

**ENVIRONMENTAL ASSESSMENT TO INFORM THE NEMA/LFTEA  
APPLICATION FOR RESETTLEMENT OF  
THE VISSERSHOK RESIDENTS ON ONE OF THREE SITES IN THE  
VICINITY OF THE CITY OF CAPE TOWN**

**March 2011**

**WOLWERIVIER FARM 101 PORTION 5**

**Reference number: E12/2/4/3-F5/14-3001/10**

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## **EXECUTIVE SUMMARY: WOLWERIVIER**

This environmental assessment is intended to inform the decision of which site may be used for the resettlement of the Vissershok squatters. Three assessments are being undertaken, one for each of the potential sites for which application has been made by the City of Cape Town. This assessment is for the Wolwerivier Site (reference number E12/2/4/3-F5/14-3001/10).

The Wolwerivier site is owned by the City Council and is within the urban edge. Relocation of the Vissershok community is a condition of approval for expansion of the landfill. This application does not form part of the City's Integrated Development Plan, but falls under the category of emergency housing as identified in the City's Housing Plan.

The project involves moving approximately 266 – 300 families (about 850 people) from the Rooidakkies and SkandaalKamp informal settlements at Vissershok to a new site of approximately 6 ha in size, although only a proportion of this would be occupied initially (approximately 2.7 ha). The site would ultimately be used for settlement of people from other west coast areas as well. The Vissershok residents will be provided with a plot of 49m<sup>2</sup> and a prefabricated shelter (steel framework and treated metal sheeting) of approximately 24m<sup>2</sup>. The site will be fenced and provided with electricity to each shelter, gravel roads, water and chemical toilets.

The predicted environmental impacts are summarised below. Emphasis is placed on the operation phase impacts as they are permanent. The construction phase impacts will be largely limited to the dust and noise associated with construction activities that will take place over a 6 – 12 month period. Most construction related impacts would include dust and noise from construction activities. There would be some economic benefits from the construction phase in terms of employment.

### **Impact Summary**

*Impacts on Tourism:* The Zonnekus holiday resort would not be directly affected by the proposed settlement which will be approximately 3 km away from it. Morningstar residents are however concerned about impacts on horse riding activities. Potential impacts would be localised and are predicted to be of Low – Medium significance after mitigation.

*Impacts on Biodiversity (flora and fauna):* The site has remnants of Critically Endangered Cape Flats Sand Fynbos in restorable (low) habitat condition. Loss of this site would have a negative impact on biodiversity through direct loss of restorable habitat. A biodiversity offset would be required for mitigation but would be difficult to achieve. Impact significance after mitigation would be Medium – Low.

*Impacts on quality of life, safety, security and livelihoods:* The Morningstar and Wolwerivier communities are concerned about personal safety and their properties, horses and livestock. The Wolwerivier community (approximately 135 people) would be directly affected as they will be closest to the relocation site. Crime is reportedly already a problem in the area and it is not possible to predict what level of increase (if any) there might be. The Wolwerivier site is further from the Morningstar area than the current settlement at the Vissershok landfill site. There would be increased vehicular and pedestrian traffic. Access to the site from the M19 road to Melkbostrand would reduce potential impacts on the MR 215. Impacts are most likely to be felt at a localised community and individual level and are considered of Medium significance for the Morningstar smallholding residents and High significance for the Wolwerivier residents.

*Impacts on economy, employment and City planning:* Local businesses may choose to increase security arrangements at a personal cost. If Morningstar residents choose to leave, there may be a local effect on the economy and employment. This could also affect the Wolwerivier residents, some of whom work in the Morningstar area. Impact significance is predicted to be of Low significance for the overall economy and of Low – Medium significance for the Morningstar residents.

*Impacts on cultural – historical aspects:* The property is located adjacent to a scenic route (R304). The Bluegum trees along the MR 215 are of cultural interest. Impacts would be of Low significance after mitigation.

*Noise and visual impacts:* The Wolwerivier community would be most affected by noise and visual impacts. The Morningstar community will not be affected by noise or visual impacts. A buffer zone and existing vegetation would limit the visual impact although it will be possible to see the site from the MR 215. Noise and visual impacts for the Wolwerivier community would be of Medium – High significance, but of Low significance for the Morningstar community.

In terms of efficiency, equity and sustainability criteria, the Wolwerivier site is within the urban edge and growth path of the City and thus resources invested here are likely to be of wider benefit in the medium to long term. The site would allow the Vissershok residents to access current work opportunities and schools.

## **UITVOERENDE OPSOMMING: WOLWERIVIER**

Dié omgewingsimpakbepaling is daarop gemik om die grondslag van die besluit te vorm oor watter perseel vir die verskuiwing van die Vissershok-gemeenskap gebruik kan word. Drie bepalings word gedoen – een vir elk van die potensieële persele waarom daar by die Stad Kaapstad aansoek gedoen is. Dié bepaling is vir die Wolwerivier-perseel (verwysingsno.: E12/2/4/3-F5/14-3001/10).

Die Wolwerivier-perseel is in raadsbesit en binne die stedelike soom. Verskuiwing van die Vissershok-gemeenskap is 'n goedkeuringsvoorwaarde vir die uitbreiding van die grondopvulterrein. Dié aansoek maak nie deel van die Stad se geïntegreerde-ontwikkelingsplan uit nie – dit val in die kategorie noodbehuising soos geïdentifiseer in die Stad se behuisingsplan.

Die projek behels die verskuiwing van sowat 266 – 300 gesinne (sowat 850 mense) van die Rooidakkies- en SkandaalKamp- informele nedersettings te Vissershok na 'n nuwe perseel wat sowat 6 ha groot is, hoewel slegs 'n gedeelte hiervan aanvanklik bewoon sal word (sowat 2,7 ha). Die perseel sal uiteindelik ook vir die nedersetting van mense van ander Weskusgebiede gebruik word. Die Vissershok-inwoners sal van 'n perseel van 49 m<sup>2</sup> en 'n vooraf vervaardigde (staal en metaal) skuiling van sowat 24 m<sup>2</sup> voorsien word. Die perseel sal omhein word, elke skuiling sal van elektrisiteit voorsien word, en daar sal gruispaaië, water en chemiese toilette wees.

Die verwagte omgewingsimpakte word hieronder opgesom. Die bedryfsfase-impakte word beklemtoon, aangesien hulle permanent is. Die konstruksiefase-impakte sal oor 'n tydperk van 6 tot 12 maande hoofsaaklik met stof en geraas gepaard gaan wat as gevolg van konstruksieaktiwiteite veroorsaak word. Die konstruksiefase sal in sekere mate ekonomiese voordele oplewer wat met werkgeleentede verband hou.

### **Impakopsomming**

*Impakte op toerisme:* Die Zonnekus-vakansieoord sal nie regstreeks deur die voorgestelde nedersetting geraak word nie, aangesien dit sowat 3 km daarvandaan sal wees. Morningstar-inwoners is egter besorg oor impakte op perdryktiwiteite. Potensieële impakte sal plaaslik wees en na verwagting na versagting lae tot medium draagwydte hê.

*Impakte op biodiversiteit (flora en fauna):* Die perseel het oorblyfsels van kritiek bedreigde Kaapse Vlakte-sandfynbos in herstelbare (lae) toestand. Verlies van dié perseel sal 'n negatiewe uitwerking op biodiversiteit hê vanweë die regstreeks verlies aan herstelbare habitat. 'n Biodiversiteitsvergoeding sal vir versagting nodig wees, maar dit sal moeilik bereikbaar wees. Die draagwydte van dié impak na versagting sal medium tot laag wees.

*Impakte op lewensgehalte, veiligheid, sekuriteit en broodwinning:* Die Morningstar- en Wolwerivier-gemeenskappe is besorg oor persoonlike veiligheid en hulle eiendomme, perde en vee. Die Wolwerivier-gemeenskap (sowat 135 mense) sal regstreeks geraak word, omdat hulle die naaste aan die nedersettingsperseel sal wees. Misdaad is na bewering reeds 'n probleem in die gebied, en daar kan nie voorspel word in welke mate dit sal toeneem nie (indien dit wel gebeur). Die Wolwerivier-perseel is verder van die Morningstar-gebied as die huidige nedersetting by die Vissershok-grondopvulterrein. Daar sal 'n toename in voertuig- en voetgangerverkeer wees. Toegang tot die perseel uit die M19-pad na Melkbosstrand sal potensiële impakte op die MR215 verminder. Impakte sal heel waarskynlik op 'n plaaslike gemeenskaps- en individuele vlak ervaar word en word met medium draagwydte vir die Morningstar-kleinboewe-inwoners en hoë draagwydte vir die Wolwerivier-inwoners geag.

*Impakte op die ekonomie, werkgeleenthede en Stadsbeplanning:* Plaaslike ondernemings kan kies om veiligheidsreëlings op eie koste te verskerp. As Morningstar-inwoners kies om weg te gaan, kan daar 'n plaaslike uitwerking op die ekonomie en werkgeleenthede wees. Dit kan ook die Wolwerivier-inwoners raak, van wie sommige in die Morningstar-gebied werk. Daar word verwag dat die impakte vir die algehele ekonomie 'n lae draagwydte sal hê, en 'n lae tot medium draagwydte vir die Morningstar-inwoners.

*Impakte op kulturele/historiese aspekte:* Die eiendom is langs 'n natuurskoonroete (R304) geleë. Die Bloekombome langs die MR215 is van kulturele belang. Impakte sal na versagting 'n lae draagwydte hê.

*Geraas- en visuele impakte:* Die Wolwerivier-gemeenskap sal die meeste deur geraas- en visuele impakte geraak word. 'n Buffersone en bestaande plantegroei sal die visuele impak beperk, hoewel die perseel van die MR215 sigbaar sal wees. Geraas- en visuele impakte sal 'n vir die Wolwerivier-gemeenskap 'n medium tot hoë draagwydte hê, terwyl die vir die Morningstar-gemeenskap 'n lae draagwydte sal hê.

Wat doeltreffendheids-, billikheids- en volhoubaarheidskriteria betref, is die Wolwerivier-perseel binne die stedelike soom en groeipad van die Stad, en hulpbronne wat dus hier belê word, sal waarskynlik in die medium tot lang termyn groter voordeel inhou. Die perseel sal die Vissershok-inwoners toegang tot huidige werkgeleenthede en skole bied.

## **ISISHWANKATHELO SESIGQEBA ESILAWULAYO: WOLWERIVIER**

Olu vavanyo lwendalo esingqongileyo lwenzelwe ukwenza isigqibo malunga nesiza ekufuneka sisetyenzisiwe ekusekeni ngokutsha indawo yokuhlala yoluntu lommandla wase-Vissershok. Iindidi ezintathu zovavanyo ziye zaqaliswa, uvavanyo lwesiza ngasinye esinokusetyenziswa nalapho isiXeko saseKapa sifake khona isicelo. Olu vavanyo lolwesiza sase-Wolwerivier (inombolo yesalathisi: E12/2/4/3-F5/14-3001/10).

Isiza sase-Wolwerivier seseBhunga lesiXeko kwaye singaphakathi kumphetho wedolophu. Ukufuduselwa kwenye indawo koluntu lommandla wase-Vissershok kuyimeko yolwamkelo lokwandiswa kwendawo yokulahla inkunkuma. Esi sicelo asiyonxenye yesiCwangciso soPhuhliso oluManyanisiweyo lwesiXeko koko siphantsi kodidi lolwakhiwo-zindlu zexesha likaxakeka njengoko kuphawulwe njalo kwisiCwangciso soLwakhiwo-zindlu sesiXeko.

Iprojekthi iquka ukufudukisa iintsapho ezimalunga nama-266 – 300 (malunga nabantu abangama-850) ematyotyombeni ase-Rooidakkies nase-SkandaalKamp e-Vissershok ukuya kwisiza esitsha esimalunga ne-6 ha (ihekhthare) ubukhulu, nangona isisahlulo kuphela ekuza kuhlala kuso abantu ekuqaleni (malunga ne-2.7 ha). Isiza ekugqibeleni siya kusetyenziswa ekuhlaliseni abantu abasuka nakweminye imimandla yoluntu eselunxwemeni olusentshona. Abahlali base-Vissershok baya kunikwa iplothi engama-49m<sup>2</sup> nendawo yokuhlala eseyenziwe nemalunga nama-24m<sup>2</sup>. Isiza siya kubiyelwa kwaye kunikezelwe nombane kwindawo yokuhlala nganye, iindlela zegrabile, amanzi kunye nezindlu zangasese zamachiza.

