

030

PLAN 07/08/09

**RECOMMENDATIONS OF THE PHILIPPI  
HORTICULTURAL AREA TASK TEAM**

**IZINDULULO ZEQELA ELINIKWE  
UXANDUVA KUMMANDLA WEZOLIMO  
LWASESITIYENI WASE-PHILIPPI**

**AANBEVELINGS VAN DIE TAAKSPAN  
OOR DIE PHILIPPI-TUINBOUGEBIED**

1. ITEM NUMBER : PLAN 07/08/09

2. SUBJECT

**RECOMMENDATIONS OF THE PHILIPPI HORTICULTURAL AREA TASK TEAM**

**ONDERWERP**

**AANBEVELINGS VAN DIE TAAKSPAN OOR DIE PHILIPPI-TUINBOUGEBIED**

**ISIHLOKO**

**IZINDULULO ZEQELA ELINIKWE UXANDUVA KWEZOLIMO LWASESITIYENI LWASE-PHILIPPI**

3. PURPOSE

The purpose of this report is to present the recommendations of the Philippi Horticultural Area Task Team, supported by a report prepared by an independent group of specialist consultants appointed to assist the Task Team.

4. STRATEGIC INTENT

This report aligns with the following Council strategies:

- Shared Economic Growth and Development
- Sustainable Urban Infrastructure and Services
- Energy Efficiency for a Sustainable Future
- Integrated Human Settlements
- Health, Social and Human Capital Development
- Good Governance and Regulatory Reform

5. FOR DECISION BY

Delegated: for decision by PEPCO.

**6.1 Background**

On the 12<sup>th</sup> May 2009 a special meeting of the Planning and Environment Portfolio Committee (PEPCO) resolved to establish a Task Team comprising members of PEPCO and the Housing Portfolio Committee, plus officials from both their respective directorates, to investigate all available information regarding the PHA and make recommendations to PEPCO on how the City should plan for and manage the PHA into the future (see Annexure A).

**6.2 Process**

The PHA Task Team co-ordinated the appointment of a group of independent consultants to assist. This group included the following:

- A planner with experience of rural and agriculture development in the Cape metropolitan region (Neville van der Westhuizen)
- A ground-water specialist (Roger Parsons)
- An agricultural economist (Theo Kleynhans)
- An urban agriculture specialist (Gareth Haysom)
- An engineer with experience of development in aquifer areas (Alistair Bishop)

The consultant group was briefed (see Annexure B) to review all relevant existing information relating to the PHA area (as defined by the Guide Plan, 1988), including ground-water and horticultural sustainability, the existing and expected future economic value of horticulture, and urban development pressure. It was also briefed to make recommendations on how the PHA should be planned for and managed into the future. The groups conclusions and recommendations were to be presented to PEPCO and included in a short summary report (see Annexure C).

The Task Team held two Task Team meetings, on 2<sup>nd</sup> and 22<sup>nd</sup> July 2009, to direct consultant investigations and consider feed-back from the consultants.

**6.3 Recommendations**

The consultant group's report recommendations were as follows:

Towards the long term protection of the PHA as Cape Town's primary horticultural area, it is recommended that the City:

- (a) Retain the current extent of the designated horticultural area, pending the outcome of a detailed investigation (and consultation with stakeholders) into the possible rationalization and consolidation of its boundaries and the fixing of a functional urban edge around it

- (see Annexure D for the review consultants proposals in this regard).
- (b) Review and amend the City's zoning scheme applicable to the horticultural area to ensure that its land use regulations facilitate farming and related activities and prevent the intrusion of urban activities.
  - (c) Enforce land use regulations to retain the PHA as a bona-fide farming area.
  - (d) Commission the preparation of the following studies:
    - i. Integrated Servicing Plan for the entire PHA, with particular attention to the management of stormwater.
    - ii. Urban Edge study (see item 10 in Annexure C), with attention to the possible redevelopment of the 'island' and Schaapkraal smallholding area.
    - iii. Monitoring (yield and quality) of groundwater.
  - (e) Review the City's property rating system applicable to the PHA to ensure that it facilitates farming and land reform within the designated horticultural area.
- 

## 7. RECOMMENDATIONS

Delegated: for decision by PEPCO

The Task Team recommends that the recommendations in the consultant team report, as described in section 6.3 above, are supported by PEPCO.

### AANBEVELINGS

Gedelegeer: vir besluit deur PEPCO

Die Taakspan bevel aan dat die aanbevelings in die konsultantspan se verslag, soos in deel 6.3 hierbo weergegee, deur PEPCO gesteun word.

### IZINDULULO

Zigunyazisiwe: isigqibo sese-PEPCO

iQela Elinikwe Uxanduva linike isindululo sokuba IPEPCO ixhase izindululo ezikwingxelo yeqela elicebisayo, njengoko kucacisiweyo kwicandelo-6.3 elingentla apha.

## 8. DISCUSSION/CONTENTS

### 8.1. Environmental implications

Does your report result in any of the following: ...

No

Yes (if yes, please complete the section below by clicking on the relevant tick boxes)

- |  |  |
|--|--|
| Loss of or negative impact on natural space and/or natural vegetation, rivers, vleis or wetlands? <input type="checkbox"/> | Loss of or negative impact on the city's heritage, cultural and scenic resources? <input type="checkbox"/> |
| An increase in waste production or concentration, pollution or water usage? <input type="checkbox"/>                       | Development or any construction within 500m of the coastline? <input type="checkbox"/>                     |

Does your activity comply with the National Environmental Management Act (NEMA)? (mark by clicking on the tick box)

Yes  No

Does your report complement and support the City's approved IMEP strategies? (if yes, please select from list below by clicking on the relevant tick box)

- |  |  |  |
|--|--|--|
| Biodiversity Strategy and Biodiversity Network <input checked="" type="checkbox"/> | Coastal Zone Management Strategy <input type="checkbox"/>        | Energy and Climate Change Strategy <input checked="" type="checkbox"/> |
| Environmental Education and Training Strategy <input type="checkbox"/>             | Heritage Management Strategy <input checked="" type="checkbox"/> | Air Quality Management Plan <input type="checkbox"/>                   |
| Integrated Waste Management Strategy <input type="checkbox"/>                      | Invasive Species Strategy <input type="checkbox"/>               |  |

Do the activities/actions arising from your report: (if yes, please select from list below by clicking on the relevant tick box)

- |  |  |
|--|--|
| Enhance Cape Town's unique environmental assets? <input checked="" type="checkbox"/> | Negatively impact on Cape Town's unique environmental assets? <input type="checkbox"/> |
|--|--|

**8.2. Staff Implications**

Does your report impact on staff resources or result in any additional staffing resources being required?

No

Yes

(if yes, please indicate whether or not it is part of the approved staffing structure, whether the posts are budgeted for etc.)

**8.3. Risk Implications**

Does this report and/or its recommendations expose the City to any risk? (i.e. does it have any adverse influence on service delivery?)

