lwempembelelo kokusiNgqongileyo

Ukuthatha Inxaxheba koLuntu kwiSigaba Sokuhlela Umsebenzi kwaquka le misebenzi ilandelayo:

- *Ukubonisana nabasemagunyeni kwiSebe Lemicimbi Yokusingqongileyo kunye ne-Ofisi yeNgingqi yeSebe Lemicimbi Yamanzi Nococeko;*
- *lintlanganiso zeeforam zabasemagunyeni zawo onke amagunya ekufanele avakalise izimvo zawo;*
- *Ukuhanjiswa kweencwadi ezizizaziso, Amaxwebhu Aqulethe Ulwazi Lwangaphambili kunye Neencwadana Zeendaba (ezibhalwe ngesiNgesi nangesiXhosa);*
- *Ukuxhonywa kwezaziso kwisiza kunye nokupapashwa kwezaziso kumaphephandaba (ezibhalwe ngesiNgesi nangesiXhosa);*
- *Amaxesha okungeniswa kwezimvo ngokunxulumene nengxelo Yokuhlela Umsebenzi equlunqwayo kunye neyokugqibela;*
- *lintlanganiso zoLuntu; kunye*
- *Neentlanganiso Zamaqela Ajonga Imiba Ethile.*

Uluhlu lwamaqela achaphazelekayo kunye neNgxelo yeMiba neeMpendulo zisoloko zihlaziywa rhoqo ngokuhamba kwexesha.

Uluntu kunye naMaqela Anomdla Nachaphazelekayo baza kwaziswa xa sele ifumaneka ingxelo equlunqwayo yoVavanyo Lwempembelelo kokusiNgqongileyo (ngokuba kuthunyelwe isaziso esibhaliweyo kumaqela achaphazelekayo abhalisileyo), kunye nangesigqibo sabasemagunyeni kwakunye nenkqubo yokubhena ngokunxulumene nezicelo ezahlukeneyo (ngokuba kupapashwe isaziso kumaphephandaba nokuba kuthunyelwe isaziso esibhaliweyo kuwo onke amaqela achaphazelekayo abhalisileyo).

Ingxelo equlunqwayo yoVavanyo Lwempembelelo kokusiNgqongileyo iza kuhanjiswa kwiindawo zikawonke-wonke futhi ifumaneka isithuba seentsuku ezingama-30 zekhalenda nelixesha elo lokuba uluntu lungenise izimvo zalo. Kananjalo amaxwebhu aqulunqwayo aza kungeniswa kwiintlanganiso zamaqela achaphazelekayo, nalapho Amaqela Anomdla Nachaphazelekayo aya kuthi akwazi ukuqinisekisa ukuba ngenene imiba yabo ishicilelwe ngokuchanekileyo, yaqondwa ngokukuko liqela lezokusingqongileyo, kwaye yafakwa kuphando olwenziwa ziingcali kunye nakuvavanyo lwempembelelo. Amaxwebhu okugqibela aya kufumaneka ixesha eliziintsuku ezingama-21 zekhalenda nelixesha lokuba uluntu lukwazi ukungenisa izimvo zalo aze angeniswe kwabasemagunyeni. Abantu baya kukwazi ukuzifumana iingxelo eziqulunqwayo kunye nezokugqibela kwiwebhsayithi yeSebe Lemicimbi Yamanzi Nococeko.

Amagunya afanelekileyo aya kusoloko esaziswa rhoqo malunga nenkqubela ngokunxulumene noVavanyo Lwempembelelo kokusiNgqongileyo kwiForum Yabasemagunyeni.

Yonke imiba kwakunye nezimvo ezithe zaphakanyiswa ngexesha lenkqubo yokubonisana namaqela achaphazelekayo ziya kushicilelwa kwiNgxelo yeMiba neeMpendulo neza kuthi ibe siSongezelelo kwiNgxelo yoVavanyo Lwempembelelo kokusiNgqongileyo.

7. Inkcazelo ngendawo engqongileyo echaphazelekayo

Indawo yophando ikwiNgingqi eseMantla Yobudlelwane Bendalo Namanzi eseMzantsi-Mpuma nakwiNdawo yoLawulo Lwamanzi esuka eMzimvubu ukuya eKieskamma. UMIlambo uMzimvubu ngomnye weyona milambo mikhulu eMzantsi Afrika (onamanzi ayi-5.5% ewonke ahambayo emilambo elizweni). Unamasebe amakhulu amane, ayiMilambo iMzintlava, iKinira, iTina neTsitsa. Imilambo ekula madama inamanzi aphuphumayo.

Iziza ezicetywayo zamaDama aseNtabelanga naseLalini zozibini zikuMIlambo iTsitsa, umlambo obhaliswe njengokwiNqanaba C (olungiswe ngokungabhekiselele kuphi).

Imibhobho yamamzi ekwicala elisemantla kwindawo yeprojekthi inqumla uMIlambo iTina nawo obhaliswe njengalowo ukwimeko yeNqanaba C (olungiswe ngokungabhekiselele kuphi). UMIlambo iTina uthathwa njengendawo eneentlanzi ebaluleke kakhulu, kwaye ubhaliswe njengendawo ezixhasayo iintlanzi ngokoLuhlu lukaZwelonke Lweendawo Eziphambili Ezinamanzi Amatsha (2011).

Zine iindawo ezinezityalo ezithe zaqatshelwa kule ndawo yophando, nezizezi: indawo enezityalo eyiMountain / Rocky Outcrops, iGrassland / Acacia Thornveld, iRiparian / Wetland kunye naleyo iLungisiweyo (iGrassland).

NgokoLuhlu lukaZwelonke Lobudlelwane Bendalo Obusebungozini (2011), iindawo ezithile kolu lwakhiwo lucetywayo zisebungozini ngokuphathelele kubudlelwane nendalo. Ubudlelwane nendalo, busemngciphekweni omkhulu bokutshabalala ngokwezakhiwo kwanomsebenzi ngenxa yokungenelela kwanezenzo zabantu. Iindawo ezinkulu ngaphakathi kule ndawo yeprojekthi zikhonjwe njengeeNdidi zezityalo nezilwanyana ezohlukeneyo ezibaluleke kakhulu. Ezi ndawo zibalulekile kulondolozo lwendalo njengoko kukho kuzo izilwanyana nezityalo ezibalulekileyo kwanezingakhula apho.

Kukho iindawo ezinkulu ezinokhukhuliseko lomhlaba olumandla kule ndawo yophando. Ukhukhuliseko lomhlaba kwindawo enamadama anamanzi lubangelwa ziimvula ezimandla, iindawo ezimqengqelezi, imihlaba ekhukhulisekayo kunye neendlela zokusebenzisa umhlaba ezithi zibangele ukhukhuliseko, njengokudlisa impahla kwindawo ethile ngokugqithisileyo okanye ukulima kumhlaba ongafanelekanga ukulinywa nomqengqelezi. Ukhukhuliseko lomhlaba kunye nokwehla komgangatho wawo kunegalelo kubutyebi kwanempilo yendawo yokuphila kwaye kunefuthe elingelihle kwimilambo emininzi, nethi ibe nodaka oluninzi kwakunye nentlenga yomhlaba eninzi. Olu daka nentlenga eninzi ke emilanjani ziza kuthi zibangele iindleko eziphezulu zokulungiswa kwamanzi zize kananjalo zenze ukuba nawaphi amadama akhoyo angabinaxesha lide.

Imfuyo ekhoyo kule ndawo yophando yimfuyo eqhelekileyo nefumaneka apha eMzantsi Afrika ngokubanzi, neziqhelileyo iindawo zokuhlala ezitshintshayo neziguqukayo, kananjalo ehlala kufutshane neendawo ezihlala abantu. Indawo enezityalo nezilwanyana esentabeni ekudonga leDama laseLalini ineentlobo ezahlukeneyo zoonomadudwane abakhuselweyo, kuquka lowo

ufumaneka ematyeni. Zininzi iintaka zendawo ezahlukeneyo ezithe zaqatshelwa kule ndawo yophando. Ezona zixhalabisa kakhulu ngamahemu kunye namaxhalanga.

Ezi ntlobo zezibonelelo zamagugu esizwe zikhona kwindawo yophando: iziza ezingezakudala; izakhiwo zamandulo; amangcwaba kunye neendawo zamandulo zokungcwaba.

Iprojekthi le ichaphazela iingingqi zikamasipala ezintathu eyaseJoe Gqabi, e-O. R. Tambo neyase-Alfred Nzo, kwakunye noomasipala bendawo abane: owaseLundini, eMhlontlo, eMzimvubu nowaseNyandeni.

Ubume babantu abahlala kule ndawo yophando buchazwa ngolu hlobo:

- *Uninzi ngabantu abaMnyama abathetha isiXhosa;*
- *Kukho abantu basetyhini abaninzi ngaphezulu kwabangamadoda;*
- *Kukho inani eliphezulu labantwana abangaphantsi kweminyaka eli-15 kunye nabantu abangaphezulu kweminyaka engama-65;*
- *Ukuxinana kwabantu kufikelela kubantu abali-110/km²;*
- *Abantu abosuleleleke yintsholongwane kaGawulayi i-HIV kwabasetyhini abakhulelweyo bafikelela kwi-29.3%;*
- *Iqondo labantu abangasebenziyo lifikelela kwi-35%; kunye*
- *Ukukhula kwenani labantu abahlala apho endaweni kusezantsi okanye kuyehla, nalapho ukukhula okuphezulu koluntu kukwiNgingqi yase-O. R. Tambo kwi-0.52%.*

Imeko ngokunxulumene nokufunda kule ndawo yaye yaphucuka noko phakathi konyaka ka- 2001 noka-2011. Kodwa kusadingeka ukuba iphuculwe nangakumbi le meko nalapho ingingqi yase-O. R. Tambo isenabantu abangaphezulu kwe-17% abangaphezulu kweminyaka engama-20 ubudala abangazange baye esikolweni. Ngokwasephondweni i-10.5% yabantu abaneminyaka engaphezulu kwama-20 ubudala abazange baye esikolweni, i-19.8% inemfundo yebanga leshumi (imatrikhi) ize i-8.7% ibe nemfundo ephakamileyo. Oku kuthetha ukuba bonke oomasipala bengingqi kunye nabendawo banqondo lemfundo elingaphantsi kwelo lephondo nalapho ingumasipala waseMzimvubu kuphela, okwi-8%, onepesenti esezantsi yabantu abahlala kuwo nabangenamfundo yasesikolweni.

Ngokubhekiselele kwiinkonzo zasemakhaya, ngaphandle kombane oiyeyona ndlela yokukhanyisa ezindlini, nangaphandle komasipala wendawo waseMhlontlo kunye nomasipala wengingqi wase-O. R. Tambo, ngokubanzi uMasipala weNgingqi waseJoe Gqabi ngoyena uneqondo eliphezulu lonikezelo ngeenkonzo.

Inani lamakhaya aneempahla zasekhaya ezizezawo kule ndawo ngokubanzi lingaphantsi kwelo lephondo. Ngokubanzi, amakhaya akumasipala waseJoe Gqabi ngawona aneempahla zasekhaya ezininzi xa kuthelekiswa namakhaya akwabanye oomasipala.

Nangona bukhona ubungcono obuthile kummandla lo ngokubanzi, le ndawo iseyenye yeendawo ezihluphekayo elizweni, nalapho iqondo eliphezulu lendlala lixhaphakileyo kwakunye nokuhamba

kwabantu beyishiya indawo le, nanto leyo eyenza ukuba kubekho ukungalingani kumanani ngokwesini, amakhaya amaninzi aneentloko ezingabantu basetyhini futhi nomlinganiselo wokukhula kwamanani abantu abahlala kuyo usezantsi. Ngokubanzi abantu kule ndawo abanazo izinto ezisisiseko zokuphila kwaye baxhomekeke kakhulu ekufuyeni nako okungenampumelelo kangako.

Indawo yophando yindawo yasezilalini, apho abantu bengabaninzanga kakhulu futhi akukho nto ingako yenzekayo ngokunxulumene nezozoqoqosho. Umhlaba usetyenziswa kakhulu ekudliseni imfuyo kunye nokulima.

Iprojekthi ecetywayo ikumhlamba ongokarhulumente nophantsi kolawulo lwabasebukhosini. Ngoko ke umhlaba lo ungaphantsi kwezicwangciso zolawulo lwabahlali. Ngokwale nkqubo, uRhulumente ungumnikazi womhlaba, kodwa ke ulawulwa kwaye wabelwe abahlali ziiNkokheli Zasebukhosini.

Malunga ne-37.7% yamakhaya eMpuma Koloni athi azibandakanya kwezolimo kwisithuba esiphakathi kukaJuni 2011 ukuya kuJuni 2012. Kula makhaya i-24.8% yathi yazibandakanya kufuyo lweenkukhu, yaze i-20.5% yazibandakanya kufuyo lwempahla emfutshane, i-19% kwizityalo ezikukutya, i-19.9% kwiziqhamo nemifuno ngelixa yayiyi-0.2% kuphela eyazibandakanya kwizityalo zoshishino (Statistics South Africa, 2012). Kumakhaya akwiphondo nathi azibandakanya kwimisebenzi yolimo lwezityalo ezahlukeneyo, i-23.8% babekwizitya zasezindlini, i-0.2% kwizitya zasekuhlaleni ngelixa i-0.1% ikwizitya zasezikolweni. Ipesenti yamakhaya eyayibonakala ikwazi ukufumana ukutya okwaneleyo yayiyi-72% ngelixa i-19.4% yamakhaya yayingafumani kutya kwanele kangako ize i-8.8% ibe yileyo ingafumani kutya kwaneleyo kwaphela. Nangona kungekho zinkcukacha-manani zinxulumene ngqo nendawo yophando ngokubhekiselele koku, le meko ayicingi yohluka kangako kule ndawo yophando.

Uhlolo olwenziwe phezulu lwale ndawo lubonisa ukuba zehlile izityalo eziveliswayo ngoku kunangaphambili, kwaye kuqikelelwa ukuba umalunga ne-20% umhlaba obukade ulinywa ngaphambili osalinywayo nangoku. Kuza kudingeka iindlela zokuxhasa abalimi ukuvuselela uveliso lwezityalo kulo mmandla.

Ukulima okunkcenceshelwayo ayiyondlela yokulima yamandulo eqhelekileyo kule ndawo kwaye kuya kufuneka ukuba uluntu lubandakanywe kangangoko ukuze abahlali kunye neenkosi ziwamkele lo mbono kwanokuququzelela uguqulo leli candelo.

8. Imiba ephambili ethe yaqaqanjiswa

Imiba ephambili ethe yaqaqanjiswa kwisigaba Sokuhlela Umsebenzi kwaze kwaxoxwa ngayo kwiNgxelo Yokuhlola Umsebenzi kunye nakwiSishwankathelo sayo yile:

- *Impembelelo kwizityalo nakwizilwanyana;*
- *Impembelelo kwimilambo nakwimigxobhozo;*
- *Impembelelo kukusulungeka nobulunga bamanzi;*
- *Impembelelo kukuhamba komlambo (ukusulungeka nobulunga bamanzi kunye nobuninzi bawo);*

- *Impembelelo kwezintlalo kwiindawo zokuhlala ezikwindawo yophando;*
- *Impembelelo engathi ibekhona kaGawulayo kunye nentsholongwane yakhe i-HIV;*
- *Ukuphela kwezakhiwo kunye nezibonelelo ezixhasa ezokuphila (ichazwe kwiregista yeSikhokelo Somsebenzi Sokususa Izinto);*
- *Impembelelo kuqoqosho, kuquka intlalontle yoluntu;*
- *Impembelelo kwizibonelelo zezinto ezingamagugu esizwe, kuquka amangcwaba, iziza ezingezakudala kunye nezakhiwo zamandulo;*
- *Impembelelo kwimbonakalo yomhlaba kunye nobunjani bendawo.*

9. Isishwankathelo sophando lweengcali

Kwenziwa uphando lweengcali ezilithoba ngexesha lesigaba soVavanyo Lwempembelelo kokusiNgqongileyo kwaye lushwankathelwa ngolu hlobo:

9.1 Izityalo Nezilwanyana

Zine iindawo ezingamakhaya kwizilwanyana nakwizityalo ezithe zaborwa kule ndawo yophando, nezizezi, ikhaya kwizilwanyana nakwizityalo Ezisezintabeni / Kwindawo Enamatye, Ezikwithafa Lengca / Kwindawo Eneminga Ehlabayo, Ezikwindawo Elunxweme / Imigxobhozo kunye neNdawo Elungisiweyo (Ithafa Lengca). Kwizityalo ezikwindawo engqonge udonga leDama laseNtabelanga kukho ezo zikhula kumaqaqa amatye, noninzi lwazo olufumaneka kule ndawo kuphela. Luncinci kakhulu utshintsho oluthe lwenzeka kule ndawo.

Kwiindawo ezinkulu kwingingqi yeDama laseLalini kwenziwe utshintsho oluthile lwezityalo ngenxa yemisebenzi emincinci yezolimo, kunye nokubhujwa kwamadlelo yimfuyo kwakunye nokunyathelwa kwamadlelo yimfuyo. Enye indawo elikhaya kwizilwanyana nakwizityalo ebuthathaka kakhulu (ihlathi i-Euphorbia) ekufutshane nodonga lwedama nayo iza kuchatshazelwa lulwakhiwo lwedama kwakunye neendlela zokufikelela apho kulo.

Eyona nxalabo iphambili yileyo ibhekiselele kwimpembelelo kwiindawo ezinamatye, ezikumatyholo asezintabeni, eziselunxwemeni kwakunye nakwimigxobhozo elapha kule ndawo yophando. Ezi ziindawo ezingamakhaya azilungele kakhulu iintyatyambo eziziindidi ezibuthathaka ezifumaneka kulo ndawo kwakunye neendidi eziliqela zezilwanyana zendawo leyo ezikuluhlu lwezilwanyana ezisebungozini. Iindawo ezinamatye avela phezu komhlaba kunye nezo zikumatyholo asezintabeni ziindawo ezilungele ukuba ngamakhaya koonomadudwane abasebungozini. Imigxobo kunye namathafa engca anxulumene nayo ngamakhaya alungele iintlobo zamahemu akhuselweyo, kwakunye nezilwanyana ezahlukeneyo ezincancisayo ezincinci. Ngenxa yokugcwala ngamanzi kweengingqi zamadama, la makhaya ezilwanyana nezityalo aza kutshabalala. Kwiindawo ezibuthathaka kakhulu ezifana namakhaya ezilwanyana nezityalo asezintabeni/ nakumaqaqa amatye kunokwenziwa iindlela ezithile zokusindisa iintyatyambo kunye nokuzisusa zisiwe kwenye indawo ngaphambi kokuba kuqale ukwakhiwa.

