



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

AMANZI OLWANDLE AKHUTSHWE ITYUWA



KUKHO UMTHOMBO OMTSHA KRACA WAMANZI EKAPA • EYOKWINDLA (MATSHI) 2020

Senza inkqubela yenzeke. Sisonke.

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Intshayelelo nokubaluleka kokukhutshwa kwetyuwa kumanzi olwandle eKapa

Kutshanje iKapa ithwaxwe yeyona mbalela inkulu ezimbalini.

Ngenxa yokungabikho kwengqiniseko ngefuthe lokuguquguquka kwemozulu kwiHlabathi, kuyinto encomekayo ukuba kwandiswe imithombo yamanzi ethu ukuze singaxhomekeki kuphela kwiinkqubo zamanzi emvula zodwa. IsiCwangciso sikaZwelonke seMithombo yaManzi sowe-2015 sichaze ukuba uMzantsi Afrika unyanzelekile ukuba ukhangele eminye imithombo yonke ekhoyo yamanzi, kuquka ukukhutshwa kwetyuwa kumanzi olwandle, kuzokumelwana nesidingo esigqubayo sikazwelonke samanzi kwilizwe lethu elinqatyelwe ngamanzi.

Ukuzikhusela kwifuthe elibi lembalela nemigqaliselo enzima yoncitshiso lwamanzi kwixa elizayo, iSixeko sisungule iphulo lokufuna amanzi amaninzi kweminye imithombo yamanzi ekhoyo, njengamanzi avela phantsi komhlaba aphuma kumatye angaphantsi komhlaba, emithonjeni, ukusebenzisa amanzi asele esetyenzisiwe nokukhupha ityuwa kumanzi olwandle. Njengoko kucacisiwe kwisiCwangciso esitsha saManzi sesiXeko, le mithombo mitsha yamanzi iza kuncedisa ukwandisa umthamo wamanzi ngeelitha ezingama-300 eemiliyoni ngosuku kwiminyaka eli-10 ezayo.

Amaziko exeshana okukhupha ityuwa kumanzi olwandle njengaseMonwabisi naseStrandfontein, nto leyo eyenze ukuba kongezeleleke amanzi okusela ngexesha lembalela kwaye ikwasifundise izifundo ezibalulekileyo ezinokusetyenziswa kumaziko asisigxina okukhupha ityuwa kumanzi asisigxina njengenxalenye yesiCwangciso saManzi sesiXeko.

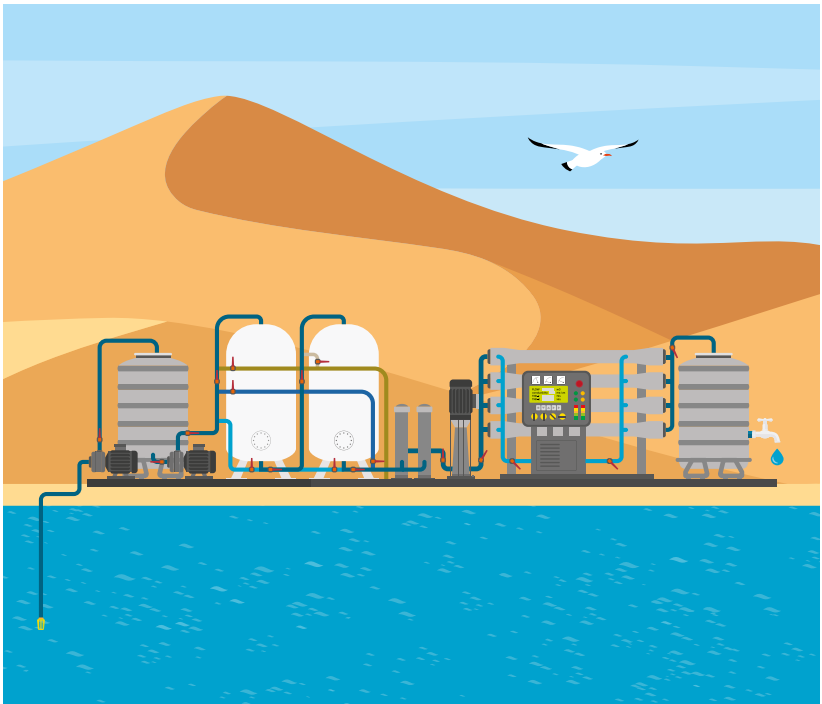
Kukho isicwangciso esisisigxina sokukhutshwa kwetyuwa kumanzi olwandle kuba amanzi olwandle ahlala ekhona ngalo lonke ixesha, noba kuyana okanye akuni, ngoko ke angumthombo wamanzi othembekileyo. Malunga nama-97% amanzi kwiHlabathi afumaneka kwiilwandlekazi zethu. Singakwazi ukusebenzisa loo mthombo ubaluleke kangaka ngokulandela iprosesi yokukhutshwa kwetyuwa emanzini, nto leyo eyenza aseleke kwaye asebenziseke kuthi. Nangona ukukhutshwa kwetyuwa emanzini iyeyona ndlela ibizayo kakhulu yokufuna amanzi, kukwakho nemibandela yokusingqongileyo ekufuneka inikwe ingqwalasela eyodwa (njengamanzi amtyuba aveliswa ngengemveliso eyinkcitho), eyinxalenye ebalulekileyo yokunikezwa kwamanzi ngeendlela ezahlukeneyo 'ezixubileyo' ukuya phambili.