No

Yes

ANNEXURES

1053

- Annexure A: Minutes of Special PEPCO Meeting
- Annexure B: Consultants Brief
- Annexure C: Report by the Consultants: 'Philippi Horticultural Area Viability'
- Annexure D: Map by the Consultants: 'Towards an Urban Edge'

FOR FURTHER DETAILS CONTACT :

<b>NAME</b>	<i>Kier Hennessy</i>
<b>CONTACT NUMBERS</b>	<i>021 710 8049</i>
<b>E-MAIL ADDRESS</b>	<i>Kier.Hennessy@capetown.gov.za</i>
<b>DIRECTORATE</b>	<i>Strategy &amp; Planning</i>
<b>FILE REF NO</b>	
<b>SIGNATURE : DIRECTOR</b>	



**LEGAL COMPLIANCE**

(Author to obtain signature before submission to Executive Support)

DATE 31 July 2009

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

NON-COMPLIANT

COMMENT :

---



---



---

Comment:

(Author to obtain all signatures before submission to Executive Support)

OF THE SPECIAL MEETING OF THE PLANNING AND ENVIRONMENT PORTFOLIO COMMITTEE OF THE CITY OF CAPE TOWN HELD IN COMMITTEE ROOM 1, 5 TH FLOOR, PODIUM BLOCK, CIVIC CENTRE, CAPE TOWN ON TUESDAY, 12 MAY 2009 AT 14:00.

---

**PRESENT: PEPCO  
COMMITTEE MEMBERS**

Ald B Watkyns (Chairperson)  
Ald Holderness  
Ald G Jespersen  
Cllr D Amira  
Cllr V Bergh  
Cllr H Claassen  
Cllr J Heuvel  
Cllr O Kinahan  
Cllr F Martin  
Cllr Matha  
Cllr M Mbonde  
Cllr M Sizani  
Cllr E Sonnenberg (Alternate)

**PRESENT HOUSING COMMITTEE MEMBERS**

Cllr N Ross  
Cllr N Bent  
Cllr W Brady  
Cllr M Britz  
Cllr P Cloete  
Cllr K Lategan  
Cllr P Mgodeli  
Cllr U Pick  
Cllr E Pietersen

**OTHER COUNCILLORS PRESENT**

Ald C Ipser  
Cllr M Nieuwoudt Mayco Member-(PEPCO)  
Cllr S Sims Mayco Member (Housing)

**ABSENT WITH APOLOGY**

Ald J Bredenhand  
Cllr N Bester  
Cllr P Mngxunyeneni  
Cllr N Ntloko  
Cllr F Raymond  
Cllr B Landingwe  
Cllr G Ntamo

## ABSENT WITH NO APOLOGY

1055

Cllr B Esbach  
Cllr F Kearns  
Cllr M Ludidi  
Cllr B Mini  
Cllr T Trout  
Cllr R Xazana  
Cllr L Yiba

## OFFICIALS

H Smit Executive Director: Housing  
P van Zyl Executive Director: Planning and Environment  
O Asmal  
J Bodenstein  
B Davidson  
K Hennessy  
J Kruger  
M Muller  
P Oscroft  
F Ogle  
H Steyn  
R van Eeden  
J van der Westerhuizen

## PUBLIC AND PRESS

None

## EXECUTIVE SUPPORT

O Nene

## ACRONYMS FREQUENTLY USED IN MINUTES

ADV	Advocate
ALD	Alderman
ARV	Anti retroviral
CLLRS	Councillors
CFO	Chief Financial officer
DR	Doctor
PEPCO	Planning & Environment Portfolio Committee
PROF	Professor
NGOs	Non Government organisations
CBOs	Community based organisations

## SPPLAN 01/05/09 OPENING AND WELCOME

The Chairperson Alderman B Watkyns extended a word of welcome to all present. He explained that the Housing Portfolio Committee members may participate in the debate but may not vote.



**SPPLAN 02/05/09 LEAVE OF ABSENCE APPLICATIONS**  
(HO 4/3/2/1)

**RESOLVED** that leave of absence in respect of this meeting be granted to Ald J Bredenhand Councillors N Bester, P Mngxunyeni, N Ntloko, F Raymond, B Landingwe and G Ntamo.

**SPPLAN 03/05/09 PHILIPPI HORTICULTURAL AREA: RECOMMENDATIONS OF RAPID PLANNING REVIEW**

Councillor Heuvel recused himself from the meeting because he was one of the land owners.

Two presentations were given by Messrs B Davidson and K Hennessy

Because of the conflicting information presented, the Chairperson suggested that the report be deferred until accurate information is submitted.

Alderman Holderness requested that a report from the Departments of Agriculture, Land and Water Affairs and Forestry be obtained in relation to the areas identified, and that such report be submitted within a month. She further suggested that a Task Team should be created to verify and align the base information with regard to the aspects raised in the presentations.

The Chairperson appealed to the officials to submit uniform information to the Portfolio Committee to enable them to make an informed decision.

**RESOLVED** that

- (a) the area identified as PHA A is recognised as an agricultural resource asset of current and/or future potential value, as delineated by an urban edge line, and is protected and managed accordingly;
- (b) the area identified as the Schaapkraal Smallholdings Area in Annexure A is no longer considered to be part of the PHA, and is managed as an urban area;
- (c) a task team comprising Pepco and Housing Portfolio Committee members plus officials from both directorates be established;
- (d) the comments made in the preamble be noted.

**SPPLAN 04/05/09 DATE, TIME AND VENUE OF NEXT MEETING:**

02 June 2009, at 10:00 in War Room, 5<sup>th</sup> Floor, Podium Block, Civic Centre, Cape Town.

THE MEETING ENDED AT 16:00.

1057

\_\_\_\_\_  
ALD B WATKYNS  
CHAIRPERSON

\_\_\_\_\_  
DATE



# 1059 Annexure B: Consultants Brief STUDY PROPOSAL

## INDEPENDENT SPECIALIST REVIEW OF THE FUTURE VIABILITY OF THE PHILIPPI HORTICULTURE AREA (PHA) FOR AGRICULTURAL PURPOSES

Proposal 10 June 2009

### 1.0 STUDY PROPOSAL

#### 1.1 Study Objective(s)

- To examine all available relevant information pertaining to the Philippi Horticultural Area (PHA).
- To assess the medium to long term agricultural potential of the PHA, and its strategic value to Cape Town as an inner-city urban agricultural area.
- To provide an independent, specialist opinion on what part of the PHA should be secured for the medium to long term future, and how this should most appropriately be done.

#### 1.2 Principal Work Focus Areas

This study will focus on, but not be restricted to, the Philippi Horticultural Area (PHA). Attention also needs to be given to broader city imperatives, such as food security, water resource availability, and land reform, and what implications these might have for the PHA and its value to the city in the medium to long term.

The study will be informed by an evaluation and consideration of the following:

- (i) The status of the currently farmed area of the PHA, including whether it is in significant growth or decline. This should include an understanding of horticultural farming dynamics particular to the PHA, such as fallow land practices, what land conditions are required to commence horticulture, land values and implications for horticultural activities etc.
- (ii) Current and future potential agricultural performance and significance of the PHA. This includes considering:
  - a) Contribution of soft vegetables (total, and upper end and lower end) by land area and tonnage.
  - b) The nature and extent of current and potential future impacts of agriculture on the aquifer, including on its water quality.
  - c) The effect of agriculture on the aquifer if all of the area designated as 'horticultural area' was to be utilised for horticultural activities.
  - d) Land reform potential. Notwithstanding the speculative nature of this information, the viability of land reform potential in the PHA needs to be investigated, and done so in terms of:
    - land values and their impact on agriculture and land reform
    - funding availability
    - support capability
    - city quota's / targets
  - e) Whether the farmed area should be expanded (including areas of the PHA not hitherto farmed). Considerations here include whether there is a possible 'critical mass' size of the PHA to be a viable entity, and possible improved farming techniques could be utilised in future.
  - f) Availability, and opportunity cost, of equivalent replacement horticultural area within the metro region (including to Malmesbury and Paarl) should the PHA or parts thereof be 'lost' to urban development (considering also population growth and demand in the city region).