Iimpembelelo ezicingelwayo kwindalo esingqongileyo zishwankathelwe apha ngezantsi. Ugxininiso lubekwe kwiimpembelelo zenqanam lomsebenzi njengoko zisisigxina. Iimpembelelo zenqanabalolwakhiwo ziya kuquka uthuli kunye nengxolo ebangelwa yimisebenzi yolwakhiwo kwixesha leenyanga ezi-6 – 12. Iimpembelelo ezininzi ezinxulumene nolwakhiwo zingaquka uthuli nengxolo ehambelana nemisebenzi yolwakhiwo. Kuya kubakho iinzuzo ezingephi ezisuka kwinqaba lolwakhiwo ngokwengqesho.

### **IsiShwankathelo seMpembelelo**

*Iimpembelelo kuKhenketho:* Indawo yokuchitha iholide yase-Zonnekus ayisayi kuchaphazeleka ngokuthe ngqo lulwakhiwo-zindlu olucetywayo noluya kuba malunga ne-3 km kude nalo. Abahlali base-Morningstar baxhalabile malunga nempembelelo kwimisebenzi yokukhwela amahashe. Iimpembelelo ezinokubakho zezengingqi kwaye zicingelwa kubaluleko oluPhantsi ukuya Phakathi emva koncitshiso.

*Iimpembelelo kwiBhayodayvesithi (izityalo nezilwanyana):* Isiza sinentsalela esikwiNdawo enotyani olusemngciphekweni olukhula esantini ese-Cape Flats kwimeko yocino (oluphantsi). Ilahleko yesi siza inganempembelelo engentlanga kwibhayodayvesithi ngenxa yelahleko ethe ngqo kwikhaya lezityalo

nezilwanyana eligcinekayo. Umlinganiso webhayodayvesithi uya kufuneka kuncitshiso kodwa kuya kuba nzima ukuwufezekisa. Ukubaluleka kwale mpembelelo emva kokuncitshiswa kuPhakathi ukuya Phantsi.

*limpembelelo kumgangatho wobomi, ukhuseleko, ukhuselo neendlela zokuphila:* Uluntu lwemimandla yase-Morningstar nase-Wolwerivier luxhalabile malunga nokhuseleko lwabo nokhuseleko lwemihlaba nezakhiwo zabo, amahashe nemfuyo. Uluntu lommandla waseWolwerivier (malunga ne-135 yabantu) luya kuchaphazeleka ngokuthe ngqo njengoko lukufutshane kakhulu nendawo yokufudukela. Ulwaphulo-mthetho luchazwa njengoluyingxaki ekhoyo kummandla kwaye akululanga ukuqiza umgangatho wokonyuka kwalo (ukuba kungakhona) okunokubakho. Isiza saseWolwerivier sikude nommandla waseMorningstar kunendawo yokuhlala yangoku kwisiza sokulahla inkunkuma sase-Vissershok. Kuya kubakho ukwanda kwezihamba-ndlela nabahambi ngeenyawo. Ufikelelo kwisiza olusuka kwindlela u-M19 eya e-Melkbostrand luya kunciphisa impembelelo enokubakho ku-MR 215. Iimpembelelo zisenokubakho kwimimandla yoluntu kwingingqi nakumgangatho womntu ngamnye kwaye kucingelwa njengokubaluleka okuPhakathi kubahlali kwiindawo ezincinci zase-Morningstar nokuPhezulu kubahlali base-Wolwerivier.

*limpembelelo kuqoqosho, ingqesho nocwangciso lwedolophu:* Amashishini engingqi angakhetha ukwandisa amalungiselelo okhuselo ngokwexabiso lomntu ngamnye. Ukuba abahlali base-Morningstar bakhetha ukuhamba, kungakho isiphumo sengingqi kuqoqosho nengqesho. Oku kungachaphazela nabahlali baseWolwerivier, njengoko abanye babo besebenza kummandla wase-Morningstar. Ukubaluleka kwempembelelo kucingelwa ukuba kuya kuba kukubaluleka okuPhantsi kuqoqosho lunonke kunye nokuPhantsi ukuya Phezulu kubahlali base-Morningstar.

*limpembelelo kwinkcubeko – imiba yembali:* Ipropati ime kwindawo ekufutshane nendlela edala umtsalane (R304). Imithi i-Bluegum ku-MR 215 idala umdla ngokwenkcubeko. Impembelelo iya kuba nokubaluleka okuPhantsi emva kokuncitshiso

*Ingxolo kunye neempembelelo ezibonakalayo:* Uluntu lommandla wase-Wolwerivier luya kuchaphazeleka kakhulu yingxolo neempembelelo ezibonakalayo. Uluntu lommandla wase-Morningstar alusayi kuchaphazeleka yingxolo okanye iimpembelelo ezibonakalayo. Izowuni ephakathi kweezowuni ezinkulu (buffer) nezityalo ezikhoyo ziya kunciphisa impembelelo yembonakalo nangona kuya kuba lula ukubona isiza ku-MR 215. Ingxolo neempembelelo ezibonakalayo kuluntu lommandla waseWolwerivier ziyakuba nokubaluleka okuPhakathi – Phezulu, kodwa ukubaluleka okuPhantsi kuluntu lommandla waseMorningstar.

Ngokwendlela esebenzayo okanye enobuchule, enobulungisa negcinakeleyo, isiza sase-Wolwerivier singaphakathi kumphetho wedolophu nakwindlela yokukhula kwesiXeko kunye nokuba oovimba benzaliso-mali apha bangayinzuzo ebanzi kwixesha eliphakathi ukuya kwelide. Isiza siza kuvumela abahlali base-Vissershok ukuba bafikelele kumathuba emisebenzi nezikolo.

**ENVIRONMENTAL ASSESSMENT TO INFORM THE NEMA/LFTEA APPLICATION FOR RESETTLEMENT OF THE VISSERSHOK SETTLERS ON ONE OF THREE SITES  
IN THE VICINITY OF THE CITY OF CAPE TOWN**

**February 2011**

**WOLWERIVIER FARM 101 PORTION 5**

**Reference number: E12/2/4/3-F5/14-3001/10**

**BACKGROUND**

In terms of the enabling provisions of section 24K(2) of the National Environmental Management Act (NEMA), the provincial Minister for Local Government, Environmental Affairs and Development Planning and the provincial Minister for Human Settlements signed an agreement on 16 September 2010 (Appendix 1a) to enable the submission of a combined NEMA/Less Formal Township Establishment Act (LFTEA) application for the assessment of 3 potential sites for the resettlement of informal settlers currently located in Skandaalkamp and Rooidakkies settlements at the Vissershok landfill site. The environmental assessments undertaken are intended to provide DEA&DP with sufficient information to enable them to make a decision on which of the sites may be used for relocation purposes. Three separate assessments are being undertaken, one for each of the potential sites. This assessment is for the Wolwerivier Site (reference number E12/2/4/3-F5/14-3001/10).

The Wolwerivier site being considered here was identified by Town Planning as reply to a prior attempt at establishing a settlement in Van Schoorsdrift. The motivation<sup>1</sup> for Wolwerivier was based on the fact that the land is owned by Council (i.e. had just been purchased). A report giving a much fuller

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<sup>1</sup> *Criteria for identification of all the sites:* The key criteria in identification were (a) that the land is owned by Council, so that an acquisition processes need not precede delivery; (b) that the site was serviceable with municipal infrastructure at not too high a cost; and (c) that the area was minimally sensitive as far as the natural environment goes. Other but lesser criteria included a reasonable prospect of upgrading the area to being a fully-fledged urban area in the longer run, and not relocating the beneficiaries too far from their current place of residence.

explanation as to why this location should be pursued was submitted to the Planning & Environment Portfolio Committee (PEPCO) of Council, and endorsed (Appendices 1b and 1c). A formal land use application on a portion of farm CA 101/5 was thus initiated.

It should be noted that this environmental assessment is required to meet the minimum requirements of section 24 (4) (a) and (b) of the National Environmental Management Act (NEMA). It has been structured according to the guideline attached to the letter provided by the Department of Environmental Affairs and Development Planning (dated 25 October 2010), in which the reference number of the application was given.

#### History of the selected sites

The need to relocate the squatters on the Vissershok solid waste site has been on the agenda for at least 5 years. In that time efforts to identify a suitable location have shifted from one line department to another. Initially the intention was to move them aside, allowing for the extension of the waste site. In 2007 a Land Use Planning opinion was given that no residential occupation of the site is allowed – it is Zoned “outspan”. This was followed by a search, conducted by Spatial Planning, of possible locations outside the Outspan. Several possibilities were identified but found to be unsuitable. An administrative decision was made that the most rapid, smoothest and simple relocation would be to the edge of the Outspan (region 6), on the other side of the N7 freeway. The first choice was a location just off the turn-off from the N7 onto the Van Schoorsdrift Pad – in the fork effectively. It was subsequently found to be unsuitable and a location further up the road, just opposite the Council offices was jointly settled on.

This is also the terrain that is the subject of the current “Van Schoorsdrift” application. In late 2007 it was decided to proceed with a funding application and construction. Town planning suggested a land use change would first be required. Housing then requested a “deviation” approval from Outspan on the said portion. This was turned down, and in 2008 a formal LUPO application rezoning was launched. Site clearing continued alongside the public participation process. The result was a legal challenge from the neighbouring land owner which ended up in an instruction to stop construction, as well as a search for a new location.

Once again Spatial Planning took the lead, offering two sites between Atlantis Industria and the neighbouring residential area. A formal LUPO rezoning process was started on each of the sites shown below. In the course of the public participation process, together with 2 public meetings hosted by the SubCouncil, the process was stopped. The objection to the proposal transformed into a community protest, bringing on a new site search.



*Aerial Photograph: Atlantis sites (within the urban edge) that were opposed by the Atlantis Community*

The Subcouncil thus recommended a location on a piece of land that had just been purchased by the Housing Directorate. This piece is referred to as Atlantis South and is the subject of the current Application and Assessment. A second response was offered by the Town Planning Branch, more directly in reaction as an alternative to the Van Schoorsdrift location. This took the form of a motivating report to Council (the draft was never approved) which recommended that the squatters be relocated to another piece of land recently bought by Housing: this is referred to as the Wolwerivier site (this application). It forms the 3<sup>rd</sup> in a trio of applications currently in process. In sum, the identification of sites has been the subject of much politics and several alternatives have been considered and discarded, not at technical level only, but also politically.

#### Role in 5 year Housing Plan

Draft Environmental Assessment: Wolwerivier: For Public Comment

It is important to understand that the relocation of the squatters from the Vissershok landfill site is not premised on the provision of housing. It is based on the need to fulfill the requirements of the operating permit issued by the national Department of Environment. Keeping the waste disposal facility open, and extending its capacity, is a crucial urban management function. The relocation “project” does not appear either on the IDP or the 5 year housing plan. The relocation is in fact a contingency task linked to the Solid Waste function and Vissershok expansion project. However since housing funds will be used for the relocation and the installation of infrastructure, a capital sum does appear on Council’s (housing) budget and a statement of intent to deal with “Emergency” housing situations in the 5 year housing Plan also appears. And yet, a benefit with respect to tenure and services will accrue to the subject community.

#### **SECTION A:**

##### **1. DETAILS OF THE PERSON DESIGNATED TO CONDUCT THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND TO PROVIDE THE REQUIRED INFORMATION IN ORDER TO OBTAIN AN ENVIRONMENTAL AUTHORISATION**

The Environmental Impact Assessment reports for the applications for each of the 3 sites have been compiled by staff from the City of Cape Town Environmental Resource Management Department (ERMD): Environmental Management Systems Branch, with the assistance of and information provided by district staff from the Environmental and Heritage Management Branch of the ERMD as well as district staff from a variety of service departments (e.g Transport, Roads and Stormwater, Electricity, Bulk water, Solid Waste). Inputs have also been made by the Housing and Planning, Building and Land use Management Departments.

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## 2. PROJECT DESCRIPTION

### Portion 5 of Cape Farm 101 Wolwerivier (R304/Morningstar road)

The project involves the resettlement of approximately 850 individuals (approximately 266 – 300 families) currently living adjacent to the Vissershok landfill site. The landfill site is currently being expanded and it is critically important that the occupants of the site be moved elsewhere as they are located in the direct path of the extension. Permit requirements forbid human settlement or permanent habitation within an 800 m buffer zone of the landfill site. The existing settlements are illegal. Three possible relocation sites have been identified by the City of Cape Town. The project description below relates to those activities that would be necessary to prepare the Wolwerivier site for occupation for up to 500 families. The site is being prepared for a larger number of families as it is possible that the site may need to accommodate more people in the future. The site is considered permanent and it is intended that the occupants ultimately gain ownership of their properties.

The source of funding would be the national housing grant, issued and approved by the MEC Housing. It is important that any structure and form conditions accompanying the approval of the informal settlement are affordable, which implies liaison between the MEC's for Housing and Environment, as also noted in their *Memorandum of Understanding* regarding LFTEA cases.

