

ITEM NUMBER : C 34/03/11

RECOMMENDATION FROM THE EXECUTIVE MAYOR: 15 MARCH 2011

MC 42/03/11 CONSULTANT'S FINAL DRAFT REPORT REGARDING MUNICIPAL SYSTEMS ACT, SECTION 78(3) ASSESSMENT OF ALTERNATE SERVICE DELIVERY MECHANISMS FOR SOLID WASTE MANAGEMENT IN CAPE TOWN

(Note: Annexure A to the report circulated separately in both hard copy and CD format)

RECOMMENDED that:

- (a) the findings and recommendations of Akhile Consortium's final draft report to Council (per the Consultant's Consolidated Report in Annexure A to the report on the agenda) on the assessment of alternative service delivery mechanisms and business improvement initiatives for waste management in Cape Town be supported and implemented
- (b) the Council resolution of 28 March 2001, vide item C 02/03/01, to create an internal business unit for Solid Waste Management be rescinded to avoid conflicts in the consideration of Alternative Service Delivery Mechanisms
- (c) the Departmental structure of the Solid Waste Management Department be retained, with minor adjustments to functions as required after completing business improvement assessments per the consultant's recommendations
- (d) the Executive Director: Utility Services investigates and creates a mechanism and appropriate capacity to manage projects of a strategic nature involving waste, water and energy with cross-functional benefits
- (e) the Executive Director: Utility Services investigates waste-to-energy (or energy-from-waste) synergies in respect of organic solid waste and sewerage sludge, and initiates projects as soon as possible, in support of Council's Energy Policy and targets
- (f) the Solid Waste Management Department revises Council's Integrated Waste Management (IWM) Policy, 2006 to align it with any recommendations adopted by Council per the report on the agenda

- (g) the Solid Waste Management Department revises its current IWM Plan (Waste Management Sector Plan, as annexed to the IDP annually) in accordance with any recommendation adopted by Council per the report on the agenda
- (h) the Solid Waste Management Department develops a formal strategy and plan for changes to hazardous waste management that will be introduced when the Waste Classification and Management Regulations per the National Environmental Management: Waste Act are promulgated
- (i) the Solid Waste Management Department reprioritises and amends its medium to long-term capital works programme, its proposed capital or operating budgets to include the alternative service delivery mechanism mentioned in the report
- (j) the Solid Waste Management Department be authorised to initiate the process to generate alternative (non-Council) funding through Public Private Partnerships (PPPs) for the implementation of initiatives for which the detailed feasibility and risks are to be determined during the public private partnership process, viz:
 - (i) Upgrading the Material Recovery Facility and expanding capacity of the Athlone Refuse Transfer Station to also include Energy-from-Waste infrastructure;
 - (ii) Incorporating an appropriate mixture of processing and Energy-from-Waste infrastructure at the Kraaifontein Integrated Waste Management Facility;
 - (iii) Establishing a fully integrated facility at the planned site at the Bellville South Landfill;
 - (iv) Establishing Energy-from-Waste infrastructure and other infrastructure as deemed feasible according to plan at the Swartklip Refuse Transfer Station;
 - (v) Establishing a fully integrated facility at the planned site as deemed feasible according to plan in the Helderberg area.
- (k) the Solid Waste Management Department initiates and registers all Council-approved waste minimisation and certain Energy-from-Waste public private partnership initiatives with the National Treasury as soon as possible, and project manages these as a programme to improve administrative and other efficiencies to avoid further delays

- (l) the Solid Waste Management Department investigates a suitable system, infrastructure and mechanisms that will increase economic opportunities pertaining to waste management in informal areas. This should be done in partnership with the waste industry, the community and with the aid of other Departments of Council that are directly involved in community development and socio-economic development with the objective of enabling local community benefit
- (m) the Solid Waste Management Department initiates the business improvement projects involving possible internal changes to its structure and functions as recommended by the consultant, specifically with respect to the Workshop and Fleet Management, and a proposed Contract Management Unit
- (n) the Solid Waste Management Dept. investigates the viability and draws up a business case for Council to provide the infrastructure and equipment for the transport by road of Refuse Transfer Station waste to landfills instead of using the current outsourced service
- (o) an inter-departmental task team be established by the Solid Waste Management Department to agree on policy for the reuse of recycled materials or implementing a separation and disposal mechanism for the re-use of recovered and processed materials in Council projects (e.g. crushed builder's rubble)
- (p) Council's Procurement Policy and goods contracts to include standard requirements for recycled material in terms of "green procurement" principles as a means to stimulate local consumption of recycled goods
- (q) the Economic and Human Development Department liaises with the Utility Services Directorate prior to any work to being undertaken via WESGRO or any other agency in respect of matters that could enhance opportunities for waste minimisation or energy, or other matters related to the services provided by the Utility Services Directorate
- (r) Council's tender specifications and standard terms of contracts be revised as soon as possible to include explicit penalty and termination clauses to protect Council's rights.

REPORT TO EXECUTIVE MAYOR

CITY OF CAPE TOWN | ISIXEKD SASEKAPA | STAD KAAPSTAD

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1. **ITEM NUMBER: MC 42/03/11**
2. **SUBJECT:**
CONSULTANT'S FINAL DRAFT REPORT REGARDING MUNICIPAL SYSTEMS ACT, SECTION 78(3) ASSESSMENT OF ALTERNATE SERVICE DELIVERY MECHANISMS FOR SOLID WASTE MANAGEMENT IN CAPE TOWN

ISIHLOKO:

INGXELO YOMCEBISI ELUYILO LOKUGQIBELA ENGEZIPHUMO ZEXESHANA NGOKUMALUNGA NOMTHETHO ONGEENKQUBO ZIKAMASIPALA, S.78(3) NGOKUJOLISWE KUPHANDO LWEENDLELA EZITHILE EZIPHAKANYISIWEYO ZOKUNIKEZELWA KWENKONZO EZINGEZOLAWULO LWENKUNKUMA

ONDERWERP:

KONSULTANTVERSLAG OOR TUSSENTYDSE BEVINDINGE OOR DIE WET OP MUNISIPALE STELSLS, ART. 78(3)-EVALUERING VAN ALTERNATIEWE DIENSLEWERINGSMEGANISMES VIR VASTEAFVALBESTUUR

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3. **RECOMMENDATION FROM UTILITY SERVICES PORTFOLIO COMMITTEE HELD ON 04 MARCH 2011**

RECOMMENDED that:

- (a) the findings and recommendations of Akhile Consortium's final draft report to Council (per the Consultant's Consolidated Report in Annexure A to the report on the agenda) on the assessment of Alternative Service Delivery Mechanisms and business improvement initiatives for waste management in Cape Town be supported
- (b) the recommendations contained in the report on the agenda with regard to alternative service delivery mechanisms and business improvement initiatives for waste management in Cape Town be supported and implemented
- (c) the Mayoral Committee supports and Council resolves to implement the recommendations of this report with regard to alternative service delivery mechanisms and business improvement initiatives for waste management in Cape Town
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- (d) the Council resolution C02/03/01 of 28 March, 2001 to create an Internal Business Unit for Solid Waste Management be rescinded to avoid conflicts in the consideration of Alternative Service Delivery Mechanisms
 - (e) the Departmental structure of the Solid Waste Management Dept. be retained, with minor adjustments to functions as required after completing business improvement assessments per the consultant's recommendations
 - (f) the Executive Director: Utility Services investigates and creates a mechanism and appropriate capacity to manage projects of a strategic nature involving waste, water and energy with cross-functional benefits
 - (g) the Executive Director: Utility Services investigates waste-to-energy (or energy-from-waste) synergies in respect of organic solid waste and sewerage sludge, and initiates projects as soon as possible, in support of Council's Energy Policy and targets
 - (h) the Solid Waste Management Dept. revises Council's Integrated Waste Management (IWM) Policy, 2006 to align it with any recommendations adopted by Council per this report
 - (i) the Solid Waste Management Dept. revises its current IWM Plan (Waste Management Sector Plan, as annexed to the IDP annually) in accordance with any recommendation adopted by Council per this report
 - (j) the Solid Waste Management Dept. develops a formal strategy and plan for changes to hazardous waste management that will be introduced when the Waste Classification and Management Regulations per the National Environmental Management: Waste Act are promulgated
 - (k) the Solid Waste Management Dept. reprioritises and amends its medium to long-term capital works programme, its proposed capital or operating budgets to include the alternative service delivery mechanism mentioned in the report
 - (l) the Solid Waste Management Dept. is authorised to initiate the process to generate alternative (non-Council) funding through Public Private Partnerships (PPPs) for the implementation of initiatives for which the detailed feasibility and risks are to be determined during the PPP process, viz:
 - (i) Upgrading the Material Recovery Facility and expanding capacity of the Athlone Refuse Transfer Station to also include Energy-from-Waste infrastructure;
 - (ii) Incorporating an appropriate mixture of processing and Energy-from-Waste infrastructure at the Kraaifontein Integrated Waste Management Facility;
 - (iii) Establishing a fully integrated facility at the planned site at the Bellville South Landfill;
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- (iv) Establishing Energy-from-Waste infrastructure and other infrastructure as deemed feasible according to plan at the Swartklip Refuse Transfer Station;
 - (v) Establishing a fully integrated facility at the planned site as deemed feasible according to plan in the Helderberg area;
- (m) the Solid Waste Management Dept. initiates and registers all Council-approved waste minimisation and certain Energy-from-Waste PPP initiatives with the National Treasury as soon as possible, and project manages these as a programme to improve administrative and other efficiencies to avoid further delays
- (n) the Solid Waste Management Dept. investigates a suitable system, infrastructure and mechanisms that will increase economic opportunities pertaining to waste management in informal areas. This should be done in partnership with the waste industry, the community and with the aid of other Departments of Council that are directly involved in community development and socio-economic development with the objective of enabling local community benefit
- (o) the Solid Waste Management Dept. initiates the business improvement projects involving possible internal changes to its structure and functions as recommended by the consultant, specifically with respect to the Workshop and Fleet Management, and a proposed Contract Management Unit
- (p) the Solid Waste Management Dept. investigates the viability and draws up a business case for Council to provide the infrastructure and equipment for the transport by road of Refuse Transfer Station waste to landfills instead of using the current outsourced service
- (q) an inter-departmental task team be established by the Solid Waste Management Dept. to agree on policy for the reuse of recycled materials or implementing a separation and disposal mechanism for the re-use of recovered and processed materials in Council projects (e.g. crushed builder's rubble)
- (r) Council's Procurement Policy and goods contracts to include standard requirements for recycled material in terms of "green procurement" principles as a means to stimulate local consumption of recycled goods
- (s) the Socio-Economic Development Dept. liaises with the Utility Services Directorate prior to any work to being undertaken via WESGRO or any other agency in respect of matters that could enhance opportunities for waste minimisation or energy, or other matters related to the services provided by the Utility Services Directorate
- (t) Council's tender specifications and standard terms of contracts be revised as soon as possible to include explicit penalty and termination clauses to protect Council's rights.
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KUNDULULWE ukuba:

- (a) IKomiti yeMicimbi yeSebe leeNkonzo eziluncedo mayithathele ingqalelo, mayixhase kwakhona yenze izindululo ngokujoliswe kwiziphumo nezindululo ezenziwe ngabakwa-Akhile Consortium kwingxelo yabo yokugqibela eluyilo (ngokweNgxelo eHlanganisiweyo yoMcebisi kwisiHlomelo-A) ngokujoliswe kuphando lweNdlela ezithile zoNikezelo lweNkonzo namaphulo ophuculo lwendlela yokusebenza kwezolawulo lwenkunkuma eKapa;
 - (b) Zonke ezinye iikomiti zemicimbi yamaSebe mazithathele ingqalelo kwaye zixhase iziphumo nezindululo ezikwingxelo yokugqibela eluyilo yabakwa-Akhile Consortium eya kwiBhunga (isiHlomelo-A);
 - (c) IKomiti yolawulo lukaSodolophu mayixhase kwakhona iBhunga malisombulule ukuba limisele izindululo zale ngxelo ngokuphathelene neendlela ezithile zonikezelo lwenkonzo namaphulo okuphuculwa kwendlela yokusebenza kulawulo lwezenkunkuma eKapa.
 - (d) Makurhoxiswe isisombululo seBhunga esingu-C02/03/01 sowama-28 Matshi, 2001 sokuba kuyilwe iYunithi yangaPhakathi engokuQhutywa komsebenzi yezoLawulo lweNkunkuma, ukuze kungabikho lungquzulwano ngokumalunga nokumiselwa kweNdlela ezithile zoNikezelo lweNkonzo;
 - (e) Masihlale sihleli/makugcinwe isakhoko seSebe loLawulo lweNkunkuma, ngaphandle nje kwezilungiso ezingephi kwimisebenzi njengoko kuyimfuneko emva kokuba kugqitywe uphando olungokuphuculwa kwendlela yokusebenza ngokwezindululo zomcebisi;
 - (f) Umlawuli wesiGqeba kwiiNkonzo eziluncedo makaphande kwaye ayile indlela ethile noxhobiso olufanelekileyo ukuze kulawulwe iiprojekthi ezibume besicwangciso-buchule eziquka inkunkuma, amanzi nezombane ezineenzuzo ezahlukeneyo;
 - (g) Umlawuli weSigqeba kwiiNkonzo eziluncedo makaphande umbandela wezenkunkuma engumphumela kwezombane (okanye ezombane ezithi zibengumphumela kwezenkunkuma) intsebenziswano ethi ibekho/ ngokujoliswe ngokunxulumene phakathi kwenkunkuma elutyani nemigxobhozo yogutyulo, kwakhona asungule iiprojekthi ngokukhawulezileyo, apho exhasa uMgaqo-nkqubo weBhunga ongezoMbane nalapho kujoliswe khona;
 - (h) ISebe loLawulo lezeNkunkuma maliphengulule uMgaqo-nkqubo weBhunga ongoLawulo lweNkunkuma ngokuHlangeneyo (IWM), wangowe-2006 ukuze ulungelelane nazo naziphina izindululo ezithe zamiselwa/zagqitywa liBhunga ngokwale ngxelo;
 - (i) ISebe loLawulo lweNkunkuma maliphengulule iSicwangciso saso esele sisebenza se-IWM (iSicwangciso seCandelo soLawulo lweNkunkuma, njengoko sihlonyelwa kwi-IDP rhoqo ngonyaka) ukuze singqinelane naso nasiphina isindululo esithe samiselwa liBhunga ngokwale ngxelo;
 - (j) ISebe loLawulo lweNkunkuma maliqukunqe isicwangciso-buchule ngokusesikweni nesicwangciso ezilungiselelwe utshintsho kulawulo lwenkunkuma eyingozi, apho eziya kuthi zisebenze/ziqalise ukusebenza xa kuthe kwamiselwa ngokusesikweni uHlelo lweNkunkuma neMigaqo yoLawulo ngokungqinelana noMthetho weSizwe woLawulo lokusiNgqongileyo weNkunkuma;
 - (k) ISebe loLawulo lweNkunkuma malicwangcise kwakhona kwaye lenze isilungiso kwinkqubo yalo yezemisebenzi emikhulu yexesha elisembindini nelide,
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isiphakamiso salo seebhajethi enkulu okanye esebenzisekayo ukuze iquke indlela ethile engonikezelo lwenkonzo ekhankanywe kule ngxelo;