Le ncwadana icacisa ngokukhutshwa kwetyuwa kumanzi olwandle neeprosesi zokuyibeka iliso ezikhoyo ukuqinisekisa ukuba ufumana amanzi akhuselekileyo ukuba uwasele.

IKapa akukuphela kwesixeko esisebenzisa amanzi olwandle akhutshwe ityuwa

Ukukhutshwa kwetyuwa kumanzi olwandle kuyenziwa kwihlalathi jikelele, ingakumbi kwimmandla eselunxwemeni ezifumana indawo encinci ezifana neSaudi Arabia neQatar kuMbindi Mpuma, eSydney nasePerth e-Australia nakuMzantsi California eMelika.

Izixeko ezininzi eMzantsi Afrika zineendawo zokuphehla ubuyiselo-mva lwe-osmosis ezincinci neziphakathi ngobukhulu ezilungiselelwe ukukhupha ityuwa emanzini ngomthamo omkhulu: eMossel Bay, eKnysna, eSedgefield, ePlettenberg Bay, eBushman's River Mouth, eLambert's Bay, Elands Bay naseRichards Bay, phakathi kwezinye. Oku kulindeleke ukuba kunyuke kwixa elizayo.



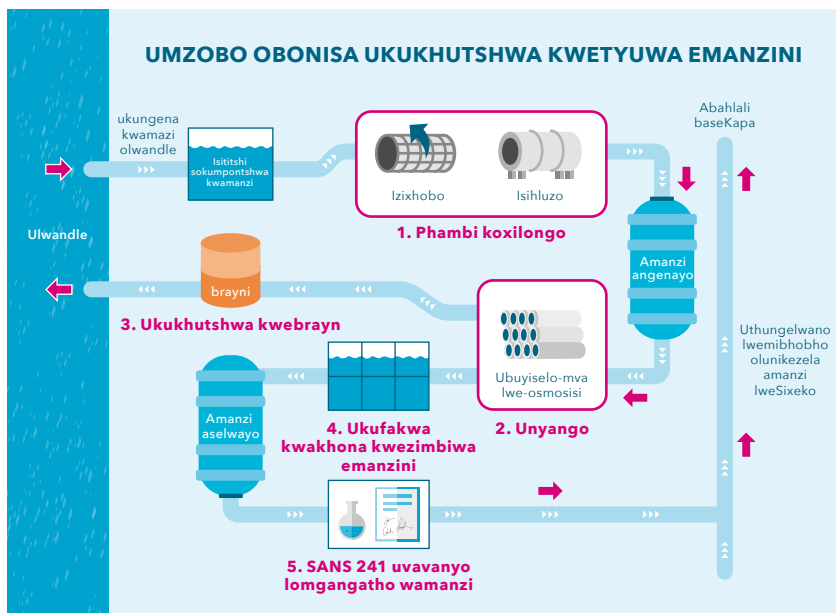
Kuthetha ukuthini ukukhutshwa kwetyuwa kumanzi olwandle kwaye kwenziwa njani?