Site preparation would involve the removal of vegetation on the site (grassland, trees and shrubs). The terrain is fairly level but some earthmoving and site reshaping will be necessary. The development concept makes provision for approximately 320 - 350 plots, each measuring 49m<sup>2</sup> with a prefabricated unit of 24m<sup>2</sup>. The units will be constructed out of steel and treated metal sheeting (see model photograph in Appendix 4a). An alternative being considered is the provision of a slab (40m<sup>2</sup>) and a 'wet core'. The wet core includes a wall and a bathroom (Appendix 4b). This alternative allows the residents to build a structure using their own materials and configuration.

The engineering services necessary would include:

**Roads:** Gravel roads would be provided on site. The property is served by the MR215 Morningstar Road. Access to the MR 215 can be obtained at two points, i.e. either at the Morningstar turnoff, or further north at the Melkbostrand turnoff. The MR 215 is in a state of structural disrepair however still open to traffic. It requires significant upgrading to service the site. It is however usable providing that reasonable speeds are adhered to. There is a proposal to deproclaim the road from its Main Road status to a local street – but it would still give access to the site. There is currently no budget for the

upgrade of this road and Municipal Infrastructure Grant funding would need to be sought for this purpose. Public transport will be the only means of transport to the site and provision for taxis is to be provided on site to avoid unsafe conditions on the road.

**Overland stormwater drainage:** The property has no formal bulk stormwater system available and the current norm is that the concentrated run-off is simply discharged onto the land and natural furrows leading to nearby streams and rivers. The informal standard of services often results in very poor quality stormwater. Site attenuation and water quality management will therefore be necessary to ensure compliance with the Water Act and City of Cape Town Catchment and Stormwater River Management policies. The Catchment Management Department have indicated that it will be necessary to install conservancy tanks to deal with grey water and storm water.

**Water reticulation and stand pipes:**

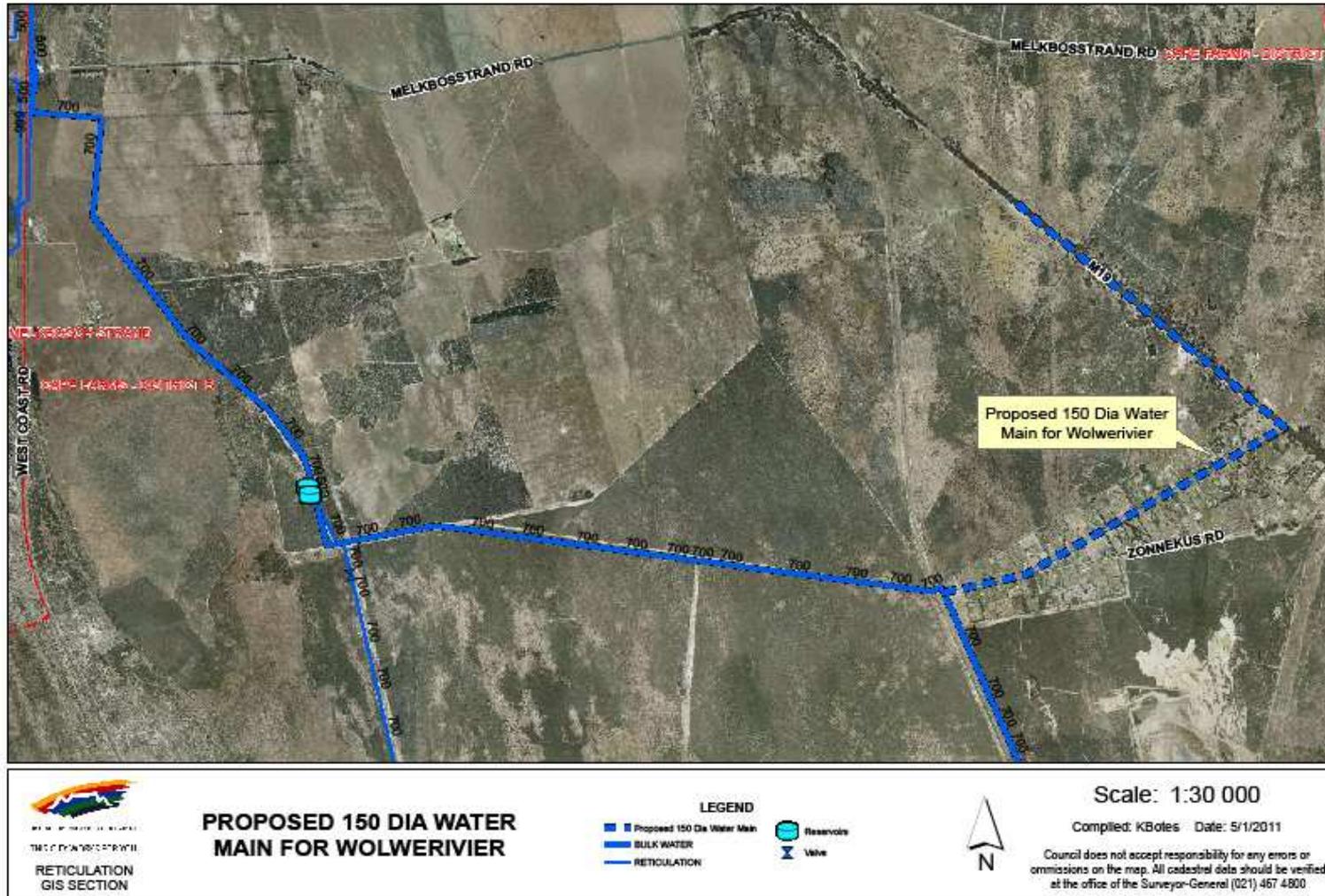
There is a small 32 mm diameter water supply pipe to the site at present feeding water from the Morningstar smallholding's reticulation to the existing Wolwerivier community. A 150 mm diameter pipeline will be required from the Bulk Mains to the Melkbos Reservoirs over a distance of approximately 5000 m to this site to supply water for the new settlement (see Figure 1 below).

**Sewerage reticulation and toilets:** There are no bulk services available to the site and the proposed system to cater for the households will have to be a chemical or eco-friendly dry sanitation system.

**Provision of electricity to dwellings:** The site is within the Eskom Supply Area. The City will arrange for there to be access to electricity for each dwelling.

**Fencing:** The entire development will be fenced. Palisade fencing is proposed.

Figure 1: Water supply for Wolwerivier



### 3. LIST OF ACTIVITIES ASSESSED IN TERMS OF GN R. 544, GN NO R. 545 AND GN NO R. 546

The following activities may be applicable to this site:

Government Notice R544 Activity No(s):	Describe the relevant <b>Basic Assessment Activity(ies)</b> in writing as per <b>Listing Notice 1</b> (GN No. R544)	Describe the portion of the development as per the project description that relates to the applicable listed activity
Activity 9	Construction of facilities or infrastructure exceeding 1000m in length for the bulk transportation of water sewerage or storm-water with an internal diameter of .36m or more, or a peak throughput of 120 liters or more;	A water supply pipe of minimum 150 mm in diameter will be required to supply water to the area over a distance of approximately 5000 m
Activity 22	The construction of a road outside urban areas (ii) where no reserve exists where the road is wider than 8 meters	Design details are not yet known but at least 3000 m of new roadway will be graded.
Activity 37	The expansion of facilities or infrastructure for the bulk transportation of water sewerage or storm water where: (a) the facility or infrastructure is expanded by more than 1000 metres in length; or (b) where the throughput capacity of the facility or infrastructure will be increased by 10% or more – excluding where such expansion relates to transportation of water, sewage or stormwater within a road reserve or where such expansion will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.	A water supply pipe of minimum 150 mm in diameter will be required to supply water to the area over a distance of approximately 5000 m in the road reserves of the Morningstar smallholdings area and along the Old Melkbos road.
Activity 23	The transformation of undeveloped vacant or derelict land to – residential, retail, commercial, recreational, industrial or institutional use, outside an urban area; AND where the total area to be transformed is bigger than 1ha but less than 20ha.	Surface area of the development is up to 6ha in size.
Government Notice R546 Activity No(s):	Describe the relevant <b>Basic Assessment Activity(ies)</b> in writing as per <b>Listing Notice 3</b> (GN No. R546)	Describe the portion of the development as per the project description that relates to the applicable listed activity
Activity 4:	The construction of a road wider than 4 meters with a reserve less than 13.5 m all outside urban areas.	Design details are not yet known but at least 3000 m of new roadway will be graded.
Activity 12:	Clearing of 300m <sup>2</sup> or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation	The vegetation to be cleared on this site consists of critically endangered Cape Flats Sand Fynbos that is in low condition (highly degraded but restorable). It is selected as a critical biodiversity area on the fine-scale conservation plan for the city (Biodiversity Network). The vegetation currently is dominated by grasses (indigenous and alien) and few other fynbos plants.
	Clearance of an area of 1ha or more where 75% or more of the vegetative cover constitutes indigenous vegetation.	As above: the vegetation is considered "indigenous" although in a degraded condition.

#### 4. DESCRIPTION OF THE PROPERTY ON WHICH THE ACTIVITY IS TO BE UNDERTAKEN

(a) Physical size of the proposed activity

1. Size of the parent property (cadastral unit number CA101/5) is 140ha.
2. Size of the proposed development is expected to be less than 6 ha, inclusive of all ancillary facilities and services.

b) Gradient of the site: the site is fairly flat but there are depressions and low dunes that may need to be leveled out.

c) Location in landscape: The site is on a flattish plain. There are no distinguishing features.

d) Soil and geological stability of the site: The site has sandy soils that are likely to be geologically stable.

e) Surface water: there is no surface water present on the site.

f) Biodiversity: The proposed site is a remnant of Critically Endangered Cape Flats Sand Fynbos in restorable (low) habitat condition selected on the Biodiversity Network towards meeting national and city biodiversity targets. It is classed as a CBA 2 site as it does not consolidate other remnants of higher habitat value. The vegetation is dominated by alien annual grasses, with indigenous grasses and annuals also present. Refer to Appendix 5 for a biodiversity map.

g) Land use of the site: The portion of the site to be used for resettlement is vacant and is not used for any purpose at present.

h) Land use character of the surrounding area: Surrounding activities in the area include agriculture (grazing for cattle) and horseriding. The Blaauwberg Conservation Area is approximately 2.8 km from the south western boundary of the site.

i) Socio-economic characteristics of the community:

Vissershok residents:

Most of the Vissershok residents are extremely poor and are reliant on authorities and charitable organisations for shelter and basic services. Most of the beneficiaries earn less than R1500 per month. Up to 80% of the beneficiaries could be unemployed (an estimate). Many of the residents were previously scavenging on the Vissershok landfill site but this is now being prevented due to conditions contained in a Record of Decision issued by

DEA&DP for the extension of the landfill site. There are approximately 266 informal dwellings in the Roodakkies and Skandaalkamp settlements. The total number of individuals is approximately 850 people. Of these, approximately 503 are adults and 340 are children under the age of 16 (2008 data). The Incremental Development Area (IDA) site is intended to support up to approximately 500 families as there is a need to move people from other sites.

Wolwerivier residents:

The following information has been derived from a survey undertaken in December 2010.

There are approximately 62 adults and 44 – 48 children under the age of 16 living in the Wolwerivier settlement. There are a further 22 offspring over the age of 16 – but it is not clear how many of them are still living at Wolwerivier. Approximately half of the adults are employed. Most of the people living here have been in the area for many years (most for 20 – 46 years) and the community is thus relatively well established. Very few people indicated they were new to the area (< 2 years), suggesting that there is relatively little influx into this population. There is however a high dependency ratio – with a large young population and many other dependants also being mentioned (extended family).

Morningstar residents:

The Morningstar smallholding area is made up of households in the middle to upper income range, most of whom keep horses on their properties for either personal use or as part of a business (e.g. equestrian estate, riding lessons and outrides). There is also a holiday resort (Zonnekus holiday resort) in the area.

j) Historical and cultural aspects: The site is on a portion of the original farm Lot C which was historically reserved for the Forest Department according to the 1901 Cape Divisional Map. The farm is flanked by historical farms Keert de Koe and Blaauwberg farm which both have significant heritage value. There are some structures and buildings on the site, many of which are older than 60 years. However, apart from a small worker's cottage, the buildings are not considered to have any visible heritage significance in terms of their architecture. They constitute mostly ruins of old reservoirs and some residential cottages. All of these structures are some distance from the proposed settlement area and will not be altered or demolished.