- (l) ISebe loLawulo lweNkunkuma malinikezelwe igunya lokuqalisa inkqubo ukuze livelise indlela ethile (inkxaso-mali engaphumi kwiBhunga) ngokuthi lisebenzise uBuhlakani baBucala boLuntu (PPPs) ukuze kumiselwe amaphulo apho indlela yokumiselwa nemingcipheko eya kuthi igqitywe kwinkqubo ye-PPP, ngale ndlela:
- (i) Ukuhlaziywa kwesixhobo esithi samkele okanye sifumane izixhobo zokusebenza nokwandiswa kwendlela yokusebenza kweSikhululo sokuHlelwa kweNkunkuma sase-Athlone ukuze siquke isixhobo esisiseko sokuguqulela umbane ongumphumela wenkunkuma;
 - (ii) ii. Ukuba kuqukwe umxube ofanelekileyo wokwenziwa kwayo kunye nesixhobo esisiseko soMbane ongumphumela wenkunkuma kwiSixhobo soLawulo lweNkunkuma ngokuHlangeneyo sase-Kraaifontein;
 - (iii) iii. Ukumiselwa kwesixhobo esihlanganisiweyo ngokupheleleyo kwisiza esilungiselelweyo kwiNdawo yokuGcinwa kwenkunkuma yase-Bellville South;
 - (iv) iv. Ukumiselwa kwesixhobo esisiseko soMbane ongumphumela wenkunkuma nezinye izixhobo eziziseko apho kuya kuthi kubonakale kufanelekile ngokwesicwangciso seSikhululo sokuHlelwa kweNkunkuma sase-Swartklip;
 - (v) v. Ukumiselwa kwesixhobo esihlanganisiweyo ngokupheleleyo kwisiza esilungiselelweyo, apho kuya kubonakala kufanelekile, ngokwesicwangciso sommandla wase-Helderberg;
- (m) ISebe loLawulo lweNkunkuma maliqalise kwaye libhalise kuNondyebo weSizwe onke amaphulo okucutha inkunkuma aphunyezwe liBhunga namanye athile ongoMbane ongumphumela wenkunkuma e-PPP, ngokukhawulezileyo, kwakhona iprojekthi ilawule ezi nkqubo ngenjongo yokuphucula ezolawulo nezinye iimveliso ukuze kungabikho kulibaziseka;
- (n) ISebe loLawulo lweNkunkuma malenze uphando ngokumalunga nenkqubo efanelekileyo, isixhobo esisiseko neendlela ezithile eziya kuthi zandise amathuba ezozoqosho ngokujoliswe kulawulo lwenkunkuma kwimimandla engamatyotyombe. Oku kuya kuthi kwenziwa ngokubambisene nabezemveliso lwenkunkuma, uluntu kwakhona nangokuncediswa ngamanye amaSebe eBhunga abandakanyeka kuphuhliso loluntu nakwintlalo ngenjongo yokuba kuxhamle uluntu lwaloo ndawo;
- (o) ISebe loLawulo lweNkunkuma maliqalise iiprojekthi ezingophuculo lwendlela yokusebenza apho eziya kuthi ziquke utshintsho lwesakheko salo sangaphakathi kunye nemisebenzi njengoko kwenziwe isindululo ngumcebisi, ingakumbi ngokujoliswe kwezoKhando nakuLawulo lweziThuthi, nakwisiphakamiso seYunithi yoLawulo lweKhontrakthi;
- (p) ISebe loLawulo lweNkunkuma maliphande ngendlela yokwenzeka kwaye limisele isikhokelo sokuqhutywa komsebenzi esijoliswe kwiBhunga ukuze libonelele ngesixhobo esisiseko nesixokelelwane sothutho kwindlela ejoliswe kwiSikhululo sokuHlelwa kweNkunkuma ukuya kwindawo yokulahlwa/yokugcinawa kwenkunkuma endaweni yokusebenzisa inkonzo yangaphandle.
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- (q) Makumiselwe iqela lawo onke amasebe liSebe loLawulo lweNkunkuma ukuze livumelane ngomgaqo-nkqubo ongokusetyenziswa ngokutsha kwenkunkuma okanye ukumiselwa kolwahlulo nendlela yokunikezelwa kwenkunkuma ukuze kusetyenziswe kwakhona obekusele konakele nezixhobo ezenziwe ngokutsha kwiiprojekthi zeBhunga (ezinjengokuqokelelwa okanye ukuhlelwa kobugoxo bokwakha).
- (r) UMgaqo-nkqubo weBhunga ongoBonelelo ngoMsebenzi okwiZiko neeKhontrakthi zeeMpahla maziquke imimiselo efanelekileyo engezixhobo ezenziwe ngokutsha ngokwemithetho-siseko "engobonelelo ngomsebenzi ephawulwe luhlaza" njengendlela yokukhuthaza inzuzo kwindawo leyo ngokumalunga neempahla ezenziwe ngokutsha.
- (s) ISebe loPhuhliso lwezoQoqosho neNtlalo maliqhagamshelane neCandelo loLawulo lweNkonzo eziluncedo phambi kokuba kuqaliswe nawo nawuphina umsebenzi oya kuthi uqhutywe nabakwa-WESGRO okanye nalo naliphina iqumrhu ngokuphathelene nemibandela engathi iphucule amathuba okucuthwa kwenkunkuma okanye ukusetyenziswa kombane, okanye eminye imibandela ephathelene kwiinkonzo ezibonelelwa liCandelo loLawulo lweNkonzo eziluncedo.
- (t) Imibandela ebalulweyo engethenda yeBhunga nemiqathango esesikweni/eyamkelekileyo engeekhontrakthi, mayiphengululwe ngokukhawulezileyo ukuze iquke isigwebo esicacileyo namasolotya okuyekiswa ukuze kukhuseleke amalungelo eBhunga.

AANBEVEEL dat:

- (a) Die portefeuljekomitee oor nutsdienste die bevindinge en aanbevelings van die Akhile Konsortium se finale konsepverslag (sien die konsultant se gekonsolideerde verslag in bylae A) aan die Raad oor die evaluering van alternatiewe diensleweringsmeganismes en sakeverbeteringsinisiatiewe vir vasteafvalbestuur in Kaapstad oorweeg, steun en aanbeveel;
- (b) Alle ander portefeuljekomitees die bevindinge en aanbevelings van die Akhile Konsortium se finale konsepverslag aan die Raad (bylae A) oorweeg en steun;
- (c) Die burgemeesterskomitee steun verleen aan en die Raad besluit dat die aanbevelings van hierdie verslag ten opsigte van alternatiewe diensleweringsmeganismes en sakeverbeteringsinisiatiewe vir afvalbestuur in Kaapstad geïmplementeer moet word;
- (d) Die Raadsresolusie C02/03/01 van 28 Maart 2001 oor die skep van 'n interne sake-eenheid vir vasteafvalbestuur herroep word om konflikte met die oorweging van alternatiewe diensleweringsmeganismes te vermy;
- (e) Die departement vasteafvalbestuur se departementele strukture behou word met geringe wysigings aan funksies soos vereis na die afhandeling van die sakeverbeteringsassesserings en volgens die konsultant se aanbevelings;
- (f) Die uitvoerende direkteur: nutsdienste ondersoek instel na 'n meganisme en gepaste kapasiteit vir die bestuur van strategiese projekte oor water, afval en energie met wedersyds-funksionele voordele, en dit dan skep;
- (g) Die uitvoerende direkteur: nutsdienste ondersoek instel na sinergieë ten opsigte van organiese vaste afval en rioolslyk wat betref afval-tot-energie (of energie-uitafval), en so gou as moontlik projekte inisieer wat die Raad se energiebeleid en -teikens ondersteun;

- (h) Die departement vasteafvalbestuur die Raad se beleid oor geïntegreerde afvalbestuur, 2006 hersien om ooreen te stem met enige aanbevelings wat die Raad na aanleiding van hierdie verslag goedkeur;
 - (i) Die departement vasteafvalbestuur sy huidige plan vir geïntegreerde afvalbestuur (afvalbestuursektorplan, soos jaarliks by die GOP aangeheg) hersien in ooreenstemming met enige aanbeveling wat die Raad na aanleiding van hierdie verslag goedkeur;
 - (j) Die departement vasteafvalbestuur 'n formele strategie en plan opstel vir veranderinge aan die bestuur van gevaarlike afval, wat sal volg wanneer die regulasies oor afvalklassifikasie en –bestuur ingevolge die Wet op Nasionale Omgewingsbestuur: Afval gepromulgeer word;
 - (k) Die departement vasteafvalbestuur sy medium- tot langtermyn-kapitaalwerkeprogram herprioritiseer en sy voorgestelde kapitaal- of bedryfsbegrotings wysig om alternatiewe dienslewering in te sluit;
 - (l) Die departement vasteafvalbestuur gemagtig word om die proses vir die generering van alternatiewe (nieraads-) befondsing deur openbare-privaat-vennootskappe te inisieer vir die implementering van inisiatiewe waarvan die gedetailleerde uitvoerbaarheid en risiko's gedurende die openbare-privaat-vennootskap-proses bepaal moet word, naamlik:
 - (i) Die verbetering van die materiaalherwinningsfasiliteit en uitbreiding van die Athlone-vullisoorlaaistase se kapasiteit sodat dit ook infrastruktuur vir energie-uit-afval het;
 - (ii) Die inkorporering van 'n gepaste mengsel van verwerking en infrastruktuur vir energie-uit-afval by die Kraaifontein- geïntegreerde afvalbestuursfasiliteit;
 - (iii) Die stigting van 'n ten volle geïntegreerde fasiliteit op die beplande terrein by die Bellville-Suid-grondopvulterrein;
 - (iv) Die aanbring van infrastruktuur vir energie-uit-afval en ander infrastruktuur wat doenlik geag word, soos beplan by die Swartklip-afvaloorlaaistase;
 - (v) Die stigting van 'n ten volle geïntegreerde fasiliteit op die beplande terrein soos doenlik geag, en soos beplan in die Helderberg-gebied;
 - (m) Die departement vasteafvalbestuur alle Raadsgoedgekeurde afvalminimalisering en sekere openbare-privaat-vennootskapsinisiatiewe vir energie-uit-afval so gou as moontlik inisieer en registreer, en dit as 'n program projekbestuur ten einde onder andere administratiewe doeltreffendheid te verbeter om so verdere vertraging te verhoed;
 - (n) Die departement vasteafvalbestuur 'n geskikte stelsel, infrastruktuur en meganismes ondersoek wat ekonomiese geleenthede vir afvalbestuur in informele gebiede sal vermeerder. Dit moet gedoen word in vennootskap met die afvalindustrie, die gemeenskap en met behulp van ander Raadsdepartemente wat regstreeks by gemeenskapsontwikkeling en sosio-ekonomiese ontwikkeling betrokke is sodat die plaaslike gemeenskap bevoordeel word;
 - (o) Die departement vasteafvalbestuur die sakeverbeteringsprojekte inisieer wat moontlik interne veranderinge aan sy struktuur en funksies behels, soos deur die konsultant aanbeveel, veral met betrekking tot die werkwinkel en vlootbestuur en 'n voorgestelde kontrakbestuurseenheid;
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- (p) Die departement vasteafvalbestuur die lewensvatbaarheid ondersoek van en 'n sakegeval vir die Raad opstel oor die voorsiening van die infrastruktuur en toerusting vir afvalvervoer vanaf vullisoorlaaistases na grondopvulterreine in plaas van die huidige uitgekонтakteerde diens;
- (q) Die departement vasteafvalbestuur 'n interdepartementele taakspan stig om te besluit oor 'n beleid vir die hergebruik van materiaal wat herwin is of die implementering van 'n skeidings-en-wegdoeningsmeganisme vir die hergebruik van materiaal wat in Raadsprojekte herwin en verwerk is (bv fyngemaakte bourommel);
- (r) Die Raad se verkrygingsbeleid en goederekонтakte standaardvereistes insluit vir materiaal wat volgens "groenverkrygingsbeginsels" herwin is in 'n poging om plaaslike verbruik van herwonne goedere te stimuleer;
- (s) Die departement sosio-ekonomiese ontwikkeling met die direktoraat nutsdienste skakel voor enige werk deur WESGRO of enige ander agentskap aangepak word sover dit sake betref wat geleenthede vir afvalminimalisering of energie kan versterk, of enige ander sake wat verband hou met dienste wat deur die direktoraat nutsdienste verskaf word;
- (t) Die Raad se tenderspesifikasies en standaard-kонтракbepalings so gou as moontlik hersien word om uitdruklike straf- en beëindigingsklousules in te sluit ten einde die Raad se regte te beskerm.