- g) Impact on existing farmworkers if parts of the PHA are to be lost (both in terms of jobs, household nutrition and homes where they are living on farms).
  - h) Broad city-wide systems and processes in relation to the PHA, and the degree to which they are operating or could operate. This includes:
    - soft vegetables distribution (use of the Philippi market etc)
    - wasted food distribution
    - potentially wasted inputs (potential role that waste water or solid waste products / organic waste could play in assisting horticulture in the PHA)
    - technical (farming) knowledge and networks specific to the PHA (and not easily transferable)
- (iii) Broad city-wide food security (or insecurity) issues, including relative to other SA and African cities. This may include:
- a) Water scarcity
  - b) Climate change
  - c) Difficult growing conditions (climate and poor soils – which require inputs to be productive)
  - d) Apparent (or not) disinclination of people to grow their own food (i.e. small-scale backyard subsistence agriculture). This includes the sustainability of food gardens especially in the Cape Town context. There may be disinclination, but the challenges are apparently significant (costs of input, training required, etc).
- (iv) Appropriate interface land uses to secure PHA. Consideration needs to be given to the (practical) likelihood of:
- a) Encroachment of (illegal and non-conforming) land uses (e.g. livestock into horticulture area)
  - b) Farming externalities (e.g. pesticide sprays) negatively affecting adjacent uses (e.g. residential)
  - c) Urban development externalities (e.g. toxic run-off, theft) negatively affecting adjacent and wider horticultural activities, performance of the aquifer and groundwater quality
- (v) Viability of the aquifer if the PHA or portions thereof are covered by urban development. This needs to consider types of urban development, the location(s) of urban development, and the design, nature, and management of PHA.
- (vi) Consideration of land for agriculture in the PHA in the context of a massive urbanisation challenge. This needs to consider the relative merits of retaining (providing) land for horticulture and providing land for housing in the designated PHA. It also needs to identify a defensible urban edge line within the PHA should a portion(s) of the PHA be considered more appropriate for urban development, such that the remaining land identified for agriculture cannot be argued to be appropriate for urban development (based on precedent). This may also need to consider most appropriate urban edge land use activities that assist in maintaining that urban edge line.

### 1.3 Methodology and Product to be Delivered

The study methodology should include:

#### 1.3.1 Formation of task team (CoCT responsibility)

- 1.3.2 Meeting (with Task Team) to agree on study TOR, brief, methodology, and proposed consultant specialist project team (CoCT responsibility)
- 1.3.3 Appointment of specialist consultant team
- 1.3.4 Assessment and evaluation of relevant existing information for the PHA by specialist project team
- The assessment will be conducted through a desktop evaluation of existing data (including policy reports, studies, current applications and supporting studies). This should also include hearing recent presentations from representatives of the Spatial Planning and Housing departments made at the PEPCO meeting on 12<sup>th</sup> May 2009.
  - Identification of major information gaps
  - Identification of areas of 'mis-information' and provide specialist opinion on what is the correct information
  - Consultation with key stakeholders. This may include, but not be limited to Dept Agriculture, Water and Environmental Affairs, and Land Affairs, as well as farmer organisations, and research institutes). This may also include written statements from these organisations / representatives. Consultation with farmer organisations should be restricted to representative sources, and the interview structure should first be considered by the project manager and relevant associated staff.
  - A review of how realistic any recommendations (or future intended scenario's) might be (e.g. land reform or management of the aquifer).
  - Preparation of a brief point form report reviewing the information at hand and offering initial recommendations on the future of the PHA (in part or whole, and identifying information gaps and the ease with which these could be filled/ manner with which these should be filled and the level of importance of this information).
- 1.3.5 1<sup>st</sup> Task Team workshop  
Task team to be supported by:
- Officials from SPUD
  - Officials from Housing Dept
  - Officials from key relevant other depts. (incl: transport, waste water, ERM, ESDandT, PBDM)
- Representation should also be invited from:
- Dept of Agriculture
  - Dept of Water Affairs and Forestry
  - Dept of Land Affairs
- Workshop objectives:
- Brief presentations by specialists
  - Discussion
  - 'In principle' agreement on areas of information
  - Identification of further work required (key questions)
- 1.3.6 Strategic follow-up work by specialists to PEPCO
- 1.3.7 2<sup>nd</sup> Task Team workshop (if necessary)  
Workshop objectives:
- Brief presentations by specialists
  - Discussion
  - 'In principle' agreement on areas of information

- Consensus on desirable medium term future for the PHA

1.3.8 Presentations by consultant team / specialists to PEPCO

1.3.9 Report to PEPCO for decision

The study products should include:

1.3.10 Initial draft document with guiding pointers (as preparation for the 1<sup>st</sup> Task Team presentation)

1.3.11 Presentation(s) to Task Team

1.3.12 Presentation to PEPCO

1.3.13 Summary report (as basis for input into a report to PEPCO – which is a CoCT responsibility). This summary report should include an urban edge line recommendation, as well a motivation for the delineation (location) of that urban edge line.

## 2.0 PROJECT TEAM

An independent specialist team needs to be constituted, and managed by a co-ordinating member of this team.

The team should ideally include, or have access to input from, the following:

- Consultant team leader
- Town Planner with agricultural and rural development specialist knowledge
- Agricultural Resource Economic Specialist and Agricultural Land Valuer
- Agricultural Potential Specialist
- Food Security Specialist
- Groundwater Specialist
- Engineer specialising in urban stormwater management and impact

## 3.0 TASK BUDGET AND COST ALLOCATION

A total cost of R194 940.00 (including VAT) is submitted, based on the following estimated cost breakdown per task.

Task	Cost Allocation	Cost estimate (excl. VAT)
Project Mobilization	5,8%	10 000.00
Review	38,4%	65 000.00
1 <sup>st</sup> Workshop	7,0%	12 000.00
Additional Tasks	21,6%	37 000.00
2 <sup>nd</sup> Workshop	5,2%	9 000.00
PEPCO Presentation	5,2%	9 000.00
Report Compilation	5,2%	9 000.00
Disbursements	5,8%	10 000.00
Project Co-ordination	5,8%	10 000.00
<b>Sub-Total</b>		<b>R171 000.00</b>
Plus VAT	14%	R23 940.00
<b>TOTAL COST ESTIMATE (incl. VAT)</b>		<b>R194 940.00</b>

#### 4.0 TASK MANAGEMENT

The following institutional proposals are put forward:

- (i) Study co-ordination and management of the consultant team by a Project Management Team (PMT) represented by officials from the Strategy and Planning Directorate and by the Consultant team.
- (ii) Regular meetings (e.g. weekly) of the PMT, scheduled and managed by the Consultant Team Leader.
- (iii) Presentations by the consultant team to the Task Team at 1 and most probably 2 workshop sessions.
- (iv) Adhoc meetings/ consultation between the Project Manager (Spatial Planning Dept.) and the Consultant Team leader, focussing on:
  - a. Project mobilization (e.g. brief finalization)
  - b. Project management and progress
  - c. Issues arising during the task
  - d. Conclusion of task
- (v) Any potential extension(s) or amendment(s) to the brief should first be clarified with the project manager (in association with relevant staff).

#### 5.0 TASK PROGRAMME

A 4-week task programme (up to presentation to PEPCO) is envisaged, with the following chart indicating the programme per task, together with identified milestones.