The property is located on a designated scenic route (R304) and the Bluegum tree on the periphery of the site is of cultural interest.

k) Applicable legislation, policies and /or guidelines

*The following legislation is applicable:*

- National Environmental Management Act 107 of 1998
- National Heritage Resources Act 25 of 1999.
- Less Formal Townships Establishment Act 113 of 1991

*The following policies, frameworks and guidelines are applicable:*

- Western Cape Provincial Spatial Development Framework (2009)
- City of Cape Town Northern Urban Edge Report (2001)
- City of Cape Town Draft Development Edges Policy (2009)
- Draft Cape Town Spatial Development Framework (2009)
- Atlantis and Environs Guide Plan (1981)
- City of Cape Town Floodplain and River Corridor Management Policy (2009)
- City of Cape Town's Management of Urban Stormwater Impacts Policy (2009)
- City of Cape Town Biodiversity Network
- City of Cape Town Veldfire Planning Guidelines (2004)
- City of Cape Town Scenic Routes Management Plan
- City of Cape Town Heritage Resources Strategy
- City of Cape Town's Agricultural Land Review (2008)

## **5. SITE PHOTOGRAPHS**

Photographs are attached in Appendix 7.

## **6. PUBLIC INFORMATION AND PARTICIPATION PROCEDURES IN TERMS OF NEMA AND LFTEA**

### **a. LFTEA**

The proposed development has been announced to the public in terms of the requirements of the Less Formal Townships Establishment Act. Such requirements included a) publication of an advert in the press; b) publication of an announcement in the Provincial Gazette and c) informing political representative of the intended development (by getting a mandate from Council) and d) getting clearance from the MEC to apply in terms of LFTEA. Furthermore, in line with the directive issued by the MEC, the application had been circulated to all line-departments within the municipality for comment and information. A public meeting devoted to the matter was also held with the residents of Morning Star and the resident community of the Wolwerivier area. All input and objections received by the beginning of October 2010 had been logged and processed. With all this in hand, a request was made to the MEC to condone the public process as being adequate also for the NEMA public participation. In terms of LFTEA, this is a power available to the MEC. The request was declined and a subsequent process was started.

#### b. NEMA

Accordingly, an advert was placed in the local press in fulfilment of the NEMA regulations. A “Notice of Intent” was then submitted to the MEC launching a NEMA case. A notice board announcing the proposed development was not placed on the site, partly because the development by that time was already so well known, and partly because it would generate animosity and confusion. The present environmental assessment (EA) will serve as a more comprehensive and systematic assembly of all information of the proposed development, and will be available for public scrutiny. The EA report is open for inspection from mid March to mid April and all feedback shall be logged, processed and submitted along with the NEMA application to the MEC. The squatter communities of Rooidakies and Skandaalkamp are also well informed of the intended relocation: the Ward Councillor and community liaison officers of this council have had on-site meetings with aforementioned communities.

#### SUMMARY LIST OF ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES (I&Aps) AFTER THE ISSUING OF THE LFTEA ADVERTISEMENT

A list of issues (contained in Appendix 3) has been summarised from written submissions from interested and affected parties (I&Aps) that were received in response to the LFTEA advertisement of 30 July 2010. The NEMA advertisement of 19 November 2010 (Appendix 2) indicated that issues raised in

response to the LFTEA advertisement would be taken into account in the NEMA environmental assessment process. No written submissions were received in response to the NEMA advertisement.

Public involvement processes are shown in the table below.

Public Information and liaison process

The subject Application has been made widely known through the following public and decision-maker process:

Process		Type	Date
<u>LFTEA</u>	1	Municipal MAYCO decision	20 April 2010
	2	Advertisement in Government Gazette Advertisement in open media	27 July 2010 29 July 2010
	3	Public meeting in Morningstar	24 August 2010
	4	Internal circulation to line departments	September 2010
<u>NEMA</u>	1	Notice of intent to MEC	19 October 2010
	2	Placement of report in Local Library	10 March 2011
	3	Mail-notice direct to I&A parties	10 March 2011
	4	Web-site placement	11 March 2011
	5	Comment due by	21 April 2011

This process is very politicized and thus well known. It has been discussed at Subcouncil meetings, at various Portfolio meetings, by land owners and communities.

**7. NEED AND DESIRABILITY OF THE ACTIVITY**

**(a) Describe the need and desirability of the activity**

**NEED (timing)**

**Question 1:** *Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework agreed to by the relevant environmental authority? (I.e is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).*

The need for resettlement of the Vissershok communities is not a specific type of project as identified in the IDP – but is a strategic need to enable ongoing solid waste disposal at the expanding Vissershok site.

In terms of the City Spatial Development Framework (SDF) and the Blaauwberg District Plan (both currently in draft form), Cape Farm 101 portion 5 is located within an identified City growth corridor (see maps in Appendix 9). The proposed medium term urban edge within this portion of the corridor is considered generous, containing sufficient land for development over the next 20 years (based on available land and development trends to date). As a result, the site identified is located in a portion of the corridor considered for longer term development. In terms of this long term development, the site will be located in a major urban corridor with related public transport (e.g. the adjacent railway line which is intended to make provision for passenger traffic), public facilities and job opportunities. While the site is not ideally located in the short term, it will be increasingly well located as development takes place in the growth corridor.

**Question 2:** *Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?*

While the site is not ideally located in the short term, it will be increasingly well located as development takes place in the growth corridor. Initially, the resettled Vissershok community will be relatively isolated.

**Question 3:** *Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority but within a specific local context it could be inappropriate).*

There is an urgent local and regional need to move the informal residents away from the Vissershok landfill site as it is being expanded to accommodate waste from the Cape Town Unicity. The Vissershok informal community are living in an unhealthy and unpleasant environment. The Wolwerivier site and area and the communities who live or work there do not need the informal settlement and are opposed to it.

**Question 4:** *Are the necessary services with adequate capacity currently available (at the time of the application) or must additional capacity be created to cater for the development?*

**Water:** There is a 32 mm water pipe to the site at present connected to the Morningstar smallholding's reticulation. There is a bulk water mains connection further south from which a 150 mm pipe minimum diameter can be extended to the site over a distance of approximately 5000 m. This pipe would supply the required minimum water consumption and pressure for fire fighting (See Figure 1).

**Electricity:** The City will be arranging supply of electricity to individual households, in negotiation with Eskom.

**Sewer:** There are no bulk services to this site and therefore a chemical or conservancy system will be required, with long term maintenance cost implications.

**Roads:** The MR 215 could give access to the site. The MR 215 is however in a bad condition and would need to be upgraded at considerable expense. There is no funding within the City to do this at present. Municipal Infrastructure Grant Funding would have to be sought. If access is obtained via the Melkbostrand road (M19), a very small section of the MR 215 has to be used. Although the road is in bad condition, it is usable as long as reasonable speeds are adhered to.

**Solid Waste:** There are no waste services at present in the area. The new settlement will be serviced weekly by the City of Cape Town.

**Question 5:** *Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?*

The infrastructure (site facilities within the boundary of the site) has been planned for and a budget approved from the housing subsidy. The services to the site will be funded through Municipal Infrastructure Grant funding (not yet approved). The site has been purchased by the City of Cape Town with the objective of providing land for resettlement purposes. As the site is within the growth path of the City and within the urban edge, infrastructure provision here should not result in opportunity costs on this site or elsewhere.

**Question 6:** *Is this project part of a national programme to address an issue of national concern or importance?*

No

## **DESIRABILITY ('placing')**

### **Question 7:** *Is the development the best practicable environmental option for this land/site?*

*Biophysical environment:* The site is not the best practicable environmental option in terms of biophysical criteria as it is located on a CBA 2 site supporting restorable irreplaceable Critically Endangered Cape Flats Sand Fynbos. However, given that land is urgently needed for resettlement, and the site is within the urban edge and that remnants in higher condition or connectivity importance occur in the vicinity, use of this site could be considered, subject to specific conditions (see section 11 environmental assessment).

*Socio – economic environment:* In the short term, the site is not the best practicable environmental option as it is relatively isolated and has no services at present. It is however located within the planned growth path of the City and therefore, in the medium to long term, it should have potential for improvement and integration into a more urban environment. Provision of services here will be appropriate.

Some of the Vissershok residents do work in the area and use of this site would enable them to keep their jobs, although some of them might have longer distances to travel.

The residents of the Morningstar smallholdings are opposed to the site due largely to safety and security concerns. The Wolwerivier resettlement site is however, further away from the Morningstar smallholding area than the Vissershok residents are at present. The approximate distance from the Frankdale Road/N7 intersection to the Morningstar smallholding area (Zonnekus Road) is approximately 2.5 kilometers whereas the distance from the Morningstar Zonnekus Road area to the Wolwerivier resettlement site is approximately 3.6 km.

*Spatial planning and infrastructure:* The site is not the best practicable option but can be made practicable due to its location in the growth path of the City.

### **Question 8:** *Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*

The approval of this application would not be in conflict with the development axes and planning as reflected in the Draft SDF of the City of Cape Town.

### **Question 9:** *Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs) and if so, can it be justified in terms of sustainability considerations?*

This particular site is not the subject of specific priorities in the Environmental Management Framework. Although the site is located on a CBA 2 site, its use could be considered, subject to specific conditions (see section 11) which would increase the extent to which sustainability criteria could be met.

**Question 10:** *Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context).*

This site is suitably located for resettlement purposes at present as it is within the urban edge and within the growth path of the City. It is, however, some way from the edge of existing development in the Parklands area and it may take some 10 years for development to reach the Wolwerivier area.

The site is within the 16 kilometer, urgent protective action planning zone of the Koeberg Nuclear Power Station. The Vissershok landfill site is also within this zone and the application therefore does not result in an increase in population within this zone as it involves the relocation of existing residents within the zone. There is no intention to bring in other people from anywhere other than the west coast area. Even if these people were outside the 16 km zone, the numbers are unlikely to be problematic in terms of the emergency requirements which require that the population within the urgent protective action planning zone be evacuated within 16 hours.

**Question 11:** *How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?*

The clearing of this site and creation of a Transitional Relocation Area (TRA) / Incremental Development Area (IDA) will change the character of a relatively peaceful rural property to one that is partially urbanised. Although the site itself is not highly sensitive in terms of natural and cultural features, it has value as a restorable biodiversity site, has some features of cultural and aesthetic interest adjacent to it (i.e. adjacent Scenic route with a historic Bluegum tree avenue) and is complementary to the surrounding land uses. It is also only 2.8 kilometres from the nearest boundary of the Blaauwberg Conservation Area (BCA). There may be some threat to the fauna and flora in the BCA from illegal hunting, snaring or harvesting activities, however, according to Biodiversity staff, this is unlikely to be much worse than is already happening in the area.

**Question 12:** *How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place etc)?*

*Vissershok residents:* The Vissershok residents' situation would be improved in that they would be located away from the expanding Vissershok landfill site and be provided with basic shelter and services. The noise, dust and odours from the landfill site would cease to be a threat to the health and wellbeing of the Vissershok community. The Vissershok residents would also be granted tenure of the properties as soon as possible.

*Communities currently living and working in the vicinity of the Wolwerivier site:* The people living in the area rely to a large extent on the rural environment for their livelihoods. The introduction of a largely unemployed and vulnerable community into the area is perceived to be a threat to their way of life and livelihoods. Concerns have been raised with regard to personal safety, theft of stock and agricultural equipment, fire risk, pollution and litter. Although there will be a buffer area around the IDA, most of the concerns of the existing residents are valid and would need to be addressed as far as possible. There would be impacts on sense of place and aesthetics due to conversion from a quiet rural environment to one that is partially urbanised in the area of the settlement. The distance of the resettlement area from the nearest residences (approximately 3.6.km to the Morningstar smallholding area) does however mitigate the potential impacts to some extent. The small community at Wolwerivier would however be subject to much greater levels of change and impact as they would be relatively close to the IDA (approximately 300m).

**Question 13:** *Will the proposed activity or the land use associated with the activity applied for result in unacceptable opportunity costs?*

The use of this piece of land for resettlement purposes will result in some opportunity costs (e.g. loss of the opportunity to restore Sand Plain Fynbos, or to use it for other purposes) – but as the site is in the City’s growth path, these costs are not necessarily unacceptable.

**Question 14:** *Will the proposed land use result in unacceptable cumulative impacts?*

The extent of cumulative impacts arising from the use of this site would be dependent on the level of impact mitigation possible. If the site is contained, serviced, and well managed there should be very few, if any cumulative impacts. The potential exists to bring about cumulative benefits if the infrastructure and services in the area are appropriately and timeously upgraded.

**b) Indicate the benefits that the activity will have for society in general and also indicate the benefits that the activity will have for the local communities where the activity will be located.**

There will be strategic and essential benefits for the residents of the City of Cape Town and the City Council as the resettlement of the Vissershok community will enable the completion and permitting of the expansion of the Vissershok landfill site. There will be some benefits for the Vissershok community as they will be living in a healthier and quieter environment and will ultimately gain ownership of their sites. There will be no direct benefits for the residents of the area around the Wolwerivier site. If the presence of the settlement accelerates the process of improvement of services to this area - then there may be benefits to the Wolwerivier and Morningstar communities in the medium to long term.