4. RECOMMENDATIONS FROM:

CORPORATE SERVICES & HUMAN RESOURCES PORTFOLIO COMMITTEE:

01 MARCH 2011 (CORHR 07/03/11);

COMMUNITY SERVICES PORTFOLIO COMMITTEE: 01 MARCH 2011

(CS 13/03/11)

FINANCE PORTFOLIO COMMITTEE: 04 MARCH 2011 (FIN 14/03/11);

ECONOMIC DEVELOPMENT & TOURISM PORTFOLIO COMMITTEE: 01

MARCH 2011 (EDT 16/03/11);

HOUSING PORTFOLIO COMMITTEE: 04 MARCH 2011 (HOU 08/03/11);

PLANNING & ENVIRONMENT PORTFOLIO COMMITTEE: 01 MARCH 2011

(PLAN 09/03/11);

SOCIAL DEVELOPMENT PORTFOLIO COMMITTEE: 01 MARCH 2011 (SOCDEV 11/03/11);

SAFETY & SECURITY PORTFOLIO COMMITTEE: (SAFS 15/03/11): 03 MARCH 2011;

HEALTH PORTFOLIO COMMITTEE: (HEA 14/03/11): 03 MARCH 2011

RECOMMENDED that:

- (a) the findings and recommendations of Akhile Consortium's final draft report to Council be supported
 - (b) the recommendations contained in the report on the agenda with regard to alternative service delivery mechanisms and business improvement initiatives for waste management in Cape Town be supported and implemented.
-

5. RECOMMENDATION FROM THE TRANSPORT, ROADS AND STORMWATER & MAJOR PROJECTS PORTFOLIO COMMITTEE: 03 MARCH 2011 (TRS&MP 23/03/11)

RECOMMENDED that recommendations (a) – (t) as set out on pages 458 to 460 on the agenda, be noted.

**REPORT TO ALL PORTFOLIO COMMITTEES,
MAYCO AND COUNCIL**



- 1. **ITEM NUMBER : TRS & MP 23/03/11**
- 2. **SUBJECT : CONSULTANT'S FINAL DRAFT REPORT REGARDING MUNICIPAL SYSTEMS ACT, S.78(3) ASSESSMENT OF ALTERNATE SERVICE DELIVERY MECHANISMS FOR SOLID WASTE MANAGEMENT IN CAPE TOWN**

ISIHLOKO : INGXELO YOMCEBISI ELUYILO LOKUGQIBELA ENGEZIPHUMO ZEXESHANA NGOKUMALUNGA NOMTHETHO ONGEENKQUBO ZIKAMASIPALA, S.78(3) NGOKUJOLISWE KUPHANDO LWEENDLELA EZITHILE EZIPHAKANYISIWEYO ZOKUNIKEZELWA KWENKONZO EZINGEZOLAWULO LWENKUNKUMA

ONDERWERP : KONSULTANTVERSLAG OOR TUSSENTYDSE BEVINDINGE OOR DIE WET OP MUNISIPALE STELSLS, ART. 78(3)-EVALUERING VAN ALTERNATIEWE DIENSLEWERINGSMEGANISMES VIR VASTEAFVALBESTUUR

[LSUA7446/B0405]

3. PURPOSE

This report presents the final draft report with findings and recommendations by the Akhile Consortium, the consultant team that was appointed in March 2010 to assess alternative service delivery mechanisms for the management and minimisation of solid waste in the City of Cape Town and whose investigation and assessment was conducted in terms of S.78(3) of the Municipal Systems Act.

4. FOR DECISION BY

NOT DELEGATED – FOR DECISION BY COUNCIL

5. EXECUTIVE SUMMARY

The report to Council concludes the assessment of alternative service delivery mechanisms (ASDs) for waste management in the City of Cape Town. It is the most comprehensive evaluation of a municipal solid waste management function since the promulgation of the National Environmental Management Waste Act

SWR - RM 655

(NEMWA, Act 59 of 2008). The NEMWA introduces municipal obligations for waste management over and above the constitutionally mandated functions. As such, the report is likely to become a benchmark.

Akhile Consortium was appointed in March 2010 in terms of a contract awarded as per the scope and Terms of Reference (ToR) of Council Tender 554C/2008/2009. The scope of the MSA S.78(3) project includes an evaluation of the solid waste management function currently being executed, managed or overseen in Cape Town by the Solid Waste Management (SWM) Dept.. It further includes evaluating the implementation of the new legislation to ensure compliance, improve environmental performance, and to meet Council's IDP objectives. The purpose of the Section 78 enquiry is to evaluate whether the City should provide waste management services in compliance with the new legislation through an external mechanism

The ToR required a Pareto, or 80/20 approach for the evaluation and assessment to drive out economies of scale that would create a larger diversion of waste for optimal beneficiation or reuse than the current 27% figure. The assessment was undertaken within a sustainability framework with efficiency, effectiveness, affordability, socio-economic and financial viability as evaluation criteria.

Proposed solutions were required to be appropriate in the local context considering alternative service delivery mechanisms appropriate to the local geographic, demographic, economic, environmental, waste and associated industries. It also had to take national considerations and developments into account, specifically with respect to Industry Waste Management Plans.

The recommendations should be pragmatic and phased, involving alternative funding from the private sector or non-governmental sources, as well as the expertise necessary to implement and operate alternative mechanisms on a viable, sustainable basis. This was to be achieved considering risk and cost-benefit, by using an estimate of population growth and economic development, together with estimates of waste growth to divert the greatest volume and/or mass of generated waste from the current and future landfills in Cape Town over thirty-years. A desired outcome was economic development in the waste and related industries, with growth in the small and informal business sector.

A rigorous, scientific process, based on a systems approach, was used to complete the assessment and compare a range of waste diversion and beneficiation alternatives that can be sustained over the long-term. Forty-six priority issues, reduced to eleven high impact issues, were identified consultatively with SWMD senior and middle management staff. Input was also obtained from external stakeholders through a public participation process.

The financial and technical analyses and projections are based on the best available financial, waste, economic and demographic data, either from Council records or industry sources. Where data were not available, the consultant used assumptions, informed by experience, expertise and trends in modern day waste management and minimisation to recommend appropriate solutions.

Council has already approved that a Public Private Partnership (PPP) process be followed for its two composting plants (Council Resolution C 18/12/10, December 2010). The project has been registered with the National Treasury's PPP Unit

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(Number M066) and engagements with both the National and the Provincial Treasury's PPP Unit have already started.

The final draft report of Akhile Consortium is now presented with recommendations for ASDs requiring external partnerships (PPPs) that will be managed by the SWM Dept, as well as recommendations for departmental business improvement initiatives that will ensure compliance by Council with its obligations to manage waste as prescribed in the National Environmental Management: Waste Act. Inter alia, this will involve the integration of municipal services with private sector activities in support of optimal waste minimisation.

6. RECOMMENDATIONS

Not Delegated: for Decision by Council:

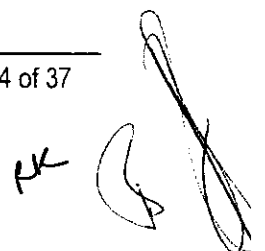
Recommended that:

- a) The Utility Services Portfolio Committee considers, supports and recommends the findings and recommendations of Akhile Consortium's final draft report to Council (per the Consultant's Consolidated Report in **Annexure A**) on the assessment of Alternative Service Delivery Mechanisms and business improvement initiatives for waste management in Cape Town;
- b) All other Portfolio Committees consider and support the findings and recommendations of Akhile Consortium's final draft report (**Annexure A**) to Council;
- c) The Mayoral Committee supports and Council resolves to implement the recommendations of this report with regard to alternative service delivery mechanisms and business improvement initiatives for waste management in Cape Town.
- d) The Council resolution C02/03/01 of 28 March, 2001 to create an Internal Business Unit for Solid Waste Management be rescinded to avoid conflicts in the consideration of Alternative Service Delivery Mechanisms;
- e) The Departmental structure of the Solid Waste Management Dept. be retained, with minor adjustments to functions as required after completing business improvement assessments per the consultant's recommendations;
- f) The Executive Director: Utility Services investigates and creates a mechanism and appropriate capacity to manage projects of a strategic nature involving waste, water and energy with cross-functional benefits;
- g) The Executive Director: Utility Services investigates waste-to-energy (or energy-from-waste) synergies in respect of organic solid waste and sewerage sludge, and initiates projects as soon as possible, in support of Council's Energy Policy and targets;
- h) The Solid Waste Management Dept. revises Council's Integrated Waste Management (IWM) Policy, 2006 to align it with any recommendations adopted by Council per this report;
- i) The Solid Waste Management Dept. revises its current IWM Plan (Waste Management Sector Plan, as annexed to the IDP annually) in accordance with any recommendation adopted by Council per this report;

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- j) The Solid Waste Management Dept. develops a formal strategy and plan for changes to hazardous waste management that will be introduced when the Waste Classification and Management Regulations per the National Environmental Management: Waste Act are promulgated;
- k) The Solid Waste Management Dept. reprioritises and amends its medium to long-term capital works programme, its proposed capital or operating budgets to include the alternative service delivery mechanism mentioned in the report;
- l) The Solid Waste Management Dept. is authorised to initiate the process to generate alternative (non-Council) funding through Public Private Partnerships (PPPs) for the implementation of initiatives for which the detailed feasibility and risks are to be determined during the PPP process, viz:
 - (i) Upgrading the Material Recovery Facility and expanding capacity of the Athlone Refuse Transfer Station to also include Energy-from-Waste infrastructure;
 - (ii) Incorporating an appropriate mixture of processing and Energy-from-Waste infrastructure at the Kraaifontein Integrated Waste Management Facility;
 - (iii) Establishing a fully integrated facility at the planned site at the Bellville South Landfill;
 - (iv) Establishing Energy-from-Waste infrastructure and other infrastructure as deemed feasible according to plan at the Swartklip Refuse Transfer Station;
 - (v) Establishing a fully integrated facility at the planned site as deemed feasible according to plan in the Helderberg area;
- m) The Solid Waste Management Dept. initiates and registers all Council-approved waste minimisation and certain Energy-from-Waste PPP initiatives with the National Treasury as soon as possible, and project manages these as a programme to improve administrative and other efficiencies to avoid further delays;
- n) The Solid Waste Management Dept. investigates a suitable system, infrastructure and mechanisms that will increase economic opportunities pertaining to waste management in informal areas. This should be done in partnership with the waste industry, the community and with the aid of other Departments of Council that are directly involved in community development and socio-economic development with the objective of enabling local community benefit;
- o) The Solid Waste Management Dept. initiates the business improvement projects involving possible internal changes to its structure and functions as recommended by the consultant, specifically with respect to the Workshop and Fleet Management, and a proposed Contract Management Unit;
- p) The Solid Waste Management Dept. investigates the viability and draws up a business case for Council to provide the infrastructure and equipment for the transport by road of Refuse Transfer Station waste to landfills instead of using the current outsourced service.
- q) An inter-departmental task team be established by the Solid Waste Management Dept. to agree on policy for the reuse of recycled materials or implementing a separation and disposal mechanism for the re-use of recovered and processed materials in Council projects (e.g. crushed builder's rubble).

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- r) Council's Procurement Policy and goods contracts to include standard requirements for recycled material in terms of "green procurement" principles as a means to stimulate local consumption of recycled goods.
- s) The Socio-Economic Development Dept. liaises with the Utility Services Directorate prior to any work to being undertaken via WESGRO or any other agency in respect of matters that could enhance opportunities for waste minimisation or energy, or other matters related to the services provided by the Utility Services Directorate.
- t) Council's tender specifications and standard terms of contracts be revised as soon as possible to include explicit penalty and termination clauses to protect Council's rights.

Azgunyaziswanga: iSiggibo seseBhunga:

Kundululwe ukuba:

- a) IKomiti yeMicimbi yeSebe leeNkonzo eziluncedo mayithathele ingqalelo, mayixhase kwakhona yenze izindululo ngokujoliswe kwiziphumo nezindululo ezenziwe ngabakwa-Akhile Consortium kwingxelo yabo yokugqibela eluyilo (ngokweNgxelo eHlanganisiweyo yoMcebisi **kwisiHlomelo-A**) ngokujoliswe kuphando lweNdlela ezithile zoNikezelo lweNkonzo namaphulo ophuculo lwendlela yokusebenza kwezolawulo lwenkunkuma eKapa;
- b) Zonke ezinye iiKomiti zemicimbi yamaSebe mazithathele ingqalelo kwaye zixhase iziphumo nezindululo ezikwingxelo yokugqibela eluyilo yabakwa-Akhile Consortium eya kwiBhunga (**isiHlomelo-A**);
- c) IKomiti yolawulo lukaSodolophu mayixhase kwakhona iBhunga malisombulule ukuba limisele izindululo zale ngxelo ngokuphathelene neendlela ezithile zonikezelo lwenkonzo namaphulo okuphuculwa kwendlela yokusebenza kulawulo lwezenkunkuma eKapa.
- d) Makurhoxiswe isisombululo seBhunga esingu-C02/03/01 sowama-28 Matshi, 2001 sokuba kuyilwe iYunithi yangaPhakathi engokuQhutywa komsebenzi yezoLawulo lweNkunkuma, ukuze kungabikho lungqzulwano ngokumalunga nokumiselwa kweNdlela ezithile zoNikezelo lweNkonzo;
- e) Masihlale sihleli/makugcinwe isakheko seSebe loLawulo lweNkunkuma, ngaphandle nje kwezilungiso ezingephi kwimisebenzi njengoko kuyimfuneko emva kokuba kugqitywe uphando olungokuphuculwa kwendlela yokusebenza ngokwezindululo zomcebisi;
- f) Umlawuli wesiGqeba kwiiNkonzo eziluncedo makaphande kwaye ayile indlela ethile noxhobiso olufanelekileyo ukuze kulawulwe iiprojekthi ezibume besicwangciso-buchule eziquka inkunkuma, amanzi nezombane ezineenzuzo ezahlukeneyo;
- g) Umlawuli weSiggqeba kwiiNkonzo eziluncedo makaphande umbandela wezenkunkuma engumphumela kwezombane (okanye ezombane ezithi zibengumphumela kwezenkunkuma) intsebenziswano ethi ibekho/ngokujoliswe ngokunxulumene phakathi kwenkunkuma elutyani nemigxobhozo yogutyulo, kwakhona asungule iiprojekthi ngokukhawulezileyo, apho exhasa uMgaqo-nkqubo weBhunga ongezoMbane nalapho kujoliswe khona;
- h) ISebe loLawulo lezeNkunkuma maliphengulule uMgaqo-nkqubo weBhunga ongoLawulo lweNkunkuma ngokuHlangeneyo (IWM), wangowe-2006 ukuze

ulungelelane nazo naziphina izindululo ezithe zamiselwa/zagqitywa liBhunga ngokwale ngxelo;