TASK	Week					
	1	2	3	4	5	6
Clarification of Brief and Deviation Applicable						
Appointment		•				
Review by Consultant Team						
1 <sup>st</sup> Task Team Meeting			•			
Follow-up tasks by Consultant Team						
2 <sup>nd</sup> Task Team Meeting					•	
Presentation Preparation						
PEPCO Meeting						•
Report Compilation						

#### 6.0 TASK LIMITATIONS

- (i) Task restricted to interviews and desktop review, excluding any primary research.
- (ii) Report compilation to reflect 'working-type' reports for Task Team Meetings and brief summary report as informant to PEPCO submission.
- (iii) CoCT be responsible for formation of Task Team, scheduling of Task Team Meetings and managing such meetings.

#### 7.0 BEE STATUS

- (i) Profile of Shareholding  
Setplan and DJ Environmental Consultants have equal shares in iKapa Enviroplan. iKapa Enviroplan is traded as a separate entity, with the following registrations:

<b>Tradeworld Reference</b>	WLGCP6TRW
<b>VAT Registration</b>	4800222111
<b>Banking Details:</b>	
<b>Account Name</b>	Setplan DJ Environmental Consultants Joint Venture
<b>Bank</b>	First National Bank
<b>Account No</b>	62084941634
<b>Branch No</b>	201309



- (ii) BEE Status  
iKapa Enviroplan has 50% BEE ownership.

## **8.0 AVAILABILITY OF CAPACITY**

Availability of capacity of all team members is confirmed for the period commencing 22 June to end July 2009.

## **9.0 RECENT APPLICABLE EXPERIENCE OF SPECIALIST TEAM**

- (i) Compilation of the Agricultural Land Study for the City of Cape Town (2006)
- (ii) Compilation of the Agricultural Land Review Study for the City of Cape Town (2008)
- (iii) Compilation of Urban Edges for Rural Settlements in the City of Cape Town (2008)
- (iv) Compilation of Rural Land Use Planning and Management Guidelines for All Areas Outside the Urban Edge in the Western Cape Province (PGWC) (2008)
- (v) Position Paper : Urban Agriculture in the City of Cape Town (2009)

**Philippi Horticultural Area  
PEPCO REVIEW (July 2009)**

1. INTRODUCTION

Team of review consultants appointed by City to:

- address issues highlighted by PEPCO
- assess viability of PHA as horticultural area

The review consultants report covers:

- a) Responses to the following issues raised by PEPCO:
  - Agricultural Performance
  - Groundwater
  - Urban Agriculture and Urban Food Security
  - Engineering Response to Land Use Planning and Policy
  - Land Use Considerations
- b) Conclusions on the viability of the PHA
- c) Recommendations to the City

2. FINDINGS: AGRICULTURAL PERFORMANCE

2.1 Financially farming in PHA performing soundly

Per ha/a	Carrots Cabbage Cauliflower	Broccoli	Lettuce
Gross income	R210 000	R240 000	R240 000
Inputs	R90 000	R90 000	R120 000
Gross margin	R120 000	R150 000	R120 000

**Income p.a from 40ha farm**

- ◇ Gross margin R2 947 000
- ◇ Nett farm income R1 594 000

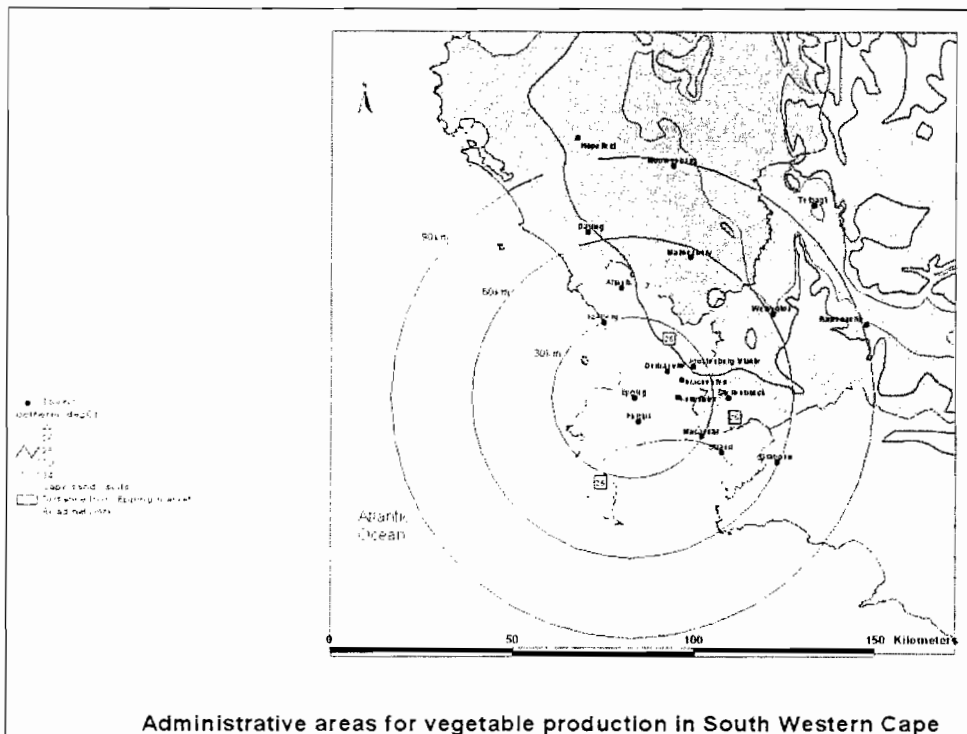
Crops	Gross income/crop	Inputs	Gross margin/ha
Carrots	R70 000/ha	R30 000/ha	R40 000/ha
Cauliflower	R70 000/ha	R30 000/ha	R40 000/ha
Broccoli	R80 000/ha	R40 000/ha	R40 000/ha
Cabbage	R70 000/ha	R30 000/ha	R40 000/ha
Lettuce	R60 000/ha	R30 000/ha	R30 000/ha

2.2 PHA a Significant Supplier of Metropolitan Cape Town's Vegetables

- (i) R150 million total farm gate income/a from 1 100 hectare via retail chains (70%) and farm sales to restaurants, shops, hawkers, fresh produce markets (30% of total value)
- (ii) 40 – 50 % of cauliflower, carrots, lettuce sold in Cape Metropole come from Philippi
- (iii) Propagate types of vegetables not produced in remote production areas, such as radish, and bulky, low-value products such as cauliflower
- (iv) Philippi provides "complete" vegetable basket

- 2.3 PHA Employment:
- (i) Opportunities for hawkers
  - (ii) Input suppliers, transport, packaging, marketing services employ 100 labourers
  - (iii) 15–18 permanent labourers per 10 ha vegetables (1 650–1 980 workers for 1 100 ha), 30 – 40% more during summer
  - (iv) 70% of labourers are illiterate women
  - (v) Labourers take 2–5 kg damaged vegetables home daily, which contributes significantly to their food intake
- 2.4 PHA Suitable for vegetable production
- (i) Climate: Wind causes mild temperature; prevents sun-burn on sensitive crops such as lettuce
  - (ii) Terrain: Flat
  - (iii) Soils: Fernwood and Constantia (>60% of area) and Lamotte, Kroonstad and Namib (<40%) soil forms. Extremely limited occurrence. Sandy; high workability
  - (iv) High water table: Easily accessible irrigation water
  - (v) No similar conditions within a radius of 120 km from Cape Town
  - (vi) The soil-climate-terrain conditions form an ideal situation for this type of farming activity. Area classified as “unique agricultural land”
  - (vii) “unique agricultural land” means land that is or can be used for producing specific high-value crops. It is usually not prime, but important to agriculture due to a specific combination of location, climate or soil properties that make it highly suited for a specific crop when managed with specific farming or conservation methods

Figure 1 : Temperature north of red line is too high for some vegetable types



Administrative areas for vegetable production in South Western Cape

- 2.5 Alternative vegetable production areas (refer Figure 1)