**8. DESCRIBE HOW THE REQUIREMENTS OF SECTION 23 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT NO 62 OF 2008 (NEMA) WHICH SPECIFIES THE GENERAL OBJECTIVES OF INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM) WILL BE MET.**

The general objectives of IEM are to:

- a) Promote the integration of the Principles of NEMA in terms of section 2 into the making of all decisions that may have a detrimental effect on the environment

See section 9 below

- b) Identify, predict and evaluate the actual and potential impacts on the environment, socio-economic conditions and cultural heritage, the risk and consequences and alternative and actions for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management as set out in Section 2

See section 11 below

- c) Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them.

See section 11 below

- d) Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment

See Section 7 above

- e) Ensure the consideration of environmental attributes in management and decision making which may have a significant effect on the environment

See section 11 below

- f) Identify and employ modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management as set out in Section 2 of NEMA.

See section 12 below.

## 9. DESCRIBE HOW THE PRINCIPLES OF ENVIRONMENTAL MANAGEMENT AS SET OUT IN SECTION 2 OF NEMA HAVE BEEN TAKEN INTO ACCOUNT

*The principles that are of greatest relevance to this project have been shaded.*

<b>NEMA principle</b>	<b>How has it been taken into account?</b>
2) Environmental management must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural and social interests equitably	The City of Cape Town has recognised the advantages and disadvantages of the Wolwerivier site in terms of the effects its usage would have on people (see section 11.3) of environmental assessment)
3) Development must be socially, environmentally and economically sustainable.	The social, environmental and economic impacts of the use of the Wolwerivier site have been evaluated in the Environmental Assessment.
4) a) Sustainable development requires the consideration of all relevant factors including;	
(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or where they cannot be altogether avoided, are minimised and remedied	The impact of the Wolwerivier site on biodiversity has been shown to be negative (see section 11.2) unless there is significant mitigation.
(ii) That pollution and degradation of the environment are avoided or, where they cannot be altogether avoided, are minimised and remedied	Means to avoid or mitigate pollution have been described in the Environmental Management Programme (EMP).
(iii) That the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where is cannot be altogether avoided, is minimised and remedied	The cultural value/features (e.g. Bluegum trees) of the site has been assessed (see Appendix 6) and mitigation measures suggested in the EMP.
(iv) That waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner	Waste management measures have been suggested in the EMP. Relocation of the Vissershok community will allow permitted expansion of the landfill site to continue.
(v) That the use and exploitation of non-renewable natural resources is responsible and equitable and takes into account the consequences of the depletion of the resource	This principle is not of key relevance in this particular project.
(vi) That the development, use and exploitation of renewable resources and	Impacts on renewable resources and their associated ecosystems

the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised	have been considered as part of the overall environmental evaluation.
(vii) That a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and	Areas where there are gaps in knowledge, as well as key assumptions have been noted. The implications of these gaps or assumptions in terms of decision making have been assessed.
(viii) That the negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.	The EMP sets out possible measures to prevent or minimise impacts.
b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.	This assessment acknowledges the need for integrated environmental management and evaluates the potential consequences of use of this site on people and the environment.
c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.	The affected parties for each impact have been identified and the equity of the distribution of these impacts assessed.
d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.	The environmental assessment has evaluated the potential for the Wolwerivier site to provide for basic human needs and wellbeing.
e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.	The short and long term health and safety consequences of the use of the Wolwerivier site for resettlement are evaluated in the assessment.
f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.	Participation opportunities have been provided that allow for both written and verbal communication.
g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.	The interests, needs and values of interested and affected parties have been determined through participation processes and reflected in the assessment of the impacts.
h) Community wellbeing and empowerment must be promoted through	The EMP makes suggestions for environmental awareness raising as

environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.	it affects the informal residents.
i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.	The environmental assessment fulfills this role and should inform decision making.
j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.	This principle is not of particular relevance in this project.
k) Decisions must be taken in an open and transparent manner and access to information must be provided in accordance with the law.	Decisions are to be taken by the relevant ministers. The reasons for these decisions are expected to be documented and accessible.
l) There must be intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment	Intergovernmental coordination is being pursued through the parallel LFTEA/NEMA process
m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.	Noted.
n) Global and international responsibilities relating to the environment must be discharged in the national interest.	Noted. This project is of local and regional relevance.
o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.	The IEM process and environmental impact assessment for this project recognise the need to protect people's common heritage.
p) The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment.	Noted. The EMP makes suggestions for prevention of pollution.
q) The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.	Noted.
r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetland and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.	Sensitive systems have been identified in the environmental assessment and management measures proposed.

## 10. IDENTIFICATION OF ALTERNATIVES

- a) Property alternatives. Three applications have been submitted. Although only one site is needed immediately, a decision is being sought on each site.
- b) Activity alternatives: There are no activity alternatives. The informal settlers at Vissershok have to be moved to enable the expansion of the landfill site.
- c) Design or layout alternatives: There is some scope to modify layout of the informal settlement if there are factors which require this. This assessment has assumed that the area shown on the aerial photographs will be completely altered by the presence of the settlement (i.e. a footprint assessment approach has been taken). A generic layout has been provided, but there is some potential to modify the layout of the structures to create a less grid like settlement. It is recommended that open space be created for children to play and that some of the erven be a little bigger to enable a mother to care for pre-school children (i.e. incorporating a play area). Some of the erven could also be slightly bigger to allow for spaza shops. If the site ultimately accommodates 500 families – the population is likely to go up to about 2000 – and according to CSIR developed standards, space for a creche, 2 parks and a sports field would be needed.
- d) Technology alternatives (not applicable)
- e) Operational alternatives: Different methods to supply services to the site have been suggested.
- f) No Go option: There is no possibility of a no go option. The Vissershok residents are located in the direct pathway of the landfill site expansion and are in increasing danger from construction activities. They have to be resettled on one of the 3 sites under investigation.
- g) Other: none
- h) Summary of alternatives assessed:
  - There may be alternatives in terms of choice of whether a top structure or slab and wet core are provided. From an environmental point of view, the top structure is preferred as it provides a consistent standard of shelter and better safety in terms of fire risk.
  - There will be alternatives in terms of the layout of the top structures within the development area as well as routing of gravel roads, open space etc. In the assessment, it has been assumed that the entire development area within the fence will be completely altered. The choice of layout alternatives within the development area will be influenced largely by topography and vegetation. The impact mitigation requirements in sections 11 and 12 are to be used to influence layout choices.

**11. INVESTIGATION OF THE POTENTIAL CONSEQUENCES OR IMPACTS OF THE ALTERNATIVES (AS MENTIONED IN 10 ABOVE IN ADDITION TO THE PREFERRED ALTERNATIVE) TO THE ACTIVITY (PREFERRED ALTERNATIVE) ON THE ENVIRONMENT AND ASSESSMENT OF THE SIGNIFICANCE (SIGNIFICANCE RATING) OF THOSE POTENTIAL CONSEQUENCES OF IMPACTS PRIOR TO AND AFTER MITIGATION. THE MITIGATION MEASURES MUST BE INVESTIGATED TO ENSURE THAT ADVERSE CONSEQUENCES OR IMPACTS ARE KEPT TO A MINIMUM.**

11.1 POTENTIAL IMPACTS ON GEOGRAPHICAL AND PHYSICAL ASPECTS	CONSTRUCTION	OPERATION
<b>Nature of Impact</b>	The site is already fairly flat but some leveling may take place and some provision may be made to direct runoff into certain areas. There will be some dust generated during site preparation. There will be soil compaction in areas provided with gravel roads. Construction activities could result in soil pollution (litter, oil). Runoff patterns may be altered – due to the construction activities as well as deliberate modification to enable stormwater control.	The area will become compacted due to human and vehicular traffic. Dust levels should decrease except during windy dry periods. There may be some pollution of soils due to human activities.
<b>Extent and duration</b>	Site area and connecting road (approximately 6 ha): approximately 6 – 12 months	Limited to site area and connecting road. Permanent duration.
<b>Probability of Occurrence</b>	High	High
<b>Reversability</b>	Dust can be prevented. Reshaping or terrain modification is likely to be beneficial for the Vissershok residents. Pollution prevention is possible.	Impacts can be mitigated. Pollution prevention is possible.
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	No irreplaceable loss of resources.	No irreplaceable loss of resources.
<b>Cumulative impact prior to mitigation</b>	No cumulative impact	There may be some edge effects from the settlement – e.g. runoff from the compacted areas may provide more water to the surroundings. May encourage growth of more vegetation.

<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Low	Low
<b>Degree to which impacts can be mitigated</b>	Dust can be prevented but there is no-one in the immediate vicinity who would be affected so necessity for dust control is questionable.	Pollution can be reduced, but is unlikely to be completely eliminated.
<b>Proposed mitigation</b>	None. Dust levels should however be monitored and if it appears that the Wolwerivier community is being negatively affected, controls should be introduced (e.g. wetting or use of mulch/straw).	<ul style="list-style-type: none"> <li>• Waste bins or bags to be provided and a weekly waste removal service introduced</li> <li>• The site must be investigated in terms of potential for pollution of stormwater and where this water would naturally flow in high rainfall conditions.</li> <li>• All stormwater and greywater must be disposed of in a conservancy tank and when necessary, removed from the tank and disposed of in a sewer.</li> </ul>
<b>Significance rating of impact after mitigation</b>	Low	Low
<b>11.2 POTENTIAL IMPACT ON BIOLOGICAL ASPECTS</b>		
<b>Nature of Impact</b>	Removal of the trees, grasses and shrubs and use of the site for settlement will eliminate the possibility of restoring the biodiversity of the site. The site is a remnant of Critically endangered Cape Flats Sand Fynbos in restorable (low) habitat condition selected on the Biodiversity Network towards meeting national and City biodiversity targets. It is classed as a CBA 2 site as it does not consolidate remnants of higher habitat value. The vegetation is dominated by alien annual grasses (especially <i>Bromus drierandrus</i> ), with indigenous grasses ( <i>Pentstemonis</i> sp) and <i>Ehrharta calycina</i> and	As for construction. The impact remains as long as the settlement is present. There will also be some fringe effects (unpredictable in extent). Remaining mammal fauna (buck or small mammals and birds) may be hunted for food or attacked by domestic dogs.

	indigenous annuals (e.g. <i>Ursinia anthemoides</i> ) present. The taller dune is vegetated with typical strandveld shrubs such as <i>Siercia (Rhus)</i> species and <i>Salvia africana-lutea</i> . The lower dune comprises mainly the grass <i>Ehrharta villosa</i> . From a biodiversity perspective, development of this site would have a negative impact on biodiversity through direct loss of restorable habitat (especially for fauna).	
<b>Extent and duration</b>	Extent: The site area (up to 6 ha). Duration: Permanent	As for construction. There will also be some fringe effects (unpredictable) as the Vissershok residents are likely to use surrounding areas as well.
<b>Probability of Occurrence</b>	Definite	Definite
<b>Reversability</b>	Not reversable	Not reversable
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	There will be permanent loss of potential to restore Cape Flats Sand Fynbos	As for construction
<b>Cumulative impact prior to mitigation</b>	No cumulative impacts are expected.	As for construction
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Medium	Medium
<b>Degree to which impact can be mitigated</b>	No mitigation possible in terms of Sand Fynbos other than through a biodiversity offset (see mitigation)	No mitigation possible in terms of Sand Fynbos other than through a biodiversity offset (see mitigation)
<b>Proposed mitigation</b>	Retain as many trees and indigenous species as is practical and of benefit to the settlers and surroundings	<ul style="list-style-type: none"> <li>• A biodiversity offset either taking the form of securing an alternative remnant for conservation or funding to improve conservation management</li> <li>• Active control of the footprint / area of the new settlement to prevent further expansion into biodiversity areas</li> <li>• Prevention of expansion towards or activities (e.g. hunting, snaring,</li> </ul>

		<p>illegal plant collections) that would affect the Blaauwberg Conservation Area as well as adjacent biodiversity areas</p> <ul style="list-style-type: none"> <li>• Education on the legal implications of hunting/ snaring.</li> </ul>
<b>Significance rating of impact after mitigation</b>	Medium	Medium - Low
<b>11.3 POTENTIAL IMPACTS ON SOCIO-ECONOMIC ASPECTS</b>	<b>11.3.1 Impacts on tourism</b>	
<b>Nature of Impact</b>	<p>There will be increased vehicular activity (construction vehicles and contractors vehicles) during the construction period. There will also be noise and dust from leveling and compacting of the site and construction of gravel roads. The noise and dust nuisances may be experienced by people who are living in the neighbouring Wolwerivier settlement for the duration of the construction period. The Morningstar smallholding residents and Zonnekus holiday resort are unlikely to experience noise and dust impacts as distance is a mitigating factor. The resettlement site is approximately 3.6km from the Zonnekus holiday resort and the adjacent Morningstar smallholdings. These residents are only likely to experience the effects of increased construction related traffic. The construction activities themselves are unlikely to affect tourism due to the site not being visible or adjacent to tourist establishments. It is likely that the café/shop at the Zonnekus holiday resort would benefit from increased casual trade.</p>	<p>Most of the Morningstar smallholding residents own horses and some offer riding training and outrides. There is a holiday resort close to the Old Mamre road (MR 215) and the Morningstar smallholding area. None of the tourist /resort activities are directly dependant on the site that would be used for the Vissershok communities. The site would be intermittently visible from the surrounding roads (Old Mamre road/ Mr215) but visual impact could be mitigated by a 10 m buffer between the settlement and the Old Mamre road. Existing trees along the road would be retained as well as many trees as possible on the site itself. The site would be fenced with a palisade fence. There would however be more human and vehicular activity in the area – making it less rural in nature. There would also be greater potential for accidents (particularly pedestrian). If the area is not properly cleaned, presence of litter may compromise the aesthetic quality of the area as well as pose a risk to horse riders. The tourist related activities potentially most directly affected are those related to equestrian activities as it is unlikely that the areas in the immediate vicinity of the settlement could be used for outrides due to safety concerns. Options for outride areas may be reduced as (according to input from Morningstar property owners), the areas both north and south of the smallholding areas will now be risky to use, especially for women and children. Equestrian activities on the smallholdings themselves should be able to continue as normal. Perceptions about reduced personal safety and security may however</p>

		<p>make people less confident about continuing with their tourist and equestrian activities.</p> <p>The Zonnekus café at the resort is likely to experience a permanent benefit from increased trade.</p>
<b>Extent and duration</b>	Limited to the site area and immediate surrounds and of short term duration (6 – 12 months).	Any impacts on tourism and equestrian activities could be permanent, but would be likely to decrease in significance over time if the proposed services are provided and the site is well maintained and managed.
<b>Probability of Occurrence</b>	Possible	Possible
<b>Reversability</b>	Impact is temporary and can be partially mitigated.	Impact is permanent and cannot be reversed. Over time, the impact may be felt less as people become accustomed to the new community.
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	Minimal.	Minimal.
<b>Cumulative impact prior to mitigation</b>	No cumulative impacts anticipated.	There is a local perception that this new settlement will have a negative cumulative impact on tourism and the related equestrian activities in the area, but this is dependent on many factors (see mitigation)
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Morningstar smallholding area, Zonnekus resort, residents and visitors: Low - Medium	Morningstar smallholding area, Zonnekus resort, residents and visitors : general impact on tourism: Low – Medium Zonnekus holiday resort cafe: <b>benefit</b> from increased trade: Medium
<b>Degree to which impact can be mitigated</b>	Good (Medium) potential for effective impact mitigation	Fair: (Low – Medium) potential for effective impact mitigation.
<b>Proposed mitigation</b>	<ul style="list-style-type: none"> <li>• Construction hours limited to daylight hours agreed with neighbours</li> <li>• Dust suppression in windy conditions</li> <li>• Proper waste management and sanitary arrangements</li> <li>• Correct contractor staff management (e.g.</li> </ul>	<ul style="list-style-type: none"> <li>• Buffer zone around resettlement site as proposed (see layout in Appendix 8b)</li> <li>• Palisade fence that must be well maintained</li> <li>• Proper well marked access off the MR 215 road, with a taxi drop off and collect area provided on the site – not next to the road.</li> <li>• Retention of as much indigenous vegetation as possible as well as</li> </ul>

	<p>containment in site work area)</p> <ul style="list-style-type: none"> <li>• Security arrangements</li> </ul>	<p>the Bluegum trees</p> <ul style="list-style-type: none"> <li>• Planting with additional vegetation to provide screening of site. (Note – this will only be successful if provision is made to water the plants until well established i.e. approximately 3 years).</li> <li>• Proper service provision and maintenance</li> <li>• Containment of site within demarcated area</li> <li>• Maximisation of social support networks</li> </ul>
<b>Significance rating of impact after mitigation</b>	Morningstar smallholding area, Zonnekus holiday resort and residents: Low	Morningstar smallholding area, Zonnekus holiday resort and residents: Low – Medium. Zonnekus cafe: impacts beneficial: Medium
<b>Nature of Impact</b>	<b>11.3.2 Impacts on quality of life, safety, security and livelihoods of people currently living on the boundaries of Wolwerivier site and nearby environs</b>	
	<p>During the construction period, there is not likely to be any threat to security, safety or livelihoods providing the recommended mitigation actions are implemented. There may be a temporary decrease in quality of life for the residents of Wolwerivier due to the noise and dust from the construction activities.</p>	<p>Submissions by members of the local community have raised concerns with regard to personal safety as well as concern for their properties and livestock, particularly horses. Other livestock (e.g. sheep, chickens) which are an integral part of subsistence and agricultural activities are also perceived to be under threat from both the Vissershok community and their dogs. Problems have apparently been experienced with poaching as well as stealing of fences. Concern has also been expressed about the impacts of illegal electricity connections and increased risk of fire. Although these concerns are valid, the actual magnitude and extent of any increase in crime, or decrease in safety, quality of life or impact on livelihoods is very difficult to predict or quantify.</p>
<b>Extent and duration</b>	Restricted to site area and immediate environs and access road and temporary in duration (6 – 12 months)	<p>The neighbours in closest proximity to the new settlement, i.e the Wolwerivier community, would be most vulnerable due to the potential for opportunistic as well as planned crime. However, as this community is also in a low income bracket, there is likely to be little incentive for theft. Approximately half of the members of this community are employed and therefore have some livelihood which is unlikely to be affected by the resettled Vissershok residents. There is also potential for social benefits arising from increased potential for social interaction, particularly if the</p>

		<p>Rooidakkies community is placed closest to the Wolwerivier settlement. Most members of the Wolwerivier community have however, lived in the area for many years and are probably used to a quiet rural environment. The presence of a new population will therefore be a major change for them.</p> <p>The magnitude of the impact on the Morningstar residents and smallholdings is difficult to quantify. Crime problems are apparently already being experienced. The relocated Vissershok community will be further away from the Morningstar smallholding area than they are at present i.e approximately 2.5 kilometres at present versus approximately 3.6 km at the new Wolwerivier site.</p> <p>The Morningstar residents have varying levels of security – some with very little, whereas others have totally enclosed properties with either high walls and/or electric fencing. Residents may feel the need to improve their security, which will have a cost implication for them. Residents have also expressed concerns about declines in the value of their properties as well as their resale potential which they feel has already been negatively affected by the expansion of the Vissershok landfill site. It is therefore difficult to separate out and quantify what impact (if any) there would be of moving the Vissershok residents to the Wolwerivier site. It is also not known to what extent the Morningstar residents are dependent on incomes from their equestrian related activities. This is also likely to vary between residents who range from the middle to high income brackets. From the information that could be obtained, there is no reason to believe that livelihoods would be negatively affected, although safety concerns might constrain activities (such as outrides) to a smaller area within or closer to the smallholding properties.</p> <p>The Zonnekus holiday resort is completely enclosed and it is unlikely that their activities would be negatively affected. The shop/café attached to</p>
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		the resort is likely to benefit from the larger population in the area.
<b>Probability of Occurrence</b>	Noise and quality of life impacts on Wolwerivier residents: Probable: Safety, security and livelihood impacts: Unlikely	Safety and quality of life impacts on the Wolwerivier community: Probable. (The impacts could be both negative and positive in terms of social interaction between the Wolwerivier and Vissershok communities).  Safety, and quality of life impacts on the Morningstar residents: Possible.
<b>Reversability</b>	Not reversible	Preventable to some extent. Not reversible.
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	Minimal	Minimal
<b>Cumulative impact prior to mitigation</b>	No cumulative impact expected.	If local communities feel or experience a high level of threat to their safety and livelihoods, and a significant decrease in quality of life, some of them may choose to leave. Others may be forced into increasing their security arrangements at significant personal cost. There may be cumulative effects, albeit it at a local scale, on the economy of the area.
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Noise and quality of life: Wolwerivier residents: Medium - High Safety, security and livelihood impacts: Wolwerivier residents: Low	Morningstar residents: Medium – High (but very difficult to quantify or predict as there are existing impacts and it is not possible to separate out the impacts of moving the Vissershok community from one site to another which would be north (as opposed to south) of the Morningstar community). Impacts are likely to be felt mostly at an individual level.  Wolwerivier residents: High (impacts are likely to be felt at both an individual and community level)
<b>Degree to which impact can be mitigated</b>	Potential impacts can be prevented or mitigated	Unknown
<b>Proposed mitigation</b>	<ul style="list-style-type: none"> <li>• Site clearly demarcated and fenced off as soon as possible in the construction period</li> <li>• All contractor staff to wear identification tags and not be permitted outside the boundaries of the</li> </ul>	<ul style="list-style-type: none"> <li>• Palisade fencing of site</li> <li>• Regular patrols by local police</li> <li>• Maximisation of social support by Ngo's and other community groups</li> </ul>

	<p>demarcated construction areas</p> <ul style="list-style-type: none"> <li>• No staff on site overnight other than security staff for equipment and materials</li> <li>• No employment of casual labour at the site or immediate environs. Other employment venues should be utilized. Announcement of this in local newspapers.</li> <li>• Arrangements made for reduction of fire risk (see EMP) and proper waste management</li> <li>• Specified working hours</li> <li>• Notification of neighbours of nature and timing of activities on site</li> <li>• Use of mulch or site wetting to reduce dust levels during the construction period.</li> <li>• Replanting of disturbed areas with indigenous grasses and shrubs to reduce ongoing dust and sand levels and improve aesthetics.</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of relocated Vissershok community into local population as much as desirable</li> <li>• Provision of work opportunities and a reasonable standard of services</li> <li>• Control of numbers of dogs.</li> <li>• Creation of and maintenance of a 5m firebreak around the outside perimeter of the fence.</li> <li>• External walls of the structures are to provide a minimum fire resistance rating of 30 minutes or are to be cladded on the inside with an approved product that will provide the integrity and stability requirement, as per a Type F wall, in accordance with SABS 0177, Part 2.</li> <li>• Individual structures are to built at a minimum of 1 meter from any lateral boundary of the site or 3 meters from any adjacent structure subject to relative area of the elevation façade</li> <li>• The access roads are to accommodate the minimum width (4m) and turning circle for emergency vehicles. Turning facilities should be provided in any dead end access road that is more than 20 m long.</li> <li>• A siren must be erected in the area if there isn't an existing one covering the area (Koeberg emergency plan requirement).</li> <li>• The City of Cape Town Emergency Services Department must be consulted with regard to any further Disaster and Fire safety requirements once the site to be utilised is identified and authorised.</li> </ul>
<b>Significance rating of impact after mitigation</b>	<p>Noise and Quality of Life: Wolwerivier residents: Low</p> <p>Safety, security and livelihoods: Wolwerivier residents: Low</p>	<p>Uncertain – possibly Medium (Morningstar residents) High (Wolwerivier residents)</p>
<b>11.3.3 Impact on the Vissershok residents (health, wellbeing and quality of life)</b>		

<p><b>Nature of Impact</b></p>	<p>No impact during construction period</p>	<p>The Vissershok community will benefit from the move to another property in that they will be provided with shelter and basic services (site, shelter, water, electricity). The Wolwerivier site is somewhat disadvantageous in that they become a more isolated community and some may be further away from current work locations. A large proportion of the Skandaalkamp occupants appear to be unemployed whereas many of the Rooidakkies occupants are either employed or on pension or disability grants. Some of the people from both camps work in the area – some in the Morningstar area and others in the Van Schoorsdrift area. There also appears to be a proportion of people who work and sleep in Cape Town and just come back to the camp for the weekends. It is however advantageous in that it is located within the growth path of the City and not too far from their current location. At present, Vissershok children are picked up by bus and taken to either the Vaatjie, Philadelphia or DuNoon schools. A mobile clinic visits the site once per week. Other clinics are located at Melkbos, Albow Gardens and Du Noon. The site is advantageous as it is on the western side of the N7 – but access to it along the MR 215 ('the tree road') is difficult (but possible) due to the narrowness and poor condition of the road. However, if access is obtained from the Melbostrand road side of the property, less travelling would be necessary on the MR 215 (see Appendix 8a). The Vissershok residents' overall conditions are however, likely to improve in that they will have a top structure, toilet (one per house) and water (one tap per house) and electricity. There will also be much less dust and no pollution from the landfill site and so their health should improve. There is also good potential for them to improve their properties as they would ultimately be given tenure.</p> <p>The alternative option, of provision of a slab and wet core would also be of benefit to the residents, but is considered a less desirable option as the materials they use for construction are likely to be highly flammable in most cases. Even though additions are likely to be made to the proposed zinc structures (using flammable materials) – there would at least be one</p>
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		section of the house relatively well protected from the effects of fire (providing the walls are not lined with paper or other similar materials).
<b>Extent and duration</b>	Not applicable	Permanent impact for the Vissershok settlers
<b>Probability of Occurrence</b>	Not applicable	Highly probable
<b>Reversability</b>	Not applicable	Not applicable
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	Not applicable	No irreplaceable loss of resources anticipated
<b>Cumulative impact prior to mitigation</b>	Not applicable	There should be beneficial cumulative impacts on the Vissershok residents and particularly their children in terms of health and living conditions. This is dependent on the settlement continuing to receive visits from a mobile clinic and the children being taken to school. It is likely that the residents would ultimately obtain tenure <sup>2</sup> on this property – thus increasing the incentive to improve living conditions.
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Not applicable	Impacts are largely beneficial, and of Medium - High significance for the Vissershok settlers.
<b>Degree to which impact can be mitigated</b>		Benefits to the Vissershok community can be maximized through the provision of the desired services (top structure, water, toilets and electricity).
<b>Proposed mitigation</b>		Provision of services as indicated above.

<sup>2</sup> The objective is to offer families secure freehold tenure as soon as possible. Obviously this will not be possible immediately on settlement, however it is in the interest of Council to provide tenure speedily thereafter. In the absence of providing tenure the residents will be deemed tenants of Council which implies risk on the side of Council and added expenditure relating to performance as landlord. The settlement will, on completion, be placed onto the list of upgrading projects, part of which is the transfer of title to occupants.

Significance rating of impact after mitigation		Medium – High benefit
<b>11.3.4 Impact on economy and employment</b>		
<b>Nature of Impact</b>	<p>The clearing and construction of the settlement will be undertaken by a contractor – who will employ several of his own staff (approximately 10 – 20 staff). Casual staff are sometimes hired by the contractors as well – so there may be some limited opportunity for a few temporary jobs for people living in the area.</p>	<p><b>Vissershok community:</b> Most of the Rooidakkies occupants (approximately 23 individuals) are either employed or living on pensioner or disability grants. Providing taxi services will travel to Wolwerivier, their situation is unlikely to change. The situation of the Skandaalkamp occupants (approximately 800 people), most of which appear to be unemployed is also unlikely to change. Information about this community is however incomplete. Those that are employed in the area should still be able to get to their work, assuming that taxi services continue to operate in the area. In several cases, they are likely to be closer to their places of employment.</p> <p><b>Impact of Vissershok community on local economy:</b> It is difficult to determine the impact of the Vissershok community on the local economy. They will be a source of labour, but there is very little need for more labour in the area than already exists. The economic situation is thus unlikely to change significantly. It cannot be predicted whether current farming and tourism activities will choose to shut down their operations because of the perceived threat of the people in the Integrated Development Area. If they do, there will be negative impacts on employment and the local economy. The local Zonnekus holiday resort café, may benefit to some extent from increased business.</p> <p><b>Impact on City of Cape Town Finances, Planning and Resources:</b> Use of this site will require financial input from the City of Cape Town for road upgrading, water supply and electricity provision (via Eskom). There is no budget within the Roads and Stormwater department for road upgrading at present. Funding would have to be obtained from a Municipal Infrastructure Grant. However, as this site is in the City’s growth path, this investment is likely to be beneficial to a wider population in the medium to long term.</p>

<b>Extent and duration</b>	Limited extent and of temporary duration (7 – 14 weeks)	Limited local effect of permanent duration in terms of impacts on activities on and around the Morningstar smallholding area. Limited permanent beneficial effect on Zonnekus café.
<b>Probability of Occurrence</b>	Definite	Uncertain
<b>Reversability</b>	No need to reverse impacts. All construction employment beneficial.	Limited effects on economy and employment. Effects not reversible.
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	Not applicable	Not applicable
<b>Cumulative impact prior to mitigation</b>	No cumulative impact.	There is unlikely to be any cumulative impact on the regional economy. There may be a limited beneficial cumulative effect on the local economy. It is likely that spaza shops will be set up in the new development area. The source of their supplies is however, unlikely to change substantially.
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Low	Overall economy of the region: Low significance Zonnekus resort café: Medium benefit Impact on economic activities of Morningstar smallholding area: Low – Medium significance but very difficult to predict. Their activities should continue, but there may be individual costs if residents feel they need to increase personal and neighbourhood security.
<b>Degree to which impact can be mitigated</b>	There is no need for impact mitigation.	
<b>Proposed mitigation</b>	<ul style="list-style-type: none"> <li>Impact benefits could be maximised through employment of unemployed people living in the local area.</li> <li>If contractors wish to employ additional labour, the local sub council manager should be approached to identify who has been placed on the list of people seeking work. Casual appointments at the site should not be permitted.</li> </ul>	Benefits to the local and regional economy may be derived from improved services and infrastructure, particularly if the MR 215 is upgraded.

<b>Significance rating of impact after mitigation</b>	Low - Medium	Overall impacts on local economy: Low Potential benefit to Zonnekus café turnover: Medium Potential costs to individual landowners Morningstar (security): Uncertain - ? Low to Medium Vissershok residents: Low General economy and employment: Low
<b>11.3.5 Potential impacts on Cultural-historical aspects</b>		
<b>Nature of Impact</b>	No impacts are expected providing that the recommended mitigation actions are implemented. There could be damage to trees without the necessary mitigation actions.	<p>The farm is on a portion of the original farm Lot C which was historically reserved for the Forest Department according to the 1901 Cape Divisional Map. The farm is flanked by historical farms Keert de Koe and Blaauwberg farm which both have significant heritage value. Blaauwberg farm is listed as belonging to Helena Culix in 1730 and many core buildings still survive. Keert de Koe belonged to Petrus De Witt in 1767 and there is surviving historic fabric on the farm werf. According to the Built Environment Conservation Study conducted by Rennie Scurr Architects, a comparison between the historic 'Cape Division' map and a present-day 1:50000 map show that the cadastral boundaries of many of the current farms in the Blaauwberg District have remained relatively unchanged since the late 1700s. This demarcation in fact has its origins in the <i>veldcornet</i> system of the Dutch period</p> <p>There are some structures and buildings on the site. Many of the buildings are older than 60 years, however, apart from a small workers cottage, the remainder of the buildings are not considered to have any visible heritage significance in terms of their architecture. The buildings mostly constitute ruins of old reservoirs and some residential cottages. It is noted that all of the above structures are at some distance from the proposed relocation area and will not be altered or demolished.</p> <p>The property is located on a designated scenic route (R304) and the Bluegum tree on the periphery of the site is of cultural interest.</p>

		It is therefore expected that there will be no significant impacts on the culture or heritage aspects of the site or immediate locality. There is, however, a possibility that the relocated community will use the trees on the site or along the road for fuel, particularly if electricity is not provided timeously. If there is a major fire which cannot be controlled in time, the tree avenue might also be damaged or destroyed.
<b>Extent and duration</b>	Site and adjacent trees	There should be no impact on culture or heritage, but if there was any impact, it would be limited to the site and adjacent trees.
<b>Probability of Occurrence</b>	Low	No impact expected providing mitigation implemented i.e. Low Probability.
<b>Reversability</b>	Not applicable	Reversible in the long term (tree replacement if damaged)
<b>Degree to which the impact may cause irreplaceable loss of resources</b>	No irreplaceable loss of resources	No irreplaceable loss of resources
<b>Cumulative impact prior to mitigation</b>	No cumulative impacts	No cumulative impacts unless a large proportion of the trees along the MR 215 were lost due to negligence, wood harvesting or fire caused by the residents of the new settlement. This would result in a much less attractive road and affect the character of the area which also affects the overall desirability of the area for residential and tourism purposes.
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	If trees were removed unnecessarily: Low to Medium significance.	Impact of removal of trees on the site: Low Removal of large Bluegum trees: Medium If there was a major fire, loss of a section of the tree avenue would be of Medium impact significance.
<b>Degree to which impact can be mitigated</b>	Not applicable	Impact can be mitigated in the long term.
<b>Proposed mitigation</b>	<ul style="list-style-type: none"> <li>Design site layout to minimise loss of trees on the site itself and periphery</li> <li>Ensure construction staff do not damage the tree avenue (EMP requirement).</li> </ul>	<ul style="list-style-type: none"> <li>Raise awareness of the Visserhok community of the dangers of fire and the need to protect the trees – particularly those along the road.</li> <li>Supply legal electricity connections to the resettled community.</li> <li>Ensure trees are kept trimmed of lower branches and snags to prevent a fire ladder developing that could ignite the tree canopies in</li> </ul>

		<p>the event of a ground fire.</p> <ul style="list-style-type: none"> <li>• Provision of a 5 m firebreak adjacent to the outside boundary of the fence</li> </ul>
<b>Significance rating of impact after mitigation</b>	Low	Low
<b>11.3.6 Potential noise and visual impacts</b>		
<b>Nature of Impact</b>	There will be noise from tree felling and general construction (e.g. grading of roads, erection of the houses). Other than some dust in the immediate area and the presence of construction vehicles and equipment – there should be no visual impact during construction. The buffer areas around the site will have a mitigating effect. The Wolwerivier community will however experience the change in the rural character of the area and be most vulnerable to the noise, dust and visual impacts.	<p>It is proposed that there be a 10m buffer between the settlement and the MR 215 road. There will be some visual screening of the settlement through retention of existing trees and vegetation and the existence of the buffer but the site will still be intermittently visible from the MR 215. It will also be visible from the neighbouring Wolwerivier community. The site will not be visible from the Morningstar smallholding area.</p> <p>Noise from the site will be heard by the neighbouring Wolwerivier community, but this will be dependant on the proximity of the new settlement to this relatively low density Wolwerivier community. Current indications are that the settlement will be about 300 m from the Wolwerivier community. The resettlement site is between 3 and 4 kilometres from the Morningstar smallholding area and therefore noise levels are likely to be significantly attenuated.</p>
<b>Extent and duration</b>	Construction period (6 – 12 months)	<p>Noise: Morningstar residents: Local extent and of intermittent and infrequent duration. Wolwerivier residents: local extent, permanent duration.</p> <p>Visual: Morningstar residential area: no impact. Permanent visual and noise impact from the MR215.</p>
<b>Probability of Occurrence</b>	High	<p>Noise: Morningstar: Low probability  Noise: Wolwerivier: High probability  Visual: Morningstar: Low probability  Visual: Wolwerivier: High probability  Visual impact from MR 215: Medium to High probability</p>
<b>Reversability</b>	Impact cannot be reversed	Impact can only be mitigated, not reversed

<b>Degree to which the impact may cause irreplaceable loss of resources</b>	No irreplaceable loss of resources.	No irreplaceable loss of resources.
<b>Cumulative impact prior to mitigation</b>	No cumulative impact	There will be a permanent change in the character of the area for the Wolwerivier residents. This may affect their quality of life, but the impacts could be considered to be both positive and negative, depending on whether they are able to accept and adapt to the presence of the Vissershok residents.
<b>Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High or Very High)</b>	Noise and Visual: Wolwerivier community: Medium	Noise: Morningstar: Low Noise: Wolwerivier: Medium - High Visual: Morningstar: Low Visual: Wolwerivier: Medium Visual impact from MR 215: Medium
<b>Degree to which impact can be mitigated</b>	Noise and visual impacts can be partially mitigated	Visual impact: can be mitigated in the medium to long term (through planting of trees and shrubs) Noise impact: unknown: unlikely to be mitigated.
<b>Proposed mitigation</b>	<p>Visual impacts:</p> <ul style="list-style-type: none"> <li>• 10m buffer zone between settlement and road</li> <li>• Construction equipment to be stored out of sight of MR 215</li> <li>• Correct waste management practices (see EMP)</li> <li>• Construction camp located out of site of adjacent roads</li> <li>• Retention of as many trees as possible around and within site</li> <li>• Complete clearing up of site following construction period</li> </ul> <p>Noise impacts:</p> <ul style="list-style-type: none"> <li>• Construction hours limited to daylight hours agreed with immediate neighbours (e.g. 7.30 – 17.30)</li> </ul>	<p>Visual impacts:</p> <ul style="list-style-type: none"> <li>• 10m buffer zone between settlement and road</li> <li>• Correct waste management (see EMP)</li> <li>• Retention of tree avenue and remaining trees on and around site</li> <li>• Planting of additional trees and shrubs around the site.</li> </ul> <p>Noise impacts:</p> <ul style="list-style-type: none"> <li>• Awareness raising of settlers of environmental, noise and aesthetic issues</li> </ul>

	<ul style="list-style-type: none"> <li>• Notification of neighbours of any deviations from agreed hours timeously</li> <li>• No hooting</li> <li>• All equipment to be in good working order and working within noise specifications</li> </ul>	
<b>Significance rating of impact after mitigation</b>	Low Wolwerivier: Medium	Noise: Morningstar: Low Noise: Wolwerivier: Medium – High Visual: Morningstar: Low Visual: Wolwerivier: Medium Visual from MR 215: Medium

**Note:** It has been assumed that there will be no ‘decommissioning’ phase impacts associated with this development as it is expected that the site will be permanently occupied.

**12. INVESTIGATION AND FORMULATION OF ARRANGEMENTS FOR MONITORING AND MANAGEMENT OF CONSEQUENCES OF IMPACTS ON THE ENVIRONMENT, AND THE ASSESSMENT OF THE EFFECTIVENESS OF SUCH ARRANGEMENTS AFTER THEIR IMPLEMENTATION. PROVIDE OTHER MANAGEMENT, MITIGATION AND MONITORING MEASURES AND A DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME.**

<i>Impacts to be managed/monitored</i>	<i>Responsibility for mitigation implementation</i>		<i>Expected effectiveness in mitigating impacts</i>	<i>Responsibility for monitoring</i>	
	<b>Construction</b>	<b>Operation</b>		<b>Construction</b>	<b>Operation</b>
<b>IMPACTS ASSOCIATED WITH SITE CLEARING, LEVELLING AND THEN OCCUPATION</b>					
<b>Noise control (limited hours, notification of neighbours, staff management, equipment upkeep, buffer zone around site)</b>	Contractor	Complaints will be responded to by local police	<b>Construction:</b> Effective <b>Operation:</b> Unpredictable	Contractor	No monitoring anticipated

<b>Dust control (use of mulch or water for dust control)</b>	Contractor	Settlement residents	<b>Construction:</b> Effective <b>Operation:</b> Unpredictable	Contractor	No monitoring anticipated
<b>Drainage/runoff control and management of grey water</b>	Contractor	Maintenance: City of Cape Town Roads and Stormwater Department	<b>Construction:</b> Effective <b>Operation:</b> Effective		Roads and Stormwater and Water and Sanitation Departments
<b>Solid Waste management</b>	Contractor	City of Cape Town Solid Waste Department	<b>Construction:</b> Effective <b>Operation:</b> Effective	Contractor	City of Cape Town Solid Waste Department
<b>IMPACTS ON THE BIOLOGICAL ENVIRONMENT</b>					
<b>Retention of trees (for biological, shelter, aesthetic and cultural / historic reasons)</b>	Contractor	No mitigation anticipated.	Construction: Effective Operation: Unpredictable	Contractor	No monitoring anticipated.
<b>Prevention of hunting / snaring of remaining game or animals via periodic patrols and education initiatives</b>	Contractor	Periodic awareness raising and patrols by City of Cape Town	Construction: Effective Operation: Uncertain	Contractor	City Health; City Environmental Law Enforcement
<b>IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT</b>					
<b>Above actions +</b>					
<b>Containment of construction staff in defined work area for specified working hours only. Construction staff to wear</b>	Contractor	Not applicable	Construction: Effective	Contractor	Not applicable

<b>identification tags or uniform/overall.</b>					
<b>No employment of casual labour at site (only to be done off site at specified formal venue)</b>	Contractor and City of Cape Town	Not applicable	Construction: Effective	City of Cape Town Housing Department	
<b>Provision of Security on site during construction</b>	Contractor	Not applicable	Construction: Effective	Contractor	Not applicable
<b>Construction of palisade fence around site and maintenance thereof</b>	<b>Contractor</b>	City of Cape Town Housing Department	Construction: Effective Operation: Effective	Contractor	City of Cape Town Housing Department
<b>Provision of taxi rank/drop off/pick up place on the site but away from the road.</b>	Contractor	City of Cape Town Housing Department (via contract)	Construction: Effective Operation: Effective	Contractor	City of Cape Town Housing Department
<b>Maximisation of social support networks and services</b>	Not applicable	Current social support services are likely to continue from various CCT departments e.g. Environmental Health	Operation: Uncertain	Not applicable	No monitoring anticipated.
<b>Proper maintenance of services provided</b>	Not applicable	City of Cape Town Roads and Stormwater Department, Solid waste department and the Housing Department.	Operation: Effective	Not applicable	CCT Housing department and relevant service departments.
<b>Reduction of fire risk through creation and maintenance of firebreak and fire prevention requirements as set out in the EMP.</b>	Contractor and City of Cape Town Fire and Emergency Services	City of Cape Town Housing Department and Fire and Emergency Services	Construction: Effective Operation: Effective	Contractor	City of Cape Town Housing Department

<b>Control number of dogs</b>	Not applicable	City of Cape Town Housing Department in conjunction with SPCA	Operation: Uncertain	Not applicable	City of Cape Town Housing Department
<b>Maximisation of social support by NGO's and other community groups as well as provision of work opportunities whenever possible.</b>	Not applicable	This settlement is not likely to receive any more attention than other informal settlements or TRAs from NGO's or social support groups. CCT support is likely to continue as much as is necessary.	Operation: Unpredictable	Not applicable	No monitoring anticipated.
<b>IMPACTS ON THE CULTURAL AND HERITAGE ENVIRONMENT</b>					
<b>Retention of tree avenue and as many trees on site as is feasible</b>	Contractor	City of Cape Town: Housing Department	Construction: effective Operation: effective	Contractor	City of Cape Town Housing Department
<b>NOISE AND VISUAL IMPACTS</b> (these are addressed in the various mitigation actions recommended above)					

**13. INVESTIGATION, ASSESSMENT AND EVALUATION OF THE IMPACT OF ANY PROPOSED LISTED ACTIVITY OR SPECIFIED ACTIVITY ON ANY NATIONAL ESTATE REFERED TO IN SECTION 3 (2) OF THE NATIONAL HERITAGE RESOURCE ACT, 1999.**

The impacts on heritage and culture have been noted above. A heritage report is attached as Appendix 6. A Notice of Intent to Develop was submitted to Heritage Western Cape on 2 March 2011.

#### 14. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

The specialist input to this report may be considered to have come from the City of Cape Town biophysical specialist and the heritage specialist for District B. Their inputs are reflected in the impact statements and evaluations. All other input has come from consultation with staff in the various City Departments as well as input from the public via the public involvement process.

#### 15. IMPACT SUMMARY:

**IMPACT SUMMARY TABLE: WOLWERIVIER: OPERATION PHASE.**

Impact	Significance before mitigation	Significance after mitigation	Affected Parties	Likelihood of effective mitigation	Other relevant information
<b>Impact on the Geographical and Physical Environment</b>					
Compaction, levelling, alteration of runoff patterns, dust, soil pollution	Low	Low	The Vissershok residents will benefit from a prepared, livable site. Correct site preparation will facilitate maintenance for CCT staff.	Good: impacts can be prevented or mitigated	
<b>Impacts on the Biophysical Environment</b>					
Loss of a CBA 2 site consisting of Cape Flats Sand Fynbos and some remnants of Dune Strandveld	Medium	Medium - Low	S A (particularly Western Cape) citizens and natural environment	The mitigation would be effective if implemented. Likelihood of implementation is uncertain.	
<b>Impacts on the Socio-Economic Environment</b>	<b>Significance before mitigation</b>	<b>Significance after mitigation</b>	<b>Affected Parties</b>	<b>Likelihood of effective mitigation</b>	<b>Other relevant information</b>
<i>Tourism:</i> Impacts on rural and scenic character of the area and use of area for outrides. Potential benefits for Zonnekus resort café:	Low – Medium	Low	Morningstar smallholding residents and visitors and Zonnekus Holiday Resort and visitors	Fair: but effectiveness uncertain.	The site is within the planned growth corridor of the City and will become progressively more urbanised in the

					medium to long term
<i>Impacts on quality of life, safety, security and livelihoods of people currently living on the boundaries of Wolwerivier site and nearby environs: Impacts on personal safety, quality of life impacts due to noise and change in character of area, perceived threats to personal property.</i>	<b>Wolwerivier residents:</b> High <b>Morningstar residents:</b> Uncertain: ?Medium	<b>Wolwerivier residents:</b> High <b>Morningstar residents:</b> Uncertain: ?Medium	Wolwerivier and Morningstar residents	Poor - Fair: but effectiveness uncertain	There may be benefits for the Wolwerivier residents in terms of improved services and opportunities for social interaction with the Vissershok residents. However, the social interaction could also be negative.
<i>Impacts on the Vissershok residents: health, wellbeing and quality of life: Improved living environment and services.</i>		Medium to High <b>Benefit</b>	Vissershok residents	Benefits could be maximised through proper service delivery and social support networks	
<i>Impacts on the economy and employment: Morning star: Effects on equestrian activities and personal finances and property values: Impacts on the wider local economy and employment as well as the City of Cape Town's finances</i>	<b>Morningstar residents:</b> Low – Medium (uncertain) <b>Vissershok residents:</b> Low <b>General economy and employment:</b> Low	<b>Morningstar residents:</b> Low – medium (uncertain) <b>Zonnekus café:</b> Medium benefit <b>Vissershok residents:</b> Low <b>General economy and employment:</b> Low	Morningstar residents People employed during construction (contractor staff) and any casual labour.	Any improvements to the services in the area and in particular an upgraded MR 215 would bring benefits to the economy. Likelihood of the road upgrade is uncertain in the short term but probable in the medium term.	The site is in the growth corridor of the City so investment is in an appropriate location for long term growth
<b>Impacts on Cultural and Historical Environment</b>	<b>Trees on site:</b> Low <b>Large Bluegums:</b> Medium	Low	Residents and visitors	Good: mitigation likely to be effective.	The R 304 is a Scenic drive
<b>Noise and Visual Impacts</b>	<b>Wolwerivier</b>	<b>Noise: Morningstar:</b> Low	Residents and visitors	Additional planting	The Wolwerivier

	<b>community:</b> Noise: Medium-High Visual: Medium <b>Morningstar:</b> Noise: Low Visual: Low	<b>Noise: Wolwerivier:</b> Medium - High <b>Visual: Morningstar:</b> Low <b>Visual: Wolwerivier:</b> Medium <b>Visual impact from MR 215:</b> Medium		and screening could be done, but the availability of funds for this purpose is uncertain.	community will be most affected by noise and visual impacts
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### Overall evaluation in terms of Efficiency, Equity and Sustainability criteria

#### Definitions

**Efficiency:** *The options and strategies chosen to make the most efficient use of resources and reduce material and energy demands on physical, social and ecological systems.*

**Equity:** *The distribution of the effects of impacts (positive and negative) across different members of society, particularly the poorest and most vulnerable, now and in future generations*

**Sustainability:** *The choice of options and strategies that are most likely to preserve or enhance the ability of future generations to live sustainably.*

The following factors about the Wolwerivier site are favourable in terms of the above 3 criteria:

- The site is in the growth path of the City and thus resources invested here will be appropriately placed and likely to benefit wider communities in future. The site is permanent and tenure will ultimately be granted to the occupants, thus encouraging upgrade of properties. The site will, in the medium to long term be well connected to the region and city via public transport opportunities (efficiency and sustainability criteria).
- The site is close enough for the Vissershok residents to continue participating in the social facilities and employment opportunities they have found in the area (jobs, schools, clinics etc) (equity and continuity in social structures).
- The site is far enough from the Morningstar residents to mitigate direct impacts.

The following factors about the Wolwerivier site are less favourable in terms of the above 3 criteria:

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- The site is not well serviced and access is adjacent to a road that is in poor condition. Resources will need to be found to address these deficiencies (efficiency criteria).
- The existing Wolwerivier community will be significantly impacted by the new community that will be very close to them. These impacts could be both positive and negative. Most direct impacts will therefore be experienced by another community that is vulnerable and disadvantaged (equity criteria). The benefits of the move will be for the Vissershok residents (health, quality of life) and the City of Cape Town's residents as the resettlement allows for the expansion of the landfill site.

The following factors are both positive and negative in terms of the above criteria

- The site is located on a CBA 2 Biodiversity site: The site is however not in good condition (albeit restorable) and there may be potential for a job generating biodiversity offset (alien clearance) on adjacent CBA 1 sites.

#### **16. ASSESSMENT METHODOLOGIES AND CRITERIA, GAPS IN KNOWLEDGE, UNDERLYING ASSUMPTIONS AND UNCERTAINTIES.**

**Assessment methodology:** The assessment was undertaken using the assessment criteria and methodology as indicated in the requirements for a Basic Assessment report, using the criteria as indicated in the assessment tables given in section 11.

#### **Knowledge gaps:**

- There is very little information on the socio-economic status (e.g. employment, sources of income) of the Skandaalkamp residents in particular. They have been reluctant to provide information in previous surveys. The survey information that has been obtained is 2 years old, but according to the District's informal settlements manager, there has been no noticeable growth in the number of residents.
- Assessment of possible impacts on the socio-economic environment has been based largely on inputs received from interested and affected parties as well as personal observation. No socio-economic surveys have been undertaken.

#### **17. LFTEA DOCUMENTATION (to be submitted seperately).**