- i) ISebe loLawulo lweNkunkuma maliphengulule iSicwangciso saso esele sisebenza se-IWM (iSicwangciso seCandelo soLawulo lweNkunkuma, njengoko sihlonyelwa kwi-IDP rhoqo ngonyaka) ukuze singqinelane naso nasiphina isindululo esithe samiselwa liBhunga ngokwale ngxelo;
- j) ISebe loLawulo lweNkunkuma maliqulunqe isicwangciso-buchule ngokusesikweni nesicwangciso ezilungiselelwe utshintsho kulawulo lwenkunkuma eyingozi, apho eziya kuthi zisebenze/ziqalise ukusebenza xa kuthe kwamiselwa ngokusesikweni uHlelo lweNkunkuma neMigaqo yoLawulo ngokungqinelana noMthetho weSizwe woLawulo lokusiNgqongileyo weNkunkuma;
- k) ISebe loLawulo lweNkunkuma malicwangcise kwakhona kwaye lenze isilungiso kwinkqubo yalo yezemisebenzi emikhulu yexesha elisembindini nelide, isiphakamiso salo seebhajethi enkulu okanye esebenzisekayo ukuze iquke indlela ethile engonikezelo lwenkonzo ekhankanywe kule ngxelo;
- l) ISebe loLawulo lweNkunkuma malinikezelwe igunya lokuqalisa inkqubo ukuze livelise indlela ethile (inkxaso-mali engaphumi kwiBhunga) ngokuthi lisebenzise uBuhlakani baBucala boLuntu (PPPs) ukuze kumiselwe amaphulo apho indlela yokumiselwa nemingcipheko eya kuthi igqitywe kwinkqubo ye-PPP, ngale ndlela:
 - (i) Ukuhlaziywa kwesixhobo esithi samkele okanye sifumane izixhobo zokusebenza nokwandiswa kwendlela yokusebenza kweSikhululo sokuHlelwa kweNkunkuma sase-Athlone ukuze siquke isixhobo esisiseko sokuguqulela umbane ongumphumela wenkunkuma;
 - (ii) ii. Ukuba kuqukwe umxube ofanelekileyo wokwenziwa kwayo kunye nesixhobo esisiseko soMbane ongumphumela wenkunkuma kwiSixhobo soLawulo lweNkunkuma ngokuHlangeneyo sase-Kraaifontein;
 - (iii) iii. Ukumiselwa kwesixhobo esihlanganisiweyo ngokupheleleyo kwisiza esilungiselelweyo kwiNdawo yokuGcinwa kwenkunkuma yase-Bellville South;
 - (iv) iv. Ukumiselwa kwesixhobo esisiseko soMbane ongumphumela wenkunkuma nezinye izixhobo eziziseko apho kuya kuthi kubonakale kufanelekile ngokwesicwangciso seSikhululo sokuHlelwa kweNkunkuma sase-Swartklip;
 - (v) v. Ukumiselwa kwesixhobo esihlanganisiweyo ngokupheleleyo kwisiza esilungiselelweyo, apho kuya kubonakala kufanelekile, ngokwesicwangciso sommandla wase-Helderberg;
- m) ISebe loLawulo lweNkunkuma maliqalise kwaye libhalise kuNondyabo weSizwe onke amaphulo okucutha inkunkuma aphunyezwe liBhunga namanye athile ongoMbane ongumphumela wenkunkuma e-PPP, ngokukhawulezileyo, kwakhona iprojekthi ilawule ezi nkqubo ngenjongo yokuphucula ezolawulo nezinye iimveliso ukuze kungabikho kulibaziseka;
- n) ISebe loLawulo lweNkunkuma malenze uphando ngokumalunga nenkqubo efanelekileyo, isixhobo esisiseko neendlela ezithile eziya kuthi zandise amathuba ezozoqoqosho ngokujoliswe kulawulo lwenkunkuma kwimimandla engamatyotyombe. Oku kuya kuthi kwenziwa ngokubambisene nabezemveliso lwenkunkuma, uluntu kwakhona nangokuncediswa ngamanye

amaSebe eBhunga abandakanyeka kuphuhliso loluntu nakwintlalo ngenjongo yokuba kuxhamle uluntu lwaloo ndawo;

- o) ISebe loLawulo lweNkunkuma maliqalise iiprojekthi ezingophuculo lwendlela yokusebenza apho eziya kuthi ziquke utshintsho lwesakheko salo sangaphakathi kunye nemisebenzi njengoko kwenziwe isindululo ngumcebisi, ingakumbi ngokujoliswe kwezoKhando nakuLawulo lweziThuthi, nakwisiphakamiso seYunithi yoLawulo lweKhontrakthi;
- p) ISebe loLawulo lweNkunkuma maliphande ngendlela yokwenzeka kwaye limisele isikhokelo sokuqhutywa komsebenzi esijoliswe kwiBhunga ukuze libonelele ngesixhobo esisisiseko nesixokelelwane sothutho kwindlela ejoliswe kwiSikhululo sokuHlelwa kweNkunkuma ukuya kwindawo yokulahwa/yokugcinawa kwenkunkuma endaweni yokusebenzisa inkonzo yangaphandle.
- q) Makumiselwe iqela lawo onke amasebe liSebe loLawulo lweNkunkuma ukuze livumelane ngomgaqo-nkqubo ongokusetyenziswa ngokutsha kwenkunkuma okanye ukumiselwa kolwahlulo nendlela yokunikezelwa kwenkunkuma ukuze kusetyenziswe kwakhona obekusele konakele nezixhobo ezenziwe ngokutsha kwiiprojekthi zeBhunga (ezinjengokuqokelelwa okanye ukuhlelwa kobugoxo bokwakha).
- r) UMgaqo-nkqubo weBhunga ongoBonelelo ngoMsebenzi okwiZiko neeKhontrakthi zeeMpahla maziquke imimiselo efanelekileyo engezixhobo ezenziwe ngokutsha ngokwemithetho-siseko "engobonelelo ngomsebenzi ephawulwe luhlaza" njengendlela yokukhuthaza inzuzo kwindawo leyo ngokumalunga neempahla ezenziwe ngokutsha.
- s) ISebe loPhuhliso lwezoQoqosho neNtlalo maliqhagamshelane neCandelo loLawulo lweNkonzo eziluncedo phambi kokuba kuqaliswe nawo nawuphina umsebenzi oya kuthi uqhutywe nabakwa-WESGRO okanye nalo naliphina iqumrhu ngokuphathelene nemibandela engathi iphucule amathuba okucuthwa kwenkunkuma okanye ukusetyenziswa kombane, okanye eminye imibandela ephathelene kwiinkonzo ezibonelelwa liCandelo loLawulo lweNkonzo eziluncedo.
- t) Imibandela ebalulweyo engethenda yeBhunga nemiqathango esesikweni/eyamkelekileyo engeekhontrakthi, mayiphengululwe ngokukhawulezileyo ukuze iquke isigwebo esicacileyo namasoloty okuyekiswa ukuze kukhuseleke amalungelo eBhunga.

AANBEVELINGS

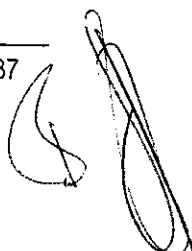
Nie gedelegeer nie: vir besluit deur die Raad:

Aanbeveel dat:

- a) Die portefeuljekomitee oor nutsdienste die bevindinge en aanbevelings van die Akhile Konsortium se finale konsepverslag (sien die konsultant se gekonsolideerde verslag in bylae A) aan die Raad oor die evaluering van alternatiewe diensleweringsemeganismes en sakeverbeteringsinisiatiewe vir vasteafvalbestuur in Kaapstad oorweeg, steun en aanbeveel;
- b) Alle ander portefeuljekomitees die bevindinge en aanbevelings van die Akhile Konsortium se finale konsepverslag aan die Raad (bylae A) oorweeg en steun;

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- c) Die burgemeesterskomitee steun verleen aan en die Raad besluit dat die aanbevelings van hierdie verslag ten opsigte van alternatiewe diensleweringmeganismes en sakeverbeteringsinisiatiewe vir afvalbestuur in Kaapstad geïmplementeer moet word;
- d) Die Raadsresolusie C02/03/01 van 28 Maart 2001 oor die skep van 'n interne sake-eenheid vir vasteafvalbestuur herroep word om konflikte met die oorweging van alternatiewe diensleweringmeganismes te vermy;
- e) Die departement vasteafvalbestuur se departementele struktuur behou word met geringe wysigings aan funksies soos vereis na die afhandeling van die sakeverbeteringsassesserings en volgens die konsultant se aanbevelings;
- f) Die uitvoerende direkteur: nutsdienste ondersoek instel na 'n meganisme en gepaste kapasiteit vir die bestuur van strategiese projekte oor water, afval en energie met wedersyds-funksionele voordele, en dit dan skep;
- g) Die uitvoerende direkteur: nutsdienste ondersoek instel na sinergieë ten opsigte van organiese vaste afval en rioolslyk wat betref afval-tot-energie (of energie-uit-afval), en so gou as moontlik projekte inisieer wat die Raad se energiebeleid en –teikens ondersteun;
- h) Die departement vasteafvalbestuur die Raad se beleid oor geïntegreerde afvalbestuur, 2006 hersien om ooreen te stem met enige aanbevelings wat die Raad na aanleiding van hierdie verslag goedkeur;
- i) Die departement vasteafvalbestuur sy huidige plan vir geïntegreerde afvalbestuur (afvalbestuursektorplan, soos jaarliks by die GOP aangeheg) hersien in ooreenstemming met enige aanbeveling wat die Raad na aanleiding van hierdie verslag goedkeur;
- j) Die departement vasteafvalbestuur 'n formele strategie en plan opstel vir veranderinge aan die bestuur van gevaarlike afval, wat sal volg wanneer die regulasies oor afvalklassifikasie en –bestuur ingevolge die Wet op Nasionale Omgewingsbestuur: Afval gepromulgeer word;
- k) Die departement vasteafvalbestuur sy medium- tot langtermyn-kapitaalwerkeprogram herprioritiseer en sy voorgestelde kapitaal- of bedryfsbegrotings wysig om alternatiewe dienslewering in te sluit;
- l) Die departement vasteafvalbestuur gemagtig word om die proses vir die generering van alternatiewe (nieraads-) befondsing deur openbare-privaat-vennootskappe te inisieer vir die implementering van inisiatiewe waarvan die gedetailleerde uitvoerbaarheid en risiko's gedurende die openbare-privaat-vennootskap-proses bepaal moet word, naamlik:
- (i) Die verbetering van die materiaalherwinningsfasiliteit en uitbreiding van die Athlone-vullisoorlaaistase se kapasiteit sodat dit ook infrastruktuur vir energie-uit-afval het;
 - (ii) Die inkorporering van 'n gepaste mengsel van verwerking en infrastruktuur vir energie-uit-afval by die Kraaifontein- geïntegreerde afvalbestuursfasiliteit;
 - (iii) Die stigting van 'n ten volle geïntegreerde fasiliteit op die beplande terrein by die Bellville-Suid-grondopvulterrein;
 - (iv) Die aanbring van infrastruktuur vir energie-uit-afval en ander infrastruktuur wat doenlik geag word, soos beplan by die Swartklip-afvaloorlaaistase;
 - (v) Die stigting van 'n ten volle geïntegreerde fasiliteit op die beplande terrein soos doenlik geag, en soos beplan in die Helderberg-gebied;

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- m) Die departement vasteafvalbestuur alle Raadsgoedgekeurde afvalminimalisering en sekere openbare-privaat-vennootskapsinisiatiewe vir energie-uit-afval so gou as moontlik inisieer en registreer, en dit as 'n program projekbestuur ten einde onder andere administratiewe doeltreffendheid te verbeter om so verdere verdragings te verhoed;
- n) Die departement vasteafvalbestuur 'n geskikte stelsel, infrastruktuur en meganismes ondersoek wat ekonomiese geleenthede vir afvalbestuur in informele gebiede sal vermeerder. Dit moet gedoen word in vennootskap met die afvalindustrie, die gemeenskap en met behulp van ander Raadsdepartemente wat regstreeks by gemeenskapsontwikkeling en sosio-ekonomiese ontwikkeling betrokke is sodat die plaaslike gemeenskap bevoordeel word;
- o) Die departement vasteafvalbestuur die sakeverbeteringsprojekte inisieer wat moontlik interne veranderinge aan sy struktuur en funksies behels, soos deur die konsultant aanbeveel, veral met betrekking tot die werkswinkel en vlootbestuur en 'n voorgestelde kontrakbestuurseenheid;
- p) Die departement vasteafvalbestuur die lewensvatbaarheid ondersoek van en 'n sakegeval vir die Raad opstel oor die voorsiening van die infrastruktuur en toerusting vir afvalvervoer vanaf vullisoorlaaistaties na grondopvulterreine in plaas van die huidige uitgekonnekteerde diens;
- q) Die departement vasteafvalbestuur 'n interdepartementele taakspan stig om te besluit oor 'n beleid vir die hergebruik van materiaal wat herwin is of die implementering van 'n skeidings-en-wegdoeningsmeganisme vir die hergebruik van materiaal wat in Raadsprojekte herwin en verwerk is (bv fyngemaakte bourommel);
- r) Die Raad se verkrygingsbeleid en goederekontrakte standaardvereistes insluit vir materiaal wat volgens "groenverkrygingsbeginsels" herwin is in 'n poging om plaaslike verbruik van herwonne goedere te stimuleer;
- s) Die departement sosio-ekonomiese ontwikkeling met die direktoraat nutsdienste skakel voor enige werk deur WESGRO of enige ander agentskap aangepak word sover dit sake betref wat geleenthede vir afvalminimalisering of energie kan versterk, of enige ander sake wat verband hou met dienste wat deur die direktoraat nutsdienste verskaf word;
- t) Die Raad se tenderspesifikasies en standaard-kontrakbepalings so gou as moontlik hersien word om uitdruklike straf- en beëindigingsklousules in te sluit ten einde die Raad se regte te beskerm.

7. DISCUSSION/CONTENTS

7.1. Constitutional and Policy Implications

The proposals in the report are compliant with the Constitution of South Africa (Act 108 of 1996, amended), the relevant local authority systems and finance legislation, and the statutes governing the management of the environment, pollution control and waste management.

Waste management is a designated local government competence under Schedule 5B, which refers to it as "refuse removal, refuse dumps and solid

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waste management". S.24 of the Constitution confers a right on all citizens to an environment which is not harmful to their health and well-being, and this underpins the environmental obligations that must be met with regard to waste management. .

The recommendations will also support meeting key objectives of Council's Integrated Waste Management (IWM) Policy, as adopted in 2006 (resolution MC 08/05/06).