All other areas: Higher cost of transport to Cape Metropole

- (i) Malmesbury: Water scarcity
- (ii) Atlantis: Water scarcity during summer
- (iii) Joostenberg Flats: On average 10 degrees C warmer than Philippi, too warm for some vegetable types like lettuce, cauliflower, broccoli
- (iv) Sandveld: Too warm for potatoes in January; while Philippi area is then still sufficiently cool

#### 2.6 Land price impacts negatively on economic feasibility

- (i) Net farm income – Remuneration for entrepreneurship – Interest on moveable assets and fixed improvements = Return on investment in land
- (ii) Get 13% nominal interest and 5% real interest on investment in land in Philippi at a land price of R80 000/ha (5% real interest is SA national average)
- (iii) At land price of R130 000/ha, interest on investment in land = 0
- (iv) Current farming operations can continue with positive cash flow, but when opportunity cost becomes too high it inhibits new investment in land for vegetable production
- (v) Strict adherence to agricultural zoning is needed to keep land prices in line with agricultural productive value

### 3. FINDINGS: GROUNDWATER

#### 3.1 Alleged Negative Impact of Farming on Groundwater

- (i) The proponents of a large scale housing development in the SE corner of PHA motivate their proposal on the alleged negative impacts of farming on groundwater, but they do not have a groundwater specialist on their project team.
- (ii) Their report provides misinformation on the groundwater situation, makes incorrect interpretations and is biased.

#### 3.2 Saline Intrusion

- (i) Not relevant to PHA
- (ii) Easily prevented

#### 3.3 Groundwater Supply

- (i) PHA uses ~ 19MCM/a (52ML/d) from aquifer
- (ii) Except for a small area, no sign that groundwater use in PHA is unsustainable. This is in spite of the aquifer not having been managed
- (iii) Induced drawdown does not imply over-abstraction
- (iv) Cave and Weaver (2000) analysis was based on once-off water level measurements in October 2000. The recommended further investigation was never implemented
- (v) Groundwater level monitoring by DWEA in areas adjacent to PHA does not indicate that groundwater levels are dropping
- (vi) No evidence that horticultural activities are impacting on or polluting aquifer

#### 3.4 Water Supply (refer Figure 2)

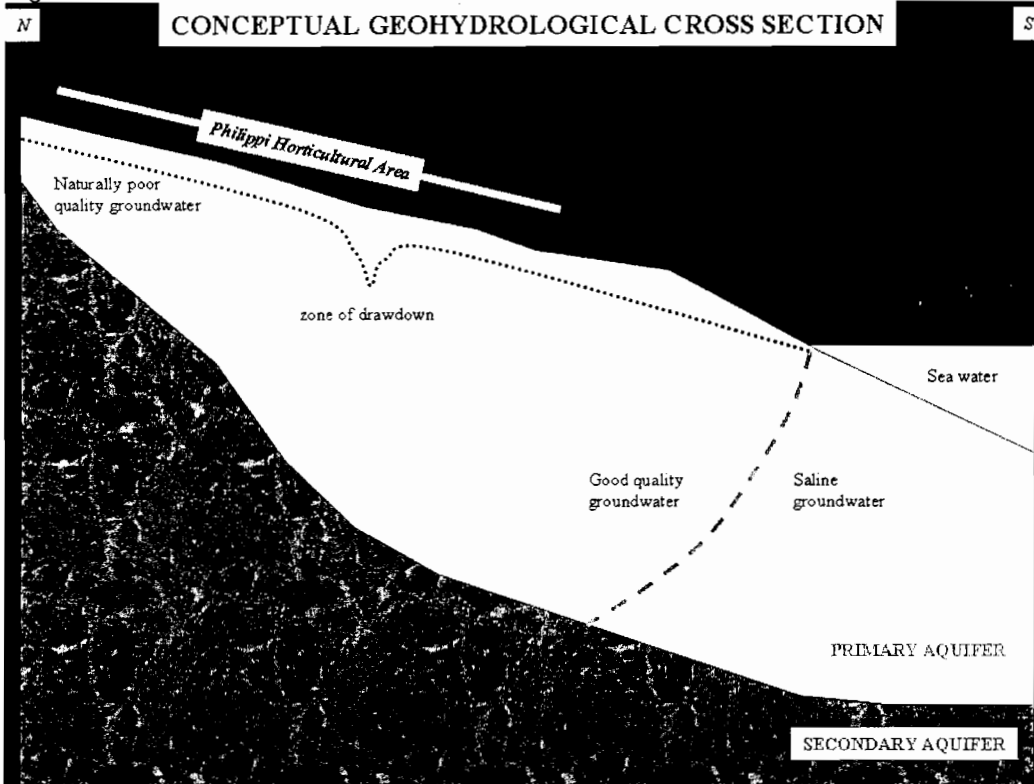
- (i) Area of PHA will not expand, thus water demand unlikely to change significantly in the future
- (ii) Aquifer can continue to be used as a source of water, but requires monitoring and management
- (iii) Some concern about change from "suigputte" to boreholes, but can be addressed through monitoring and management

- (iv) Can augment water supply with treated water from WWTW's

### 3.5 Groundwater Quality

- (i) Aquifer requires management
- (ii) Aquifer protection zoning to restrict potentially polluting activities e.g. intensive animal husbandry, informal vehicle maintenance, high density informal settlement
- (iii) Impact of horticulture and formal housing development on aquifer of a similar magnitude

Figure 2 :



## 4. FINDINGS: URBAN AGRICULTURE AND FOOD SECURITY

Development of the PHA raises the following urban agricultural and food security issues:

### 4.1 Importance of Urban Agriculture

- (i) Urban Agriculture is a component within the urban planning processes that, if correctly implemented, can assist in addressing a variety of the urban planning and developmental challenges
- (ii) Applying the internationally recognised norm of 0.4 hectares of arable land to feed a person, the food needs for Cape Town, given the 2006 population figure of 3 240 000 (PGWC, 2006), require 1.3 million hectares to sustain its population, or 9.2 percent of South Africa's arable land
- (iii) Urban agriculture is an indicator of alternative economies taking place within the communities.
- (iv) UA will become increasingly more important – climate change?
- (v) What are the implications for a city with projected population of 4 554 636 by 2020 (Future Studies Data US)?

### 4.2 Importance of Urban Agriculture

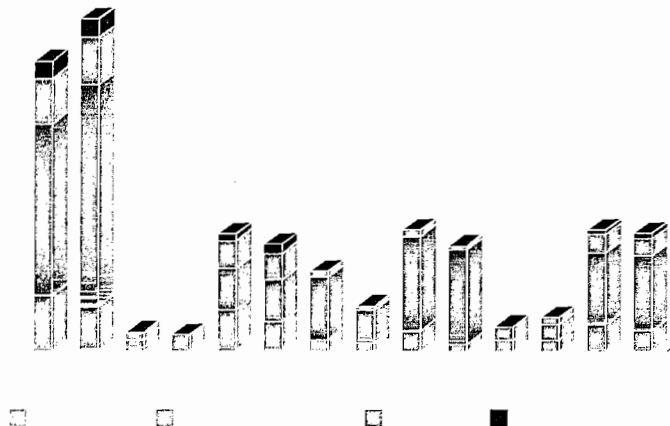
The need to elevate the status of UA within the City of Cape Town has been articulated within the City's Urban Agriculture Policy:

- (i) Food Security and Urban Agriculture are core components of urban, planning, IDP, housing, environmental as well as urban health policies
- (ii) The integrated nature of urban agriculture makes it an ideal development opportunity
- (iii) Food and nutritional security is not only about agriculture, but is a truly cross-cutting issue that involves all in the dynamic context of the population-energy-environment nexus.
- (iv) Food Security is about both production and access, PHA addresses both

#### 4.3 Urban Food Insecurity Challenge (refer Figures 3,4 and 5)

- (i) Cape Town food insecurity figure of 80% in poor households
- (ii) Where people access food also has a direct relation to the levels of dietary diversity as well as the extent to which healthy food is accessed and consumed
- (iii) The major sources of food are supermarkets, small shops/restaurants and informal markets/street foods
- (iv) The frequency with which people use these major sources varies significantly, with supermarkets being the least used and small and informal shops being most frequently used - Frayne, et al, 2009

Figure 3 : THE WESTERN CAPE'S HUNGRY (Jacobs, 2009)



#### 4.4 Cape Town's Ecological Footprint

- (i) Gasson's (2002) ecological footprint estimate for Cape Town now revised by Hansen states that 41 percent is food related
- (ii) Cape Town's per capita footprint is 3.02 hectares per person, with the food component being 1.24ha/person (41%)
- (iii) This input-output model demonstrates how resource-intensive the Cape Town urban system is, and the great impact food has on this system

#### 4.5 PHA role in broader metabolism

- (i) The PHA plays a vital role in the broader production and political economy of the area.
- (ii) PHA directly impacts on the lives of a number of Cape Town residents (both locally relevant and of importance to the entire metro).
  - 14 000 000kg of produce sold into the Cape Fresh Market, period June 08 – May 09. (Cape Fresh Data - June 2009)

- Research indicated that the same amount is sold in the informal markets in the area. Therefore an estimated 28 000 000kg produced excluding direct retail sales (PHA Economic Review)
- Philippi Fresh Produce Market presents significant developmental opportunity given a major investment for City. City of Cape Town and the Provincial Administration of the Western Cape expended an amount of more than R25 million (Philippi Market Business Plan)
- What are the implications of Climate Change i.t.o food production?
- What are the water models for Cape Town for 2020 and beyond?

(iii) PHA offers far more to city than can be quantifiable i.t.o land, housing and other value assertions.

Supply Line	Food Security	Cape Town Local	Local Employment
Direct farmer supply links/contracts to large retail groups (e.g. Pick-'n-Pay)	Yes/2 <sup>nd</sup> dry	Yes	Yes
Direct delivery to Cape Town Fresh Produce Market (i.e. Epping)	Yes/2 <sup>nd</sup> dry	Yes	Yes
On-site (i.e. "on-farm") supply to vendors, smaller retailers and public	Yes	Yes	Yes
Supply to fresh produce packers, export agents, shipping chandlers and medium-size markets (e.g. Bellville Market)	Yes/2 <sup>nd</sup> dry	Yes/2 <sup>nd</sup> dry	Yes
Philippi Market; no supply given current structural/operational problems at market	N/A	N/A	N/A
Direct deliveries to Northern Cape and Namibia	No	No	Yes
Sales via 3-4 operational farm stalls in PHA	Yes	Yes	Yes
Sales and distribution via 10 "Distribution Centres" in the PHA. Such centres, operating independently of the farms employ substantial labour and through "value-adding" (e.g. packaging) contribute significantly to the gross product of the PHA.	Yes	Yes	Yes

Figure 4 : Food Security

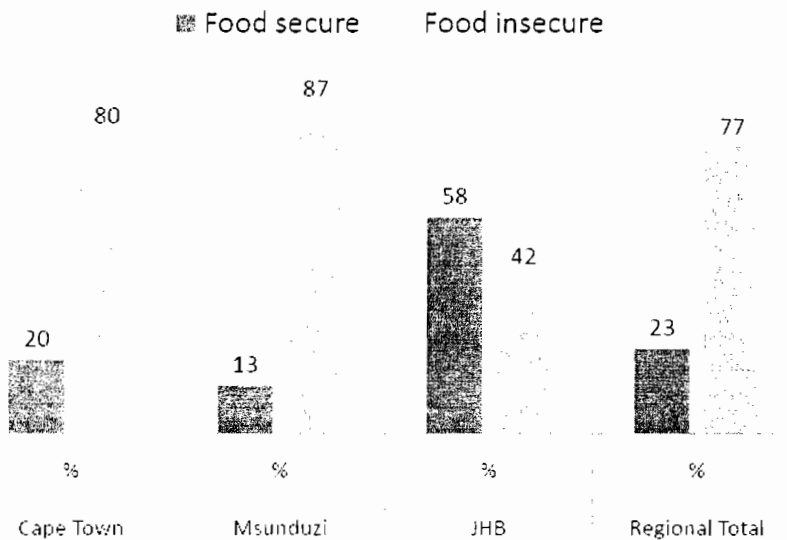
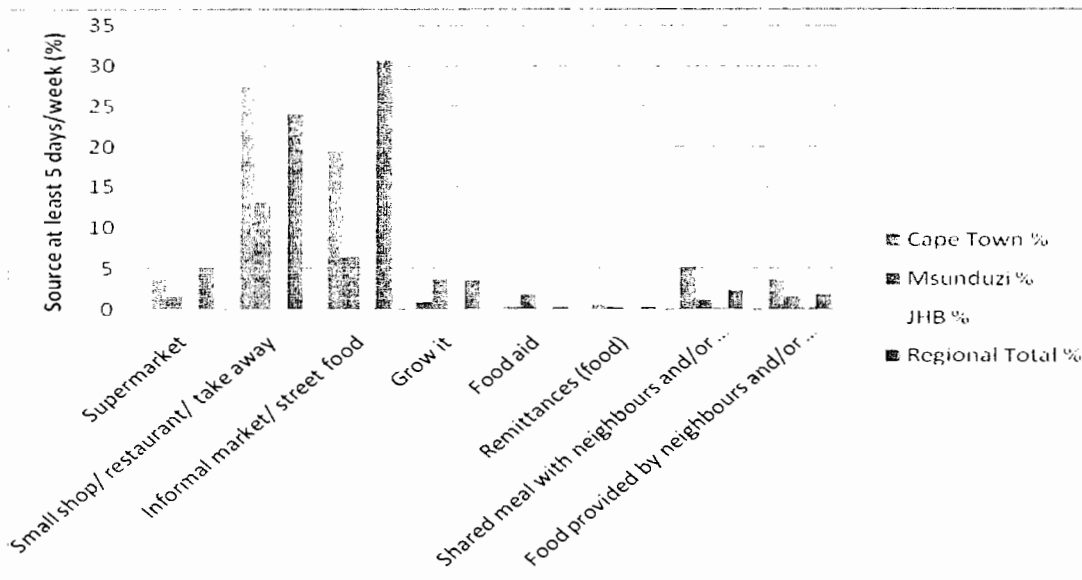


Figure 5 : Source of Food



## 5. FINDINGS: ENGINEERING RESPONSE TO LAND USE PLANNING AND POLICY

The feasibility of developing housing within the PHA raises the following issues pertaining to future use of the Cape Flats Aquifer and stormwater management.

### 5.1 Viability of Aquifer covered by Urban Development

- (i) Well designed and constructed SW systems in Urban Areas
  - Control peak runoff
  - Control pollution and enable corrective action to be taken
  - Add to the aquifer if conditions and policy permit.
- (ii) Evidence from stormwater systems in Cape Town is that such systems do not prevent the use of the aquifer for potable water supply
  - Atlantis Case Study
  - 1974 to 2009 provides 35years of potable water supply
  - Stormwater carried from urban area and infiltrated 500m from abstraction borehole
  - Monitored and subject of several theses
  - Atlantis Integrated Water Management Scheme has adopted "Zero Runoff" as principal
  - Integrates stormwater and water into sustainable cohesive cycle
- (iii) Mitchells Plain Potable Water Abstraction Plan
  - City Water commissioned and have plan to abstract potable water from within Mitchell's Plain

### 5.2 Water Scarcity; Urban vs Vegetable Farming

- (i) DWAF
  - DWAF report August 2007 on Cape Flats Aquifer Model
  - DWAF see the aquifer as a supply of potable water.
  - Urban development; positive impact
  - Agriculture; negative impact



- (ii) City Bulk Water
  - PHA is part of Cape Flats Aquifer and part of the water reconciliation
  - Includes treated effluent
  - Treatment of water, whether with urban or vegetable farming, represents the same cost
- (iii) Urban Development adds to Aquifer
  - Importation of potable water into City
  - Garden water in City adds to aquifer as opposed to mining water
  - Water table in Delft and Khayelitsha rose after urban development
- (iv) Philippi Horticultural Area
  - Current footprint not resulting in decrease in water table
  - Re-circulating water
  - Toxins in aquifer no worse than in the vegetables we eat
- (v) Urban Development in PHA
  - 3250 Ha @ 50 units/ha gives 160,000 units
  - 50% gives 80,000 units
  - Makes use of existing infrastructure
  - Within City not peripheral or leap frogging (eg to Atlantis)
  - Benefit to CITY inhabitants, will reduce trip lengths and services cost
- (vi) PHA
  - Under threat, social forces are great
  - Consolidate on productively farmed areas
  - Select additional areas for horticulture with a water table 1,0-3,0m below surface
  - Require a pro-active realistic Development Plan

## 6. FINDINGS: LAND USE CONSIDERATIONS

- 6.1 Status of Currently Farmed Area
  - (i) PHA established 125 years ago
  - (ii) Reservation vests in Cape Metropolitan Area: Peninsula Urban Structure Plan (1988) as amended June 1995
    - Horticultural use
    - Smallholding use
  - (iii) 15 years ago; negotiated use north of Sheffield Road alignment
  - (iv) Current Utilization
    - 1100ha of agriculturally developed total of 1500ha is cultivated
    - ± 400ha "fallow" land representative of:
      - Land not owned by farmers
      - Sand dunes restrict farming operations
      - Purposely not planted in response to market
      - Unfarmed due to land value
      - Degraded area (illegal dumping)
  - (v) "Non-Agricultural" Uses:
    - Horse Stud and Racing Stalls
      - PHA not affected by recent horse-flu
      - Investment by Turf Club

- Stables (island) offered for sale (industrial)
  - Livestock holding/animal sales for slaughter to traders
    - Small farms represent feedlots
    - Impact due to waste stream
    - Vegetable farmers purchase manure
- 6.2 Interface Uses and Conflict
- (i) Vanguard Drive and “Island” have been effective to date
  - (ii) Effectiveness of Schaapkraal Smallholdings negated by poor land use management
  - (iii) Subdivisions (e.g. Highlands Estate) have internalized non-conforming uses
  - (iv) Impact of Farming Externalities:
    - Airborne application of pesticides
    - In-ground fumigation
    - Odour nuisance
    - Safety hazard of equipment movement
  - (v) Impact of Urban Externalities:
    - Poor land use management in surrounding areas
    - Uncontrolled movement through PHA
    - Perception of PHA as “extended garden”
    - Informal settlement
- 6.3 Land Reform Role of PHA
- (i) PHA ideally positioned to contribute to land reform:
    - 30% transfer target to HDI’s by 2014
    - PHA agri-product, market and production system suited, given:
      - Small economical unit (20-25ha)
      - Available production resources, including treated effluent
      - Established product market
      - Employment opportunities for urban poor and illiterate migrants
      - “Value adding” opportunities
      - Significant BEE opportunities
      - Contribution to food security
  - (ii) PHA has potential to realize longer term (2030) land reform objective
- 6.4 Silica Sand
- (i) Quality :            Particle Size 0,106-0,425 (Glass sand)  
                                 Silica Content 99,0-99,6% (Glass quality)
  - (ii) Proven Reserve : 3,2 strip; Lansdowne – Strandfontein  
                                 68 million ton (upper 2,0m)  
                                 or 27 million ton/m depth  
                                 1968 – 1980 1,4 million ton (Philippi Silica Mines)
  - (iii) Strategic Resource:
    - Not strategic, but certain area be kept accessible
    - Well placed for export
    - Exceptional quality, little vertical variation

- WC glass industry and agri-sector linkages (wine, olives, preserves)
  - Consol Glass; relocation programme into PHA (current prospecting)
- (iv) Alternative Resources in Western Cape:
- Philippi supplements Gauteng glass factory sources
  - No Western Cape deposits match Philippi due to unique set of depositional characteristics

## 7. SUMMARY FINDINGS

- (i) Agriculture
- Agricultural production in the PHA is financially sound, contributing a major portion of Cape Town's vegetable needs and providing employment and SMME opportunities for vulnerable groups
  - PHA is irreplaceable within 120km of Cape Town
  - Strict adherence to agricultural zoning is needed to keep land prices in line with agricultural production values
- (ii) Groundwater
- Groundwater and aquifer not a key criteria in deciding the future of the PHA
  - Aquifer needs to be monitored and managed, with protection zoning to restrict potentially polluting activities e.g. feedlots
  - Saline intrusion not relevant to PHA and can be easily prevented
- (iii) Urban Agriculture and Food Security
- Cape Town urban system is resource-intensive (i.e. food production)
  - PHA plays a vital role in broader City production and political economy
  - PHA critical in addressing City's food insecurity
  - PHA offers far more to the City than can be quantified in terms of land, housing and other value assertions
- (iv) Engineering Response
- Stormwater management is effective in managing ground- water quality and yield
  - Urban development or agricultural production in PHA will not compromise the aquifer or future extraction of potable water
  - Lack of engineering services compromising PHA groundwater performance
- (v) Land Use Considerations
- Future development interface needs to be sensitive to externalities
  - PHA ideally positioned to accommodate land reform
  - Silica Sand resource requires future access
  - Land use management within and peripheral to the PHA is a critical PHA requirement
  - Internal PHA engineering services and housing provision, and traffic management are essential to future viability

## 8. OVERALL CONCLUSIONS FROM REVIEW

- (i) PHA a viable horticultural area that fulfils unique role in City (i.t.o. agri-production, food security, land reform, etc)
- (ii) No equivalent horticultural area within 120kms of Cape Town (i.e. irreplaceable)
- (iii) No differential impacts on aquifer/groundwater between horticultural or urban land use scenarios

- (iv) Statutory 'designation' (i.t.o. Physical Planning Act) has helped protect PHA from urban development, but on its own this is an insufficient measure to counteract current development pressures
- (v) Despite designation as a horticultural area, PHA is under threat as it is not being managed as a farming area and is subject to severe and escalating urban development pressures.
- (vi) For reasons of negative external impacts, It is not practical to spatially integrate horticultural and urban activities in the PHA.
- (vii) No evidence to justify alienating PHA, but urgent need to rationalise & consolidate it into a sustainable horticultural area, and manage it accordingly.
- (viii) Whilst there is scope for limited urban development arising from the rationalisation and consolidation of the boundaries of the horticultural area, the PHA is not a significant opportunity for the development of housing in Cape Town.

## 9. RECOMMENDATIONS FROM PHA REVIEW

Towards the long term protection of the PHA as Cape Town's primary horticultural area, it is recommended that the City:

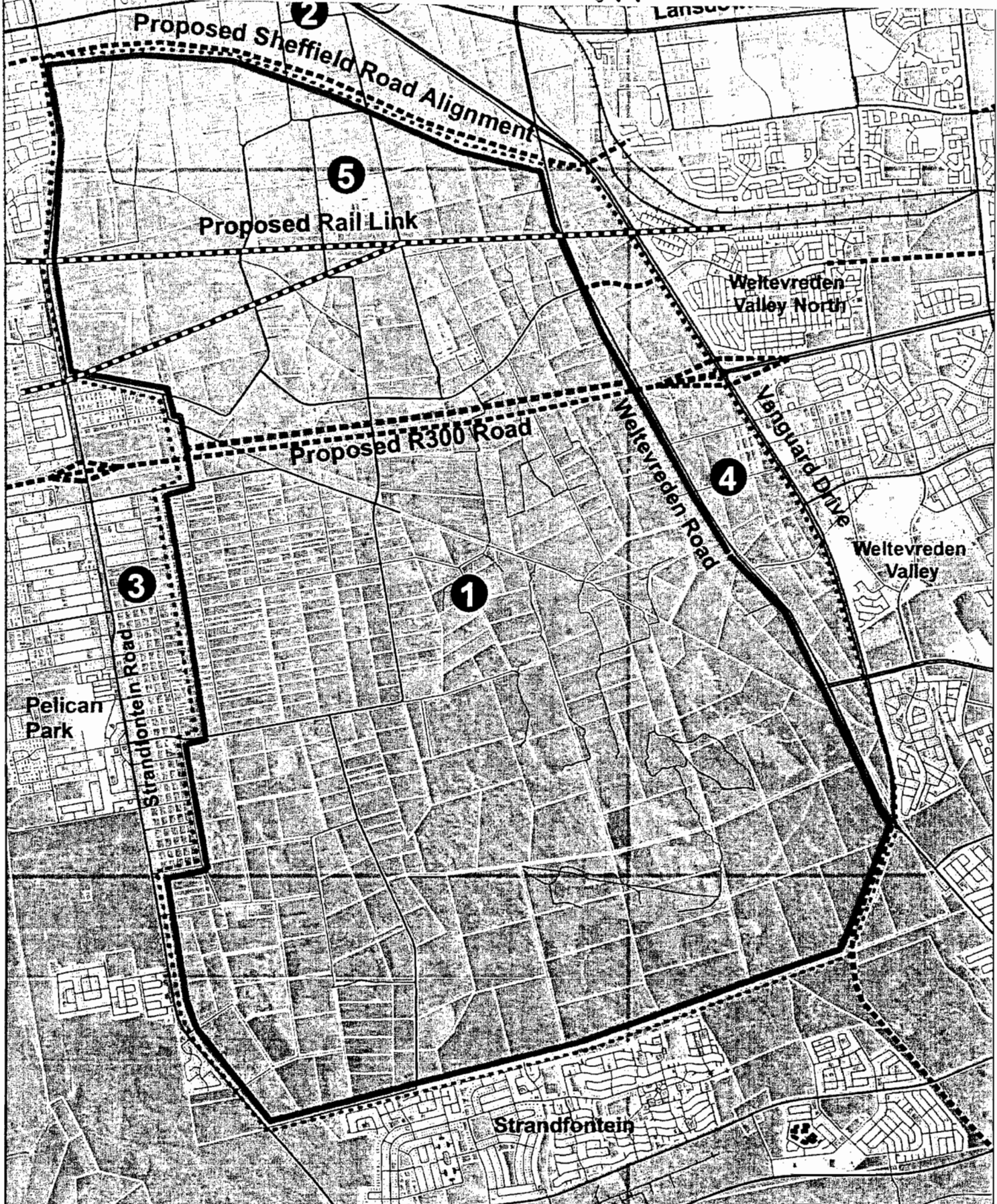
- a) Retain the current extent of the designated horticultural area, pending the outcome of a detailed investigation (and consultation with stakeholders) into the possible rationalisation and consolidation of its boundaries and the fixing of a functional urban edge around it (see item 10 below and Figure 6 for the review consultants proposals in this regard).
- b) Review and amend the City's zoning scheme applicable to the horticultural area to ensure that its land use regulations facilitate farming and related activities and prevent the intrusion of urban activities.
- c) Enforce land use regulations to retain the PHA as a bona-fide farming area,
- d) Commission the preparation of the following studies:
  - i. Integrated Servicing Plan for the entire PHA, with particular attention to the management of stormwater.
  - ii. Urban edge study (see item 10 below), with attention to the possible redevelopment of the 'island' and Schaapkraal smallholding area.
  - iii. Monitoring (yield and quality) of groundwater.
- e) Review the City's property rating system applicable to the PHA to ensure that it facilitates farming and land reform within the designated horticultural area

## 10. TOWARDS AN URBAN EDGE FOR THE PHA

Based on the desk-top review and rapid appraisal undertaken by the review consultants, the following proposals are made regarding the possible rationalisation and consolidation of the horticultural area and the delineation of an urban edge around it:

- a) Pending the outcome of an in-depth study and consultation with interested and affected parties, the spatial extent of the officially 'designated' PHA should be retained and the Lansdowne-Sheffield corridor (see Management Area 2 in Figure 6) should be prioritised for urban development.
- b) A study should be commissioned to undertake in-field assessments and local consultations on the cadastral delineation and proclamation of an urban edge around the PHA.

- c) This urban edge study should evaluate the functionality of alternative urban edge alignments, including testing the following urban edge proposal of the review consultants (see Figure 6):
- (i) Fixing the alignment of the proposed Sheffield Road as the PHA's northern boundary. Only in the event that the proposed east – west rail corridor through the PHA is implemented, should consideration be given to amending the PHA's northern urban edge to along the alignment of the proposed R300.
  - (ii) Whilst the 'island' forms the eastern boundary of the designated PHA, except for its southern portions it is not a functional horticultural area. The island should be retained as an important buffer between the horticultural area and the Mitchell's Plain urban area, but consideration should be given to developing it as a mixed use area (i.e. housing, industry (agri-processing and other), commercial and service activities, etc) thereby serving as functional interface between Mitchell's Plain and the PHA. In this scenario Weltevreden Road would form the eastern urban edge around the PHA. To protect the integrity of this eastern horticultural edge, the "Island" should be accessed from internal routes (e.g. Oliver Tambo) and not Weltevreden Road.
  - (iii) The Schaapkraal smallholdings area currently forms the western extent of the PHA, and it is proposed that this be retained as the urban edge. The City should facilitate urban infill and densification within the Schaapkraal smallholding area.
  - (iv) In the south no change to the designated PHA is proposed, and the urban edge should be along Strandfontein's northern boundary. Biophysical conditions and resources (i.e. botanical, groundwater, construction sand) and the proximity of the waste water treatment works favour the retention of this area as an extension to the current core horticultural area.



Legend	
	Roads
	Railway
	Proposed Roads
	Proposed Railway

Towards an Urban Edge	
	1995 PHA Designated Area
	Proposed Interim Urban Edge
	Possible Long-Term Urban Edge if Rail Corridor Built

Management Areas	
<b>1</b>	Horticultural Consolidation Area
<b>2</b>	Lansdowne-Sheffield Urban Corridor
<b>3</b>	Schaapkraal Urban Redevelopment Area
<b>4</b>	"Island" Mixed-Use Area
<b>5</b>	Possible Urban Consolidation Area if Rail Corridor Built