Ngenxa yokwehla kweendawo ezifumanekayo ezingaba ngamakhaya kwizilwanyana zalo ndawo, iindidi zezilwanyana zendawo leyo ezisaseleyo ziya kutyhalelwa kwiindawana ezincinci ezingaba zisasele ezilungele ukuhlala izilwanyana, nalapho kuyakuthi ngenxa yokhuphiswano oluphakathi kweendidi ezahlukeneyo zezilwanyana ezo zendawo, zikhuphisana ngendawo kunye nokutya

okukhoyo, oko kubangele ukwehla kubuninzi kwanokwahluka-hluka kwezilwanyana zendawo leyo ngokubanzi.

Ngasemantla ukuya ngasekupheleni kweDama laseNtabelanga, kuza kubakho icandelo lomhlaba eliza kuthi, akuba enyukile amaqondo amanzi, lijikwe libe sisiqithi. Naziphi na iintlobo-ntlobo zezilwanyana zendawo leyo ezingakwaziyo ukubhabha okanye ukudada ngoko nangoko ziya kubambeka zivaleleke kwesi siqithi, nalapho zingasayi kuba nakutya kwaneleyo ukuze zikwazi ukuphila. Kuyacetyiswa ke ngoko ukuba naziphi na izilwanyana ezincancisayo ezincinci ezithe zavaleleka kwesi siqithi zibanjwe zize zisuswe zisiwe kwindawo engumhlaba evulekileyo ziingcali eziqeqeshiweyo nezifanelekileyo.

Zininzi iintlobo ezahlukeneyo zeentaka ezathi zaqatshelwa apha kwisiza. Iintaka ezininzi ezathi zaqatshelwa zazikwiindawo ezingamakhaya akumatyholo asezintabeni, ezikwiindawo ezinamatye avela phezu komhlaba kunye neendawo eziselunxwemeni. Nanjengoko ezi ndawo zingamakhaya kwizilwanyana nakwizityalo ziza kube zigcwele ngamanzi, oko kuza kukhokhelela kukwehla kwiindawo ezingamakhaya kwizilwanyana nakwizityalo ezikulungeleyo ukutyisa izilwanyana kwanokufuya iintlobo zeentaka ezifumaneka kulo ndawo, nanto leyo eza kunyanzelisa ukuba ezi ntaka ziyishiye indawo le ziye kukhangela iindawo ezingamakhaya ezilungileyo nezinkulu.

Le ndawo yophando iyindawo elungileyo elikhaya kwiintlobo zeentaka ezikuluhlu lweentaka ezisebungozini, ngokubaluleke kakhulu, kwimihlambi yamahemu. Iintaka ezinkulu ezihlaselayo nazo zathi zaqatshelwa kule ndawo yophando ngexesha lokuba kuvavanywa isiza kwakunye nezinye iintlobo eziliqela zezo ntaka zitya ezinye izilwanyana. Ukugcwala ngamanzi kwethafa lengca/ iindawo ezingamakhaya kwizilwanyana nakwizityalo eziguquliweyo kummandla weDama laseNtabelanga kuya kubangela ukutshabalala okukhulu kwendawo yokutyisa izilwanyana, nelikhaya kumahemu akwindawo yophando. Ezona zinto ziphambili nezinegalelo koku kwehla kukutshabalala kweendawo zokufuya ezikwimigxobhozo, ukutshabalala kweendawo ezingamathafa engca zokutyisa izilwanyana kunye nokungqubana kunye neentambo zombane onamandla aphezulu. Ukwakhiwa kwamadama kunye neentambo zombane ezintsha ngokuqinisekileyo kuya kuba nempembelelo engentlanga kumanani amahemu ahlala kulo ndawo yophando nakwiindawo ezingqongileyo, njengoko amanani alawo azalayo eza kwehla.

Ukugcwala ngamanzi kweendawo ezingamakhaya kwizilwanyana nakwizityalo ezisematyeni, ezikumatyholo asezintabeni kunye nakwezo ziselunxwemeni zokutyisa izilwanyana kuya kutyhalela izilwanyana ezirhubuluzayo kude nangakumbi kumaqaqa amqengqelezi; nangona zikhona iindawo ezingamakhaya ezilungileyo kwezi ndawo. Ekuqaleni kuya kubakho ukuxinana kweendidi zezi zilwanyana ezahlukeneyo, kodwa ngokuye esenyuka amaqondo okufa kwazo kwanokumka kwezinye iintlobo ezithile, kulindeleke ukuba amanani ezo zifumaneka apho azinze, abe kwini elisezantsi. Indawo encinci yokuhlala kunye namanani asezantsi ezilwanyana ezihlala apho kuya kukhokhelela kukwehla kwizinto ezikukutya kumarhamncwa ezilwanyana ezirhubuluzayo azintlobo ezininzi, nanto leyo eya kuba negalelo nangakumbi kwiindlela zokufumana ukutya.

Ukugcwala ngamanzi okubangelwa ngamadama akulindelekanga ukuba kube nempembelelo engentlanga kwizilwanyana eziphila emhlabeni nasemanzini okanye kulondolozo lwezo zilwanyana zingenamqolo zikule ndawo.

Uhlobo oluthile olukuluhlu lwezilwanyana ezisebungozini nezikhuselweyo kunye neentlobo ezikhuselweyo zonomadudwane, unomadudwane ofumaneka kwindawo enamatye lwathi laqatshelwa kwindawo elikhaya neyindawo esezintabeni enamatye avela phezu komhlaba/kwindawo elityholo ekufuphi nodonga olucetywayo leDama laseLalini. Ezi ntlobo zezilwanyana ziya kuchaphazeleka ngendlela engentlanga ngenxa yokulahlekelwa ziindawo ezingamakhaya kuzo okuya kubangelwa kukwaxhiwa kodonga lwedama kwakunye nokugcwala ngamanzi okuza kulandela emva koko.

Ukuzingela okwenziwa ngabahlali bale ndawo ngoku kuza kujoliswa kwiindawo ezishiyekileyo ngaphezu kwendawo ekuphela kuyo amanzi. Ngenxa yokuncipha kweendawo ezingamakhaya, iintlobo-ntlobo zezilwanyana zendawo leyo ziya kuba nendawo encinci xa zibaleka aba bazingeli, nto leyo eza kubangela ilahleko enkulu ekuzingeleni, ize kananjalo ibe negalelo kumanani ngokubanzi ezilwanyana ezihlala kulo ndawo kwakunye neentlobo zezilwanyana ezihlala apho.

Imibhobho yamanzi kakhulu iya kwaxhiwa kufuphi neendlela esele zikhona ngoko ke akulindelekanga ukuba iindawo ezingamakhaya kwizilwanyana nakwizityalo zichaphazeleke kakhulu.

Enye yenxalabo ekhoyo ngokunxulumene nokuphuculwa kweendlela okucetywayo, ukujikwa kweendawo ezihamba kuzo kunye nokwaxhiwa kweendlela ezintsha zokufikelela, yileyo iphathelele kukwanda kwabantu abangengabo bendawo leyo ecaleni kweendlela, kananjalo kwafumaniseka ukuba iindlela ezintsha ezicetywayo eziya kudonga lweDama laseLalini kunye nakumzi-mveliso wokuvelisa umbane zikwindawo ebuthathaka kakhulu elikhaya kwizilwanyana nakwizityalo.

Kananjalo indlela engenye yoku-1 neyesi-3 yeentambo zombane nazo zinqumla kwiindawo ezinkulu ezinemithi efumaneka kuphela kwindawo leyo kwakunye nenemithi ekungenzeka ukuba yekhuselweyo kunye nezinye iintlobo-ntlobo zeentyatyambo. Kufanele zijikwe iindawo ezihamba kuzo zisiwe kwezo ndawo zingekho buthathaka kakhulu.

Apho kukho imithi ekhuselweyo kwindawo eneendlela nemibhobho yamanzi, ezo ndlela kunye nalo mibhobho yamanzi kumele zijikwe iindawo ezihamba kuzo ukuphepha le mithi ikhuselweyo.

9.2 Izinto eziphila emanzini kunye nemigxobhozo

Ngokubanzi, izinto ezahlukeneyo ezifumaneka elunxwemeni nakwimigxobhozo zinokuthathwa njengezo zikwimeko elungisiweyo kancinci, nto leyo ebonisa ukuba kukho ukutshabalala kunye notshintsho kwindawo yemvelo elikhaya kwizilwanyana nakwizityalo okwenzekileyo, nangona nje kungekho lutshintsho lubalaseleyo kwimisebenzi esisiseko yobudlelwane bendalo. Zimbalwa iintlanzi eziziindidi ezahlukeneyo.

Iprojekthi ecetywayo kungenzeka ukuba ikhokhelele kwilahleko kwindawo eligolonxa nelikhaya kwizilwanyana zendawo leyo ezixhomekeke kwimigxobhozo nakwizinto eziziintyatyambo kwakunye/okanye ukutshintshwa kwezinto ezifumaneka emanzini naselunxwemeni kwindawo yophando, kukhankanywa nangakumbi impembelelo aza kuba nayo la madama mabini kuMlambo iTsitsa kunye namasebe wawo, kwakunye nemigxobhozo enxulumene nawo kunye nezinto ezifumaneka elunxwemeni. Iindawo ezingamakhaya kwizilwanyana nakwizityalo ezikwimigxobhozo kwiingingqi zeDama laseNtabelanga nelaseLalini ziya kutshabalala ngokusisigxina.

Ngokwala madama omabini kwakunye nolwakhiwo olunxulumene nawo, iimpembelelo (ukugcwala kweendawo ezingamakhaya kwizilwanyana nakwizityalo emantla kweendonga zamadama kunye nokuphazamiseka kokuhamba kwamanzi ngokwemveli emazantsi) zibonwa njengeziya kuba nkulu futhi zibe sisigxina. Ezi mpembelelo zibangela iimpembelelo ezingezinye kukuhamba kweentlobo zezilwanyana ezibuthathaka, inxalabo ngokunxulumene nokulondolozwa kwezi ntlobo kwakunye neentlobo ezahlukeneyo ezifumaneka emanzini ngokubanzi. Kodwa ke, ukuthobela iiMfuno Zamanzi Akwindawo Engqongileyo ezicetyiswayo kuya kuqinisekisa ukuba umlambo osemazantsi kwamadama ugcinwa ukwimeko eyamkelekileyo.

Indawo le yaziwa njengezibuko lezinambuzane eziluhlobo oluthile olungathi ngamabhabhathane ezisoloko zikhona kule ndawo (ngokukaKleynhans 1999). Njengokuba la madama mabini ekwindawo ephakathi kweengxangxasi ezimbini, nanto leyo ethetha ukuba akwindawo ekhethekileyo esecaleni, kungenzeka ukuba indawo le ineentlobo zezilwanyana ezinkulu ezingenamqolo nezifuna ukulondolozwa ngokwezendalo. Ngokwehliswa kwexesha ahamba ngalo amanzi, ubulunga bamanzi kunye nokuchaphazeleka kweendawo ezingamakhaya kwizilwanyana nakwizityalo ngelixa lesigaba sokwakha seprojekthi, inokuncitshiswa impembelelo ngokungabhekelephi kwezi zinambuzane zibumabhabhathane.

Ukwakhiwa komzi-mveliso wokuvelisa umbane, imibhobho yamanzi/itonela kunye neentambo zombane kuya kuba nempembelelo esezantsi xa kuthe kwazanywa ukuyinciphisa impembelelo leyo. Ukunciphisa impembelelo kuquka ukwehlisa kangangoko indawo echaphazelekayo, ingakumbi ukuzama ukuthintela ukhukhuliseko lomhlaba, intlenga yomhlaba kunye nodaka olusemanzini. Ngesigaba sokwenziwa komsebenzi ukuhamba kwamanzi aphuma kwitonela yoveliso-mbane aya emlanjeni nako kuza kuba nempembelelo okunayo emlanjeni. Iimfumo zeenkqubo ezi ezinxulumene namanzi angenayo kumele zifezekiswe maxa onke.

Xa bubufutshane ubude bendawo ephakathi kodonga lwedama kunye nendawo akhutshelwa kuyo amanzi, iya kubancinci nendawo echatshazelwa yimpembelelo ngokunxulumene nentlenga yomhlaba, udaka olusemanzini, ukwehla kobulunga bamanzi kwakunye nezityalo ezikhula ngokugqithisileyo.

Iimpembelelo ezilindelekileyo neziza kubangelwa lulwakhiwo kunye nokusetyenziswa kweendlelo ziquka ukususwa kwezityalo, ukwanda kokhukhuliseko lomhlaba, ukunqumbana kodaka nokuzakuthi kuphazamise ukuhamba kakuhle kwamanzi. Ukuba ngaba iindlela aziyilwanga ngendlela echanekileyo zingaba nempembelelo enkulu kakhulu kwiindawo ezingamakhaya kwizilwanyana nakwizityalo ezikwindawo ephakathi kunye neendawo ezingamakhaya

kwizilwanyana nakwizityalo eziselunxwemeni. Kananjalo, ukunciphisa impembelelo kuquka ukwehlisa kangangoko indawo echaphazelekayo, ingakumbi ukuzama ukuthintela ukhukhuliseko lomhlaba, intlenga yomhlaba kunye nodaka olusemanzini ngexesha lokuba kusakhiwa naxa kusetyenzwa. Ukuncitshiswa kwempembelelo ngokukuko kwimigxobhozo kuquka ukuqinisekisa ukuba indlela eziyilwa ngayo iindawo ezinqumla apha kuyo zenza ukuba iimeko zomhlaba kwiindawo ezinemigxobhozo zihlale zinjalo. Ukuba ngaba zenziwe iinzame zokunciphisa impembelelo iya kuba sezantsi impembelelo eya kuthi ibangelwe lulwakhiwo. Xa sele kusetyenzwa, ukwenyuka kweendlelana eziphuma apho ezindleleni nako kunokubangela ukukhukhuliseka komhlaba.

9.3 Izinto Ezingamagugu Esizwe

Impembelelo kwizibonelelo zezinto ezingamagugu esizwe iya kuphelela kuphela kwisigaba sokwakha.

Sinye isiza esisesakudala esathi sachongwa kwingingqi ecetywayo yeDama laseNtabelanga kwakunye nesinye isiza kwingingqi ecetywayo yeDama laseLalini. Ezi ziza ziya kutshatyalaliswa kukugcwaliswa ngamanzi. Ubunzulu bezi mpembelelo emva kweendlela zokunciphisa impembelelo bathi babonakala njengobusezantsi. Isiza esichongiweyo kwiDama laseNtabelanga kumele sibonakaliswe ngokubanzi ngemizobo, ngeesampula ezithelekelayo, ezigunyaziswe ngokufumana iphepha-mvume kwigunya elilawulayo elinxulumene nezinto ezingamagugu esizwe. Isiza esi singatshatyalaliswa emva kokuba likhutshiwe iphepha-mvume lokutshabalalisa. Isiza esichongiweyo kwiDama laseLalini kumele sibonakaliswe ngemizobo size sigrunjwe/kuthathwe iisampula, ngokugunyazwa ngephepha-mvume elivela kwigunya elilawulayo elinxulumene nezinto ezingamagugu esizwe. Isiza esi singatshatyalaliswa emva kokuba likhutshiwe iphepha-mvume lokutshabalalisa. Ngaphezu koko, kufuneka kwenziwe uphando olubanzi olunxulumene neziza ezingathi zibekho zamandulo emva kokuba zivuniwe izityalo futhi sezisusiwe nezityalo ebezikho.

Onke amangcwaba kunye nezakhiwo ezikwindawo yomgangatho ogcweleyo wonikezelo weDama laseNtabelanga (azikho ezazichaziwe kwingingqi ecetywayo yeDama laseLalini) ziya kutshatyalaliswa kukugcwaliswa ngamanzi, ngelixa ezo zikwindawo yolwakhiwo olunxulumene namadama la kungenzeka zonakale okanye zitshabalale.

Ukubaluleka kwazo zonke izakhiwo kusezantsi noko xa kuthelekiswa noko kuphezulu kakhulu kwazo zonke izinto ezinxulumene nabantu abaswelekayo bangcwatywa ngokuphathelele kwizinto ezingamagugu esizwe. Ubungakanani bempembelelo kumangcwaba bathi babonwa njengobusezantsi emva kokuba kulandelwe iindlela zokunciphisa impembelelo.

Indawo akuyo amangcwaba kwakunye neenkukacha ezinxulumene nokungcwaba kufuneka zirekhodwe, amangcwaba achaphazelekayo athathwe ayokubekwa kwezinye iindawo xa kufunyenwe imvume yezizalwane kwakunye nephepha-mvume lokwenza oko kwigunya elilawulayo elijongene nezinto ezingamagugu kwisizwe, onke amangcwaba akumgama okwi-300 m walo naluphi na ulwakhiwo kumele aphawulwe ngokuthi kumiswe imida ngakuwo, kwaye akumele kubekho lwakhiwo lwenziwayo kumgama oyi-100 m ukuya emangcwabeni.

Izakhiwo ezinendima ethile enxulumene nemisebenzi yeentsapho ngokwezoqoqosho nezentlalo kumele ukuba zakhiwe ngokutsha, ngokwemimiselo echazwe kwiSikhokelo Somsebenzi

Wokususwa Kwezinto Zisiwe Kwezinye lindawo. Kufuneka kufunyanwe iphepha-mvume lokutshabalalisa zonke izakhiwo ezichaphazelekayo ezidala ngaphezulu kweminyaka engama-60 kwigunya elilawulayo elijongene nezinto ezingamagugu kwisizwe.

9.4 Izinto Ezibonakalayo

Izinto ezichaphazela iimpawu ezibonakalayo zeprojekthi zezi:

- *Ukubonakala okucacayo kwamacandelo kwindawo eyimbonakalo-mhlaba ebufana noko;*
- *Impembelelo kubunjani bembonakalo kwakunye nobume bendawo;*
- *Impembelelo kwiindlela ezithile ezibalulekileyo zendlela izinto ezibonakala ngayo;*
- *Ubude kunye nomlinganiso wamacandelo ingayinto ephezulu kubume bomhlaba;*
- *Ukubonakala okucacayo komsebenzi wokwakhiwa nokwenziwa komsebenzi kwiindawo ezinkulu ezineepateni ezifanayo ngokwembonakalo; kunye*
- *Neqondo elisezantsi lokufunxwa kwamanzi ngumhlaba nelinokuba libangelwa:*
 - *ngumphezulu womhlaba obudumba;*
 - *ukufana nokuphinda-phindeka kwezityalo ezogqumileyo; kunye*
 - *nokungabikho kokwehluka kwindlela ezibonakala ngayo izinto.*

Ukubaluleka kwempembelelo kwizinto ezibonakalayo ngokunxulumene neDama laseNtabelanga kunye nelaseLalini Dam kubonwa njengokuphakathi ukuya kokusezantsi.