Waste Minimisation and the beneficiation initiatives will work towards achieving some of the general objectives of the DEA's Green Paper on a National Climate Change Response Strategy and those of the White Paper on the Promotion of Renewable Energy and Clean Energy Development.

7.2. Legal Implications

The recommendations in this report are in alignment with the following legislation:

- The Constitution of the Republic of South Africa, specifically:
 - (i) Schedule 5B thereof which designates waste management as a local government competence; and
 - (ii) Section 24 thereof, in which the right to a clean and healthy environment that is not harmful to health and well-being of citizens, is established.
- The National Environmental Management Act (NEMA), which lays down broad principles pertaining to environmental management, pollution prevention and waste minimisation.
- The National Environmental Management: Waste Act, which lays down the following sequence of priorities with regard to waste management in Section 3 thereof and echoes them in various places in the Act:
 - (i) Minimisation of waste generation;
 - (ii) Reduction, re-use and recycling of waste;
 - (iii) Treatment and/or environmentally sound disposal of waste as a last resort.

The implementation of the recommendations will also be aligned to internationally established common law principles of environmental law such as the precautionary principle, sustainable development, protection of the environment for the benefit of future generations, and requiring polluters to pay for environmental remediation.

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The implementation of the recommendations will be aligned with the National Waste Management Strategy and its roll-out plan and objectives.

New legal obligations regarding waste management will come into force when the pending Waste Classification and Management Regulations (currently in final draft) are promulgated. These regulations will ban various materials, including organic waste, sewerage sludge, high-calorific type materials, such as plastics, from landfills. In pursuing implementation of the recommendations in this report, these requirements will be taken into account.

The implementation of the recommendations will assist the City is moving towards compliance with National Domestic Waste Collection Standards per NEMWA, promulgated on 21 January 2011 (Gazette 33935), which impose direct obligations regarding the separation of waste at source, and adherence to principles of waste minimisation.

Council already complies with the Regulations on Free Basic Refuse Collection Services under the NEMWA, which deal with the provision of waste removal and collection services to indigent households. This is reported in the Service Delivery Business implementation Plan (SDBIP) of the IDP.

Council will continue to adhere to the Waste Tyre Regulations promulgated under the NEMWA, which regulate the management and responsible disposal of waste tyres. These regulations arise from a national initiative underpinned in the tyre industry's Industry Waste Plan.

Waste minimisation involving organic materials will also have a positive reduction on emissions from landfills and thus reduce air pollution. This will meet objectives in the National Environmental Management: Air Quality Act (Act 39 of 2004) and Council's Air Quality Management By-Law.

The Provincial Dept. of Environment Affairs and Development Planning (D:EA&DP) is currently concluding drafting of a provincial IWM Plan. It is likely that it will impose waste management obligations. Until approved by the MEC, it is unclear what these obligations will be for Council.

The Consumer Protection Act (CPA, Act 60 of 2008) is also relevant and has an indirect bearing on Council, and will probably be beneficial when implemented. S.59 links directly with Industry Waste Management Plans, as required by the NEMWA. It also confers rights on consumer to return items to suppliers, manufacturers or points of sale if discarded at end-of-life or otherwise. Industry will have to provide infrastructure, mechanisms and funds to give effect to these rights. This may provide opportunities to integrate commercial and industrial systems with municipal systems for the management of waste.

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PPP's conducted in terms of the recommendations will follow the statutory process as set out in Section 120 of the Municipal Finance Management Act and the PPP Regulations promulgated under the Act.

Furthermore, they will follow the process laid down in Section 33 of the MFMA, assuming they involve commitments by the City of more than 3 years' duration, which is probable.

Additional costs associated with waste minimisation will oblige Council in terms of the provisions of the MSA and MFMA respectively, to review and consider future increases of both rates and tariffs, as applicable to waste management in terms of Councils Tariff and Rates Policies. Further detailed assessments will be necessary at the feasibility stage of the PPP process, when financial modelling risk calculations are necessary, as determined by the PPP Regulations.

7.3. Environmental implications

Does your report have any environmental implications: No Yes

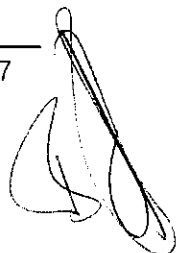
Implications are positive, i.e. a reduction of waste to landfill, greenhouse gas (GHG) production and potential pollution from leachate production in landfills.

Does your report result in any of the following: (indicate with a cross (x) where applicable)

Loss of or negative impact on natural space and/or natural vegetation, rivers, vleis or wetlands?	Loss of or negative impact on the City's heritage, cultural and scenic resources?
An increase in waste production, or concentration, pollution or water usage?	Development or any construction within 500m of the coastline?

Does your activity comply with the National Environmental Management Act?	Yes X	No
Does your report complement and contribute to meeting the City's IMEP Environmental Agenda 2009-2014 environmental targets?	Yes X	No

The contents of the report comply with the IMEP (Integrated Metropolitan Environmental Policy), as approved by Council in October 2001 and reviewed routinely, and will contribute towards achieving sustainability objectives per the Council's IDP and Integrated Waste Management (IWM) Policy, 2006 objectives the implementation of approved initiatives will substantially contribute to meeting the medium-term target for waste minimisation, which was adopted in 2006 and is reviewed annually.

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A reduction of organic waste to landfill through diversion will not only assist in achieving the IDP's waste minimisation target. Reduced greenhouse gas (GHG) emissions will be a direct result and it will also reduce potential groundwater pollution effects from the reduced landfill leachate.

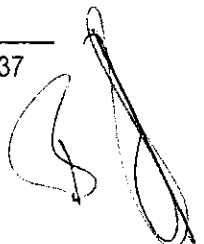
Existing methane production from landfilled organic waste or from sewerage sludge treatment could be used beneficially to generate small amounts of electricity for Council's own use. This power could be used to reduce the risk of power cuts to crucial municipal infrastructure, such as waste water treatment works and pump stations, thereby mitigating the environmental damage that could result from a power failure. This will require further feasibility assessments of a cross-functional nature, as there are also waste disposal benefits, and water recovery during the sludge drying process prior to the sludge being used for energy recovery.

7.4. Staff Implications

Does your report impact on staff resources, budget, grading, remuneration, allowances, designation, job description, location or your organisational structure?

No

Yes

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7.5. Risk Implications

This report and/or its recommendations do not expose Council to risks, but rather aim to mitigate legal, service and environmental risks.

Risks have been submitted to the Chief Risk Officer.

7.6. Rationale for S.78(3) Assessment

Council committed to the minimisation of waste per its IWM Policy, adopted in 2006 (MC 08/05/06), which is aligned with the national policy, the *White Paper on Integrated Pollution and Waste Management for South Africa*. Council also authorised a S.78 assessment in anticipation of the promulgation of a new waste act that would contain the principles that would form the foundation of the future waste management legislation under the NEMA's principles.

As discussed above, the NEMWA places an obligation on municipalities to implement a hierarchy of waste management strategies, including waste minimisation, over and above the basic municipal waste management services outlined in the Constitution. This is now underpinned by the obligations of the National Waste Management Strategy and related regulations of the NEMWA.

7.7. Project Background and Deliverables

The scope and ToR of Tender 554C/2008/2009 specify that a multi-skilled, experienced team of consultants must review the municipal waste management services and systems, the technological, technical and infrastructural issues, the staff, legal, financial, economic and institutional implications that may arise if recommendations for ASDs are adopted. Council's procurement process was followed and the Akhile Consortium was appointed per SCMB 12/03/10 in mid-March 2010.

A systems approach was specified for the analysis to ensure that alternative mechanisms can be integrated with municipal waste management systems and infrastructure. An assessment, framed by the MSA S.78 criteria, with a view of risk mitigation and legal compliance, was specified to result in appropriate, affordable options being proposed.

Given that large volume diversion needed to generate benefits relies on economies of scale, identified alternatives to landfill were required to be prioritised following an 80/20, or Pareto approach. These should be linked to other Council initiatives and priorities, but could also involve greenfields developments.


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Figure 1 is a systems view of waste management that is necessitated by the NEMWA and soon by the Consumer Protection Act, depicting how commercial and municipal systems should integrate with other systems when considering the flow of materials from manufacturing through to waste generation that incorporates materials recovery, diversion, processing, treatment and recycling back into manufacturing, where second-hand materials can be reused.

The part of the figure to the right of the chain line depicts the status quo of waste management with waste diversion initiatives as already implemented in Cape Town. The majority of infrastructure and equipment is municipal owned, with approximately 25% of waste collection services contracted to the private sector, some of which includes a separate collection service for household recyclables. The high hazardous waste landfill is owned and operated by the private sector, which services part of commerce and the whole of industry in accordance with the Council's IWM Policy.

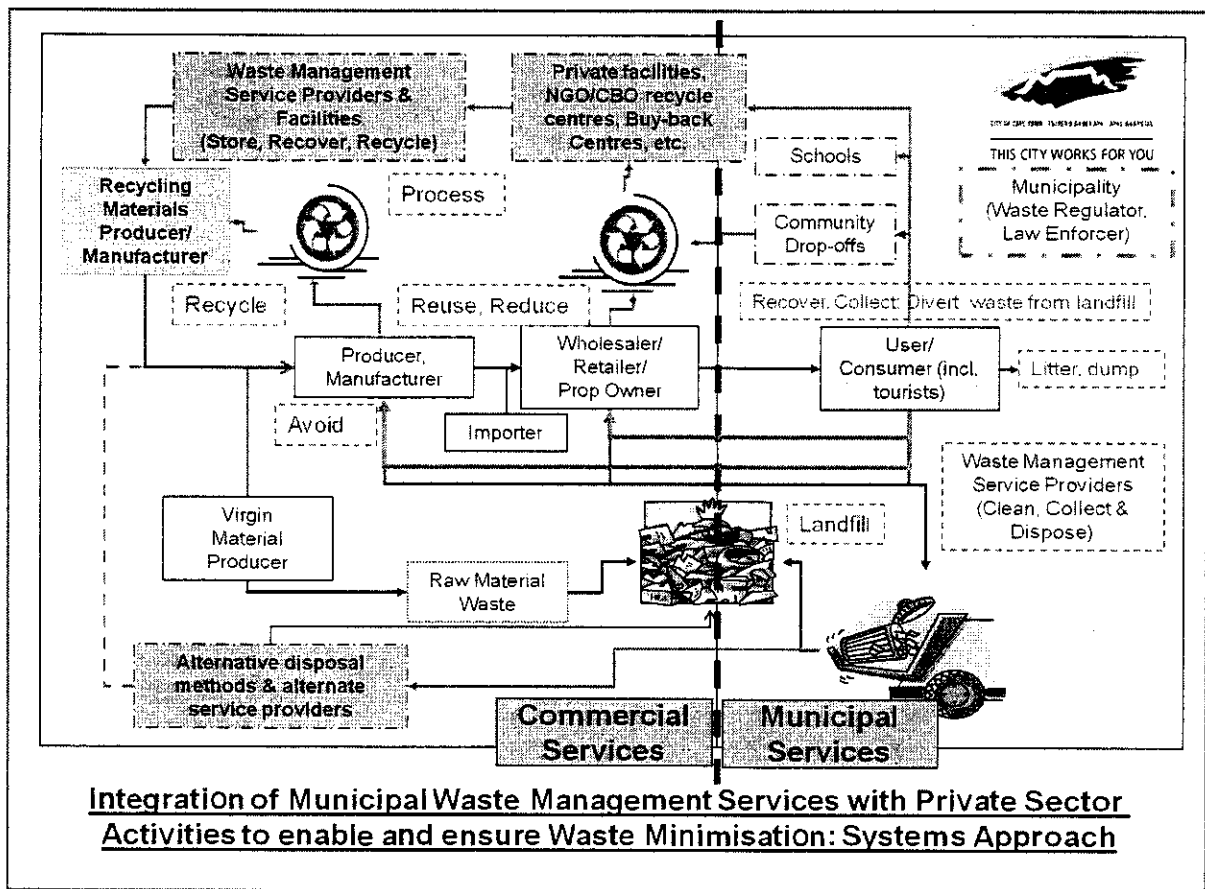


Figure 1: A Systems View of Waste Generation, Diversion and Recycling that shows Integration between Commercial and Municipal Systems

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7.8. Consultant's Approach and Methodology

SWM Dept S.7(3) Project Process for Assessment of Waste Management Alternative Service Delivery Mechanisms

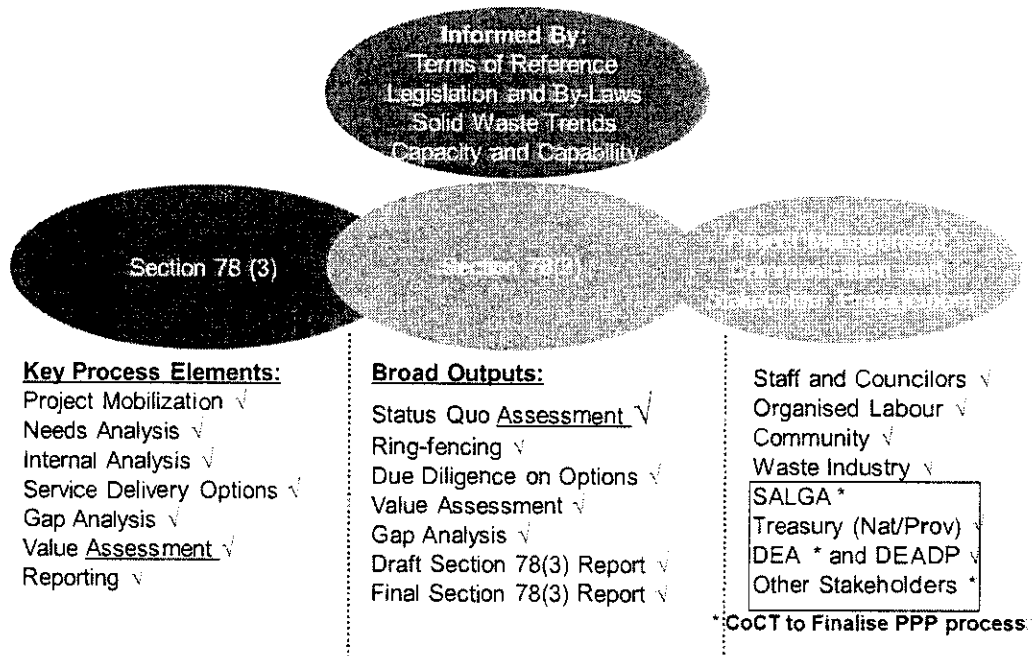


Figure 2: Solid Waste Management S.78(3) Project Workstreams

Figure 2 illustrates the workstreams to complete the MSA S.78(3) project, which leads into further work involving PPPs, should Council approve the recommendations. Workstream leads appointed by the consortium formed a core team responsible for leading activities to produce results that included findings, conclusions, possible options and recommendations. The process was managed by the consortium project manager. The core team was part of the Project Steering Committee, led by Council's project manager with representation from the SWM Dept. and key departments.