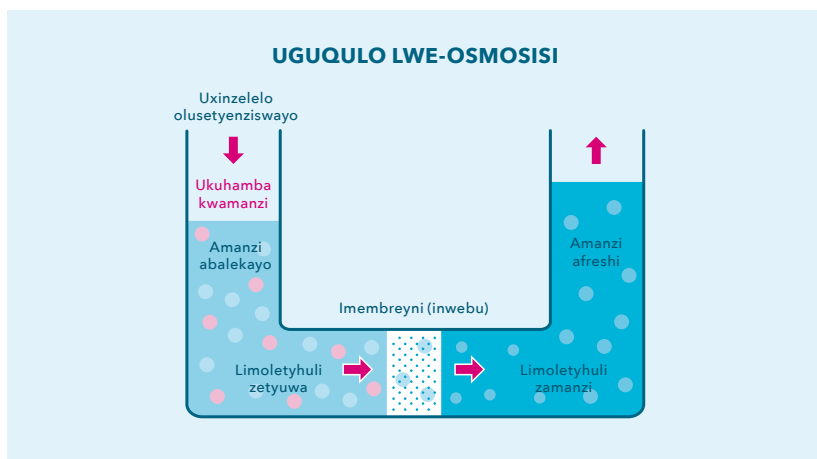
Iprosesi yokukhutshwa kwetyuwa emanzini olwandle yiprosesi yokukhutshwa kwetyuwa neeminerali kumanzi olwandle ukuvelisa amanzi acocekileyo, asebenzisekayo naselekayo.

IPROSESI YOKUKHUTSHWA KWETYUWA KUMANZI OLWANDLE IQUKA LAA MANYATHELO ALANDELAYO:

1. Amalungiselelo oxilongo. Amanzi olwandle atsalwa elwandle andule acocwe kulandelwa amanyathelo amaninzi amalungiselelo oxilongo okususa izinto ezinkulu nezincinci kumanzi olwandle. Laa manyathelo olungiselelo loxilongo aquka izixhobo zokususa izinto ezinkulu (oonokrwece, ingca yolwandle, njalo njalo) kunye nesihluzo sokususa izinto ezincinci (isanti, izidalwa ezicoliweyo kunye nezinye izinto) ngokuhlaza amanzi olwandle esantini kaninzi.



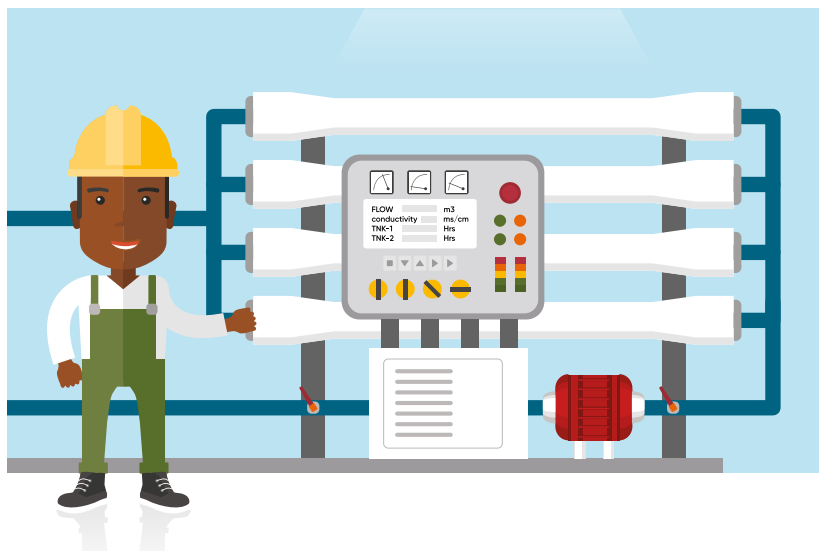
2. Uxilongo. Amanzi olwandle acocwa ngokubekwa phantsi koxinzelelo olukhulu ngokufakwa kwimembreyini (inwebu) enemithunjana ekhupha ityuwa neeminerali emanzini ukuze amanzi acoceke aseleke. Imingxuma ekwezi membreyini (nwebu) mincinane kangokuba zizinto eziyisayizi elingana neemoletyhuli zamanzi ezikwaziyo ukugqobhoza. Ityuwa ithi ikhutshwe kumanzi acocekileyo aselwayo. Le ndlela isetyenziswa kwiindawo zexeshana zogululo lwetyuwa emanzini eKapa kwaye ibizwa ngokuba **lubuyiselo-mva lwe-osmosisi**. Zikhona ezinye iindlela zogululo lwetyuwa emanzini, kodwa ubuyiselo-mva lwe-osmosisi lulo oluza kusetyenziswa umphelo kukhutsho lwetyuwa emanzini eKapa.



3. Ukukhutshwa kwetyuwa. Ityuwa neeminerali ezikhutshwe kwiprosesi yoguqulo-osmosisi eziqulethwe kulwelo olubizwa ngokuba yibrayni. Kwiimeko ezininzi, nakwiindawo zexeshana zokuphepha eKapa, ibrayni ibuyiselwa elwandle apho, apho ifike idibane namanzi imke. Kwiilitha ezili-10 zamanzi olwandle asetyenzisiweyo kuxilongo lokukhutshwa kwetyuwa emanzini, iilitha ezi-4 ngamanzi aselwayo ukuze iilitha ezi-6 zibuyiselwe elwandle ziyibrayni. Ibrayni, ngoko ke, inetyuwa eninzi ephindaphindwe kabini yamanzi aselwandle.

4. Ubuyiselo lweeminerali. Ngenxa yokuba iiminerali zisuswa kwinyathelo loxilongo lwamanzi, iiminerali ezifana nekhalsiyam kudingeka ukuba zibuyiselwe kumanzi axilongiweyo ukuwazinzisa. Amanzi aselwayo ayazinziswa ukunciphisa ukudleka ngumhlwa kwimibhobho ehambisa amanzi iwasa emzini wakho.

5. Uvavanyo lomgangatho wamanzi we-SANS 241. Amanzi avavanywa kulandelwa imiqathango kazwelonke yovavanyo lomgangatho wamanzi aselwayo (i-SANS 241) kwinkqubo yonke elandelwayo yokukhutshwa kwetyuwa emanzini ukuqinisekisa ukuba amanzi akhuselekile ukuba aselwe.



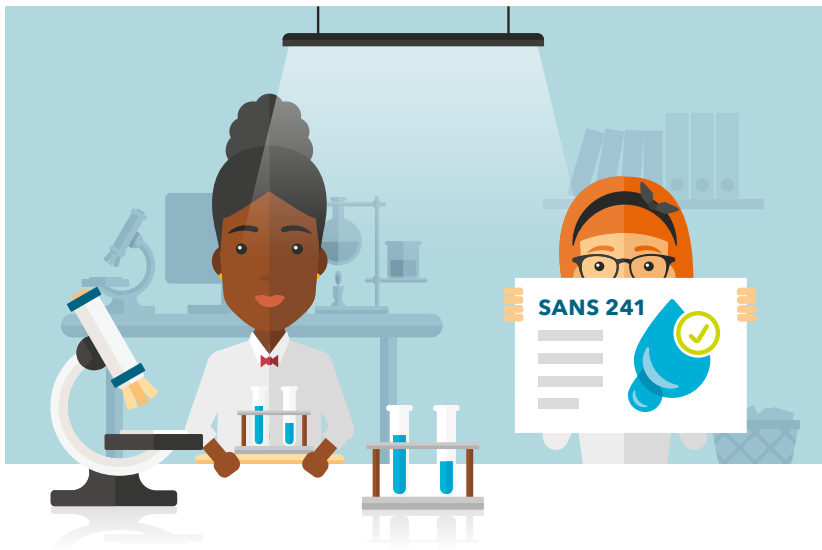
Xa uhlala kufuphi neziko lokukhutshwa kwetyuwa emanzini ngakunxweme laseKapa, kunamathuba amahle okuba amanzi etephu yakho aquka namanzi axilongiweyo akhutshwe ityuwa. La manzi angcamleka ngokwahlukileyo kumanzi owaqhelileyo, nangona kunjalo akhuselekile ukuba angaselwa asetyenziswe kananjalo.

Ungaqinisekisa njani ukuba amanzi olwandle akhutshwe ityuwa akhuselekile ukuba angaselwa?

Kwiprosesi elandelwayo yokukhutshwa kwetyuwa emanzini kusetyenziswa iimembreyini (iinwebu) ezineentunjana ezincinane kakhulu, ezisetyenziswa njengezithinteli kwizinto ezimdaka ezifana neebhakthiriya nee-oganikhi, ezidla ngokubakho kumanzi aselwandle. Kugalelwa iklorini ukubulala naziphi iibhakthiriya ezikhoyo kumanzi aselwayo.