Ukubaluleka kwempembelelo kwizinto ezibonakalayo ngokunxulumene neentambo zombane kubonwa njengokuphezulu kakhulu ngokubhekiselele kwintambo yombane engenye yoku-1; njengokuphezulu ngokubhekiselele kwintambo yombane engenye yesi-2, nangokusezantsi ngokubhekiselele kwintambo yombane engenye yesi-3, emva kokuba zijikiwe iindawo ezihamba kuzo njengoko kucetyisiwe ziingcali zembonakalo kunye nezeentyatyambo (khangela icandelo le-10 apha ngezantsi).

Ukubaluleka kwempembelelo kwizinto ezibonakalayo ngokunxulumene neendlela ezintsha kwaneziphuculiweyo kubonwa njengokuphakathi ukuya kokusezantsi.

9.5 Ezentlalo

Indawo yophando yindawo engaphuhlswanga futhi ehluphekayo kwaye le projekthi icetywayo kulindeleke ukuba ize nophuhliso olukhulu kwakunye nokukhula kwendawo le. Nangona kunjalo, kukho izinto eziliqela ezixhalabisayo ezinxulumene nezakhono zamaziko achaphazelekayo kwakunye nokubaluleka kokuphunyezwa ngendlela eyiyo kweenzuzo ezahlukeneyo zeprojekthi le, nekufuneka ukuba ziqinisekise ukuze ngokwenene iprojekthi le iphumelele.

Nanjengoko kukho izibophelelo ngokomgaqo-siseko kwakunye nepolisi ekulindeleke ukuba zifezekise ngabasemagunyeni ngokunxulumene nokunikezela ngamanzi kubantu abahluphekayo, iprojekthi kulindeleke ukuba idlale indima engaphezu kwale, kananjalo iphucule umgangatho wophuhliso kwindawo le. Kodwa ke, ukuphumelela kweprojekthi kuxhomekeke ekucwangcisweni kwezinto ngendlela enobunono, ulawulo olululo kunye nentsebenziswano eyiyo phakathi kwamaqumrhu awohlukeneyo kwakunye nokuzinikela nenkxaso yabahlali ngokubanzi.

Izinto ezitshintsha-tshintshayo nezinxulumene nempembelelo kwezentlalo ezijongwayo kwiprojekthi ngokubanzi zihlanganiswe kwezi ndidi ziphambili zisixhenxe zilandelayo:

- 1. Iimpembelelo kwezempilo nakwimeko yezentlalo;*
- 2. Iimpembelelo kumgangatho wendawo yokuhlala (ukukwazi kwayo ukuhlaleka);*
- 3. Iimpembelelo kwezoqoqosho kunye nempembelelo kwimeko yezinto ezizimpahla;*
- 4. Iimpembelelo kwezenkcubeko;*
- 5. Iimpembelelo kwiintsapho nakubahlali bendawo;*
- 6. Iimpembelelo kumaziko, kwezomthetho, kwezopolitiko kunye nokulingana kwabantu; kunye*
- 7. Neempembelelo kubudlelwane ngokwesini.*

Ngokuphathelele kumadama kunye nolwakhiwo olunxulumene noko, iimpembelelo ezininzi ezingentlanga ziya kubakho ngexesha lesigaba sokwakha seprojekthi le ngokubangelwa yimfuneko yokuba kufuduswe abantu kwiindawo abahlala kuzo basiwe kwezinye iindawo, ukulahlekelwa ngumhlaba kwakunye nokufika kwamanani amaninzi abantu abasebenza apha kulwakhiwo. Ubukhulu kunye nomgangatho weprojekthi kuza kwenza ukuba zibe nkulu ezi mpembelelo kwaye zithathe indawo ebanzi, kodwa ke, ubuninzi bazo iya kuba zezexeshana kwaye ezininzi kuzo zingancitshiswa. Kodwa nangona kutshiwo nje oku, impembelelo yokufuduswa kwabahlali basiwe kwezinye iindawo, abo bangabafiki kulo ndawo kwanabo bahlala ngokusisigxina apho akufanelekanga ukuba kuthathwe njengento encinci.

Kwingingqi yakwiDama laseNtabelanga, kuza kulahleka izakhiwo ezingama-62 kunye nomhlaba olinyiweyo oyi-19.9 km². Indlela yoku-1 engenye ekhethiweyo ngabezobugcisa ngokunxulumene neNgingqi yeDama laseLalini iza kubangela ukulahleka kwezakhiwo ezili-12 kunye nomhlaba olinyiweyo oyi-7.6 km². Ngokukonke, kufumaniseke ukuba kunokwenzeka kulahleke izakhiwo eziyi-160 kunye nomhlaba olinyiweyo oyi-0.7 km² ngenxa yamacandelo olwakhiwo oluhamba ngokwemigca eprojekthi le (ukutsho oko, imibhobho yamanzi kunye neendlela).

Ngaphandle kwezakhiwo ezi kunye neendawo ezilinyiweyo eziza kulahleka ngokubangelwa ngqo yiprojekthi le, kukho ezinye izakhiwo eziyi-124 ezithe zaphawulwa njengezo zikumgama oyi-5 m weendawo zamacandelo awohlukeneyo olwakhiwo nto leyo ethetha ukuba nazo zisebungozini. Iindawo ezininzi ezisebungozini zinxulumene kakhulu namacandelo olwakhiwo eprojekthi ahamba okwemigca naquka iindlela zokufikelela, imibhobho yamanzi neentambo zombane kwaye, njengoko indawo ebanzi kungoku nje isetyenziswa ngeenjongo zokuchonga la macandelo, kungenzeka kukwazeke ukuzijika iindlela zihambe kwezinye iindawo, ukuzama ukuphepha ubuninzi, xa ingezizo zonke, ezi zakhiwo zisebungozini. Ezona ndlela ziphambili ezisetyenziswayo kwezi meko ukuzama ukunciphisa impembelelo kukuphepha, kwaye nanjengoko imibhobho yamanzi iza kogqunyelelwa kungenzeka ukuba iindawo ezo zingabuyiselwa kwimeko yazo yasekuqaleni emva kokuba kugqityiwe ukwakhiwa.

Njengoko ukwakhiwa kwamadama kunye nolwakhiwo olunxulumene noko luza kudinga abantu abaninzi abasebenzayo, kubalulekile ukuzama ukunciphisa inani labantu abasuka ngaphandle abancedisa kulwakhiwo ngokuba kusetyenziswe abantu balapho endaweni kangangoko xa kusenzeka.

Impembelelo ezingentlanga ngokubhekiselelwe kukwenziwa komsebenzi, nangona ziya kuqhuba ixesha elide, noko akulindelekanga ukuba zibe mandla kangako kunezo mpembelelo zinkulu zintle, ezifana nophuhliso lwezoqoqosho notyalo-mali kwakunye nonikezelo ngamanzi aza kusetyenziswa ezindlini nakwezolimo neziza kubaluleka kakhulu kule ndawo. Unikezelo ngamanzi, lawo aza kusetyenziswa ezindlini kwanalawo aza kusetyenziswa kwezolimo, kungenzeka ukuba kube negalelo kwindlela eyahlulwa ngayo imisebenzi eyenziwayo. Ngokubhekiselele kunikezelo lwamanzi ezindlini oku kulindeleke ukuba kube negalelo elihle ngokuthi kuphumze abasetyhini kumsebenzi onzima nothatha ixesha wokuya kukha amanzi. Kweli icala, ngokunxulumene nezolimo, oku kunokukhokhelela ekubeni umsebenzi omninzi ubekwe emagxeni abasetyhini njengoko imisebenzi efana nokuhlakula iza kwanda.

Njengokwakhiwa kwamadama kunye nolwakhiwo lwezibonelelo zamanzi olunxulumene noko, iimpembelelo ezininzi kwezentlalo ezinxulumene nokuveliswa kombane kwakunye nolwakhiwo lokuhanjiswa kwawo zezo zinxulumene nesigaba solwakhiwo seprojekthi le. Njengoko eli candelo leprojekthi ingeyoprojekthi ezimeleyo kumele iqwalaselwe ngendlela ehlangeneyo ndawonye namanye amacandelo eprojekthi le. Okwahlukileyo ngokuveliswa kwanokuhanjiswa kombane kukuba kuza kubakho ifuthe elandileyo elinxulumene namaza okuhamba kombane. Kukho inxalabo enkulu kwilizwe lonke ngokuphathelele kwigalelo amaza okuhamba kombane analo kwimpilo yoluntu kwakunye nokunxulumana okungathi kube khona neentlobo ezithile zemihlaza. Inkqubo yoveliso lombane inamathuba okuba yenze igalelo elincomekayo kwezoqoqosho nanto leyo eya kukhokhelela kwiinzuzo ezintle ngokwezentlalo.

Ukujikwa kweendlela zihambe kwenye indawo kunye nokuphuculwa kwazo ayiyoprojekthi esecaleni, ngoko ke kumele, ngokwezentlalo, ivavanywe ndawonye nayo yonke eminye imisebenzi yolwakhiwo yeprojekthi le. Into eyahlukileyo ngolwakhiwo lweendlela ibandakanya ukufikelela ngokulula kwindawo le yeprojekthi, nanto leyo eza kuba neziphumo ezihle kunye nezingezihlanga. Ngakwicala elihle, abantu abahlala kule ndawo baza kuba neendlela ezingena neziphuma lula kwindawo le, ngokunjalo nabakhenkethi abafuna ukutyelela kule ndawo. Ngakwicala elingelihlanga, oku kufikelela ngokulula endaweni kungakhawulezisa kuzise iindlela zokuphila zezinye iindawo kwindawo le, kwakunye notshintsho kwiindlela eziqhelekileyo zokwenza izinto apha endaweni kunye nakwinkcubeko yakhona. Kananjalo, amaqela abuthathaka angajongana neempembelelo ezinkulu ngokwasengqondweni nangokwezentlalo ngenxa yotshintsho olukhawulezileyo olubangelwa kukuba indawo le ngoku ifikeleleka ngokulula kwakunye nokubhenceka kwayo kubantu bangaphandle.

Enye kwiindlela zokuthutha izinto eziphakathi kweendawo ekwembiwa kuzo kunye nesiza solwakhiwo seDama laseLalini iza kunqumla phakathi kwidolophu yaseLalini. Ngenxa yokonyuka kobungozi obunxulumene nokuhamba kwezithuthi, uthuli kunye nengxolo, oku kuzolandisa iqondo lobungozi obunxulumene nezempilo kunye nokhuseleko. Kufanele ke ngoko kukhangelwe indlela engenye.

9.6 Uqoqosho

• **Impembelelo kwimeko yezoqoqosho**

Kwenziwa uHlalutyo lweMpembelelo kwiMeko yezoQoqosho ngexesha lokwakha iDama laseNtabelanga kunye nelaseLalini kwakunye nolwakhiwo olunxulumene noko. Injongo yolu hlalutyo yayikukuqikelela impembelelo kuMlinganiselo Woqoqosho Welizwe (GDP), ngokubhekiselele kwezengqesho kwakunye nemivuzo engena kumakhaya. Eyona njongo yayikukwakha amathuba emisebenzi athe ngqo kunye nengeniso eyenziwa ngalo makhaya anemivuzo esezantsi nanto leyo eza kuthi ibonakalise igalelo leprojekthi le ngokunxulumene nokwehlisa iqondo lobuhlwempu kule ndawo.

Iziphumo zokwakhiwa kweDama laseNtabelanga kwakunye nempembelelo yako kuqoqosho lephondo zibonakalisa ukuba ngexesha lokwakha elixakeke kakhulu, kuya kuvela amathuba emisebenzi anxulumene ngqo neprojekthi le kwanalawo anganxulumenanga ngqo kwakunye neminye imisebenzi ebangelwe nje kukubakho kweprojekthi kuqoqosho lephondo. Kulo misebenzi inxulumene ngqo neprojekthi kuya kubakho leyo ifuna abantu abanezakhono kwanaleyo ingafuni zakhono zithile, nabaya kuqeshwa kakhulu kubahlali bendawo leyo, ngalo ndlela ke kusakhiwa amathuba emisebenzi.

Kulindeleke ukuba igalelo kwimeko yezoqoqosho ngenxa yenkqubo yonkcenkceshelo lenze igalelo kwi-GDP yonyaka iyonke futhi ingeniso efunyanwa ngalo makhaya anemivuzo esezantsi iyonke ibe nkulu noko.

Kumathuba emisebenzi esisigxina ewonke, kuqikelelwa ukuba i-66 % yemisebenzi iza kuba sezifama. Le-66 %, neqikelelwa kwimisebenzi eyi-1 301, kufuneka icaciswe nangakumbi njengoko indlela esetyenziswayo inikezela kuphela ngamathuba emisebenzi esisigxina, ngelixa kwezolimo, ingakumbi ulimo lwezityalo ezixutyiweyo olucetywayo luya kuba nenani elikhulu labasebenzi bethutyana. Isibalo esisecaleni senziwa ngokusekelwe kwiindlela ezamkelweyo zemisebenzi ngehektare kwaye imisebenzi eyi-1 301 echaziweyo, imele eli nani lilandelayo labantu:

- Abaqeshwe ngokusisigxina ezifama – abasi-7 kwifama nganye baze babeyi-315 bebonke. Apha kuqukwa abaqhubi beeteletele, abasebenzi abankcenkceshelayo kunye nabo bakwindawo yokusebenzela; baze
- Abasebenzi abaqeshwe okwethutyana baqikelelwe kwabangama-80 kwifama nganye futhi babeyi-3 600 bebonke. Amaxesha amaninzi aba basebenzi iba kukuphela kwemisebenzi abanayo le kwaye ngokuhamba kwexesha umfanekiso ocacileyo ngokunxulumene nemeko yabo yezentlalo uya kubonakala.

• **Inkxaso ngemali**

Inkxaso ngemali yeprojekthi le ngumba obaluleke kakhulu kwaye kumele kubekho imiba eliqela ethathelwa ingqalelo. Ibalulekile le miba ilandelayo ngokuphathelele kwizindululo ezahlukeneyo:

Unikezelo Ngamanzi Asezindlini

KwiNgxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi (kwiSebe Lemicimbi Yamanzi, 2013d) kwasetyenziswa uqikelelo lokukhula kwabahlali bendawo leyo nge-1% ngonyaka kwixesha elizayo ukuze kufunyanwe uqikelelo lwenani labantu abaza kuzuza ukuya kutsho ngonyaka ka-

2050. Amanani akutshanje okukhula kwenani labantu nakhutshwe liqumrhu i-StatsSA abonakalisa iqondo elingu-0.44% lokukhula kwenani labantu bebonke eMpuma Koloni, ngelixa kwabanye oomasipala kubonakala ukwehla kwinani labantu. Oku ke kubangela umahluko oyi-133 729 wenani labantu ekulindeleke ukuba baxhamle nanto leyo enokuthetha ukwehla ngokunxulumene neemfuno zamanzi kwakunye neendleko eziphathelele koko. Ukujongana nalo mba, kwasetyenziswa ubume bemeko obahlukeneyo kuHlalutyo Lweendleko kunye Neenzuzo kwezoQoqosho njengoko kubonisiwe kule thebhule ingezantsi.

Ithebhule 1: Ubume bemeko obusetyenziswe kuHlalutyo Lweendleko kunye Neenzuzo kwezoQoqosho

<i>Ubume Bemeko</i>	<i>Amanani Abahlali Bendawo</i>	<i>Umthamo Wamanzi</i>	<i>Iindleko Zolwakhiwo Eziqikelelwayo</i>
1	<i>INGxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi</i>	<i>INGxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi</i>	<i>INGxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi</i>
2	<i>IQondo Lokukhula Kwenani Labantu baseMpuma Koloni</i>	<i>INGxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi</i>	<i>INGxelo Yokukhangela Ukuba iya Kusebenza na iProjekthi</i>
3	<i>IQondo Lokukhula Kwenani Labantu baseMpuma Koloni</i>	<i>Umthamo Owehlileyo 19%</i>	<i>Iindleko Ezehlileyo 19%</i>

Amaqondo aphezulu kakhulu wabantu abangasebenziyo kwakunye nobuhlwempu kule ndawo yeprojekthi abonakalisa ukuba akungekhe kwenzeka ukuba ngaphezulu kwe-10% yabantu abasebenzisa amanzi bangakwazi ukuwahlawulela. Ngoko ke, kuya kufuneka ukuba kubekho inkxaso yonyaka enikezelwayo ixesha elide.

Uveliso Lombane kwiDama laseLalini

Eli candelo leprojekthi linamathuba empumelelo ngokwezoqoqosho nangokwasezimalini, kodwa inxalenye yalo inokuxhaswa kuphela ngemali-mboleko, njengoko ingeniso evela kuveliso lombane kucetywa kuba ixhase ngokwasezimalini iindleko zeprojekthi zaxa sele isebenza kwanezokuqinisekisa ukuba izinto zihlala zisebenza ngokukuko, ingakumbi ukusebenza okuphezulu kombane xa kumpontshwa amanzi alungele ukuselwa ngabantu kunye nalawo emvula.

Inkqubo Yokunkcenceshela

Kuya kuthatha ixesha elifikelela kwiminyaka eli-10 ukukwazi ukuvelisa kwiqondo eliphezulu kunye nokuzuzwa ingeniso enokuthi ibekho ngokwasezimalini. Amathuba empumelelo ngokwezemali anokubakho kuphela xa kunokuthi kubekho inkxaso efumanekayo enxulumene neentlawulo zarhoqo ngonyaka.

Inkxaso-mali esisibonelelo kwakunye nenkxaso yemali efumaneka rhoqo ngonyaka yinto eyamkelekileyo kwimeko yophuhliso njengoko kusenzeka kule ndawo yeprojekthi, xa nje ixhasiwe ngezizathu, yaphathwa futhi yalawulwa ngokukuko kwaye ikhona imali ebekelwe bucala ukujongana nayo. Ngokwembono yengcali yezozoqosho, imali yasekuqaleni esetyenziswa

kulwakiwo leDama laseNtabelanga, unikezelo ngamanzi ezindlini kunye nenkqubo yokuncenkceshela kuya kumele ukuba ibe sisibonelelo senkxaso-mali.

Ngokuphathelele kwimali yokuqhuba ukusebenza kwamadama, ulungiso lwamadama ngonyaka, ulwakiwo olunxulumene nonikezelo lwamanzi ezindlini kunye nonikezelo ngamanzi kufanele zifumane inkxaso yezemali. Imali eyingeniso eyenziwe ngoveliso lombane kucetywa ukuba kuxhaswe ngayo ukusebenza kwenkqubo yonikezelo ngamanzi. Ngokuphathelele kwinkqubo yonkcnkceshelo, imali yokwenza umsebenzi kuya kufanele ifunyanwe njengemali eyinkxaso exhomekeke kwiimeko ezithile kwiminyaka yokuqala embalwa kude kuveliswe izityalo ezaneleyo ngokupheleleyo. Ngokuhamba kwexesha iza kuqokelelana ngokukhawuleza ize emva koko yehle kwaye, kumele ukuba kuthi kufika unyaka we-10 imeko ibe sele ikulungele ukupheliswa. Nangona kunjalo ke kodwa, oku kuya kuxhomekeka kwimeko yolawulo kwinkqubo le kwakunye neemeko zelo xesha zoqoqosho kwezolimo ngokubanzi.

9.7 Unkcnkceshelo

Yinyaniso eyaziwayo neyamkelekileyo eyokuba le ndawo kwiPhondo laseMpuma Koloni inamathuba amakhulu empumelelo ngokunxulumene nezolimo angazange akhe asetyenziswe ngaphambili. Kodwa ke, naluphi na uphuhliso lwezolimo olusekelwe kwiinqobo zoshishino luya kujongana nemiceli-mngeni eliqela equka:

- *Ingxaki yobunikazi bomhlaba;*
- *Ukusilela kwezakhono zolawulo, ingakumbi kukufuya ngeenjongo zoshishino;*
- *Iindawo zorhwebo ezikhoyo (indawo yeprojekthi ikude kwiindawo zorhwebo ezinkulu);*
- *Izinto eziyinkxaso ezifana nezinto ezidingekayo kuveliso; kunye*
- *Nenkxaso-mali.*

Umbono ocetywayo malunga neefama ezinkcnkceshelayo ngeenjongo zokuba kushishinwe ngeemveliso zazo ngumbono omhle, kodwa uya kuba yimpumelelo kuphela ukuba ngaba kufezekiswe iimfuno ezithile:

- a) *Isiphakamiso sokuqala somxube wezityalo akukho nto siyikhankanyayo ngokuphathelele kwiindlela zokuthengisa. Kuya kufuneka ukuba kuphandwe oku, futhi kunganegalelo kumxube wezityalo.*
- b) *Umba womhlaba kuya kufuneka ukuba uqwalaselwe kwaye kubekho uhlobo oluthile lwesivumelwano sokuqesha sexesha elide esenziwa kunye nabahlali balapho endaweni.*
- c) *Indlela yokuqhuba ushishino ekugqitywe kuyo kuya kufuneka ilulungele ulawulo olungqongqo lweenkokheli olusekelwe kubanini-zabelo. Ziliqela iiprojekthi zonkcnkceshelo ezingazange ziphumelele kwiPhondo laseMpuma Koloni nezazisekelwe kule ndlela yabalimi abancinci kwaye azaphumelela ngenxa yokungabi nazakhono ezizizo zolawulo.*
- d) *Isiphakamiso esiphathelele kwicandelo lemfuyo kwifama nganye siza kudinga ukuba iphuculwe imeko yemfuyo ekhoyo ngoku. Njengoko izityalo ezityiwa yimfuyo ezicetywayo ziya kuze zibekhona ngexesha lasebusika, kuya kudingeka ukuba kubekho isivumelwano sokutyisa imfuyo kunye nabanikazi bomhlaba balapho endaweni ukulungiselela ixesha lasehlotyeni.*
- e) *Akungekhe kwenzeka ukuba zonke iifama ezingama-45 zibe sezimile zisebenza ngexesha lonyaka omnye okanye emibini. Kucetyiswa ukuba ixesha lokuphumeza oku landiswe ukuya*

kwiminyaka emihlanu. Ukulungiselela uhlalutyo lweendleko neenzuzo ngokwezoqoqosho yaye yamkelwa into yokuba ifama iya kudinga amanye amaxesha onyaka amahlanu ukuze ikwazi ukuvelisa ngokupheleleyo futhi ikwazi ukuzimela ngokwasezimalini.

- f) *Ngaphantsi kweemeko zangoku zoqoqosho kwezolimo kumele yamkelwe into yokuba imali yokuqalisa ulimo, inkcitho yemali kunye nenkcitho yokwenza umsebenzi, kuya kumele yenziwe ngesibonelelo senkxaso-mali. Azingekhe zikwazi iifama ukuziqalela ekuqaleni kwanokuba urhulumente alindele ukuba zibhatale imali eyinkunzi yokuqalisa umsebenzi.*
- g) *Kuya kufuneka kubekho iindlela zenkxaso eyiyo ngokunxulumene nezolawulo kwanezemali ukuze izindululo ngokuphathelele kunkcenkceshelo zikwazi ukuphumelela.*

10. Isishwankathelo sovavanyo lwempembelelo

Nangona nje iprojekthi le yayihlolwe ngokupheleleyo, iyaqondwa into yokuba iimpembelelo ezinxulumene namacandelo awohlukeneyo olwakhiwo zinamaqondo awohlukileyo ngokokubaluleka. Iimpembelelo zamadama nolwakhiwo olunxulumene noko, ezoveliso lombane nolwakhiwo lokuwuhambisa, kwakunye nezolwakhiwo lweendlela zishwankathelwe apha ngezantsi.

10.1 Amadama nolwakhiwo olunxulumene noko

Ulwakhiwo lwamadama, kunye nolwakhiwo olunxulumene noko ngokungabhekiselele kuphi (kuquka ii-ofisi zolwakhiwo, ulwakhiwo lokuhanjiswa kwamanzi alungele ukuselwa nawemvula, iindawo ekwembiwa kuzo kunye neekwari, njalo njalo) ziya kuba neempembelelo ezinkulu ezingentlanga kwizinto eziphila ehlabathini nasemanzini, kwakunye nakwimigxobhozo. Ikakhulu ezi iya kuba ziimpembelelo ezisisigxina.

Iindawo eziselunxwemeni nakwimigxobhozo, kunye nezo zisezintabeni/ezinamatye angaphezu komhlaba kwakunye neHlathi i-Euphorbia kufutshane nodonga ledama laseLalini eliza kuba likhaya kwizityalo ezibuthathaka zendawo leyo, kuquka nazo naziphi na iintlobo zezityalo ezikuluhlu lezityalo ezisengozini kunye nezikhuselweyo ekungenzeka ukuba zikhona, ziya kutshabalala futhi nendawo elikhaya lazo elapho emlanjeni iya kutshintshwa ngokusisigxina. Le yimpembelelo ebonwa njengebaluleke kakhulu.

Ngaphezu koko, imigxobhozo kwindawo yophando inikezela ngeenkonzo ezibalulekileyo ezinxulumene nokuphila kwezinto njengoko ibamba intlenge yamanzi, ukuvuselela izondlo kunye nofunxa izinto eziyityhefu, ukunciphisa ifuthe lezikhukula kunye nokugcinwa kwimeko eyiyo kwezityalo nezilwanyana ezahlukeneyo. Xa kujongwa ukhukhuliseko lomhlaba noluba lukhulu kakhulu amaxesha amaninzi, kule ndawo yophando nakwindawo elidama elinamanzi emvula ngokubanzi, ukubanjwa kwentlenge kubalulekile. Ngenxa yoku ke, ukutshabalala kwendawo ekwimigxobhozo nelikhaya kwizilwanyana nakwizityalo ngokusisigxina ngokubangelwa kukugcwala kwamanzi yinto ebonwa njengebaluleke kakhulu. Ukutshabalala okukhulayo okulindelweyo kwendawo eselunxwemeni nekwimigxobhozo nelikhaya kwizilwanyana nakwizityalo nokubangelwa kukwakhiwa kwamadama kuqikelelwa ukuba kube ziihektare eziyi-1034.30. Nangona kunjalo ke kodwa, ngokubanzi ukutshabalala kwendawo eselunxwemeni nekwimigxobhozo nelikhaya kwizilwanyana nakwizityalo kubonwa njengento nje encinci

engabalulekanga kwizinto ezifumaneka kwimigxobhozo kwiNdawana Yolawulo Lwamanzi yaseMzimvubu.

KwiDama laseLalini, ukutshabalala okukhulu kwendawo elikhaya kwizilwanyana kuya kubangela ilahleko kwiintlobo-ntlobo zezilwanyana kunye nokohluka kwazo, njengoko izilwanyana ezi ziya kuyishiya indawo le, zizame ukuziqhelanisa nale ndawo intsha zingamanani amancinci, okanye zimke ngokupheleleyo kule ndawo yophando. Nangakumbi, ukutshabalala kwemigxobhozo, iindawo ezisemazantsi ezingamathafa engca, amatyholo asezingantabeni kunye neendawo ezinamatye akhula ngaphezu komhlaba kuya kuba nempembelelo ethe ngqo kumanani ezilwanyana ezikhuselweyo kwanezo zikuluhlu lwezo zisengozini.

KwiDama laseNtabelanga, eyona nxalabo yileyo ibhekiselele kwilahleko kumanani amahemu azalayo. Imigxobhozo kunye namathafa anengca kule ngingqi yeDama laseNtabelanga zisetyenziswa ngamahemu (lindwe, Amahemu Anobilo kunye nezinye iintlobo zamaHemu) azalayo kunye nokufulela. Amahemu zizilwanyama ezikuluhlu lwezo zisengozini, nekugrogriswa ngokupheliswa kwazo eMzantsi Afrika uphela; kananjalo akuluhlu lwe-IUCN lweentaka ezisengozini nezinamanani awehlayo ngokukhawuleza. Ukutshabalala kwemigxobhozo kunye namathafa engca kuchongwe njengenye yezinto ezinegalelo koku. Le mpembelelo ke ibonwa njengebaluleke kakhulu.

Iimpembelelo ezininzi ezichazwe apha ngasentla zisisigxina kwaye ke ngoko zidlulela nakwisigaba sokwenziwa komsebenzi.

ISicwangciso soVavanyo kokusiNgqongileyo, njengoko kuchaziwe kwiSebe Lemicimbi yokusiNgqongileyo, sicebisa ukuba naluphi na uGunyaziso ngokusiNgqongileyo lunyanzelise ukuba kufunyanwe iMvume Yokusetyenziswa Kwamanzi kwaye ilandelwe imimiselo yayo. IMvume Yokusetyenziswa Kwamanzi ithathela ingqalelo Ukugcinwa Kwamanzi, nequka iiMfuno Zamanzi Kwizinto Eziphilayo. IiMfuno Zamanzi Kwizinto Eziphilayo zibekwa ngeenjongo zokukhusela izinto eziphila emanzini naselunxwemeni olungasemlanjeni ngokuthi kubekwe imilinganiselo ngokunxulumene nokunxaxha kukuhaba kwamanzi ngokwendalo nekuya kuthi kwakube kudlulwe kuyo imilinganiselo leyo, impembelelo ibe yengamkelekanga.

Kolu vavanyo, iingcali kunye neSicwangciso soVavanyo kokusiNgqongileyo ziqikelele ukuba iiMfuno Zamanzi Kwizinto Eziphilayo, njengoko zichaziwe kwimimiselo Yokugcinwa Kwamanzi iya kulandelwa ngexesha lesigaba sokwakha kunye neso sokusebenza. Ukuthotyelwa kweeMfuno Zamanzi Kwizinto Eziphilayo kuya kuqinisekisa ukuba ngamanzi awaneleyo aya kwiiNgxangxasi zaseTsitsa ukukhusela iindonga ezazisoloko zikho apho nezathi zaqatshelwa apho kwiiNgxangxasi ukuba zingachatshazelwa ngendlela engentlanga, kwaye nokuba umlambo ongezantsi komzimveliso wokuvelisa umbane uhlala ugcinwa ukwimeko eyamkelekileyo ngokophathelele kukuphila kwezinto.

Ezona mpembelelo zimandla kwezintlalo kunye nakuqoqosho nezinxulumene nokwakhiwa kwamadama zibandakanya ukususwa kwabantu basiwe kwezinye iindawo zokuhlala, ukufika apho endaweni kwamanani aphezulu abasebenzi abasebenza kulwakhiwo, kunye nobungozi

kwaneenkathazo ezinxulumene nemisebenzi yokwakha. Ezi mpembelelo zingaziziphazamiso ezikhulu kakhulu kubahlali bendawo kwaye kumele ukuba zilawulwe ngobunono futhi kuzanywe ukuba zincitshiswe.

Ngokwamakhaya kunye neempahla ezichaphazelekayo, izakhiwo ezingama-62 kunye nomhlaba olinyiweyo oyi-19.9 km² zikwindawo yengingqi yeDama laseNtabelanga kwaye ke kuya kufuneka ukuba zisiwe kwezinye iindawo okanye zibuyekezwe. Kwisiza seDama laseLalini, izakhiwo ezili-12 kunye nomhlaba olinyiweyo oyi-7.6 km² ukwingingqi yedama eli (indlela engenye yoku-1).

Ngokunxulumene neendlela ezicetywayo zemibhobho yamanzi alungele ukuselwa kunye nawemvula, izakhiwo eziyi-124 zikwiindawo eza kuhamba imibhobho yamanzi. Linani elikhulu eli, kodwa ke inako ukujikwa imibhobho le yamanzi ihambe kwenye indawo ngesigaba soyilo olubanzi ukuzama ukuluphepha uninzi lwezi zakhiwo kananjalo kuncitshiswe, okanye ipheliswe ngokupheleleyo imfuneko yokususwa kwezinto zisiwe kwezinye iindawo kwakunye neempembelelo ezingentlanga kwezentlalo.

Ubuninzi bemibhobho yamanzi ecetywayo bukwindawo elungisiweyo elikhaya kwizityalo nezilwanyana futhi ulwakhiwo luya kuba nempembelelo esezantsi kakhulu kwizinto eziphila ehlabathini nasemanzini kunye nakwimigxobhozo, xa nje zilandelwe iindlela zokunciphisa impembelelo ezichazwe kwi-EMPR. Ezi ndlela, phakathi kwezinye, ziquka ukujikwa kweendlela ezincinanana zihambe kwezinye iindawo ukuphepha imithi ekhuselweyo, kwakunye nokujikwa kweendlela ngeenjongo zokuphepha imigxobhozo, xa kukwazeka.

Umlambo iTsitsa ungenisa ipesenti encinci yamanzi angena kuMlambo iMzimvubu nathi aye kufika kwichweba lomlambo. Inkqubo yeNtabelanga/Lalini iya kusoloko isetyenziswa ngendlela elandela iiMfuno Zamanzi Kwizinto Eziphilayo emazantsi komzi-mveliso wokuvelisa umbane, ngokwemithamo yokuhamba kwamanzi esezantsi kunye nephezulu. Kananjalo akulindelekanga ukuba iprojekthi ibe negalelo kubulunga bamanzi. IDama laseNtabelanga nelaseLalini omabini makhulu ngendlela yokuba aya kuzixhasa iiMfuno Zamanzi Kwizinto Eziphilayo kwakunye Nobona Bume Bububo bechweba lomlambo, njengoko kuchaziwe kwimimiselo ephathelele kumachweba amanzi kwiNdawo Yokugcinwa Kwamanzi. Impembelelo kwichweba lomlambo ke ngoko kuqikelelwa ukuba iya kuba ncinci kakhulu.

Uhlalutyo lweMpembelelo kwiMeko yezoQoqosho lwafumanisa ukuba ngexesha elixakeke kakhulu lolwakhiwo, iDama laseNtabelanga liya kuvelisa amathuba athe ngqo emisebenzi ayi-2 299 awakhiwe apha kwiPhondo, namanye angathanga ngqo ayi-843 kwanemisebenzi ekhuthazwe nje yiprojekthi le eyi-1 036. Kula mathuba emisebenzi ithe ngqo aqikelelwa kwi-1 057 aya kuba yeyabantu abanezakho ezithile ize ayi-771 abe ngawabantu abanezakhono ezingatheni nekumele ukuba baqeshwe kubantu abahlala kwindawo leyo. Kukho impembelelo entle kwi-GDP exabisa ukuya kutsho kwimali eyi-R282.7 miliyoni. Amakhaya anemivuzo esezantsi nawo ayakufumana imali eyonke eyi-R82.42 miliyoni kuleyo iyi-R528.11 miliyoni iyonke.

Nangona kuzobe kulixeshana elifutshane, umsebenzi wokwakha kwiDama laseNtabelanga uza kuba negalelo elikhulu kuqoqosho lwalo mmandla kunye nolwephondo.

Ulwakhiwo olucetywayo leDama laseLalini kwakunye nomzi-mveliso ovelisa umbane ohambelana noko nako kuza kuba negalelo elikhulu kakhulu kuqoqosho. Ngexesha elixakeke kakhulu lokwakhiwa kwedama kuya kuvela imisebenzi ethe ngqo eyi-815 nengathanga ngqo eyi-491 kwaneyi-604 ekhuthazwe nje yiprojekthi le neya kuba negalelo kuqoqosho lephondo. Kulo misebenzi ithe ngqo kuthelakelelwa ukuba eyi-375 iya kuba yileyo idinga izakhono ezithile ngelixa eyi-273 iyakuba ingadingi zakhono zingako, kwaye abantu abaninzi kuyo baya kuqeshwa kubahlali bendawo leyo. Kukho impembelelo entle kwi-GDP enxabiso eliya kutsho kwimali eyi-R164.6 miliyoni. Amakhaya anemivuzo esezantsi kulindeleke ukuba afumane imali eyonke eyi-R52.38 miliyoni kuleyo iyi-R335.64 miliyoni iyonke yegalelo kumakhaya.

Ngexesha lokuba sele esebenza, omabini amadama la aya kunikezela ngeenzuzo ngokungathanga ngqo ngokunxulumene nezentlalo kunye nezoqoqosho kwindawo le, kwiphondo kunye nakwilizwe lonke, njengoko amanzi anikezela ngawo aya kwenza ukuba kukwazi:

- *Ukunikezelwa ngamanzi alungele ukuselwa ezindlini kumakhaya amaninzi akwindawo yeprojekthi nangaphaya kwayo, nanto leyo eya kuba nempembelelo entle ethe ngqo kumgangatho wempilo wabazuzi bamanzi lawo;*
- *Ukuvelisa icandelo lolimo neliza kuthi likwazi ukwenza igalelo elibonakalayo kuqoqosho lendawo le kwakunye nelephondo; kunye*
- *Nokunikezelwa ngombane ukuze kwehliswe uxinzelelo kwigridi kwazwelonke kananjalo kunikezwe ngenkxaso yemali enxulumene neendleko zamanye amacandelo eprojekthi le.*

Icandelo leprojekthi lonkcenkceshelo liya kwenza igalelo ngokwasezimalini eliqikelelwa kwi-R129.3 miliyoni ngonyaka kwi-GDP kwakunye nemali eyingeniso kumakhaya eyi-R146.6 miliyoni xa iyonke nalapho i-R38.6 miliyoni iya kuba yeyamakhaya anemivuzo esezantsi. Amathuba emisebenzi esisigxina ewonke aqikelelwa kwi-1 976 nalapho i-1 301 isezifama ngqo.

Kodwa ke, icandelo leprojekthi lezolimo kungenzeka ukuba lize nemisebenzi eyongezelelweyo kwabasetyhini njengoko kuza kufuneka benze imisebenzi ethile efana nokulima.

10.3 Uveliso nokuhanjiswa kombane

Xa kusakhiwa, eyona mpembelelo iphambili kulwakhiwo loveliso kunye nokuhanjiswa kombane inxulumene nokwakhiwa kwetonela/umbhobho weengcingo zombane kunye nomzi-mveliso wokuvelisa umbane. Ngokuphathelele kukufakelwa kweentambo zombane ezinxulumanisa umzi-mveliso wokuvelisa umbane oseLalini kunye negridi, zintathu iindlela ezingezinye ezathi zaqwalaselwa kwaye zichazwe ngokubanzi apha ngezantsi.

Xa sele esebenza amadama, eyona nxa labo iphambili yileyo inxulumene nokujikwa kwendlela yendalo yokuhamba kwamanzi kwakunye namaqondo amanzi kuMlambo iTsitsa ngenxa yokukhutshwa kwamanzi ngetonela/ umbhobho weengcingo zombane wokuvelisa umbane. Oku kubeka engozini indawo eselunxwemeni elikhaya kwizityalo nakwizilwanyana futhi kuchaphazela ukukwazi kwendawo eselunxwemeni ukuxhasa izinto ezahlukeneyo eziphila apho, kunye neempembelelo ezingezinye kwizilwanyana ezibuthathaka ngokuphathelele kukuhamba kwamanzi, inxalabo ngokubhekiselele kulondolozo lwezilwanyana ezahlukeneyo kunye nezinto

ezahlukeneyo eziphila emanzini ngokubanzi. Kumele zilandelwe maxa onke iimfuno Zamanzi Kwizinto Eziphilayo ukuze bulawulwe ngokukuko obu bungozi. Emva kokuba kwenziwe iindlela zokunciphisa impembelelo, kulindeleke ukuba impembelelo ibe sezantsi kakhulu naphakathana.

Impembelelo kwezempilo ebangelwa ngamaza okuhamba kombane okusuka apho kwiintambo zombane ithe yaqwalaselwa. Ngakwicala lezentlalo, ubungozi, okanye ubungozi obubonwayo, bubonwa njengeyona mpembelelo yeentambo zombane xa sele esebenza amadama la. Kuya kuthathwa amanyathelo okulumkela futhi kungavunyelwa ukuba kubekho abantu abahlala okanye abenza imisebenzi kwiindawo ezineentambo zombane.

Ngokuphathelele kwicandelo leprojekthi le lokuveliswa kunye nokuhanjiswa kombane, eyona nzuzo iphambili iya kuba yingeniso enkulu eyakwenziwa ngenxa yokuthengiswa kombane onokuhlaziywa, kwakunye nokufakwa kwalo mbane kwigradi kazwelonke.

10.3 Iindlela

Ngokubanzi, ukuphuculwa kweendlela, kwakunye neendlela ezintsha zokufikelela ezindaweni kunye nokujikwa kwazo zihambe kwezinye iindawo, ngokungephi, kuya kuba nempembelelo esezantsi okanye esezantsi kakhulu kwizinto eziphila ehlabathini nasemanzini kunye nakwimigxobhozo, ukuba ngaba ziphunyezwe ngokukuko iindlela zokunciphisa impembelelo.

Kodwa ke, ukwakhiwa kweendlela ezintsha kwindawo ekufuphi nodonga leDama laseLalini (ukutsho oko, iindlela zezithuthi ezithutha izinto), kwakunye nendlela yokufikelela kumzi-mveliso waseLalini wokuvelisa umbane kukwiindawo ezibuthathaka kakhulu ngokubhekiselele kwizilwanyana zendawo leyo kunye nakwiintyatyambo, ngoko ke kuya kuba nempembelelo engentlanga kakhulu. Kufanele kuqwalaselwe iindlela ezingezinye zokufikelela kumzi-mveliso wokuvelisa umbane nezinokuthi ziyiphephe impembelelo kule ndawo ibuthathaka. Kucetyiswa ukuba kwenziwe uphando lokukhangela iindlela zokuhlangula yingcali eqeqeshiweyo ngaphambi kokuba kuqaliswe ukwakhiwa kwendlela yezithuthi ezithutha izinto kunye neyokuya kumzi-mveliso wombane.

Xa sele esebenza amadama, iindlela ziya kubangela ubungozi bokuba izilwanyana zitshayiswe ziimoto, nanto leyo engekhe iphetshwe ngokugqibeleleyo.

Ngokwezentlalo, izakhiwo ezingama-26 zikwindawo yeendlela ezicetywayo futhi kungadingeka ukuba zisuswe izakhiwo ezi zisiwe kwezinye iindawo. Indlela ekhethwayo yokuphepha oku kukuba iindlela ezi zijikwe zihambe kwezinye iindawo ukuzama ukuphepha kangangoko ezi zakhiwo khon' ukuze kuncityiswe imfuneko yokususwa kwezi zakhiwo okanye ingabikho kwaphela, kananjalo nokuthintela nezinye iimpembelelo kwezentlalo ezinxulumene noko.

Ukujikwa kweendlela zihambe kwezinye iindawo, iindlela ezintsha neziphuculiweyo konke oku kuya kwenza ukuba kube lula ukufikelela kwiindawo ezifumana le nkonzo nanto leyo inokuthi iphucule uphuhliso kwezoqoqosho nokuba ngaba kungendlela engathanga ngqo. Kwelinye icala, oku kungakhawulezisa kuzise iindlela zokuphila zezinye iindawo kwindawo le, kwakunye

notshintsho kwiindlela eziqhelekileyo zokwenza izinto apha endaweni kunye nakwinkcubeko yakhona.

10.4 Uvavanyo lokuthelekisa iindlela ezingezinye

- **Indlela yokuelisa umbane eyiyeyona ikhethwayo**

IiMfuno Zamanzi Kwizinto Eziphilayo ziye zamiselwa ukukhusela izinto eziphilayo ezikwindawo ephakathi emanzini kunye nezo ziselunxwemeni ngasemlanjeni ngokuthi kumiselwe imilinganiselo ekumele kungadlulwa kuyo xa kukho ukuphambuka kwindlela eqhelekileyo yokuhamba kwamanzi nekuya kuthi xa kuthe kwadlulwa kuyo ingamkeleki impembelelo. Nokuba yeyiphi na indlela yokuelisa umbane ethi ibe neziphumo ezizezona ziphezulu ngokwengeniso yezemali ngelixa ngaxeshanye izifezekisa iiMfuno Zamanzi Kwizinto Eziphilayo, yiyo ke ngoko ekhethwayo. Kusadinga ukuba kuqinisekiswa oku.

- **Indlela engenye yetonela/yeentambo zombane neyiyeyona ikhethwayo**

Uvavanyo lwezinto eziphila emanzini lwafumanisa ukuba ukuze yehliswe indawo yempembelelo ngokunxulumene nentlenga yomhlaba nokuqokelelana kwayo kunye nokwehla kobulunga bamanzi kwakunye nokukhula kwezityalo ngokugqithisileyo, indawo eyiyeyona imfutshane phakathi kwedonga ledama kwakunye nendawo yokukhuphela amanzi kufuneka ibe yeyona ikhethwayo (ukutsho oko, Indlela Engenye yoku-1: itonela emfutshane yoveliso-mbane kunye neentambo zombane ezinxulumene noko). Kodwa ke, zikhona iziphako eziyingozi ezithe zabonwa kule Ndlela Ingenye yoku-1 ngokuphathelele kwizilwanyana zendawo leyo, iintyatyambo, kunye neempembelelo kukubonakala kwezinto. Okuqapheleka kakhulu kukuba, iintambo zombane zinqumla kwiindawo ezinkulu ezinezityalo kunye nemithi eyiyeyendawo leyo kwakunye nekhuselweyo, kwaye impembelelo kwindawo esezintabeni kunye nakwindawo engumwonyo elikhaya kwizilwanyana zendawo leyo zange ibonwe njengenokubakho.

Emva kokuba kwenziwe uvavanyo kokusingqongileyo Indlela Engenye yoku-1 neyesi-2 (nezinxulumene neetonela ezibude obufutshane kunye nobuphakathi) zaye zakhutshwa liqela lezobugcisa ngenxa yokuba kukho imiwonyo enzulu emqengqelezi neyenza ukuba kungakwazi ukufikeleleka kwindawo ezakuba nezibane zasemini zetonela kunye nomzi-mveliso wokuvelisa umbane. Nangaphezulu, Indlela Engenye yoku-1 neyesi-2 zaziya kuba nendawo encinci ephakathi kwalapho asuka khona amanzi kunye nenjini yokuelisa umbane, nanto leyo ke eyenza kwashiyeka Indlela Engenye yesi-3 kuphela.

Indlela Engenye yesi-3 (nenxulumene nowona mbhombho wamanzi/itonela kunye neentambo zombane ezizezona zinde) ngokwendlela ecetywa ngayo njengangoku, inempembelelo enkulu kakhulu ngokwembonakalo kwaye inqumla kwiindawo ezingamakhaya kwiintyatyambo ezibuthathaka. Kwaye kwacetyiswa ukuba itshintshwe indlela ezihamba kuyo ezi ntambo zombane ukuze kuphetshwe ezi ndawo zibuthathaka ngokunxulumene nezinto eziphilayo kwakunye nezinto ezibonakalayo. Indlela yeentambo zombane ecetyiswa kwiSicwangciso soVavanyo lokusiNgqongileyo iboniswe ku**Mboniso 3**.

- **Ubukhulu beDama laseLalini obubobona bukhethwayo**

Ngokunxulumene neDama laseLalini, ubukhulu obathi baqwalaselwa bohlukenene kathathu.

Ubukhulu bedama obubobona buncinci (Indlela Engenye yesi-2) bobona bukhethwayo ngenxa yezizathu eziliqela. Okokuqala, ngokobu bukhulu awumkhulwanga umhlaba olinyiweyo oya kuthi utshatyalaliswe kwaye nezakhiwo eziya kutshatyalaliswa zimbalwa (ukutsho oko, yindawo enye yokuhlala kunye nomhlaba olinyiweyo oyi-4.9km², xa kuthelekiswa nezakhiwo ezili-12 kunye nomhlaba olinyiweyo oyi-7.6km² oya kutshatyalaliswa ngokweNdlela Engenye yoku-1 ekhethwayo ngezobugcisa) ngoko ke iyeyona ndlela ikhethwayo xa kuthathelwa ingqalelo ezentlalo. Okwesibini, iya kubangela ukuba kube kuncinci kakhulu ukutshabalala okuthe ngqo kwendawo esemigxobhozweni elikhaya kwizilwanyana nakwizityalo, ngoko ke ibonwa njengeyona ndlela ingcono ngokunxulumene nolondolozo lwemigxobhozo. Okwesithathu, iya kubangela ukuba ibe ncinci indawo eneentyatyambo nezityalo eziziintyatyambo kwanendawo engamakhaya kuzo eyakuthi igcwaliswe ngamanzi, ngoko ke iyeyona ndlela ikhethwayo ngokunxulumene nempembelelo kwizityalo eziziintyatyambo. Okokugqibela, nangona zonke iindlela ezingezinye ezi-3 zokwahluka kobukhulu bedama ziya kukhokelela kwimpembelelo eqinisekileyo kubuninzi bezilwanyana zendawo leyo ezisebungozini, ezibuthathaka nezikhuselweyo. Indlela Engenye yesi-2 ibonwa njengeyona inempembelelo esezantsi kwizilwanyana zendawo leyo ezikuluhlu lwezo zilwanyana zisebungozini.

Nangona kuqatshelwe oku, akukho bungozi bungako okanye ziphako zinobungozi ezathi zafunyaniswa ngokweNdlela Engenye yoku-1 ekhethwayo ngokwezobugcisa (ukutsho oko, idama elibukhulu obuphakathi). Indlela eyiyeyona ikhethwayo ngokwezobugcisa iyamkelwa ke ngoko ngokuthi kuqinisekiswe ukuba ziyalandelwa ziphunyezwe iindlela zokwehlisa impembelelo kwezentlalo ngokunxulumene nabahlali abangabafiki kunye nabo bendawo leyo, kwakunye neempembelelo kwizinto eziphilayo nakwimigxobhozo.

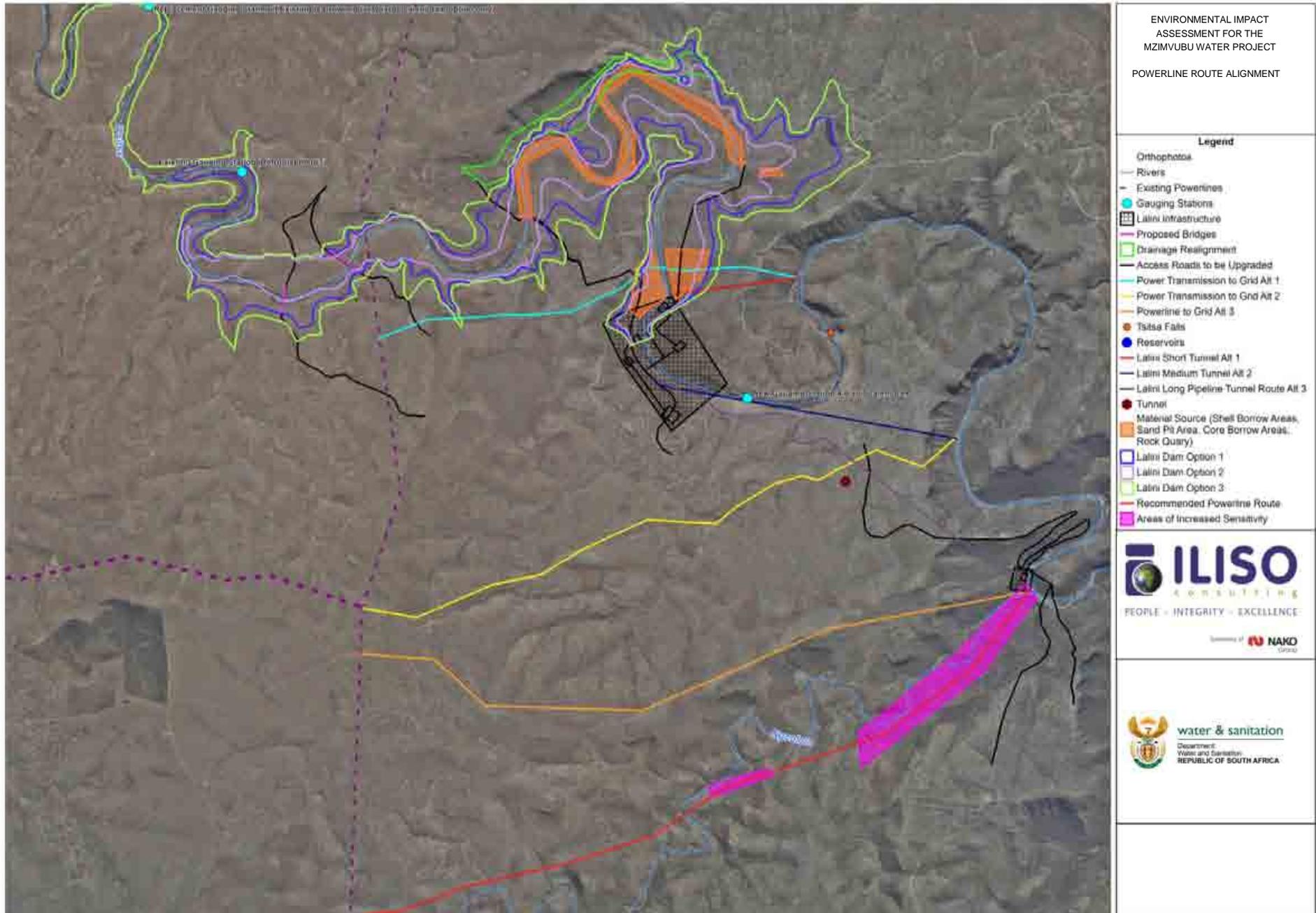
Njengoko uyilo olubanzi lweDama laseLalini lungekaqosheliswa, iSicwangciso soVavanyo kokusiNgqongileyo sicebisa ukuba ubukhulu ekugqitywe kubo bedama kumele bube phakathi kobo beNdlela Engenye yoku-1 neyesi-2 (ukutsho oko, iQondo Eligcwele Ngokupheleleyo eliphakathi kwe-752.42 mamsl kunye ne-763.61 mamsl).

- **Indlela yokuba ingabikho iprojekthi**

Indlela yokuba ingabikho iprojekthi kwaphela iya kwenza ukuba izinto zihlale ngendlela eziyiyo ngoku.

Ezi zinto zilandelayo kumele ziqatshelwe ke kodwa:

- Nangona kungekho kutshabalala okanye kwehla kumanani ezilwanyana nezityalo ezibuthathaka kunye nakwiindawo ezingamakhaya azo okulindelekileyo, iimpembelelo ezikhoyo njengangoku ezifana namadlelo adliwe ngokugqithisileyo yimfuyo kunye nokwanda kwezinto ezingezizo ezendawo leyo ndawonye nezinto eziselunxwemeni ziya kuqhubeka. Ngoko ke imeko yokuphila kwezinto kwezi ndawo ayisayi kuba ngcono ukuba ngaba kulandele indlela yokuba kungabikho projekthi kwaphela.



kuMboniso 3: Indlela yeentambo zombane neyiyeyona ikhethwayo

- Akukho kutshabalala kweendawo ezingamakhaya kwizilwanyana zendawo leyo kunye nakwizilwanyana ezikuluhlu lwezo zisebungozini kunye nezikhuselweyo okulindelweyo. Oku kumele ukuba kubonwe njengokuphikisanayo nempembelelo eqinisekileyo kubukhulu bamanani ezilwanyana zendawo leyo ezisebungozini, ezibuthathaka kunye nezikhuselweyo nokubangelwa kukwakhiwa kweDama laseLalini.
- Ngokuphathelele kwizinto eziphila emanzini, indlela yokuba kungabikho projekthi kwaphela iya kuqinisekisa ukuba akukho lutshintsho lukhoyo ngokubhekiselele kwizinto eziphilayo nalapho iindawo zangoku ezisematyeni kumanzi acwengileyo ahamba ngokukhawuleza ziya kuhlala zinjalo.
- Kulindeleke ukuba iindawo ezikwimigxobhozo ezingamakhaya kwizilwanyana nakwizityalo ziya kutshintsha ngenxa yeempembelelo ezithe gqolo zezinto ezenziwa ngabantu kwindalo ezifana nokususwa kwezityalo, ukulinywa kwezityalo kwiindawo ezikwimigxobhozo, njalo njalo. Kananjalo, ngenxa yokukhukhuliseka komhlaba kule ndawo yophando kwakunye nakwindawo elidama elinamanzi emvula, kulindeleke intlenge yomhlaba ezaya kungena kwimigxobhozo kunye nakwiindawo eziselunxwemeni, nanto leyo ekunokwenzeka ukuba ikuguqule ukuhamba kwamanzi okuqhelekileyo apha kwimigxobhozo nakwiindawo eziselunxwemeni, futhi ifuthanisele izityalo kunye nezilwanyana ezingenamqolo eziphila emanzini.
- Akukho zimpembelelo ezingentlanga eziya kuthi zibekho kwizinto ezingamagugu esizwe. Nangakumbi, abahlali abasayi kwenzakala ngokwasemoyeni ngokunxulumene nokususwa kwamangcwaba ookhokho babo asiwe kwezinye iindawo. Ngokuphikisayo, ulwazi lezenzululwazi oluhambelana nezinto ezifana neziza zamandulo luya kuhlala lungaziwa kude kufunyanwe okanye kude kube kufunyenwe inkxaso-mali yokwenza uphando kwenye indawo.
- URhulumente unesibophelelo sokuba aphucule iimeko zokuphila zabo bahluphekayo kwaye, ngokwemimiselo yoMqulu Wamalungelo, athathe amanyathelo afanelekileyo ukuqinisekisa ukuba bonke abemi belizwe baneendawo zokuhlala ezisisiseko, bafumana unakekelo lwezempilo, ukutya, amanzi, ukhuseleko ngokwezentslalo, imfundo kunye nendawo abahlala kuyo eyamkelekileyo. Nangaphezu koku, uMzantsi Afrika unepolisi ngokoMgaqo-siseko nangokwenqanaba lepolisi, elithathela ingqalelo ilungelo lomntu lokufumana amanzi Indlela yokuba kungabikho projekthi kwaphela ibiya kuphikisana nezi zibophelelo zikaRhulumenye njengoko iSebe Lamanzi Nococeko kunye nePhondo laseMpuma Koloni beliya kuphoswa lithuba lokongeza izibonelelo zamanzi apha endaweni lize ke ngalo ndlela linikezele ngamanzi okusela ezindlini kwakunye nawokunkcencshela. Ngaphezu kokuphoswa leli thuba lokunikezela ngamanzi, kananjalo bekuya kulahleka ithuba lokwakha amathuba emisebenzi, enganxulumenanga kuphela nokwakhiwa kunye nolwakhiwo lwamadama, koko akwanxulumene noveliso olungathi lubekho lenkqubo yonkccencshelo. Nanjengoko indawo le iyenye yeendawo ezinophuhliso olusezantsi kakhulu futhi iyenye yeendawo ezihluphekayo elizweni, ukulahlekelwa ngala mathuba bekuya kuba neziphumo ezikhulu kakhulu ngokwezentslalo. Nanjengoko uMlambo uMzimvubu uyeyona ndawo yamanzi inkulu engaphuhliswanga elizweni,

nakuphi na ukuphoswa ziinzuzo ezinxulumene nokusetyenziswa kwalo mlambo ibiya kuba yinto enkulu kakhulu elizweni.

11. Iindlela eziphambili zokunciphisa impembelelo /i-EMPR nokwehliswa kwamandla empembelelo

Ngokusekelwe koko kwathi kwafunyaniswa kuVavanyo lweMpembelelo kokusiNgqongileyo, kuye kwaqulunqwa i-EMPR. I-EMPR equlunqwayo ichaza indlela eziza kulawulwa ngayo futhi zinciphiswe ngayo iimpembelelo ezingentlanga kokusingqongileyo, kwanokuba ezo mpembelelo zintle zona ziza kwandiswa njani na, ngaphambi kokwakha, ngelixa lokuba kusakhiwa kunye nasemva kokwakhiwa.

11.1 Iindlela eziphambili zokunciphisa impembelelo

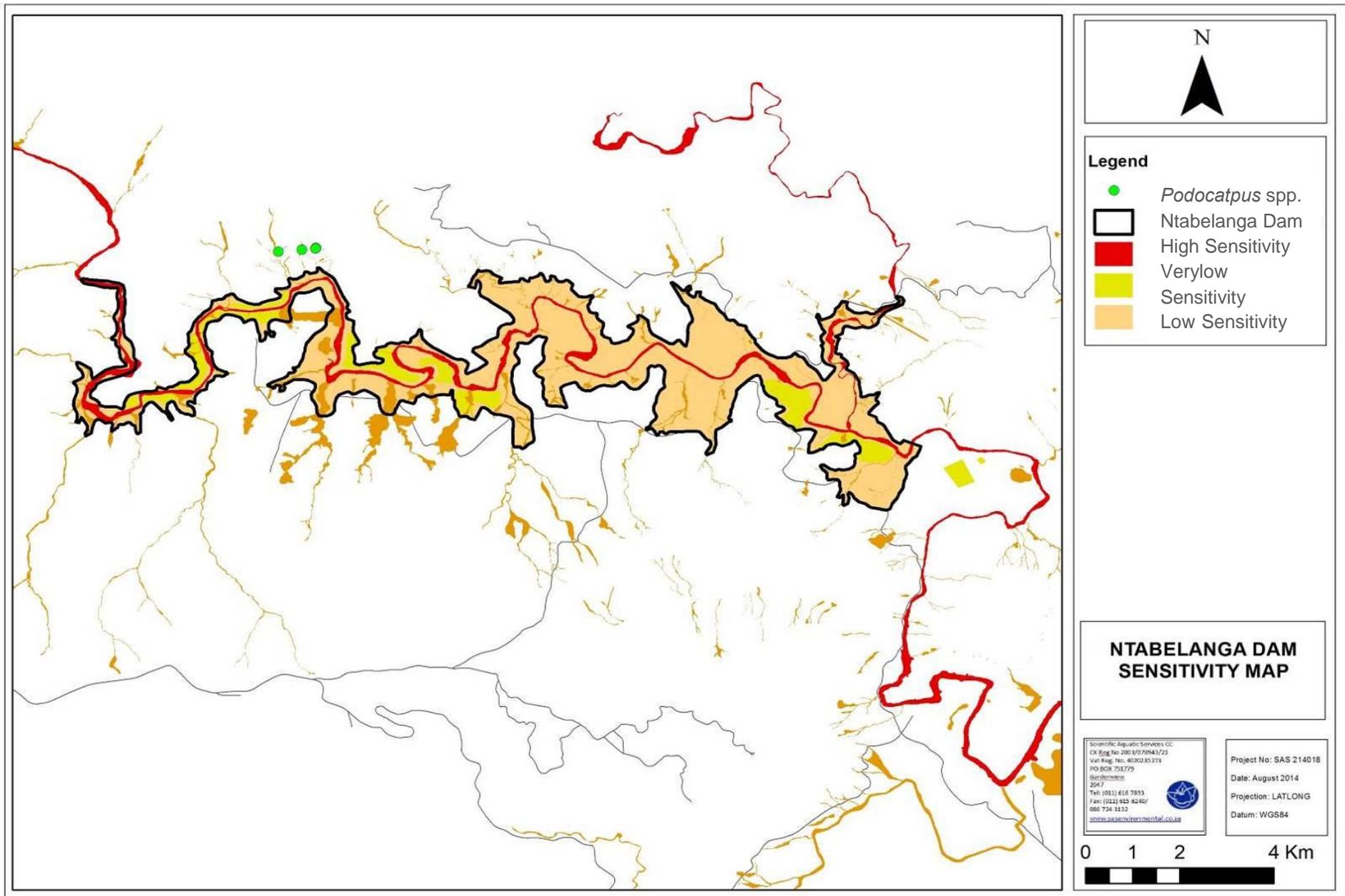
Nangona ziliqela iindlela ezibanzi zokunciphisa impembelelo ezithe zachazwa kwi-EMPR, ezi ndlela zilandelayo zokunciphisa impembelelo zizo ezichongwe njengezona zibalulekileyo ekunciphisweni iimpembelelo ezinkulu kokusingqongileyo, kwaye ukulandelwa kwezi ndlela zokunciphisa ngumbandela obekiweyo ekumele ufezekiswe ukuze ikwazi ukuqhubeka iprojekthi.

• Iindlela eziphambili zokunciphisa impembelelo ekufanele ziphunyezwe ngexesha lesigaba saphambi kokwakha

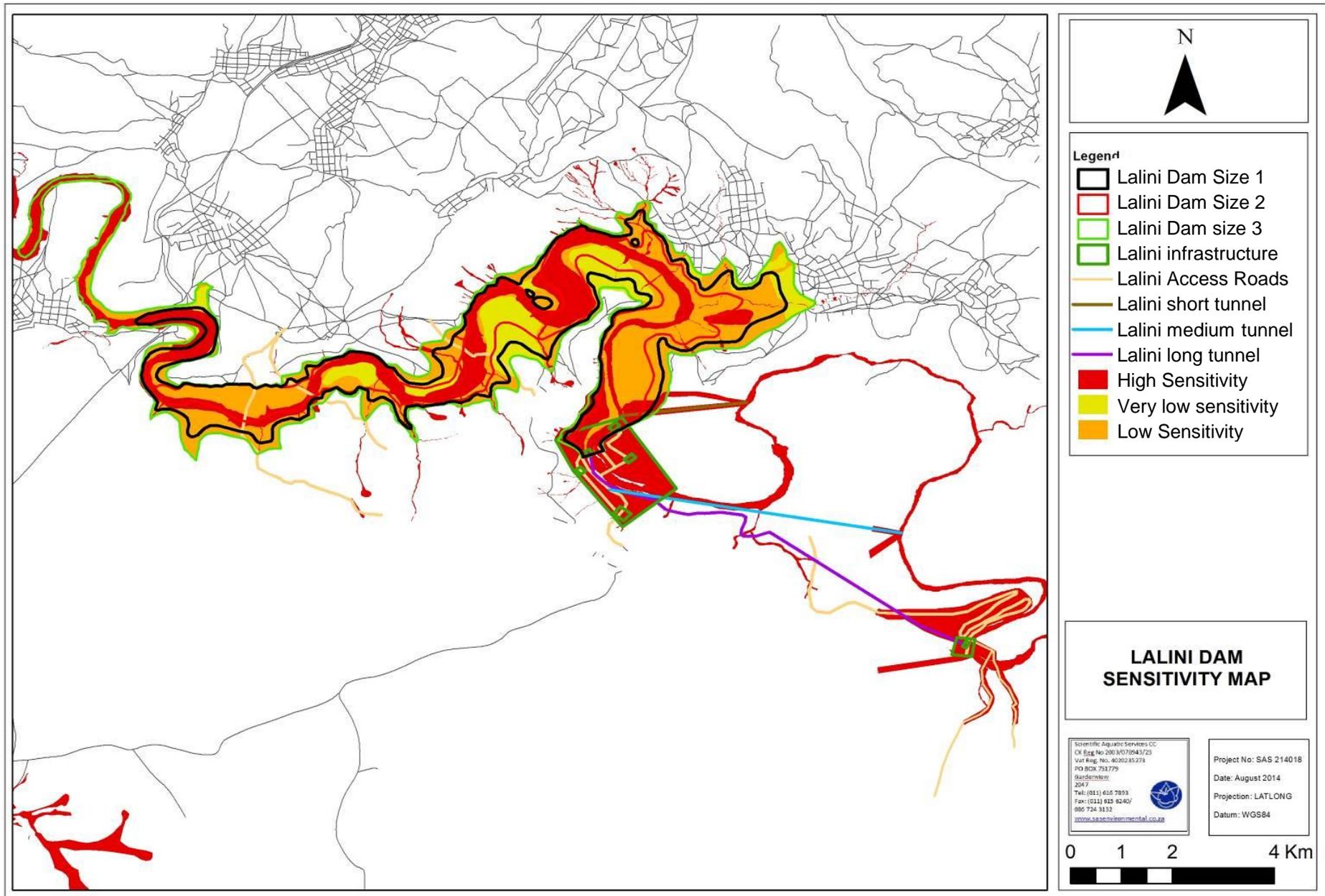
- *Kufuneka kwenziwe uphando kwiindawo ezichatshazelwa yindlela yokufikelela kumzi-mveliso wokuvelisa umbane kwakunye neendlela ezihamba izinto ezithutha izinto ngaphambi kokuba kususwe izinto. Kufuneka kukhangelwe futhi kusindiswe izityalo ezifumaneka kwindawo leyo kuphela, oku kwenziwe yingcali eqeqeshiweyo. Iintlobo-ntlobo zeentyatyambo kufuneka zisuswe zisiwe kwezinye iindawo ezifana nezo bezikuzo nezingakhula kuzo, ngaphandle kweendawo zolwakhiwo olu.*
- *Indlela ehamba izinto ezithutha izinto nenxulumanisa iindawo ekwembiwa kuzo ukuya kwisiza sokwakha seDama laseLalini kufuneka iguqulwe ihambe kwenye indawo ukuthintela ukuba inganqumli kwidolophu yaseLalini.*
- *Iintlobo-ntlobo zemithi ekhuselweyo i-Podocarpus fulcatus kunye ne-P. latifolius zazikwindawo esecaleni kwezo kuhlelwe ukuba kuphuculwe iindlela kuzo. Kufanele kuqinisekiswa oku kulandelayo:*
 - *Xa kusenzeka, iindlela zitshintshwe zihambe kwiindawo ekungekho iintlobo zemithi ekhuselweyo kuzo, ukuthintela ukugawulwa kwakunye nokutshatyalaliswa kwemithi leyo;*
 - *Kwiindawo apho iza kuthi iphazanyiswe imithi ekhuselweyo, kumele kuqinisekiswa ukuba iyasuswa (xa kusenzeka) isiwe kwezinye iindawo eziza kukulungela ukukhula kwayo; futhi*
 - *Kufunyanwe izicelo zeemvume kumagunya afanelekileyo.*
- *Ukusindiswa nokususwa kweentlobo zezityalo ezibalulekileyo ngokwezempilo zisiwe kwezinye iindawo, kunye nezityalo ezikuluhlu lwezo zisebungozini kunye nezikhuselweyo kubalulekile ukunciphisa iimpembelelo ezibangelwa kukugcwala ngamanzi.*

- *lintlobo zezilwanyana ezizezendawo leyo nezikuluhlu lwezilwanyana ezisengozini okanye ezo zilwanyana kukho inxalabo ngokuphathelele kulondolozo lwazo nezithe zafunyanwa kwindawo leyo ikummandla wolwakhiwo kufanele zisuswe zisiwe kwindawo ezingahlala kuyo ekwafana naleyo nekufutshane nendawo yophando leyo kusetyenziswa uncedo lengcali efanelekileyo neqeqeshiweyo.*
- *Akukho kuzingela okanye ukubanjiswa kwezilwanyana ezifumaneka kwindawo leyo ekufanele kwenziwe.*
- *Indawo ekuza kwenzeka kuyo ulwakhiwo kufuneka ihlale incinci kangangoko, ingakumbi kwiindawo ezibuthathaka ezingamakhaya kwizityalo nakwizilwanyana.*
- *Izinto ezifumaneka emilanjeni kufuneka zibekelwe iliso kuthi ukuba kukho naziphi na iindlela ezithile zokwenza izinto eziqaphelekayo nalapho iimpembelelo kwizinto ezifumaneka emilanjeni zibonakalisa ukungamkeleki, kwenziwe iindlela zokunciphisa iimpembelelo ezo ngoko nangoko.*
- *Kufuneka kwenziwe uphando olusisiseko ngokunxulumene nengxolo, ubulunga bomoya kwakunye nobo bamanzi.*
- *Kumele kwenziwe uphando yingcali eqeqeshiweyo ukukhangela ukuba naziphi na izityalo ezixhomekeke kwiingxangxasi ezikwindawo engumwonyo kunye neliliwa kungakho impembelelo enkulu na kuzo kwanokuba kudingeka ukuba zisuswe zisiwe kwenye indawo na. Konke okuthe kwafunyaniswa kuphando olo kufuneka kuphunyezwe.*
- *Iindawo ezinobuthathaka obukhulu njengoko kubonakalisiwe kwiimephu ezenziweyo ezibonisa iindawo ezibuthathaka (**Umboniso 4 no 5**) kufuneka ziphetshwe kangangoko xa kusenzeka ngokuphathelele kulwakhiwo ukuzama ukunciphisa indawo yolwakhiwo kwiindawo ezineengxangxasi. Apho kungakwaziyo ukwenzeka, iindlela zokunciphisa impembelelo (njengokuqinisekisa ukuba uyilo lweendawo ezinqumlayo aluyitshintshi imeko yomhlaba weendawo eziyimigxobhozo njengoko kuchaziwe kwi-EMPR) kufuneka ziphunyezwe.*
- *Kufuneka kufakwe izinto zokuxhasa imibhobho yamanzi ngaphandle kwezinto eziselunxwemeni, imigxobhozo esezantsi kunye nakwimibhobho yamanzi akhutshelwa ngaphandle. Xa kuthe kwayimfuneko ukuba zifakwe ezo zinto zokuxhasa kwezi ndawo, indlela eziyilwe ngayo ezo zinto zokuxhasa kufuneka iqinisekise ukuba kuyehliswa ukuhamba kwamanzi ngamandla, khon'ukuze kuthintelwe ukhukhuliseko lomhlaba kwindawo engezantsi. Akukho zipali zokuxhasa kudingeka ukuba zibekwe kwimijelo esebenzayo. Ukuze kwenzeke ngokukuko oku, konke ukunqamleza okwenzeka kwimigxobhozo kufuneka kwenzeke kwi-engile elungileyo xa kukwazeka ukwenzeka oko.*
- *Kwiindawo apho iindlela ezintsha zinqumla kwiindawo ezikwimigxobhozo / eziselunxwemeni, nangakumbi imibhobho yokukhuphela amanzi ngaphandle, imigxobhozo esezantsi kunye neendawo eziselunxwemeni, kufuneka kuncitshiswe kangangoko ukuphazamiseka kuko nakuphi na ukunqamleza kwimigxobhozo futhi kulungiswe ngendlela efanelekileyo. Indlela eziyilwe ngayo izinto ezinqumlayo kwiibhulorho kufuneka iqinisekise ukuba kuyehliswa ukuhamba kwamanzi ngamandla, khon'ukuze kuthintelwe ukhukhuliseko lomhlaba kwindawo engezantsi.*

- Konke ukunqamleza okwenzeka kwimigxobhozo kufuneka kwenzeke kwi-engile elungileyo xa kukwazeka ukwenzeka oko.*
- *Indlela eyakhiwe ngayo imibhobho ehambisa iingcingo zombane phantsi komhlaba / iibhulorho funeka yenze ukuba iimeko zomhlaba wendawo ekwimigxobhozo zingatshintshi ngasentla kunye nangasezantsi kwendawo enqamlayo ukuze izityalo ezikwimigxobhozo ezisemantla nangezantsi kwendawo enqamlayo zihlale zikwimeko yazo. Ngokubhekiselelwe koku, kubalulwa nangakumbi ukuba:*
 - *Indlela eyakhiwe ngayo imibhobho ehambisa iingcingo zombane phantsi komhlaba kunye/okanye iibhulorho kufuneka iqinisekise ukuba indawo esoloko ikwimigxobhozo iinemeko zomhlaba ezisoloko zigcwele ngamanzi unyaka wonke kude kuyotsho kumphezulu womhlaba;*
 - *Indlela eyakhiwe ngayo imibhobho ehambisa iingcingo zombane phantsi komhlaba kunye/okanye iibhulorho kufuneka iqinisekise ukuba indawo eba kwimigxobhozo ngamaxesha athile kuphela inemihlaba enamanzi kumgama oyi-500mm ukusuka kumphezulu womhlaba ngexesha leemvula zasehlotyeni; futhi*
 - *Iindawo eziba yimigxobhozo okwexeshana elithile kufuneka zibe neemeko zomhlaba onamanzi kumgama oyi-300mm ukusuka kumphezulu womhlaba ngexesha leemvula zasehlotyeni.*
 - *Kuqinisekise ukuba akukho mijelekazo eyenzekayo kwimigxobhozo nebangelwa kukwakhiwa kwemibhobho ehambisa iingcingo zombane phantsi komhlaba.*
 - *Kufuneka kuqinisekise ukuba ukudibana kokuhamba kwamanzi ecaleni kweendawo eziyimigxobhozo akupheli;*
 - *IiMfuno Zamanzi Kwizinto Eziphilayo njengoko zichaziwe kwiMimiselo Yogcino Lwamanzi uMqulu woku-1: Umlambo (INgxelo engu-P WMA 12/T30/00/5212/7) ngokunxulumene neDama iNtabelanga, kwakunye neeMfuno Zamanzi Kwizinto Eziphilayo ngokunxulumene neDama laseLalini, kufuneka zifezekiswe.*
 - *Kufuneka kufakelwe iindawo zokuphuma amanzi kumaqondo awohlukeneyo amanzi, nalapho umgama ophakathi kweendawo zokuphuma amanzi uza kuba malunga ne-4 m ukusuka kwi-6 m ngaphantsi kweqondo lokugcwala kwamadama ngokupheleleyo futhi zisebenze ngokukuko ukuze kuncitshiswe iziphumo zokutshintsha kobulunga bamanzi emazantsi kwamadama acetywayo.*
 - *Isiza samandulo esithe saqatshelwa kummandla weDama laseNtabelanga elicetywayo kumele sibonakaliswe ngokubanzi ngemizobo, ngeesampula ezithelekelayo, ngokugunyaziswa liphepha-mvume elisuka kwi-ECPHRA. Emva koko ke singatshatyalaliswa isiza esi lakuba likhutshiwe iphepha-mvume yi-ECPHRA.*
 - *Isiza samandulo esithe saqatshelwa kummandla weDama laseLalini elicetywayo kumele sibonakaliswe ngemizobo size sigrunjwe/kuthathwe iisampula, ngokugunyaziswa liphepha-mvume elisuka kwi-ECPHRA. Ngoko ke isiza esi sinokutshatyalaliswa kuphela kwakuba kukhutshwe iphepha-mvume lokusitshabalalisa yi-ECPHRA.*
 -



kuMboniso 4: iDama laseNtabelanga



kuMboniso 5: iDama laseLalini

- Kufuneka kwenziwe uphando olubanzi olunxulumene neziza Zexesha Lamandulo ekunokwenzeka ukuba zikhona apho emva kokuba sele zilinyiwe izityalo kwaye nezityalo ezizikhulelayo sele zisusiwe.
- Iindlela ezintsha kunye nemibhobho yamanzi kufuneka kangakoko xa kusenzeka, zitshintshwe ziye kuhamba kwezinye iindawo ngenjongo yokuphepha izakhiwo.
- Indlela yokufikelela ecetywayo neza kuhamba iinqwelo zokwakha inqumle kwilali yaseLotana kufuneka itshintshwe ukuze iye kuhamba kwenye indawo ngenjongo yokuphepha ilali le.
- Kufuneka kwenziwe uphando lwangaphandle ukukhangela izinto ezingamagugu esizwe ezichatshazelwe lulwakhiwo lweendlela kwakunye nolombane, kuze kulandelwe iindlela zokwehlisa impembelelo ezicetyisiweyo, kwakuba sele kugqityiwe ngeendawo oluza kwenzeka kuyo ulwakhiwo kwakunye neendlela.
- Onke amagcwaba angaphandle kwendawo ekumaqondo aphezulu okugcwala kumgama oyi-300 m wolwakhiwo olunxulumeneyo kufuneka aphawulwe ngokusecaleni ngumntu omele iNjineli yokusingqongileyo, ngokubonisana nezizalwana zabantu bamangcwaba lawo, ngexesha lokuba kusakhiwa. Akufanele ukuba aphazanyiswe la mangcwaba.
- Iintambo zombane ezidibanisa umzi-mveliso wokuvelisa umbane oseLalini kunye negridi kufuneka zitshintshwe ziye kuhamba kwenye indawo ukuze kuphetshwe ummango, njengoko kubonisiwe **kuMboniso 3**.
- Zonke iindlela zokufikelela ezichatshazelwa kukugcwala ngamanzi kufuneka zibuyezwe ngokuthi kwenziwe iindlela ezintsha kunye neebhulorho.
- I-RPF kufuneka iphunyezwe ngendlela yokuba kuboniswane nabanye abantu.
- Kufuneka kusungulwe iCandelo loLawulo lweProjekthi eliza kujongana kuphela nokulawula iprojekthi le.
- Kuqinisekiswa uqhagamshelwano oluthe gqolo kunye nabasemagunyeni abajongene nokuhanjiswa kwamanzi alungele ukuselwa. Iimpembelelo kwezentlalo kunye nezicwangciso ngokwamaziko ezibhekiselele kwinkqubo yonkenceshelo ecetywayo (ubunikazi, indlela yokufuya, ukuchongwa kwamafama kunye nokuxhaswa kwawo, inkxaso-mali, njalo njalo) kufuneka zisonjululwe ngabahlali abachaphazelekayo kwakunye nabathathi nxaxheba ngaphambi kokuba iphunyezwe inkqubo le.
- Kufuneka kuqulunqwe iRegista Yezigqibo Ezithatyathiweyo futhi igcwaliswe rhoqo, kwaye ifumaneka kulo naliphi na ilungu loluntu elinqwenela ukuyifumana. Le regista kufuneka ibe nazo zonke izibophelelo ezithe zaqinisekiswa kumaqela achaphazelekayo ngexesha lenkqubo yokuba uluntu luthatha inxaxheba, nezithe zashicilelwa kwiNgxelo Yemiba neeMpendulo.
- Kufuneka kuqulunqwe ipolisi yokuphuhlisa kwamathuba engqesho kunye nezakhono, neza kuthi yandise amathuba emisebenzi futhi iphuhlise izakhono zabahlali bendawo leyo kwaye ikhuthaze ukubandakanywa kwabantu bezini ezahlukeneyo zonke ngendlela elinganayo.
- Kufuneka kuqulunqwe ipolisi yokuthenga iimpahla neenkonzelo, eyandisa amathuba oshishino kubahlali bendawo leyo kunye nokubandakanywa kwabantu bezini ezahlukeneyo zonke ngendlela elinganayo.

- Kumele kwenziwe uphando yingcali egeqeshiweyo ukukhangela ukuba naziphi na izityalo ezixhomekeke kwiingxangxasi ezikwindawo engumwonyo kunye neliliwa kungakho impembelelo enkulu na kuzo kwanokuba kudingeka ukuba zisuswe zisiwe kwenye indawo na; konke okuthe kwafunyaniswa kuphando olo kufuneka kuphunyezwe.
- ***lindlela eziphambili zokunciphisa impembelelo ekufanele ziphunyezwe ngexesha lesigaba sokwakha***
 - Kufuneka kuphunyezwe inkqubo yokulawula ukukhula kwezityalo ezingezizo ezendawo leyo, njengoko ungenelelo lwezityalo ezingezizo ezendawo le sele kuqalile ukubonakala kule ndawo yophando kwaye kulindeleke ukuba kwande ngenxa yophazamiseko olwenzeka ngexesha lenkqubo yokwakha. Ukubuyiselwa kweendawo eziphazamisekileyo kwimeko yazo, kusetyenziswa intlobo-ntlobo zezityalo zendawo leyo ezikhula kwimigxobhozo, kuya kunceda ekuqinisekiseni ezo zinto zidingeka kakhulu ekuphileni kwezinto ezilapho kwimigxobhozo, ingakumbi ukuncitshiswa kwezikhukhula, ukubamba intlenge yomhlaba kunye nokuthintela ukukhukhuliseka komhlaba, kwakunye nokufunxwa kwezondlo kunye nezinto eziyityhefu, ngalo ndlela ke kusehla iimpembelelo zemisebenzi enxulumene nokwakha.
 - Kungavunyelwa ukuqokelelwa kwazo naziphi na izityalo ngabasebenzi abokhayo ukuze babase okanye bazisebenzise ngeenjongo zonyango, kwiindawo ezingaphandle kwemimandla yamadama acetywayo, ngelixa lokuba kusakhiwa.
 - Kuqinisekiswe kangangoko ukuba izithuthi zihamba kuphela kwiindlela ezimiselwe ukuba zihambe kuzo ukuze kungabikho kuchaphazaleka kangako kwezinto eziphilayo kwindawo engqongileyo.
 - Kungabikho nakuphi na ukuzingela okanye ukubanjiswa kwezilwanyana ezifumaneka apho endaweni okwenziwayo.
 - Imizila yolwakhiwo kufuneka ibe mincinci kangangoko, ingakumbi kwiindawo ezibuthathaka ezingamakhaya kwizilwanyana nakwizityalo.
 - Amacandelo eentambo zombane adinga ukuba kujikwe iintaka kufuneka akhonjwe kuze kuphunyezwe oko.
 - Izinto eziphila emanzini kufuneka zibekelwe iliso, ukusukela kwiinyanga ezintandathu ngaphambi kokuba kuqalise imisebenzi yokwakha, kuze kuthi ukuba kukho iindlela eziqaphelekayo zokwenza izinto nezibangela ukuba iimpembelelo kwizinto eziphila emanzini zingamkeleki, kuthathwe amanyathelo okwehlisa iimpembelelo ezo ngoko nangoko.
 - Iindawo eziqatshelweyo nalapho kunokuthi kubekho ukukhukhuliseka komhlaba kufuneka zikhuselwe ngendlela eyiyo ngokuthi kufakelwe ngoko nangoko izinto zethutyana zokukhupha amanzi kunye/okanye ezisisigxina futhi kwenziwe namanye amanyathelo afanelekileyo okukhusela ukuba amanzi angagcwali emilanjani/emifuleni kunye nakwiindonga zedama okanye ezinye iindawo.
 - Iindlela zokulawula amanzi emvula kufuneka kananjalo ziqinisekise ulawulo lokukhukhuliseka komhlaba kunye nokuqokelelana kweentlenge yomhlaba, kwakunye nokuqiniswa kweendonga zedama kunye nezinto zokukhupha amanzi,

apho kudingekayo. Iindlela ezingasetyenziswayo ziquka ukusetyenziswa kweendonga zokuthintela amanzi, ukutyalwa kwezityalo kwiindawo ezingamathambeka, imida enqanda ukukhukhuliseka komhlaba, iingcingo ezikwazi ukubamba intlenge yomhlaba.

- *Kumele kuqinisekiswa ukuba ukudibana kokuhamba kwamanzi ecaleni kweendawo eziyimigxobhozo akupheli.*
- *Imilambo kunye nemigxobhozo ihlale ibekelwe iliso ukujonga ukuqokelelana kwentlenge yomhlaba.*
- *Kuphunyezwe inkqubo yokubekela iliso ubulunga bamanzi kunye nobuninzi bawo.*
- *IiMfuno Zamanzi Kwizinto Eziphilayo njengoko zichaziwe kwiMimiselo Yocino Lwamanzi uMqulu woku-1: Umlambo (INGxelo engu-P WMA 12/T30/00/5212/7) ngokunxulumene neDama iNtabelanga, kwakunye neeMfuno Zamanzi Kwizinto Eziphilayo ngokunxulumene neDama laseLalini, kufuneka zifezekiswe maxa onke.*
- *Kuqulunqwe iNgxelo yeNdlela yoLawulo lwaManzi, kuqukwa iindlela zokulondoloza amanzi, ukuze yamkelwe yiNjineli ngaphambi kokuba kuqaliswe ukwenza imisebenzi.*
- *Iindawo zokuhlala abantu abakhayo apho kwisiza kufuneka zibe mbalwa kangangoko. Abasebenzi abakhayo kufuneka, kangangoko kusenzeka, baqeshwe kwiindawo zokuhlala ezilapho kufutshane baze balungiselelwe izinto zokukhwela ezibasa apho kwiziza zokwakha.*
- *Abahlali balapho endaweni kufuneka baqeshwe kulo misebenzi ingafuni zakhono okanye izakhono ezitheni.*
- *Abantu basetyhini kufuneka bafumane amathuba okuqeshwa alinganayo nabangamadoda futhi bakhuthazwe ukuba bafake izicelo kwizithuba zemisebenzi.*
- *Kufuneka kubekho isicwangciso sokuphuhlisa izakhono kwasekuqaleni kwaye abasebenzi kufuneka banikwe amathuba okuphuhlisa izakhono zabo nabaza kuthi bazisebenzise ukuze bakwazi ukufumana imisebenzi nakwezinye iindawo emva kokuba kugqityiwe ukwakhiwa apha.*
- *Kufuneka kubekho ipolisi yokuthenga iimpahla neenkonzelo ekhuthaza ukuba kusetyenziswe amashishini alapho endaweni kangangoko, xa kusenzeka, ize isetyenziswe ngalo lonke ixesha lesigaba sokwakha.*
- *Kuqinisekiswa ukuba kukho iipolisi ezifanelekileyo zokuthenga iimpahla neenkonzelo kwaye ziyalandelwa kangangoko.*
- *Kuqinisekiswa ukuba rhoqo xa kuboniswana ngokuthile abantu bezini ezahlukeneyo babandakanywa bonke.*
- *Kuqinisekiswa ukuba iRegista Yezigqibo Ezithatyathiweyo iyagcwaliswa ngalo lonke ixesha, kwaye iyafumaneka kulo naliphi na ilungu loluntu elinqwenela ukuyifumana.*

• ***Iindlela eziphambili zokunciphisa impembelelo ekufanele ziphunyezwe ngexesha lesigaba sokusebenza***

- *Kuphunyezwe iqhinga-nkqubo lonxibelelwano elenzelwe isigaba sokuphumeza umsebenzi.*

- Akukho kuzingela okanye ukubanjwa kwezilwanyana zendawo leyo okumele kwenziwe ngabasebenzi abasebenza apho kulwakhiwo.
- Izinto eziphila emanzini kufuneka zibekelwe iliso kuze kuthi ukuba kukho iindlela eziqaphelekayo zokwenza izinto nezibangela ukuba iimpembelelo kwizinto eziphila emanzini zingamkeleki, kuthathwe amanyathelo okwehlisa iimpembelelo ezo ngoko nangoko.
- Kufuneka kuqinisekiswa ukuba ngalo lonke ixesha kukho inkqubo yokulawula ukukhula kwezityalo ezingezizo ezendawo leyo, njengoko ungenelelo lwezityalo ezingezizo ezendawo le sele kuqalile ukubonakala kule ndawo yophando kwaye kufuneka kugxininiswe nangakumbi kwiindawo ezithe zaphazamiseka ngexesha lenkqubo yokwakha. Ukubuyiselwa kweendawo eziphazamisekileyo kwimeko yazo, kusetyenziswa intlobo-ntlobo zezityalo zendawo leyo ezikhula kwimigxobhozo, kuya kunceda ekuqinisekiseni ezo zinto zidingeka kakhulu ekuphileni kwezinto ezilapho kwimigxobhozo, ingakumbi ukunciphisa izikhukhula, ukubamba intlenge yomhlaba kunye nokuthintela ukukhukhuliseka komhlaba, kwakunye nokufunxwa kwezondlo kunye nezinto eziyityhefu.
- IiMfuno Zamanzi Kwizinto Eziphilayo njengoko zichaziwe kwiMimiselo Yocino Lwamanzi uMqulu woku-1: Umlambo (INgxelo engu-P WMA 12/T30/00/5212/7) ngokunxulumene neDama iNtabelanga, kwakunye neeMfuno Zamanzi Kwizinto Eziphilayo ngokunxulumene neDama laseLalini, kufuneka zifezekiswe maxa onke.
- Ngexesha lokuba kusetyenzwa kwakunye naxa kulungiswa ulwakhiwo, izithuthi kufanele zihambe kuphela kwiindlela ezimiselwe ukuba zihambe kuzo zingavunyelwa ukuba zihambe zinqumle kwiindawo ezibuthathaka ezinemigxobhozo / eziselunxwemeni, ingakumbi kwiinyele zamadama nalapho ukutshabalala kweendawo ezikwimigxobhozo nezingamakhaya kwizityalo nakwizilwanyana sele zisemngciphekweni nokwenza ukuba zingakwazi ukuvelisa izityalo eziphilayo.
- Abasebenzi abalungisa izinto kufuneka baqinisekise ukuba naziphi na izixhobo kunye/okanye inkunkuma ebangelwe yimisebenzi yokulungisa izinto ziyasuswa apha kwisiza emva kokuba kugqityiwe ukulungisa izinto.
- Kufuneka zonke iindlela zilungiswe ngokuthe gqolo, ingakumbi ezo zinqumla kwiindawo ezinemigxobhozo / eziselunxwemeni ukuze kwehliswe ubungozi obungakhokelela kukwehla komgangatho nangakumbi weendawo ezikwimigxobhozo / eziselunxwemeni nezingamakhaya kwizilwanyana nakwizityalo.
- Kuqinisekiswa ukuba kuhlala kukho futhi kugcwaliswa iRegista yeZigqibo Ezithatyathiweyo, kwaye ifumaneke kulo naliphi na ilungu loluntu elinqwenela ukuyifumana.
- Kuqinisekiswa ukuba ulwakhiwo lwamanzi alungele ukuselwa ezindlini luhlala lusebenza ngalo lonke ixesha, ungcoliseko lomoya lulawulwe kwaye neetephu ezingekho mthethweni zipheliswe. Ukuba ngaba akukho manyathelo enziweyo okuqinisekisa oko, kunokwenzeka ukuba abahlali bazifumane bekwimeko engentlanga kwaphela ngokubangelwa zizifo ezinxulumene namanzi okanye ukungabi namanzi konke konke.

11.2 ISikhokelo sePolisi Yokususwa Kwezinto Zisiwe Kwezinye iiNdawo

Ezinye zeengcebiso ezikwiSikhokelo sePolisi Yokususwa Kwezinto Zisiwe Kwezinye iiNdawo ziquka oku:

- *Kudingeka ukuba imizi engasahlali bantu iphawulwe ngokukuko kananjalo kurekhodwe ubunikazi bendawo.*
- *Iindawo akuyo amangcwaba ookhokho kwiindawo ezinemizi engasahlali bantu nechatshazelwa yiprojekthi le kufuneka ziqondiswe.*
- *Kuya kudingeka ukuba ezinye izakhiwo zakhiwe ngokutsha khon' ukuze imisebenzi efanelekileyo yeentsapho ngokubhekiselele kwezentlalo nakwezoqoqosho iqhubeke.*
- *Onke amangcwaba akwindawo ekwiqondo lokugcwala kwedama ngamanzi kufuneka asuswe asiwe kwezinye iindawo, xa kufunyenwe imvume yezizalwane kwakunye nemvume esuka kwi-ECPHRA.*
- *Akukho lwakhiwo kumele ukuba lwenziwe kumgama oyi-100 m ukusuka kumangcwaba kwindawo engaphandle kwamaqondo onikezelo ngamanzi agcweleyo, kuthi ukuba ngaba akukwazi ukuthintelwa oku, amangcwaba la asuswe asiwe kwezinye iindawo.*
- *Kufuneka kufunyanwe imvume yokutshabalalisa izinto esuka kwi-ECPHRA; ukuba kuyakwazi ukwenzeka, kufuneka kufunyanwe imvume enye ebandakanya zonke izakhiwo ezichaphazelekayo.*
- *Ukunyanzeliswa kwabantu ukuba bemke ezindaweni zabo baye kuhlala kwezinye kumele kuthintelwe kangangoko.*
- *Kumele kubonswane kunye nabantu abangabafiki endaweni malunga neendlela ezingezinye ezamkelekileyo kwakunye namaqhinga okwenza izinto futhi babandakanywe xa kusenziwa iinkqubo zocwangciso, ezokuphumeza kunye nezokubekela iliso;*
- *Kumele kukhethwe isiza eziza kusiwa kuso izinto ezisuswayo ezindaweni zazo ukuqinisekisa ukuba uphazamiseko luncinci kakhulu kwiintsapho ezingabafiki kwindawo leyo kwakunye nabahlali bendawo leyo.*
- *Abahlali bendawo leyo kumele baqhelanise nomba olindelekileyo wokuba kuza kufika abantu abasuka kwezinye iindawo;*
- *Kusungulwe iforam okanye ikomiti ejongene nokuhlaliswa kwabantu kwiindawo ezingezinye neza kuthi ilawule oku kuhlaliswa kwabantu abachaphazelekayo kwiindawo ezintsha kwakunye nokuqinisekisa ukuba bayamkeleka kwezo ndawo zintsha basiwe kuzo.*
- *Kufuneka kuqulunqwe umgaqo osemthethweni onxulumene nendlela yokuvakalisa izikhalazo nofumaneka kuye nakubani baze bonke abantu abangabafiki endaweni kunye nabahlali bendawo leyo baxelelwe ngawo.*
- *Kuqinisekise ukuba indawo le eyamkela abantu ilungisiwe futhi inolwakhiwo olwaneleyo nolwamkelekileyo, izibonelelo kunye neenkonzo zentlalo ukuxhasa abantu aba bangabafiki kwakunye nabahlali bendawo leyo, ngaphambi kokuba basuswe abantu abangabafiki endaweni.*

11.3 Ukwehliswa kwamandla empembelelo

I-MWP iza kugcwalisa ngamanzi imigxobhozo kunye nezityalo nezilwanyana ezizalayo ezifumaneka elunxwemeni kwakunye neendawo ezinokutya kwamahemu akhuselweyo nasengozini. Indlela efikelela kwisiza somzi-mveliso wokuvelisa umbane nayo idlula ngakwindawo ebuthathaka kakhulu. Zonke ezi mpembelelo zithe zahlolwa ngabo bafunda ngezinto eziphilayo zabonwa njengezinegalelo elikhulu. Akungekhe kukwazeke ukuzithintela, ukuzinciphisa okanye ukuzilungisa ngokupheleleyo ezi mpembelelo. Eyona ndlela yokwehlisa impembelelo enokuthi mhlawumbi iyinciphise mpembelelo engentlanga ngokumandla kukuba kuzanywe ukwehlisa amandla empembelelo leyo. Obunye bobunzima obunxulumene nokwehlisa amandla empembelelo kwiindidi zezityalo nezilwanyana ezohlukeneyo kukuba ngexesha lolu Vavanyo Lwempembelelo kokusiNgqongileyo, asikwazanga ukufumanisa ukuba ingaba zikhona na iindawo ezilungileyo ezikhoyo kwidama lamanzi emvula. Inkqubo eya kulandelwa kukuba kuqulunqwe iNgxelo Esisiseko ebanzi yeendawo eziza konakala, kuze emva koko kufikelelwe kwisivumelwano malunga nemilinganiselo/iinqobo zokwehlisa amandla empembelelo, kuze kuchongwe iindlela ezahlukeneyo zokwehlisa amandla empembelelo, zize ke emva koko ziphunyezwe futhi zilawulwe ngokuthe gqolo. Nangona kuthandabuzeka ukuphunyezwa okuyimpumelelo nokuzinzileyo kokwehlisa amandla empembelelo kwiindidi zezityalo nezilwanyana ezohlukeneyo, iSicwangciso soVavanyo kokusiNgqongileyo siqinisekile ukuba uhlobo oluthile lwephulo lolondolozo olujoliswe kumahemu lingaphunyezwa kwindawo engenye apha elizweni. Ayikhange iphandwe ngokubhekelephi yona le ndlela ngexesha lolu Vavanyo Lwempembelelo kokusiNgqongileyo, kodwa ineendlela ezininzi nezibanzi zokuphumeza ekungakhethwa kuzo.

Ukuze kukwazi ukwenziwa uqikelelo lemali edingekayo ukwehlisa amandla empembelelo kwiindidi zezityalo nezilwanyana ezohlukeneyo, kwaye kwabalwa indawo yemigxobhozo nezityalo ezifumaneka elunxwemeni eza kuthi igcwale ngamanzi (malunga neehektare eziyi-412 kwiDama laseNtabelanga kunye neehektare eziyi-623 kwisiza seDama laseLalini), yaphindwa-phindwa ngomlinganiselo wokwehlisa amandla empembelelo onxulumene nohlobo lwezityalo (umlinganiselo oyi-8:1 waseNtabelanga kunye noyi-17:1 waseLalini) waze waphindwa-phindwa ngenani elingena ku-3 ukuze umhlaba wohlulwe ngokweziqendu ezithile, khon' ukuze kukwazi ukuqikelela ubungakanani bomhlaba ekuza kufuneka ufunyenwe uze ubekelwe ecaleni ukuze ukhuselwe. Nakuphi ukusetyenziswa kwalo mhlaba okwenziwayo njengangoku kuya kufuneka ukuba kuhlawulelwe. Kulindeleke ukuba oku kusetyenziswa ibe kokokudlisa imfuyo njengoko zingaxhaphakanga iindawo zokuhlala ezifumaneka ngakwimigxobhozo okanye kwiintsele zomlambo. Ukuba ngaba kusetyenziswe imali eyi-R2000-00 ngehektare nganye ukujongana nezi ndleko, oko kuthetha ukuba kudingeka malunga nemali eyi-R90 miliyoni ukuze umhlaba ukwazi ukufumaneka. Kananjalo kuya kudingeka i-R10 miliyoni ukuphumeza ukwehlisa amandla empembelelo.

I-Sicwangciso soVavanyo kokusiNgqongileyo ke ngoko sicebisa ukuba ucwangciso kunye nokuqaliswa kweprojekthi eluhlobo oluthile lokulondolozisa amahemu luchazwe njengento efunekayo ukuze kugunyaziswe le projekthi, kwanokuba kwinkqubo yokwenza isicwangciso kufakwe imali eyabelwe oku eyiR100 miliyoni.

Ngaphandle kokuthatha imali eyi-R100 miliyoni ukuzama ukwehlisa amandla empembelelo ifakwe kwi-akhawunti, ixabiso lenzuzo (NPV) yeprojekthi enabemi abakumzekelo woku-1 liyi-R1 827.11 miliyoni. Ukufaka enye imali engaphezulu eyi-R100 miliyoni kuyalitshintsha eli xabiso (NPV) libe yi-R 1 748.47 miliyoni. Olu tshintsho lumalunga ne-4% ngoko ke aluwachaphazeli amathuba empumelelo eprojekthi le ngokwezoqoqosho. Oku kuyafana nangokubhekiselele kumlinganiselo wenzuzo xa uthelakiswa neendleko kunye nomlinganiselo wangaphakathi wembuyekezo.

12. Iingcebiso ngokuphathelele kwicandelo lonkcenkceshelo leprojekthi le

Nangona nje kungekho sicelo secandelo lonkcenkceshelo lale Projekthi Yamanzi yaseMzimvubu sasenziwe njengenxalenye yenkqubo yoVavanyo Lwempembelelo kokusiNgqongileyo, impumelelo yeli candelo lonkcenkceshelo ibonwa njengebaluleke kakhulu ngokuphathelele kwimpumelelo yeprojekthi le ngokubanzi. Oku ke kuza kuxhomekeka ekufezekiseni iimfuno ezithile eziliqela, nezichazwe kuVavanyo Lwempembelelo kweZozoqosho.

Xa kuthathelwa ingqalelo oku kungasentla, injongo yezi ngebiso kukunika isikhokelo kumaqela afanelekileyo ngokunxulumene nocwangciso kunye noyilo olucetywayo lwenkqubo yonkcenkceshelo:

- Ukuba ngaba izityalo ezikhethiweyo zilulungele na uphuhliso lonkcenkceshelo kufuneka kuthathelwe ingqalelo kangangoko.
- Kuya kufuneka kuphunyezwe inkqubo yoqeqesho kunye nenkxaso ngophuhliso lwezolimo ecwangciswa ngokukoko negxininisa ekuncedeni abalimi.
- Kufuneka ukusukela kwasekuqaleni kubekho iindlela zokuxhasa ukuze zancedise kulawulo. Le nkxaso kufuneka ichaphazele yonke indawo, ukusuka ekutyaleni ukuya kwintengiso kwakunye nolawulo ngokubanzi. Kuya kufuneka kubekho ulawulo olugqibelele kangangoko ukusukela kwasekuqaleni, nto leyo ethetha ukuba ekugqibeleni impumelelo yenkqubo yonkcenkceshelo iya kuxhomekeka kubaphathi bamacandelo abakhethiweyo kwakunye nakwindlela yolawulo eyamkelweyo.
- Kufuneka kufunwe uncedo lweSebe Lophuhliso Lweendawo Zasemaphandleni, iKholeji yeZolimo yakuTsolo, kunye neKholeji yeZolimo yaseJongiliswe yeeNkosi ukuze ziqeqeshe, zicebise kananjalo zixhase abalimi abasakhasayo.
- Olu qeqesho kufuneka lubandakanye uqeqesho lwezoshishino, noqeqesho ngokucwangcisa, ukubekela iliso kunye nokuhlola iiprojekthi.

Kananjalo ukukhuthazwa kokubandakanywa kwazo zonke izini ngokulinganayo kufuneka kuthathelwe ingqalelo.

13. Inkqubo

INgxelo yeMpembelelo kokusiNgqongileyo equlunqwayo iyafumaneka kwiwebhsayithi yeSebe Lemicimbi Yamanzi Nococeko ukuze Amaqela Anomdla Nachaphazelekayo akwazi

ukungenisa izimvo zawo (<http://www.dwa.gov.za/projects.aspx>) kwaye amaxwebhu aprintiweyo ayafumaneka kwiindawo eziliqela kwindawo yeprojekthi ukuze abantu bakwazi ukuwafunda. Amaqela Anomdla Nachaphazelekayo aneentsuku ezingamashumi amathathu (30) zokungenisa izimvo zawo malunga neNgxelo yeMpembelelo kokusiNgqongileyo equlunqwayo.

Kuza kubakho iintlanganiso zikawonke-wonke eziza kuqhubeka ngoNovemba 2014 ukuze kwaziswe abantu malunga nenkqubela yeprojekthi kananjalo kwenziwe ingxelo kumaqela achaphazelekayo ngokunxulumene noko kuthe kwafunyaniswa kwisigaba soVavanyo Lwempembelelo.

14. Isiphelo kunye neengcebiso

Eyona njongo yeProjekthi Yamanzi yaseMzimvubu kukuphucula ezentlalo nezozoqosho kwiindawo zokuhlala ezingaphuhlisiwanga kwanezihluphekayo kule ndawo yeprojekthi. Oku kuza phunyezwa ngezi ndlela zilandelayo:

- Izibonelelo zonikezelo kwiimfuno zamanzi asezindlini nakwiindawo zoshishino;
- Izibonelelo zonikezelo zolimo lonkcenkceshelo;
- Uveliso lombane; kunye
- Nokoveliswa kwemisebenzi yethutyana nesisigxina.

Unikezelo ngamanzi alungele ukuselwa kwiindawo eziliqela zasezilalini kunye nezincinci zasezidolophini ngumba obaluleke kakhulu weprojekthi le iyonke kwaye yimfuneko emiselweyo ngokomgaqo-siseko. Kumele iqatshelwe apha into yokuba nangona ulwakhiwo lonikezelo ngamanzi amaninzi luza kwenza ukuba kukwazi ukufezekisa imfuneko emiselweyo ngokomgaqo-siseko, ooMasipala beeNgingqi, hayi umfaki-sicelo, ngabo abaza kuba noxanduva ngokuphathelele kulwakhiwo olungaphezulu kwakunye nokuhanjiswa kwamanzi alungele ukuselwa kwiindawo zokuhlala. Kudingeka ukuba aba masipala basebenzisane ke ngoko ukuqinisekisa ukuba bayawuphumeza umsebenzi abajongene nawo.

Uhlalutyo lwemeko yezentlalo kunye nezozoqosho kwindawo ecetywayo lubonisa amaqondo aphezulu kakhulu abantu abangenamisebenzi kwakunye nendlala kumakhaya, nanto leyo ebonakalisa ukuba ambalwa kakhulu amakhaya aya kukwazi ukuwabhatalela amanzi. Ingcebiso ephakanyiswayo ke kukuba oku kubonwe njengenxalenye yeprojekthi yophuhliso futhi urhulumente akwamkele ukuba oku kuba kukhokelela kwimfuneko yesibonelelo senkxaso ngemali ngokuphathelele kwiimfuno ezisisiseko zamanzi ixesha elide kakhulu.

Amathuba empumelelo ngokwasezimalini asiyonto iyimfuneko kwiprojekthi elolu hlobo, njengoko injongo yeprojekthi ingekokwenza ingeniso kwimali etyaliweyo, koko ikukwenza igalelo kuphuhliso lwendawo le yeprojekthi. Kodwa ke nangona kunjalo, uvavanyo lwempembelelo kwezozoqosho lwafumanisa ukuba iprojekthi le inganawo amathuba empumelelo ngokunxulumene nezozoqosho, njengoko iinzuzo ezithe ngqo okanye

ezingathanga ngqo ngokubhekiselele kwezentlalo kunye nezoqoqosho ziya kuba ngaphezulu kweendleko zeprojekthi ngokwasezimalini.

linzuzo zeprojekthi ngokunxulumene nophuhliso lwezoqoqosho kunye nolwezentlalo kulindeleke ukuba zibe phezulu, xa nje zithe zafezekiswa iimfuno ezidingekayo ukuze iprojekthi iphumelele futhi neengcebiso eziphathelele kwiindlela zokunciphisa kwanokuphucula zithe zalandelwa.

Kodwa ke, zikhona iimpembelelo ezimandla ezingentlanga ezithe zaqatshelwa ingakumbi ngokunxulumene neentyatyambo, izilo ezithile, izinto eziphilayo zasemanzini kunye nemigxobhozo. Ezinye zezi mpembelelo azingekhe zitshintshe kwaye akukhonto ingenziwa ukuzinciphisa ukuba zibe kwiqondo elamkelekileyo.

Kwiimeko apho kulindeleke iimpembelelo eziphezulu ezimandla, ukwehliswa kwamandla ezi mpembelelo yindlela yokugqibela eya kusetyenziswa ukuzama ukuzinciphisa. Ngaphezu kwenjongo yayo ngokuphathelele kukunciphisa impembelelo, ngokwalapha ukwehlisa amandla empembelelo kusengaba lithuba lokuphucula iinzuzo ezingathi zibekho zeprojekthi.

Xa kuthathelwa ingqalelo oku kukhankanywe ngasentla, iimpembelelo ezintle ezilindelekileyo ngenxa yale projekthi, ngokubhekiselele kuphuhliso lwezentlalo nelezoqoqosho, zingaphaya kwezo zingentlanga.

Ngoko ke kucetyiswa ukuba le projekthi icetywayo iqhubeke, xa ngaba iindlela zokunciphisa iimpembelelo eziphakanyiswayo ziyathotyelwa kwanokuba kuphunyezwe ukwehlisa amandla empembelelo okufanelekileyo.

Njengoko impumelelo yale projekthi ngokunxulumene nophuhliso lwezentlalo kwanezoqoqosho ixhomekeke kakhulu kumaqela kunakumfaki-sicelo, kwaye ixhomekeke kwizinto ezingaphaya kwamandla nolawulo lomfaki-sicelo, kubalulekile ukuba kubekho izicwangciso ezidingekayo zoshishino nokuba kubekho intsebenziswano phakathi kwawo onke amaqela abandakanyekayo, ukuze kuqinisekise ukuba eyona njongo iphambili yeprojekthi le iyaphunyezwa.