A status quo analysis was necessary to evaluate the implications of further changes that had occurred since the completion of the S.78(1) assessment in 2008.

A workshop approach involving senior and middle management staff, produced a list of forty-six activities related to solid waste management and specifically waste minimisation.

The activities were then considered as possible Alternate Service Delivery Mechanisms (ASD) that should be evaluated further, or if they are primarily internal process-related Business Improvements (BI), or if they are

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required due to Regulatory (REG) change that should still be internalised by the SWM Dept.

A Pareto (80/20) or funnel approach, as illustrated in **Figure 3**, was used by the consultant to identify and discern large scale priority ASDs from BI and REG issues. The last two need to be dealt with through internal processes, system or policy improvements, while ASD's are highly likely to involve external partnerships or contracts.

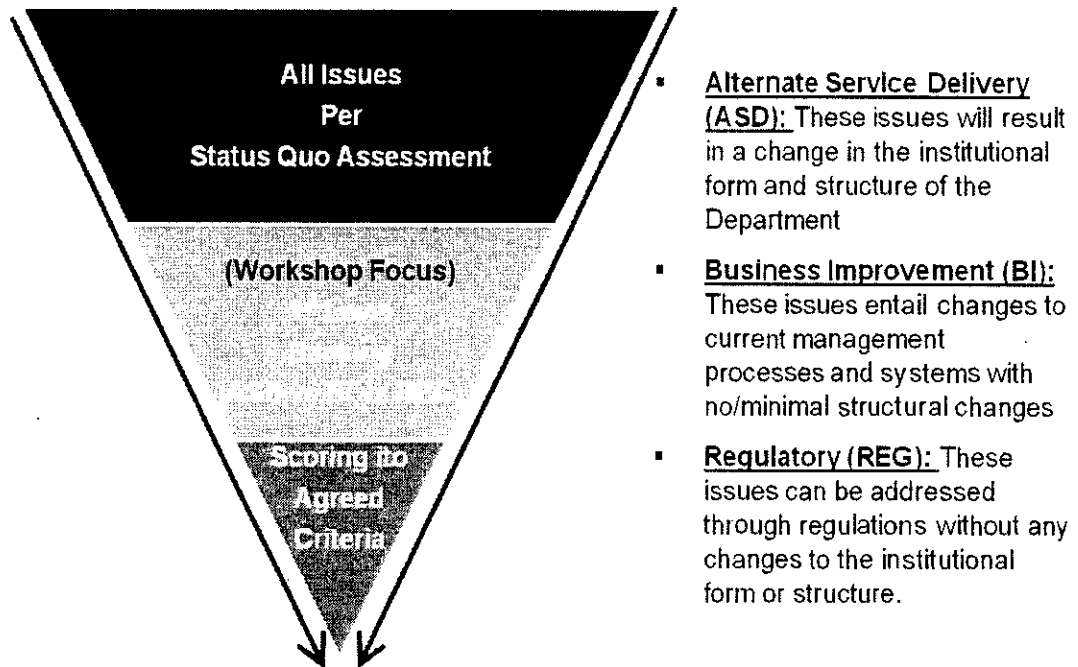


Figure 3: Pareto Approach to prioritise Large Scale Alternate Service Delivery Issues for External Services

Scoring or rating was performed per criteria developed in consultation with the SWM Dept. to determine and classify the ASD activities into high, medium or low priorities. Ten of the eleven top priority items involve large scale diversion.

The Pareto (80/20) approach was also used by the consultant to classify and identify the largest fraction of waste on the basis of economies of scale for optimal benefit. An evaluation of the volumes of these waste types was also done and can be found in the consultant's annexures.

The consultant considered both waste volumes and mass in concluding on priorities, as one of the constraints for Council is the availability of landfill airspace. Available, licenced airspace capacity is the determinant of whether Council will be able to landfill waste lawfully. Therefore, any large scale initiative to divert waste for alternative purposes will reduce this risk.

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The waste mass fractions are shown in Figure 4.

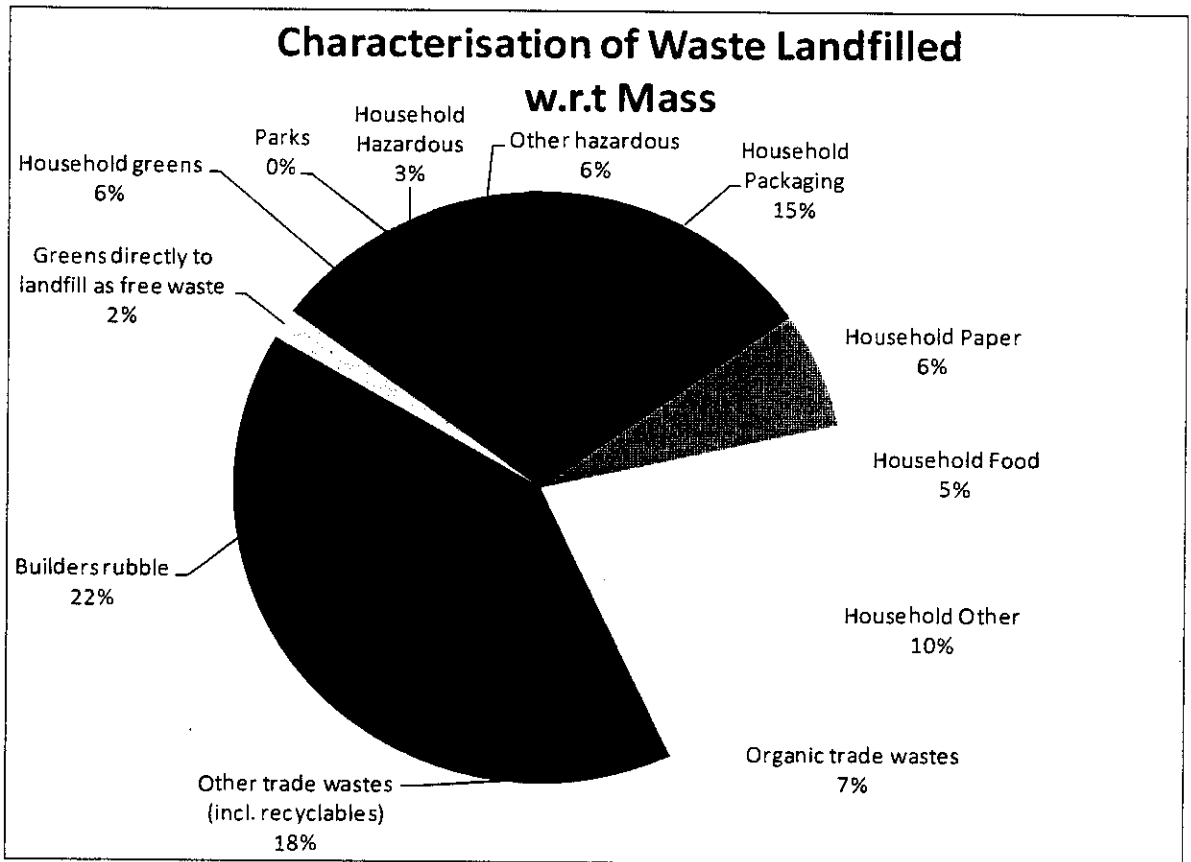


Figure 4: Estimated solid waste characterization by mass for waste disposed of at Cape Town Municipal landfill sites for 2008/2009

7.9. Status Quo Assessment

A status quo report was concluded in the 1st Quarter of 2010/11, and a report to Council in December 2010 recommended that its two composting plants at Radnor and Bellville South landfill be evaluated and considered for a PPP (resolution C 18/12/10). The PPP process was registered with the National Treasury (NT reference M066 - "Alternate Service Delivery Mechanisms for Council's Composting Plants in Cape Town").

The process has also been initiated with the Provincial Treasury. It is proposed that the basket of projects that would arise from further Council resolutions, be dealt with as a programme to derive efficiencies, especially during the required consultation processes that will involve especially the National and Provincial Treasury Departments, the Dept. of Cooperative Governance, the Dept. of Environmental Affairs, the Dept. of Water Affairs and SALGA. The appointment of one Transaction Advisor will also be advantageous for similar reasons, given the complexity of the topic.

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7.10. Meeting Objectives and Potential Benefits

Council has approved goals and objectives in its Integrated Development Plan (IDP). This is over and above its service obligations to all citizens manage waste and ensure the provision of services.

Strategic Focus Area 2 of the IDP contains an objective that aims to support economic development through infrastructure-led growth that is likely to boost the Cape Town regional economy. It also stipulates a medium-term waste minimisation target. The reduction of waste and pollution impacts on the environment and on natural resources could support local and even regional economic growth through large scale infrastructure development with the assistance of the private sector.

Waste with an economic value, if recovered for reuse, recycling or energy recovery has the potential to develop or create related sub-industries and jobs in the recycling value chain that starts and ends with manufacturing. This includes processing, manufacturing and energy recovery, or could stimulate growth in existing industries involved in manufacture and export.

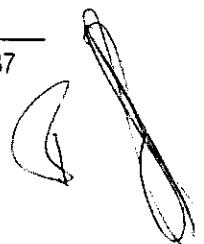
The bulk infrastructure, coupled with market development by the private sector should also have the desired effect for job creation. The municipality can through changes to its own procurement policy, stimulate demand for recycled materials.

7.11. Service and Financial Objectives

Expanding basic services to include the waste minimisation aspects as part of routine services is a challenge, but is a given in terms of NEMWA's requirements. The uncertainty regarding who bears costs is exacerbated by the incomplete status of Industry Waste Management Plans, which should give effect to the Expanded Producer Responsibility principles and provisions in the NEMWA. Eventually, per NEMA's principle of "the polluter pays", the waste generator will be responsible for some costs.

The key question is whether it should be after waste is generated and is ready for disposal (post consumption), or whether the necessary cost can be recovered as a levy prior to consumption and use?

Arising from NEMWA's provisions and direct municipal service and infrastructure needs, the key objective for local authorities is to divert as much waste from landfills that can be economically recycled. This will have a beneficial effect on future capital expenditure provision in the municipal budget, and is likely to lead to economic development.

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There is a perverse consequence to reducing waste to landfill: the landfill revenue stream is likely to be reduced, but the analysis shows that this could be avoided by off-setting capital costs and through the structuring of terms and conditions of a Service Delivery Agreement or a supply contract.

Figure 5 illustrates that despite substantial diversion efforts by the SWM Dept., the available landfill airspace will be insufficient in about 12 to 14 years' time, based on the current growth projections in Cape Town.

Unless major initiatives are considered and implemented, the current waste minimisation and funding approach of Council will only reduce capital commitments by one year, as illustrated by the two rising lines on the graph. This further underpins the need for large scale options with substantial capital requirements to be implemented to avert an environmental, health, social and legal crisis.

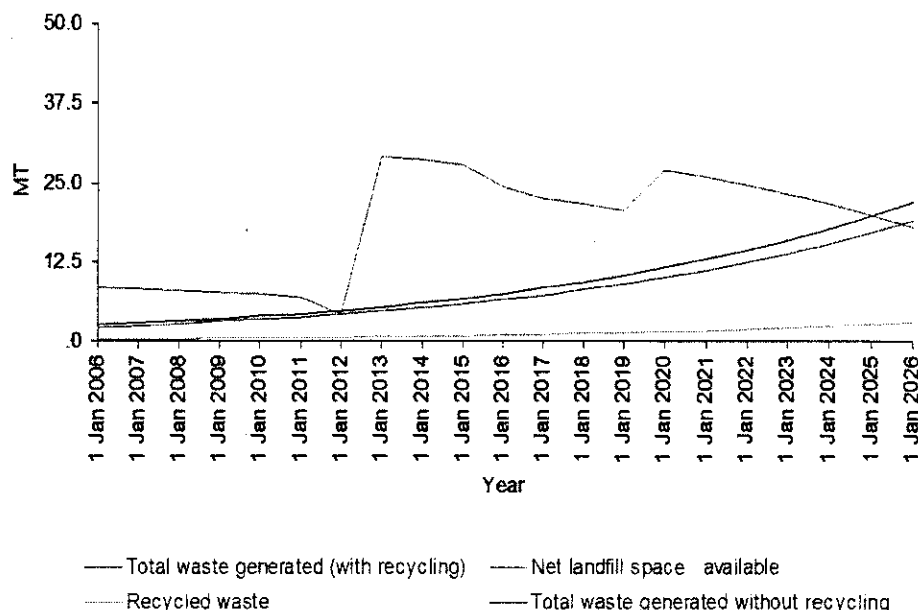


Figure 5: Projected Landfill Airspace Availability vs. Waste Growth & Minimisation

The SWM Dept. also needs to optimise its available capital funding for the creation of bulk infrastructure, such as landfills. The scarcity of municipal or grant capital funding can, however, be augmented by initiatives involving partnerships with the private sector, thereby allowing municipal capital for waste management to be deferred and applied to other projects.

A number of socio-economic benefits are likely to be attributed to future large scale waste minimisation initiatives. Cape Town is historically more economically disadvantaged than other coastal cities due to the distance from Gauteng's major industrial centres.

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This could be turned into an opportunity that will also generate indirect savings related to fuel and energy cost, road maintenance, and reducing the pressures on industry and government to mitigate air pollution and climate change effects, as well as dealing with associated health impacts.

The diversion projects will mitigate landfill airspace and associated impacts, such as reducing landfill gas (LFG) emissions and leachate from landfills. These are primary obligations in terms of environmental legislation and policies.

The cost modelling work that showed that separation-at-source for recycling purposes is more costly than simply collecting and landfilling waste was completed in 2009 as part of the IWM By-law development. It is part of the report presented to and approved by Council on 30 March, 2009 (C15/03/08).