Amanzi aselwayo akhutshwe ityuwa ayavavanywa rhoqo kulandelwa imiqathango kazwelonke yovavanyo lomgangatho wamanzi aselwayo ebizwa ngokuba yi-SANS 241, ukuqinisekisa ukuba akhuselekile ukuba aselwe ngabantu phambi kokuba afakwe kwimibhobho yokuhambisa amanzi esisiwa kubathengi.

ISebe lezeMpilo zokusiNgqongileyo neeNkonzo zezobuNzululwazi luqhuba uvavanyo rhoqo olujonga umgangatho akuwo amanzi kwiindawo ezininzi kwiSixeko siphela ukuqinisekisa ukuba amanzi akulungele ukuselwa ngabantu.



Umahluko kwindlela angcamleka ngayo amanzi aphuma kwimithombo eyohlukeneyo yamanzi



Inguquko encinane kwindlela angcamleka ngayo amanzi - ingakumbi kwabo bangcamla ngokukhethekileyo izinto, kuxhomekeka kakhulu kwimvelaphi yamanzi neprosesi elandelweyo xa exilongwa. Abanye abantu abanezingcamli ezohlukileyo ngokukhethekileyo kwezabanye kubalula kubo ukuva iinguqu ezikhoyo kwindlela amanzi angcamlekayo ngayo kunabanye abantu.

KWENZEKA NJANI YAYE KUTHENI IMITHOMBO EYAHLUKENEYO YAMANZI INOKUNGCMLEKA NGOKWAHLUKILEYO?

Amanzi aphuma emadaminini aziswa ngeendawo ezahlukeneyo zokugcina amanzi ezifumaneka eKapa nezo zingqonge iKapa	Amanzi amaninzi aphuma kumadami amanzi angcamleka ngokwahlukileyo kancinane kodwa oko kuxhomekeke kutyani nejiyoloji yendawo yokugcina amanzi akhutshelwa kwidama ngalinye. Umzekelo, amatye nezityalo ezikhula kwindawo ezisa amanzi kwiDama laseWemmershoek zahlukile kwezo zendawo ezisa amanzi kwiDama laseTheewaterskloof, okanye kumadanyana akwiNtaba yeTafile.
Amanzi asemthonjeni / kwiingxangxasi namanzi asemhlabeni aphuma kumatye angaphantsi komhlaba (akhwifa)	Amanzi aphuma kwimithombo yamanzi asemhlabeni angcamleka kanye okwezinto adibene nazo. Umzekelo, amanzi asemthonjeni aphuma kwiNtaba yeTafile angangcamleka ngokwahlukileyo kumanzi aphuma kumatye yase-Atlantis.
Ukukhutshwa kwetyuwa kumanzi olwandle	Ukukhutshwa kwetyuwa kumanzi olwandle kukukhupha ityuwa neeminerali emanzini, nto leyo eyenza ukuba amanzi kukhuseleke ukuwasela. Ikhasi yam iyabuyiselwa emanzini kamva ukuzinzisa amanzi. Abantu abaninzi abangcamla ngokukhethekileyo baza kufumanisa ukuba amanzi 'anobuduma' xa bewasela.
Ijiyosmini esemanzini asemadaminini	Ijiyosmini yikhompawundi yasendalweni engenatyhefu engcamleka bumhlabarha ikwanevunjana elifumaneka emanzini. Ngamanye amaxesha ifumaneka kwimithombo yamanzi omlambo ngexesha lasehlotyeni. Noxa kunjalo, akanabungozi kwaphela ngenxa yendlela angcamleka ngayo nevunjana analo.

Ngeenkukhacha ezithe vetshe okanye ukuba ufuna ukuxela iingxaki zamanzi, ungaqhagamshelana neSixeko saseKapa ngeNYE yezi ndlela (nceda usebenzise le ndlela uyikhethileyo ngawo onke amaxesha)

- Nge-intanethi ku www.capetown.gov.za/servicerequests
- Nge-imeyili water@capetown.gov.za
- NgeSMS **31373** (amagama neempawu zobhalo zingabikho ngaphezu ko-160)
- Ngefowuni **0860 103 089**
- Tyelela iZiko loNxibelelwano naBaxumi-ukufumana uludwe olupheleleyo ngokuthi uye ku - www.capetown.gov.za/facilities



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