The completion of the IWM Policy and the IWM By-law has also laid the foundation for new waste management strategies and options by Council should this be necessary. These instruments will be used to support the changes needed to reduce waste to landfill, and in support of the national initiatives and imperatives. The evaluation and assessment of alternative mechanisms is focused on identifying the priorities that will provide large scale opportunities that should be realised through partnerships.

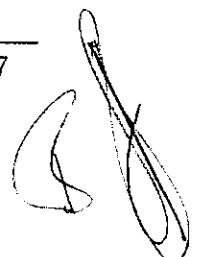
7.12. Key Conclusions and Findings

The presentation of this report, its findings and recommendations concludes the MSA S.78(3) project to assess alternative service delivery mechanisms for waste management in Cape Town. Resolutions in this regard will also enable further preparation processes that will make the implementation of projects possible.

The consultant's findings and proposals are stated in the reports in **Annexure A**. It is important to highlight key findings that inform the recommendations of the consultant as well as those proposed in this report.

7.12.1 Municipal vs. non-Municipal Services

A primary informant for decision is whether a service is a "municipal service" or not. The legal opinion provided by the legal consultant (Webber Wentzel) of the Akhile Consortium, indicates that when waste is recovered for beneficiation to derive commercial or economic benefit, the

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function, infrastructure and associated activities are no longer deemed to be "municipal services".

When beneficiated, waste is deemed an asset, whereas it is normally a liability. The Dept. of National Treasury concurred with this opinion during a meeting in Pretoria on 13 May 2010, and a meeting held in November with Council's project manager and the Director Solid Waste Management.

This is a very important conclusion since municipal waste minimisation, as intended in law, is highly dependent on the availability and integration of infrastructure and activities performed in the private sector to give effect to the reduction of waste impacts in a municipality. It provides an opportunity to externalize the beneficiation activities and the related infrastructure and so, to attract and leverage private sector (alternative) capital funding.

Many of the activities and infrastructure necessary to divert and beneficiate waste to meet targets will require substantial amounts of capital, operational funding and expertise from the private sector. These activities will form part of additional mechanisms to meet legislated waste minimisation objectives. By example, a large scale 100 tonne/day material recovery facility and 1000 tonne/day transfer station, such as the new Kraaifontein IWM facility, cost in the region of R250-million to design and build.

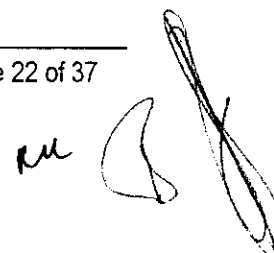
The options that arise to generate funding either involve the sale of existing assets previously created to provide a non-municipal service, or the use of municipal infrastructure or property for commercial gain by an external party. This will require a partnership (PPP) to be established per S.120 of the MFMA. It is also underpinned by the regulations governing asset transfer.

A partnership that requires substantial (multi-million rand) investment is likely to warrant the consideration of a long-term concession beyond the three-year MTREF commitment allowed for in the MFMA, and will require an application to the National Treasury per S.33 of the MFMA that will have to be considered by Council.

7.12.2 Alternative Service Delivery Issues and Opportunities

The filtering process used on the forty-six issues identified for alternate service delivery mechanisms initially highlighted ten key ASD issues and opportunities as listed in **Table 1**.

The management of Household Hazardous Waste (HHHW), which only constitutes a small percentage of waste in Cape Town (2% by volume, 3% by mass), was added as an eleventh priority due to the urgency that will arise to meet the provisions of the Waste Classification and Management

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Regulations, which effectively will ban the co-disposal of general and hazardous waste.

Table 1: Prioritised Alternative Service Delivery (ASD) Opportunities

1	Optimisation of Materials Recovery Facilities (MRF's) – focus on recovery of packaging materials, paper and cardboard.
2	Integrated waste management facilities (IWMF's) with appropriate technologies, focusing on changes in materials handling to divert waste – addition of materials processing capacity and/or energy recovery to a MRF and transfer station.
3	Separate co-mingled recyclable collection service: as feedstock for Kraaifontein IWMF vs. other IWM's - impact of waste minimisation on current collections involves additional cost of service and infrastructure.
4	Informal areas: separation at source (economic opportunities using a different approach, linked with waste industry initiatives)
5	Separate waste stream: area cleaning & education campaign
6	Sewage sludge options (note: not solid waste competency) – could involve composting or anaerobic digestion to generate energy (Energy-from-Waste initiatives, E-f-W)
7	Green or organic waste: consider separate collection of greens for Composting facilities or E-f-W initiatives.
8	Organic waste from litter collection e.g. seasonal collections by SWMD, City Parks, Stormwater, other Departments – composting or E-f-W initiatives
9*	Landfill gas-to-energy systems – to mitigate air emissions, greenhouse effects and to derive energy and associated benefits
10	Crushing & re-use of builders' rubble & inert waste – for reuse in e.g. road and pavement surfacing, brickmaking, backfilling (apart from landfill cover)
11	Household Hazardous Waste (HHHW): collection for treatment and disposal – to avoid co-disposal with general waste in landfills

* *The Landfill gas project was excluded from analysis in the S.78(3) project, as it is being dealt with via a separate project, but the benefits of mitigation of GHG emissions, energy/electricity and carbon derived revenue, linked with compliance, add to the total cost-benefit conclusions.*

The ASDs identified as priorities from the assessment, are interrelated and impact on the system in a complex manner. This resulted in seven groups being identified from the individual possibilities and priority mechanisms for

further consideration and recommendation. These groups are as follows and are compared in unit cost (Net Additional Cost) terms to implement:

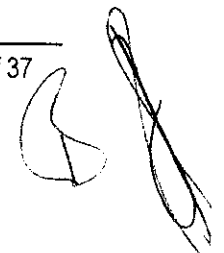
- Group A: Waste Beneficiation through Integrated Waste Management Facilities (refer to Appendix AA and various other Appendices covering elements of an IWMF);
- Group B: Separation and Collection of Recyclables (including Informal Settlements) (refer to Appendix BB, Appendix M);
- Group C: Sewage Sludge (refer to Appendix O);
- Group D: Composting and Organic Waste (refer to Appendix CC, Appendix Q);
- Group E: Landfill Gas (refer to Appendix R);
- Group F: Builders' Rubble (refer to Appendix DD, Appendix S); and
- Group G: Household Hazardous Waste (refer to Appendix EE, Appendix T).

Each group presents opportunities that could be linked to specific Council waste management sites or infrastructure managed by the SWM Dept., or that are contracted to external parties at present. Some opportunities are "greenfields" type projects that are in the planning stage and are on the SWM Dept.'s ten-year capital planning, but cannot be realised due to budgetary constraints unless other funding means become available.

Table 2: Comparison of ASDs at Full Implementation

ASD	Net Additional Cost (NAC) per year	Tons diverted per year (t)	Air space savings per year (m ³)	Net Additional Cost (NAC) per ton
Group A: Waste Beneficiation (WB)(IWMF)	R400m–R425m	290 500	388 000	R1 380–R1 470
Group B: Co-mingled Waste	R45m–R55m	33 300	65 000	R1 350–R1 660
Group D: Organic Waste Management (OWM)	R74m–R98m	105 000	300 000	R750–R960
Group F: Builders' Rubble	(R4.2m)–(R6.2m)	83 000	55 300	(R50)–(R75)*
Group G: Household Hazardous Waste Collection	R47m–R50m	16 300	11 900	R2 900–R3 100

**Indirect savings are higher than the direct financial costs.*

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Apart from the WB (IWMF) ASD (refer to Appendix AA) (which includes OWM among others), the OWM ASD is expected to achieve the highest amount of air space savings at the lowest unit cost.

Should Council alone fund these additional costs, the tariff implications (excluding normal budgeted increases) for the Waste Beneficiation (or Integrated Waste Management Facility) ASD are illustrated in **Figure 6**.

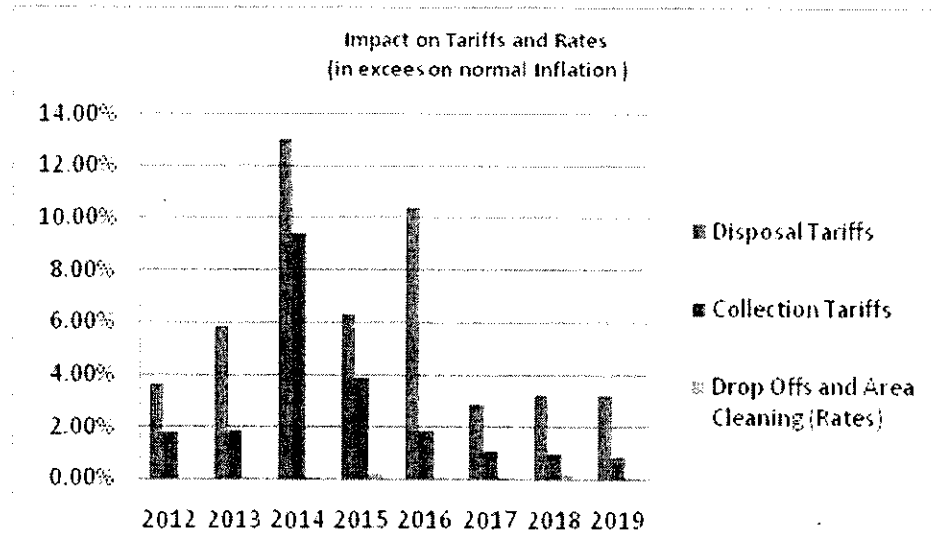


Figure 6 Tariff Implications for the WB (IWMF) ASD as a Whole

These can only be managed through waste beneficiation opportunities arising from external capital investments via PPPs, from other revenue streams such as the sale of waste and rental from the use of municipal assets, as well as potential income from revenue derived from trading in the carbon market. These factors will feature in the negotiation to finalise a Service Delivery Agreement that will involve the private sector.

It should be emphasised that to undertake the above modelling certain assumptions had to be made regarding the capital and operating investments by the City of the various mechanisms, linked to the spatial layout of the City and the current systems in place, to determine the financial impact on the City as reflected above.

A number of issues need to be considered by the Director Solid Waste Management and his team to ensure that projects also dove-tail with other Council priorities, e.g. the old Athlone Power Station (APS) site's redevelopment. In discussion with the Spatial Planning and Urban Development Dept., it is clear the APS redevelopment project will present an opportunity to reprioritise any upgrading and new capital work at ARTS to ensure that the APS development will realise its full potential. An integrated planning approach should be used, preferably at Directorate level to ensure optimal effect.


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7.13. Other important findings and conclusions

Key findings from the consultant's work are highlighted due to their importance for decisions regarding ASDs:

- a. Currently, the SWM Dept. does not have the ability to give effect to NEMWA intent and objectives as this will require private sector involvement regarding certain skills, capability and infrastructure or the budget required for alternatives. As such should not be directly involved in non-municipal business linked to commerce other than enabling and managing outcomes.
- b. Waste generated in 2008/09 was 3-million tonnes, but waste landfilled (excluding private sector landfill figures) was 1.6 million tonnes.
- c. Twenty-seven percent of waste was diverted from landfill split as 18.2% through non-residential (and therefore private sector) initiatives, and 8.8% municipal initiatives, involving systems and infrastructure such as Think Twice, drop offs and material recovery facilities.
- d. A close correlation was determined between population and waste growth (0.9), and economic and waste growth (0.42) for Cape Town. It is complex to develop a multi-functional, integrated correlation (which was not within the scope of the consultant's brief). The net result and value of this for future use is that waste growth can be expected to continue largely in sync with population growth, but is impacted (negatively or positively) by economic factors, as has been experienced supported by the data for waste that was landfilled prior to 2008 (when Cape Town's economy was in a boom phase and waste growth outstripped population growth by 5%), and post-2008 (when the local economy slumped and waste generation was less than population growth).
- e. Cape Town's remaining landfill airspace is estimated to be between 12 and 14 years based on an assumed 2.5% average increase in waste over the period of assessment (thirty years).
- f. Available airspace is less than the international benchmark of 15 years banked landfill airspace, which takes multiple factors into account, such as local geography, available land, associated lead time to get approval and authorisation to develop new landfills, logistics, and associated cost and risks when no engineered and licensed airspace is available.
- g. Irrespective of large scale initiatives that may be undertaken, the planned landfill in the north of the City will have to be developed to cope with growth and development, as well as the reality of waste that cannot be economically recovered for reuse, recycling or energy

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recovery purposes. This will also be necessary to cope with market collapses, as was experienced in the past three years.

- h. Analysis of waste by mass and volume to determine economies of scale (applying the Pareto principle, or 80/20 rule):
 - i. 'Builders' rubble', 'household recyclables' and 'other trade waste' dominate in terms of mass land-filled,
 - ii. 'Household recyclables', 'household greens' and 'other trade waste' dominate in terms of landfill airspace used.
 - iii. This provides a rationale for intervening in the waste streams that have the largest impact on airspace, namely recyclables (packaging and paper) (refer to Appendix M), greens (refer to Appendix Q) and builders' rubble (refer to Appendix S).
- i. An analysis on waste quantities that can potentially be diverted from landfill for recovery and reuse in the economy indicates the following, together with an interpretation of possible initiatives:
 - i. An additional 46 971 tonnes/yr of green waste could be diverted. This amounts to an additional airspace saving of 234 855 m³/yr. The most obvious beneficiation would be through composting, but energy recovery through Anaerobic digestion (AD) is also a possibility;
 - ii. Between 88 987 and 106 479 tonnes/yr of organic waste could potentially be diverted from landfill, which represents 45% to 54% of the total organics generated in the City and an airspace saving of between 80 088 and 95 831 m³/yr; and
 - iii. At least 64 tonnes/day can be extracted from the household waste stream in a conservative scenario and as much as 128 tonnes/day could be extracted if the Think Twice programme is rolled out to as much of the City as possible over an extended period. The landfill airspace saving due to recyclables being diverted could range between 32 615 and 64 804 m³/yr.
 - iv. Taking the above scenarios into account, a total of approximately 159 319 to 200 170 tonnes/yr can be diverted from landfills resulting in landfill airspace savings of between 347 558 and 395 490 m³/yr.
- j. The constraint on available Council capital impedes large scale initiatives that are necessary to create substantial waste diversion projects to achieve targets and to stimulate economic development. Waste minimisation interventions will require additional financial resources, but some options are more cost-effective than others.
- k. The estimated average cost per tonne (an indicator of financial efficiency), including operational and capital expenses, of the waste

managed for the year 2009/10 employing the direct or indirect or support functions of the SWM Dept. is estimated at approximately:


- i. R1 700/ tonne for Area Cleaning,
 - ii. R1 200/tonne for Collections,
 - iii. R400/tonne for Disposal and
 - iv. R120/tonne for Support and Administration Services. These numbers are sensitive to the financial, waste and socio-economic assumptions and should be treated with caution and will vary from year-to-year. It does however highlight the large discrepancy in service costs between waste management functions as well as the rapid increase in costs per ton in the last few years.
- l. Waste minimisation interventions include additional activities and infrastructure, and will require additional financial resources, but some options are more cost-effective than other options as a result of economies of scale and other revenue that can be derived, or costs saved due to alternate service delivery mechanisms.
 - m. The relatively high financial costs of diverting waste from landfills using current and future municipal initiatives are not sustainable if only funded through Council's financial resources.
 - n. In summary, an analysis of the status quo concluded that the financial sustainability of existing options (dual collection, small-scale transfer stations and drop-offs) to divert waste from landfills is questionable. Much larger volumes of waste are needed to make an impact. Larger-scale, cost-sharing options are therefore sought to reach targets set by the City for the diversion of solid waste from landfills and to create sustainable and permanent jobs.

7.14. Basic Principles that should be taken into Account

Principles and objectives contained in environmental legislation, such as "responsible care", "reduction of impact on the environment and natural resources", "the polluter pays", "waste minimisation", etc. are the foundation for implementing responsible waste management and waste minimisation initiatives.

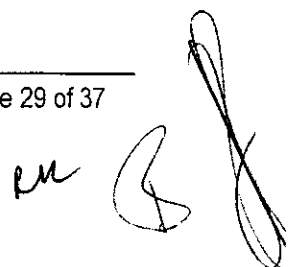
Decisions regarding alternative service delivery mechanisms need to be tested against basic principles, which were applied in drafting the ToR, and are derived from the consultant's work to obtain a more appropriate solution. The following principles are proposed for work ahead:

1. Separation, processing, manufacturing or energy recovery should happen as close to the collection of recycle to increase direct and

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indirect savings (mainly linked to the logistics required for waste management). This is particularly relevant regarding the increasing cost of fuel, exhaust emissions, road maintenance, traffic congestion.

2. Available and appropriate municipal land or infrastructure should be leveraged to attract alternative funding to augment Council funds for to expand or create new infrastructure.
3. The waste larger fractions should receive priority attention to make the biggest positive impact.
4. An offer to the market should not focus on just one waste fraction or solution – lessons from interactions with interested commercial parties are that it has to be more than one waste fraction that will make a tender commercially viable.
5. An ASD should be offered to the market with flexibility for a tenderer to decide what solution is commercially more viable (contrasted against it being a Council solution). This translates into designs and approaches more suitable for commercial practice, but should be considered in view of Council's equipment and systems.
6. An ASD will have to be a long-term commitment (longer than the three-year MTRF period) to attract large capital investments to generate an acceptable rate of return for the private investor.
7. Separation-at-source mechanisms will have to be in partnership with the private sector, to derive or generate cross-benefits – if the industry requires clean waste for technical and financial efficiencies that will increase the value of recycle, it should not come at the rate payers expense.
8. Separation-at-source could also involve a consideration of mechanisms that include small entrepreneurs for the collection of separated waste in areas not being serviced by the Think Twice campaign. This may require a consideration of changes in Council's IWM Policy and even the by-law.
9. If waste does not have to enter the Municipal Solid Waste system, it should not, i.e. if Industry Waste Management Plans introduce mechanisms, e.g. as proposed by the tyre industry, that require collection from retailers (point of sale) that will be processed at the industry's facility, Council should not introduce duplications in terms of mechanisms unless there are synergies.
10. The tariff system should be used in conjunction with collection mechanisms to incentivise or disincentivise a mechanism and as a means of changing disposal behaviour and poor practice.



7.15. Stakeholder Engagement and Public Participation

The statutory public participation process in terms of MSA S.78(3)(a) was initiated in November 2009 with an advertised notice in the local press indicating the Council's intention to explore alternative waste management services through external mechanisms. The communication and stakeholder engagement strategy was supported via a project website. In addition to the e-mail or post mechanism, Interested and Affected Parties (I&AP's) could register and pass comment or make inputs.

Direct participation was conducted by the consultant at six general public meetings and two workshops in the month of September 2010, as was advertised in the media, to share information about the project and to obtain input and comment from I&AP's.

7.15.1. Management and Staff


Senior and middle management (including Level 4 managers) of the SWM Dept. were engaged at various stages to inform them of the process and implications. This was supported via meetings as well as compiling a stakeholder engagement pack for staff.

This mechanism should be retained and continued to be used as the primary communications vehicle to inform staff of changes that are bound to be implemented as part of the ASD process following any resolutions.

7.15.2. Worker Unions

Both the unions were informed in April 2010 via a formal letter communicating the process to be followed to investigate ASD's per S.78(3). Their representatives were invited to a meeting, which SAMWU attended, but IMATU declined on the basis that they oppose any attempt to privatise a municipal service. SAMWU indicated that although they understood the legalities of the NEMWA and agreed with the need to minimise waste, they were going to raise the matter at the Local Labour Forum and the Metro Bargaining Council.

The City has indicated that it is not a statutory requirement to negotiate. The information process will, however continue throughout the assessment to ensure that communication remains transparent.

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Both the worker unions were also afforded a final opportunity to comment by an agreed date (end January 2011) prior to the drafting of the final report. IMATU again declined on the basis that they oppose any attempt to privatise a municipal service. No further comment was received from SAMWU.

7.15.3. External: Public Meetings

A series of meetings and workshops with I&AP's from the public, academia and the waste management sector were held in September 2010 to ensure that the process, the high level implications, findings from the Status Quo Assessment and the recommendation to consider an alternative service delivery mechanisms were communicated, and to obtain input.


The process, plan, key findings, identified options for alternative service delivery and the recommendation for a PPP involving the two composting plants were communicated.

A number of inputs at were received to indicate support for the involvement of external partners that could generate economic development and jobs, as Council was operating loss-making infrastructure, e.g. for composting purposes, and that this should be considered for operation by the private sector.

Once the next processes involving the detailed feasibility of any mechanism that should be considered has been completed, further public participation regarding PPPs will be undertaken during the execution of the statutory process, as is required by the PPP Regulations. In the process of approving the feasibility and authorising the next stage, a tender(s) will be advertised and adjudicated as per Council's supply chain policy.

7.15.4. Other Services Consulted

Apart from the SWM Dept. senior and middle management staff, key Departments were consulted regarding the drafting of the final report, and specifically regarding the recommendations following the assessment and evaluation of alternative service delivery mechanisms by the Akhile Consortium. Some of the staff members consulted were part of the Project Steering Committee and had input during the project as well. The concerns expressed on the early final draft (December 2010) have subsequently been addressed by the consultant (comments contained in consultant's report appendices).

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Legal Services

Ms. S Mosdell (Legal Advisor, member of the S.78(3) Project Steering Committee, 021 400 3918)

Regarding the legal aspects relevant to the S.78(3) project and any alternative service delivery mechanisms that are contained in the recommendations by the consultant.

Finance Directorate:

Mr. M Richardson (Chief Finance Officer, 021 400 3625)

Ms. L Muller (Director: Shareholder Management, member of the S.78(3) Project Steering Committee, 021 400 3940)

Mr. W van Gass (Financial Analyst, member of the S.78(3) Project Steering Committee 021 400 3956)

Regarding the proposals for a structural change to the existing Solid Waste Management Dept, and the viability and implications of recommended alternative service delivery mechanisms, such as PPPs. This would reduce the pressure on capital funding, as it could possibly attract the necessary funding from the private sector to construct projects that will give effect to waste minimisation and meet objectives per the relevant waste legislation and Council's IWM Policy, whilst not putting the Council or its residents at risk.

Environmental Resource Management:

Mr. G Oelofse (Head: Environmental Policy & Strategy, 021 487 2239)

Regarding the net impacts and positive effects of any projects arising from the S.78(3) recommendations that will meet the IMEP objectives. The report appears to be extremely comprehensive and a number of different alternative service delivery mechanisms are proposed. From a content perspective, it seems that the options they are proposing are the most cost effective ways to achieve waste minimisation and as such the recommendations are positive from an environmental perspective - i.e. promoting recycling, composting etc. In general however, this is supported as environmental benefits would be significant and presents exciting opportunities.

Spatial Planning and Urban Development Department:

Ms. C Stone (Director: Spatial Planning and Urban Development Department, 021 400 9410)

Mr. G Duffel-Canham (Principle Professional Officer, Project Manager: Athlone Power Station Redevelopment project, 021 400 9414)

Mr. A Marks (Senior Professional Officer, Project Manager: Athlone Power Station Redevelopment project, 021 400 9422)

Regarding the strategic importance of the Athlone Refuse Transfer Stations, and the opportunities that should be leveraged to upgrade and to explore other ASD infrastructure needed to reduce the amount of waste that is transferred to landfill (currently ARTS is working at 50% over its design capacity).

7.15.5. Intergovernmental Departments Consulted

Western Cape Dept. of Environment & Development Planning

Mr. E Hanekom (Deputy Director: Waste Disposal Management 021 483 2728)

Provided comment and feedback on the Draft Final Report (1st version) that led to further correction and information provided.

Western Cape Provincial Treasury PPP Unit

Ms. L Dean (PPP Unit Manager, 021 483 6849)

Mr. K Arendse (PPP Transaction Advisor, 021 483 9920)

Consultation on the Composting Plant PPP project (M066) and general consultation on the PPP process and how the Provincial PPP Unit can support the project.

Dept. of National Treasury

Mr. TV Pillay (Chief Director Municipal Expenditure, 012 315 5154)

Mr. K Pillay (Head PPP Unit, 012 315 5146)

Consulted the National Dept. on efficiencies and delays due to the legislated regulations, and whether proposals from the City of Cape Town could be considered to shorten timelines if possible. The response was positive in this regard, but a formal request would need to be put forward for further consideration.

ANNEXURES

ANNEXURE A: FINAL DRAFT REPORT (CONSOLIDATED REPORT) BY AKHILE CONSORTIUM FOR THE MSA S.78(3) PROJECT ON SOLID WASTE MANAGEMENT

LIST OF APPENDICES CONTAINING THE ANALYSIS DETAILS IN SUPPORT OF THE CONSULTANT'S REPORT:

(PLEASE NOTE: ANNEXURES TO CONSULTANT'S REPORT IS AVAILABLE ON CD ON REQUEST DUE TO THE VOLUME)

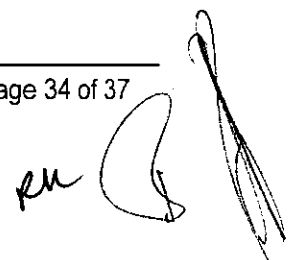
Appendix A: Waste Legislation in South Africa and Cape Town

Appendix B: Full Definition and Legal Opinion of a Municipal Service in Respect of Integrated Waste Management Systems

Appendix C: Environmental Scan and Geo-Spatial Review

Appendix D: Waste Quantities: Data and Analysis

- Appendix E: List of Priority Issues Considered
- Appendix F: Material Recovery Facilities (MRF)
- Appendix G: Waste to Energy/ EfW & Anaerobic Digestion
- Appendix H: Resource Centre/ Eco-Industrial Parks
- Appendix I: Drop-offs
- Appendix J: Refuse Transfer Station
- Appendix K: Landfill Disposal
- Appendix L: Waste Information Systems (WIS)
- Appendix M: Recyclables
- Appendix N: Area Cleaning and separation at source
- Appendix O: Sewage Sludge
- Appendix P: Composting
- Appendix Q: Greens and Organics
- Appendix R: Landfill Gas
- Appendix S: Builders' Rubble
- Appendix T: Household Hazardous Waste
- Appendix U: Stakeholder Engagement Report and the Role of Co-operatives to Create Jobs
- Appendix V: Selection of Options for Service Delivery
- Appendix W: Climate Change Mitigation and Green House Gases
- Appendix X: Model Assumptions
- Appendix Y: Fleet Management and Maintenance/ Repair Workshops
- Appendix Z: List of interviews and meetings
- Appendix AA: Waste Beneficiation (IWMF) ASD (Group: WB (IWMF))
- Appendix BB: Separation and Collection of Waste ASD (Group: Separation of Co-mingled Recyclables and Collection)

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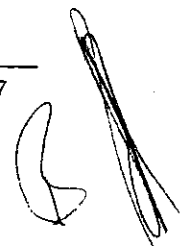
Appendix CC: Household Garden and Organic Waste ASD (Group: Composting and Organic Waste)

Appendix DD: Builders' Rubble ASD (Group: Builders' Rubble)

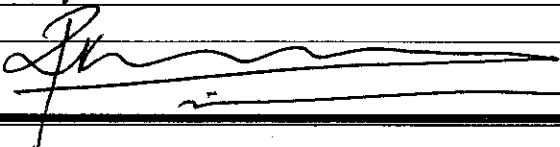
Appendix EE: Household Hazardous Waste ASD (Group: Household Hazardous Waste)


Appendix FF: Attachments to Stakeholder Engagement Report (Appendix U)

Appendix GG: List of key Business Improvement (BI) Issues

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FOR FURTHER DETAILS CONTACT:

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DIRECTORATE	Utility Services
FILE REF NO	
SIGNATURE : DIRECTOR (Delete if not necessary)	 15 FEB 2011

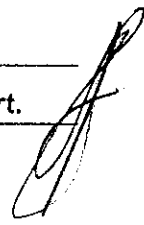


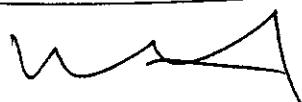
 LEGAL COMPLIANCE

REPORT COMPLIANT WITH THE PROVISIONS OF COUNCIL'S DELEGATIONS, POLICIES, BY-LAWS AND ALL LEGISLATION RELATING TO THE MATTER UNDER CONSIDERATION.

NON-COMPLIANT

NAME RIAANA SATO
 TEL 021 400 4508
 DATE 16.02.2011

Comment:
Certified as legally compliant:
Based on the contents of the report.




LUNGILE DHLAMINI
 EXECUTIVE DIRECTOR
 [Compulsory to Insert name]
 (Author to obtain signature before submission to Executive Support)
 DATE 15/02/2011

Comment:

