

Philippi Horticultural Area

A City asset or potential development node?



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Glossary of terms and acronyms

ACC	African Centre for Cities
Agri-zone	Agricultural Zone within the Cape Metropolitan Area
ALR	Agricultural Land Review
AFSUN	African Food Security Urban Network
CFA	Cape Flats Aquifer
CMA	Cape Metropolitan Area
CMOSS	Cape Metropolitan Open Space System
CoCT	City of Cape Town
CTFPM	Cape Town Fresh Produce Market
DC	Distribution Centre
DoA	Department of Agriculture (National)
DoAWC	Western Cape Department of Agriculture
DRD&LR	Department of Rural Development and Land Reform (National)
KVDBV	Kaapse Vlakte- en Distrik -Boerevereniging
PGWC	Provincial Government of the Western Cape
PHA	Philippi Horticultural Area
PMOC	Philippi Market Operating Company
SDFA	Schaapkraal Developing Farmers Association
SPELUM	Spatial Planning and Land Use Management Committee of the CoCT
STPHA	Save the Philippi horticultural area
UCT	University of Cape Town

Executive Summary

The City of Cape Town faces a unique challenge, one not faced by any other city or urban management area in South Africa. The challenge is one of seeking ways to manage and administer a large portion of land, land carrying rural status, but within the immediate urban environment, located within an area of significant poverty and need, namely the Cape Flats. This pressure is further compounded by a lack of current and accessible information about the viability, sustainability or potential of the area. Due to the nature of production and complex links between the Philippi Horticultural Area (PHA) and the food system of the City of Cape Town, the challenge of the Philippi Horticultural Area is of importance to more than the specific Philippi stakeholders, but to a far broader group. Decisions about the area have far broader implications, implications that could undermine livelihood strategies and resilience of a far wider set of stakeholders. This challenge is made all the more urgent by an increase in requests for zoning changes and land use departures within the PHA. The dynamic mix between what is argued to be a viable food production area, perceptions of an opportunity for potential housing developments for those living in informality and need, an opportunity for developers to capitalise on strategically located land, and conflicting perspectives of what is urban or non urban and what is part of the city landscape and what is not, adds to the tensions and ongoing debates about the PHA, its value, viability and status in the longer term.

The primary focus of this report is on the role of the Philippi Horticultural Area in the Cape Town food system. Regardless of the multiple needs and perspectives on the Philippi Horticultural Area, the area is first and foremost a food production area, one with a long history of food production, a history dating back to the mid 1800's. This research sought to assess the importance of the Philippi Horticultural Area in terms of its overall value to the entire Cape Town food system.

Previous assessments of the PHA have not taken an explicit food lens. Conversely, it is argued that a number of the previous reports, primarily those motivating for certain developments within the area, have implicitly argued, or due to the focus of the reports, created (although not necessarily intentionally) a view that the food value of this area is negligible and that the broader globalised South African food system would cover any slack created by the loss of this area. This report sought to understand the current PHA/Cape Town food system relationship, the opportunities and challenges that this offered, the beneficiaries of this system and other potential but previously ignored values and challenges presented by the PHA.

In the context of the PHA, it was also necessary to investigate the local and PHA based flows and systems at work within the area "footprint". The research sought to assess and understand the net of benefits emanating from the PHA system, questioning the broader set of consumers within the Cape Town region, who these consumers would be and what would the consequences be, both locally and within the broader system, if this food source was removed from the food chain?

The research found that these questions are essential as the PHA and its systems are generally misunderstood. These misunderstandings inhibit effective engagement in the area and result in confusion as to how current decisions specific to the area should be made. More importantly this misunderstanding creates significant confusion and contestation in terms of what the future of the area should be in the context of broader Cape Town development plans and processes. These

conflicting narratives, perceptions and views as to use, viability and necessity all converge to create a sense that this is an area in crisis with little value in its current state.

This research found that this perception was untrue and misinformed. The research found the PHA to be an area of high cultural, social and ecological significance. The area was found to have a variety of areas of critical heritage importance, even uncovering reports of recent discoveries of Khoisan artefacts in the PHA¹. This fact appears in no documentation about the PHA. Although previously documented, ecologically, the importance of the Cape Flats Aquifer, to both food production, the preservation of access and the recharge of this resource, highlighted the links between a variety of anthropocentric and ecosystem service relationships. Reviewed reports indicated viable and sustainable use of these ecological resources, while calling for monitoring and management systems. The importance of the Cape Flats Aquifer and the relationship between this, the land, the city as a whole, and climate change were found to be of critical importance, particularly in the context of the links between food production, food prices and climate related resilience.

The research methodology applied three core strategies. The first strategy entailed the review of existing written reports and publications linked to the PHA. Secondly, alternative data sets were reviewed and assessed. These sets included, for example, data on the off-take from the PHA through the Cape Town Fresh Produce Market (CTFPM). Lastly, a contextual understanding of the broader area was sought through a process of key informant interviews across sectors and stakeholders. These stakeholders included emerging smallholder farmers, large scale farmers, store owners in the area and traders whose product is derived from the area, directly or indirectly. These interviews were further supported by a process of participant observation and immersion into certain place - based processes and activities.

Currently the general perspective offered by certain city officials, the broader public and certain commentators on the area, is that the PHA is an area with declining production and disgruntled farmers who are simply waiting for the best price for their land before selling. This view was not supported in the research findings. The research noted increases in production, new land being farmed and significant investments in infrastructure being made on the part of the farmers, by both the existing larger scale farmers and by the new emerging smallholder farmers. The area produces well over 50 different horticultural crops and many farmers are also active in livestock production. The farmers have realigned their markets and are actively selling direct to the major retailers, wholesalers and other sources such as restaurants and speciality stores. Farmers are also actively involved in on-farm value addition. While estimating production figures is arguably subjective, it was estimated (with a level of certainty) that just under 100 000 tonnes of fresh produce is grown in the PHA annually. This included an estimated figure of over 2 000 tonnes of produce that is given free to farm workers in a year - a flow of food that plays a critical role in the broader food access of the communities in the vicinity of the PHA. All this has been achieved on the back of innovative and proactive farm management strategies. These strategies are further supported by what this research has termed an endogenous economic system. This is a highly specialised system designed to be mutually supportive of a number of farm based and off-farm economies. Active within the area are seedling suppliers, input suppliers such as fertiliser, infrastructure suppliers and suppliers such as compost producers; food chain interventions such as beneficiation and wholesalers, packhouses and

¹ Reported in stakeholder interviews with emerging farmers

transportation suppliers. All these activities reflect an integrated and mutually beneficial set of economic systems that add economic integrity to the area. These systems all have linkages beyond the PHA.

In respect of the broader economic system, the research found that the increasing pressures imposed on the global food system, reverberate through local food systems. These pressures are compounded by crises beyond the control of officials and local food system actors. These crises include climate driven food shortages elsewhere in the world that impact on the local food supply, shifts in diet driven by rapidly developing world urbanisation and most critically, significant increases in the oil price and thus price increases in all industries and systems reliant on oil. The PHA allows for a measure of control at the local scale, buffering communities from these crises and providing a measure of resilience to the associated shocks.

While the farmers are generally positive about the opportunities in the PHA, there is significant frustration at the confusion about the future of the area. This frustration is compounded by a real challenge of continuous theft of farming infrastructure and increasingly large scale theft of produce. The challenge of theft is made worse by ineffective control in the area aggravated by reports, from all farmers, of ineffective and selective police services in the area. These challenges are aggravated by the constant debate as to the future of the PHA, and as a result the future of the farms and all support operations. Regardless of these challenges, most farmers remain active and engaged in the business of farming.

The PHA was found to be playing a critical role in the broader food security within the settlements adjacent to the PHA. Informed by reported flows of food from the PHA, retail networks that source the bulk of their product from the PHA and due to the food distribution networks in place, the PHA provides real potential for fresher and nutritionally dense food to flow into these communities. It was also reported that while food prices do not necessarily differ when compared to food prices from other production areas, should the produce from the PHA be removed from the distribution system, there is a real risk of significantly higher food prices for all items currently grown in the PHA. Certain farmers interviewed suggested that currently the PHA plays a key role in moderating prices for all predominantly PHA grown vegetable types, regardless of source. The areas surrounding the PHA experience high levels of food insecurity. This research argues that in the absence of the PHA, this challenge would be significantly worse. This research found a definite case arguing the importance of the PHA to food security specifically, and to a more resilient food economy, more generally. Additional review is required in order to effectively assess the scale and influence that the PHA has in the local food economy and how these flows of food impact on the livelihoods and general food security of the members of the communities surrounding the PHA. Far more work is required in this field and specifically in respect of the role of a number of components within the food system, for example, livestock production and its use within the communities.

The research also engaged with a new and active group of committed emerging smallholder farmers actively seeking ways to establish themselves in the PHA farming community – a number of whom are already established. These farmers see their roles slightly differently and while they currently engage in multiple livelihood strategies in order to make a success of their farming operations, they are investing significantly in the land and in their communities. These farmers represent a new view of the area, linking other services provided by the area to their immediate communities. These

activities include nature based excursions for specific groups, school outings, certain remedial activities and educational interventions. These activities, linked to challenges experienced in the source communities of these groups, indicates a far more nuanced set of values associated with the PHA.

Informed by the research, a number of recommendations are proposed. These included the following:

- The urban edge needs to be clearly defined and the PHA secured as an agricultural area.
- All areas currently deemed to be viable and productive agricultural areas need to be retained for agriculture. Food production needs to be seen as a critical and primary function of the area.
- Within the City, one specific governance structure should be given full responsibility for the PHA. In addition, an intergovernmental task team needs to be established, with full decision making mandate to support and coordinate activities within the PHA.
- A process is required to facilitate a different perspective on how the PHA and other residential areas align and are managed and governed, through both policy and practice.
- The Departments of Agriculture and Rural Development need to be engaged and called on their lack of support for the farmers within the area.
- Greater police visibility, resources and effort is required within the PHA. A process is required to develop a strategy to effectively police the PHA. The PHA is open to all, through public roads and other pathways that traverse the area. This presents a real challenge in the policing and management of the area. The porous nature of the area means that this challenge cannot rest on the shoulders of the PHA stakeholders alone. Innovative and collaborative approaches are required.
- New market systems and governance structures need to be developed to enable and support localised and city-wide market opportunities.
- The new smallholder farmers establishing themselves within the area are currently doing so at great risk and cost. Effective development interventions are required to support these farmers, driven through a formalised and accountable structure. The development process needs to take cognisance of the economic realities of such farmers, their markets and the absence of effective structures to support their place specific needs and constraints.
- The PHA has the potential to address land reform questions and accountable parties need to work to secure the area as well as actively seek out processes to enable relevant and applicable land reform and programmatic interventions.
- From a broader ecosystem services perspective, the PHA provides a critical buffer to the challenges associated with the polycrisis (peak oil, climate change, ecosystem degradation, future urbanisation, and the food crises - to name but a few) and as such, requires a far more sophisticated and in-depth understanding in terms of this buffer role played. Building a resilient food system is a prerogative of any city concerned about its viability in the future.
- Significantly more information is required in order to effectively understand the role of the PHA in the broader food system and how this impacts on the various stakeholder groups reliant on this area both directly and indirectly.

- Other role players need to be far more active in the PHA and in responding to the risks associated with the removal of the PHA from the Cape Town Food System. This is not the case at present and needs addressing. The identification and mobilising of groups that could actively participate in and support the PHA currently and into the future is required.

Informed by the research, coupled with the findings from the farmer reviews and the assessment of the value that the PHA, it is strongly recommended that any decision to remove the PHA or parts of the PHA from the food system requires serious reconsideration.

The PHA currently represents a complex and interwoven set of assets to the City of Cape Town. When a longer time scale is considered, the PHA offers even greater value, particularly in the context of future challenges such as food system threats, exponentially increasing oil and fuel costs, climate change and climate variability - the area is arguably already buffering the city from the impacts of the initial indications of this. The PHA currently plays a key role in food system and climate change resilience, a role that will increase significantly in the future.

The fact that there are no models to follow in this regard, no blueprints as to how to engage with such an area, either in South Africa or internationally, and no management systems within policy and governance structures, does not mean that the area should be discarded for the sake of conformity and compliance. The very complexity of the area means that novel and innovative ways are required to facilitate engagement in the area, to support and validate the value that it offers and to initiate processes that enable the effective governance and protection of the area. The PHA is a valuable asset to the city and should be retained. In order to do this the area needs to be secured in accordance with all the means available to the city and the province.

Introduction

The City of Cape Town faces a unique challenge, one that arguably no other city or urban management area in South Africa faces. The challenge is one of seeking ways to manage and administer a large portion of land carrying rural status, located within an area of significant poverty and need, namely the Cape Flats. The Philippi Horticultural Area is an area with significant history, viable production, an active agricultural community and various climatic and hydrological attributes that make it ideal for its current land use. However, urban growth and development, linked to external agricultural economy pressures, a desperate need for housing and other forms of urban development, such as industrial space and gap and middle income housing needs, are converging and placing the Philippi Horticultural Area under extreme pressure.

This pressure is further compounded by a lack of current and accessible information about the viability, or lack thereof of the area. Little analysis has been carried out on the actual output and farm based trends taking place in the area. Often data quoted is as much as 20 years old. As an example, it has been statements by some commentators that “approximately 80 percent of all vegetables sold in Cape Town are grown in Philippi”. This statement, while not disputed at the time of publishing, is derived from the book title “Die Groenteboere van Philippi”, a detailed history of the area written by journalist Lizette Rabe, but dates to 1992. These contradictions, different assertions

as to viability or degradation of the area, different development needs (and agendas) and conflicting priorities mean that city officials do not have the necessary data to effectively inform decisions and plan management interventions. This challenge also constrains the ability to develop an effective governance strategy for the area, one that would allow all stakeholders a sense of understanding as to the future of the area.

The challenge of the Philippi Horticultural Area does not apply to the specific Philippi stakeholders alone. Due to the nature of production and the links between the Philippi Horticultural Area and the food system of the City of Cape Town, decisions about the area have far broader implications, implications that could undermine livelihood strategies and resilience of a far wider set of stakeholders. This challenge is made all the more urgent by an increase in requests for zoning changes, requests that each require due and careful consideration but, requests that become fraught with tension as the various stakeholders are generally able to each argue, with supporting facts and data, for a decision that is oriented towards their specific need.

Assessing the value of the Philippi Horticultural Area from just a food production perspective raises one core contestation, how valuable the Philippi Horticultural Area is to the overall food system of Cape Town. The importance of the area is challenged by questioning if the Philippi Horticultural Area is as valuable as it is made out to be in the context of a more globalised food system. The question that this perspective raises is one of arguing that as Cape Town is embedded within the global food distribution system, the source of food is arguably less important to the city, and generally in this case, the ability of the various players within the food system to ensure sufficient food for the city. The general argument is that where this food comes from is not important but what is important is the availability and affordability of the food. While this argument holds merit, it does assume that the City's food system functions in the best interests of all and that the extended globalised food system is of optimum value to the City. This view does not consider the externalities associated with this system, nor does it anticipate the future challenges associated with such a food system. This view does not consider those citizens who are not able to access this globalised food system, the vulnerable, poor and food insecure. If the food system functioned and delivered on the merits argued by those in favour of a globalised food system, the City of Cape Town would not have food insecurity challenges where in certain parts of the city poor residents are as much as 80 percent food insecure (Battersby, 2011; Crush and Frayne, 2010; Frayne et al, 2009).

In the context of the Philippi Horticultural Area, it is also necessary to question the local food system, the resilience of this system and those who benefit most from this system. For this reason, it is also necessary to investigate the local and Philippi Horticultural Area based flows and systems at work within the Philippi Horticultural Area "footprint" and to assess and understand the net of beneficiaries of this system. This question asked: if the area is producing food for a broader set of consumers within the Cape Town region, who would these consumers be and what would the consequences be if this food source was removed from the food chain? This is deemed a critical question and if such a question could not be answered, informed by current data, it would be reasonable to challenge any decision made to reduce or remove the Philippi Horticultural Area.

The challenge of posing such a question is to seek out ways to answer such a question and provide clearer insights to inform the current discussions and large scale development needs and discourses.

In the first quarter of 2012, this question was discussed at length between city officials and a group of urban food specialists, namely representatives from the Toronto Food Policy Council, researchers from the African Food Security Urban Network (AFSUN), urban food specialists from the Mazingira Institute in Kenya and a number of urban food practitioners from within the City of Cape Town. These discussions prompted the allocation of funding from Rooftops Canada to fund a research project, in partnership with AFSUN, to generate a current and realistic understanding of the impact, value and future viability of the Philippi Horticultural Area. This report thus serves the following two purposes; firstly, to provide relevant stakeholders in the City with data that illustrates the current state of the Philippi Horticultural Area and will help inform internal discussions on the future of the Philippi Horticultural Area. Secondly, the report will present a discussion of the potential role of the Philippi Horticultural Area in the context of increased urbanisation, water scarcity, increased fuel and food costs and other variables. This aspect will be more speculative, but will help provide insights for wider City discussions on the urban food system and the vision for a future Cape Town.

The nature of the research was further informed by the timelines allocated in conducting the research. Due to the increased pressure on City officials to make decisions about the area, the research needed to be able to provide insights and opinions that could support the decision making process. For this reason, the research needed to be conducted in the shortest possible time. This time based constraint informed the research methodology. The research approach was to gather as much data on the Philippi Horticultural Area and synthesise this to arrive at the most accurate data possible. Further, key informant interviews were held with stakeholders within the Philippi farming community as well as with other actors within the food system that the Philippi Horticultural Area supports. This research thus comprises a rapid review of existing data, the synthesis of this data supported by key informant interviews with as broader a group of stakeholders as possible within the timelines allocated.

Problem Statement

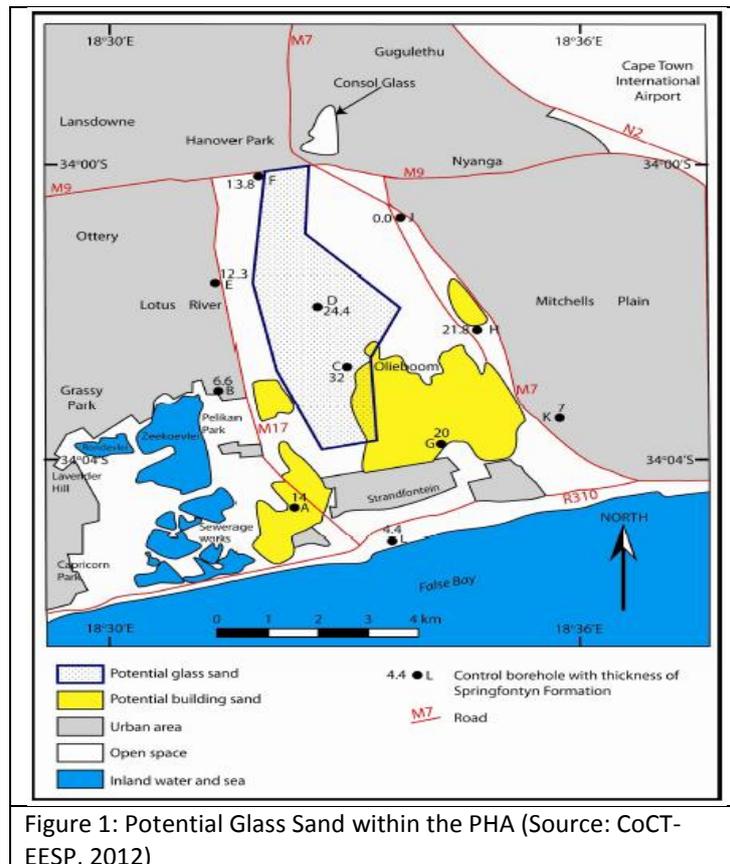
The Philippi Horticultural Area (PHA) is unique in that it is one of the only agricultural areas located within existing neighbourhoods of a city within South Africa. Other international cities have green belts, allotment garden areas or areas with some measure of protected status as urban food growing zones. The challenge of the PHA is that it is a large area of open space, located within an area under extreme pressure from a number of development needs, least of which is a drastic need for housing within a city that currently has a housing backlog of over 400 000 people in need housing (Pollack, 2009).

The PHA area, an area where vegetables have traditionally been farmed, is also under threat from external pressures with agriculture becoming more and more industrialised and consolidated, so much so that one of the leading four food retailers recently stated that they procure 80 percent of all their fresh produce from just 10 agribusinesses (Pienaar, 2011). This consolidation of agriculture is matched by a consolidation within the entire food chain. As agriculture consolidates, the larger farmers hold the greatest agency and as a result, power. This further alienates farmers such as those active in the PHA, an area which in totality would generally be considered a small farm by some of the larger agricultural players within the market. Apart from a few large farming units and/or large farm businesses, the average PHA farm size is 32ha. All farmers, large or small, are confronted by the challenges of significantly increasing input costs, water scarcity and increased administrative

obligations so as to ensure traceability and compliance with a number of agricultural and food safety standards. These challenges pose a real threat to all agriculture. Something that is very evident within the PHA.

Regardless of the larger global challenges, the PHA farmers and the area in general, are facing a number of challenges, some of the challenges are general to all farmers in South Africa, but others are specific to the unique position of the PHA. These challenges are made all the more complex by the fact that often information is used selectively in order to influence decisions and specific outcomes. This highlights a key motivator for this research, namely, the fact that in the absence of accessible and public information, data used is often data that has been commissioned and as such, generally reflects the needs or required outcome of those funding the research. This does not imply any misrepresentation of data but just that the data used has been specifically selected towards motivating a desired outcome.

The net effect of this is that there are numerous contradictory opinions and answers to questions about the PHA and this confusion serves to limit the ability to make key decisions when necessary. It is further argued that this inability to provide sound and timeous decisions, results in a sense of uncertainty where the potential viability of the area is undermined. The result of this is that the PHA is constantly subject to a variety of “encroachments” which range from zoning change requests, illegal activities that are poorly policed, activities, that while not illegal, undermine the area such as bus depots and vehicle servicing yards, informal shack settlement and other marginal activities.



The PHA faces an additional core challenge, namely that of accountability and governance. This challenge, although arguably managed as best as possible by the various bodies in authority and

accountable for the area, allows for significant infighting and politicking. This challenge is informed by the fact that the PHA, while located within the city is zoned as rural. This rural zoning means that the Western Cape Province has certain obligations in terms of the area; certain aspects fall under the jurisdiction of the City, while others under the auspices of the provincial authorities. This issue is further complicated by the fact that the sand in the area is deemed to be a strategic resource and as such, falls under the authority of the National Department of Minerals and Energy. Currently there are two mining companies active in the area. A large section of the sand is glass sand (silica)², one of the last accessible sites for this type of sand in South Africa and argued that “the Philippi Horticultural Area hosts the most important field, which was formerly protected for future mining by Proclamation Number 1760 of 1968” (Hill and Theron, 1981:45).

The recent constitutional court judgements in the city’s favour delineating specific levels of authority³ may serve to provide some clarity in respect of processes required to access this resource, but as the PHA is zoned as rural, there are certain different zoning exclusions that may prevent the city having the level of authority over the area that they require to preserve it (see figure 1 for a detail – in dark blue border of resource area within the PHA).

While there exists a complicated and at times contradictory governance oversight process in place within the area, all land holdings within the PHA are privately held and as such, decisions, discussions and engagements need to take place with each land owner prior to any formal decision being made. While the PHA farmers are generally a cohesive group, collectively represented by two organisations, the Schaapkraal Developing Farmers Association, and the Kaapse Vlakte-en Distrik - Boerevereniging, these farmers remain distinctly individual and, informed by numerous farmer interviews, it is doubtful that they would delegate any decision making authority in respect of their future to these representative bodies.

Regardless of the mentioned authority and governance challenges, the area is also subject to a variety of other challenges, each resulting in further confusion and discord about the PHA and its viability and status. One example of how this confusion and discord emerges was noted in discussions with city officials who argued that the area is no longer farmed as it was and most farmers are simply waiting to be bought out at a price that is suitable to them⁴. This statement is reaffirmed by the example that significantly less produce is being generated on the PHA, thus a decline in farming activity, supported by declines of up to 20 percent in produce from the PHA moving through the Cape Town Fresh Produce Market (CTFPM). This research has found that the notion of declining productivity to be fundamentally incorrect with the opposite taking place. These perspectives reflect a general lack of understanding of the operation of food systems and market channels. This lack of understanding misses the complexity of the food system flows, the shifts and drivers of the food system and the interrelated manner in which food, the market and the consumer operate. There are multiple entry points into the food system, both formal and informal and players move dynamically within this system. The food system is in a state of constant flux, responding to

² Silica sand is defined as unconsolidated sand containing greater than 85 per cent SiO₂ with 99 percent by weight lying in the grain size range 0.1 – 0.5 mm (Lorenz and Gwosdz, 2003).

³ See City of Cape Town, 24 April, 2012:

<http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page72308?oid=294666&sn=Marketingweb+detail&pid=90389>

⁴ This perspective is a summary of the general views articulated in a number of conversations between 2009 and 2012 with a variety of city officials, from housing, planning and development facilitation departments.

immediate needs. The ability to read and respond to these needs was observed within all farmers in the PHA.

Numerous other examples of a general lack of understanding about the PHA exist. This lack of understanding inhibits the ability of officials and other stakeholders to engage effectively with the area. This results in a measure of confusion as to how current decisions specific to the area should be made. More importantly this also creates significant confusion and contestation in terms of what the future of the area should be in the context of broader Cape Town development plans and processes. These challenges have played out directly, one somewhat more publically, where city departments contested one another's positions on the matter and where the issue was complicated further with the Province eventually ruling on the matter. This was the development and zoning change request submitted in 2009 for an area of 472ha. While authority was provided for the zoning change request, civil society groups are still working to have this decision overturned. There are a number of other zoning change requests and contestations that relate to the PHA with a variety of requests for rezoning pertinent to schools and other such facilities, land owners being taken to court by the city for inappropriate land use and then these same land owners responding in the courts⁵. Most recently, a zoning change request in the Provincial Gazette (6951) dated Friday, 10 February 2012 (PGWC, 2012), for a total of 37 erven, estimated to total over 300 hectares of land in the south western corner of the PHA, namely the Headline Planners zoning change request, is still awaiting a decision by city planners.

The conflicting narratives, perceptions and views as to use, viability and necessity all converge to create a sense that this is an area in crisis with little value in its current state. This perspective results in an argument that the area no longer has value to the city. Comments by certain city officials to the effect that agriculture and the modern city should be separate and that the PHA could be better used to address the development challenges of the city⁶, further undermine the value of the PHA. Other views, from other city officials and a number of NGO groups, however contradict this, arguing that the PHA is a vital resource to the city, one that provides vital food security and acts as a key catchment to the Cape Flats Aquifer (located below the PHA).

General observations reflect increased agricultural production and investment on the part of certain farmers in both their land and infrastructure. Many traders and food suppliers within the city, argue that this is a vital area and needs protection. It is also argued that from a sustainability perspective, having such a resource within the city offers further benefits for organic waste recycling and a reduction in food miles associated with the current food system.

These conflicting and contradictory perspectives severely limit any decision making processes and as such, it was deemed necessary that a broader view of the PHA was required, one that seeks to offer a more complete view of the area, its current use and possible future potential.

⁵ For example, see note from SPELLUM meeting within the city: "That the application for temporary departure to permit a parking area for an average of 40 trucks owned by a filming company on a 7 526m² portion of Cape 1149-2 Philippi (indicated in Annexure D) of the departmental report dated 2011-06-29, be Refused in terms of section 15 91) (b) of the Land Use Planning Ordinance 15 of 1985 (LUPO)" (CoCT, 2011).

⁶ An opinion expressed in the 2009 PEPCO review of the PHA.

Research and data collection methodology

Due to the time limitations associated with the need to provide the City with necessary information to assist in effective decision making in the shortest possible time, a research approach was designed to respond in the best possible way to this need. This meant that the research approach followed the following core strategy:

To use as much existing research as possible and to synthesise this in a manner that reflected as viable a reflection of the status quo as is deemed possible. This process meant utilising existing municipal and provincial data and tracking historical data held in a variety of facilities that included official data, grey literature and documentary evidence collected by others.

Due to the various demands placed on the PHA, numerous parties have researched the area and while the data generated may have produced outcomes oriented towards the research funders needs, these different data sets reflect a narrative deemed to be of critical importance to the research process.

In attempting to understand the various dynamics associated with the PHA, the City of Cape Town has commissioned a variety of research reports pertinent to specific thematic areas linked directly to the PHA. These different reports were also reviewed and extracts from these utilised to assist in the construction of a more nuanced and comprehensive perspective of the PHA.

While this research provided interesting insights, it was also necessary to identify which stakeholder voices were absent from these commentaries. This stakeholder identification process took place through a set of discussions conducted within the research team and were further tested with other identified stakeholders such as community organisations (Schaapkraal Developing Farmers Association) and city officials. The outcome of these discussions was that further groups required additional understanding. In response to this need, the research process sought to conduct primary research, through stakeholder interviews with a number of groups active within the area and deemed to be critical stakeholders in the PHA. These groups included the Philippi Horticultural Area farmers, generally represented by the Kaapse Vlakte- en Distrik -Boerevereniging (Cape Flats and District Farmers Association), the new and emerging smallholder farmers, in general represented through the Schaapkraal Developing Farmers Association. These stakeholders were interviewed through a process of one on one structured interviews in accordance with a predetermined set of interview questions. However, as it soon emerged that the farmers in general felt more comfortable in discussing the challenges of the area while offering their own opinions of the challenges and potential solutions, the interview process shifted to include the data collection processes, linked to the research questionnaire, but also through interviews and opportunities for the respondents to provide qualitative and perceptual input. Other actors deemed to be directly impacted on as a result of the decisions about the PHA included local farmstalls within the area, vegetable traders in and around the PHA, categorised into a variety of groups, including spaza shop traders, small street vendors located on street curbs along direct access road routes, traders located on the pavements at or near larger retailers and supermarkets and traders operating near the Cape Town Fresh Produce Market (CTFPM). All these stakeholders were interviewed via prescribed semi structured interviews but the diversity of the group meant that perceptions and individual narratives would provide data, not of an empirical quantitative nature, but rather more from a qualitative perspective.

This research output forms part of additional processes associated with this report. As this report is drafted through a process of rapid review, and purports to reflect the opinions and desires of a group removed from the research team, it is deemed necessary to reflect on the findings and research output and to seek comment on the findings and proposed recommendations. This will be done through a stakeholder workshop to be conducted through a process that would allow engagement in the research findings and would seek feedback on the data presented. The final report may change subject to the inputs from this stakeholder engagement process.

Following these processes, the information will be deemed to be both a reflection of the engagement and interview processes but also, be as rigorous a reflection of all pertinent data as possible. This completed data will then be distributed in the public domain and may draw contrary responses. Dependant on the nature of these responses, the research findings may be altered to reflect these external inputs. This will be done only if they are deemed to have substantive bearing on the research process.

Research limitations

The primary limitation in this research is that it is a rapid review and as such, certain trends and needs identified now may change over time. Further, while past and historical data has been used in this research process, the collection of new research and the assimilation and report writing has been carried out by researchers associated within the African Food Security Urban Network and while impartiality has been sought, the researchers feel it necessary to state their specific research orientations up front.

A further limitation in the research is the recognition of the fact that the PHA is in and of itself an area subject to certain contradictions and contestations. For example, certain farmers may choose to remain on the land but if a suitably attractive offer were to be made for their land, they may choose to sell and as such, this research recognises a certain subjectivity and temporal relevance associated with the issues of place.

One of the potential limitations is that of language and translation. While most official documentation and previous reports that have been drafted on the area have been in English, for most of the stakeholders, this is not their first language. This challenge was evident in the interview process where the researchers needed to translate research questions. While this challenge is not deemed to have altered any of the research findings in a substantive way, it is mentioned as certain more nuanced responses and narratives may have been lost slightly in this process.

A final limitation of the study is the fact that farmers and end users measure produce differently. An example of this would be that the commercial farmers would measure produce in tonnes per hectare while the emerging farmers often measure produce by unit, such as x heads of cabbage. Further, retailers may measure this per pallet or box or other unit of measure. This challenge was supported by Jackson (2010:75)

Area under review

The focus area of this study is the Philippi Horticultural Area, in its current delineation. This is the area of land located between Vanguard Drive on the east, the coastal dunes on the northern side of

Strandfontein Village in the south, the area bounded by Strandfontein road in the west and to the north, the area along a direct line about 1 kilometre south of Lansdowne road, the area south of the area marked as area 2 in figure 2. This area is further delineated into four distinct areas and while these all form part of the PHA, they reflect slightly different management strategies (the sand mining area marked as the 445.9ha area in figure 2 in the south eastern corner of the PHA), some have more mixed uses (the Schaapkraal smallholdings, marked as area 3 in figure 2), while other areas form part of an area that while still farmed in parts, appear to be subject to land use changes and are deemed “lost” to the broader PHA (the area referred to as the Island, the area between Vanguard drive and Weltevredden road, listed as area 4 in figure 2). Lastly, there is the area of larger scale and intensive horticultural and animal husbandry that makes up the most dominant land use in the PHA (the general farming area, listed as area 1 in figure 2). The area detailed as area 5 in figure 2 makes up what was an attempt at creating one of the first agri-villages in the region and is referred to as the Highlands Estate residential area (discussed later in the report).

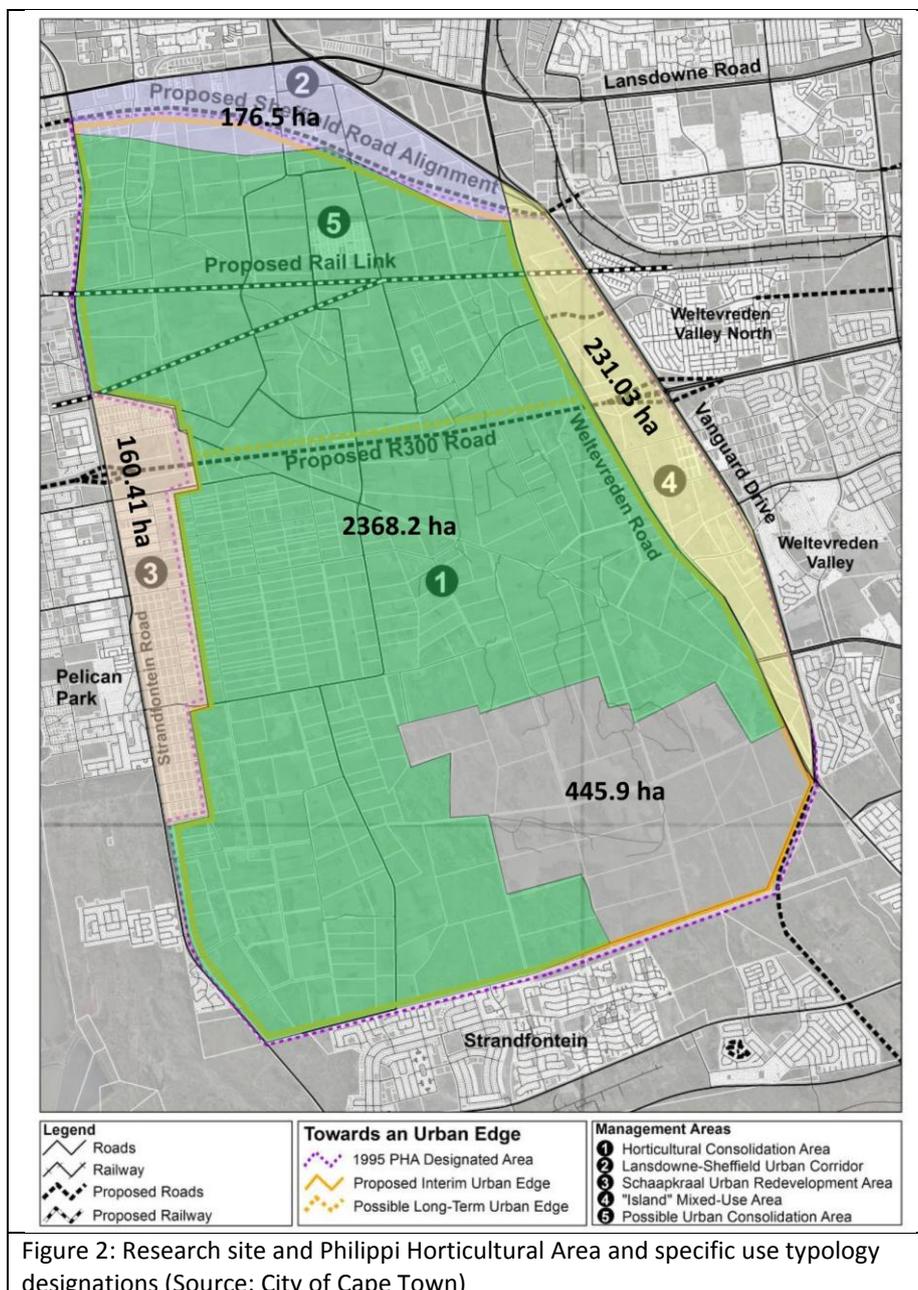


Figure 2: Research site and Philippi Horticultural Area and specific use typology designations (Source: City of Cape Town)

The areas of specific focus for this report include the primary farming area, area 1, the Schaapkraal smallholder area, area 3 and part of the Island, area 4. These areas were selected as they are the areas most subject to changes in use and requests for changes in use. The Highlands Estate area is already a residential area, the sand mining area forms a significant component of the area afforded rezoning permission by the Western Cape Province in 2010. While parts of the northern section (area 5) are still used for horticulture, the vast majority of this land has already been converted to industrial use and currently houses two large distribution centres (DCs), one for the Spar retail group and the other, for Pick n Pay.

History of the Philippi Horticultural Area

While a report such as this would not be able to effectively present the detailed history of the area, it is useful in presenting a number of aspects pertinent to specific historical markers that assist in detailing the gradual reduction of land reserved within the PHA but also, in articulating specific histories and events that have bearing on the area. Many of these histories are still very evident and impact on approaches applied, the community and also on how communities view the future of the area. Arguing for alternatives requires a level of engagement in the past. In order to understand the PHA, it is necessary to understand first the processes that led to the establishment of the area but also, the more recent history, the past zoning changes and current status.

The Philippi Horticultural Area is located in the heart of the area referred to as the Cape Flats, the area, as the name denotes, that is generally flat and with sandy soils laying South East of Central Cape Town (Rabe, 1992). Today this area is almost exclusively used for industrial or residential purposes, developments with a history entrenched in apartheid city planning and segregation. However, according to Lizette Rabe, in her book, *Die Groenteboere van Philippi*, “The farmers arrived in 2 groups: one in 1877 and the other in 1883” and these “farmers from the Lüneburger Heide in Germany settled here to supply the growing city of Cape Town with vegetables” (Rabe, 1992). Rabe further stated that:

The British Colonial government at the Cape had had good experience with settling German farmers in the strife-torn area of Caffraria in the Eastern Cape. It therefore decided to attract more Germans to the Cape to settle the infertile Cape Flats. They found volunteers who were willing to emigrate to the Cape in the Lüneburger Heide - itself a sandy, rather infertile area in Northern Germany... The beginnings were characterized by extreme hardship. As happened in nearly all such cases, the help promised by the government did not materialise. And yet the farmers managed to turn the sandy soils of the Cape Flats into the vegetable garden of Cape Town.

(Rabe, 1992)

The immigrants were poor but they were skilled farm hands as well as craftsmen. In a short time they changed the natural landscape into a cultural landscape with a distinct German look. The German image is enhanced by the physical presence and spiritual role of the Lutheran church. The farmers’ union, the Kaapse Vlakte- en Distrik -Boerevereniging (Cape Flats and District Farmers Association) is now the oldest farmers’ union in South Africa. The farms were family enterprises in

which every member of the family took part. In a short time Philippi became known as the market garden of Cape Town, providing much of the city's vegetables (CoCT, 2007:2).

The areas reflected in figure 2 make up a small portion of the original farming area. While development and expansion into alternative farming areas in the region took place, enabled by improved transportation and infrastructure, the PHA remained, and remains, an important source of food to the City of Cape Town.

Certain reports argue that far larger areas of land made up the general farming areas. It is estimated that only about 10 percent of the original farming area still remains but the farmland, farmsteads, church complex, trees, hedges and even methods used by the early settlers to manage the shifting sand-dunes, finding and preserving water (dams partly still in use), irrigation methods, etc., are all more than a hundred years old (CoCT, 2007:2). At the time, traditional farming methods did not allow for agriculture at the intensity that is currently practiced within the PHA. While driving through the area, remnants of this can be clearly observed with disused windmills and at times even draught power being evident. Through the farmer interview process, older farmers shared how in the past, a more mixed farming approach with seasonal planting took place and farming activities were supplemented by both horticultural production and livestock. This meant that areas were required for grazing. One of the main areas used for this grazing was the area originally referred to as "Die Duine", (the Dunes), an area used for grazing until in the 1970's. This area comprises most of the areas of Brown's Farm and Sheffield and the areas of industrial activity along Stock Road, extending as far west as the N2, to the current R300/N2 interchange. This area has remnants of the original German settler history where the German church at the intersection of Sheffield and Neu Eisleben Road was located. The church was built early in 1900s and enlarged in 1947 (CoCT, 2007:2). This original grazing area of "die Duine" is reflected as the area to the west of the current PHA in figure 3.

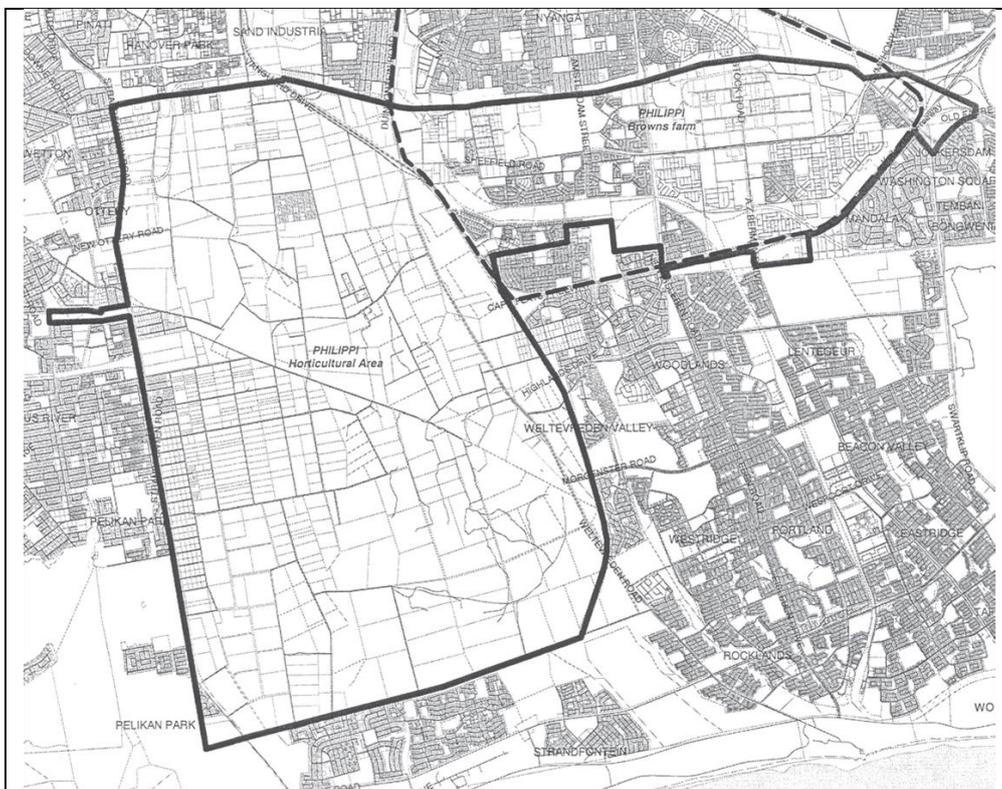


Figure 3: PHA and earlier designated areas pre 1967 delineation (source CoCT, 2007)

From a cultural heritage perspective, the City of Cape Town, in a heritage flyer produced in 2007, argued the value of the area from more than the perspective of horticultural production alone.

The Horticultural Area is the most valuable land within the Philippi area. This agricultural/rural landscape is both vivid and intact and reveals continuity in terms of land use and response to the terrain. It is a product of a dynamic, creative and cultural interaction between the natural environment and its inhabitants over time. The response of the cultural landscape to the natural landscape is a function, in part, of the carrying capacity of the land and changing agricultural patterns.

(CoCT, 2007:1)

However, as discussed, the PHA has been subject to constant “shedding” of land area, often taken to allow for apartheid city developments and the creation of racially segregated townships. The areas designated in figure 4 are the result of further land use change. The first was an area reserved in 1967 (outer dotted line) as horticulture area (in terms of the Physical Planning Act) and was further reduced as a result of the area reserved by the Guide Plan (inner dot-dash line)(through the Land Use Planning Ordinance or LUPO) in 1988 (Hennessy, 2012). These two reservations are evident in figure 4.

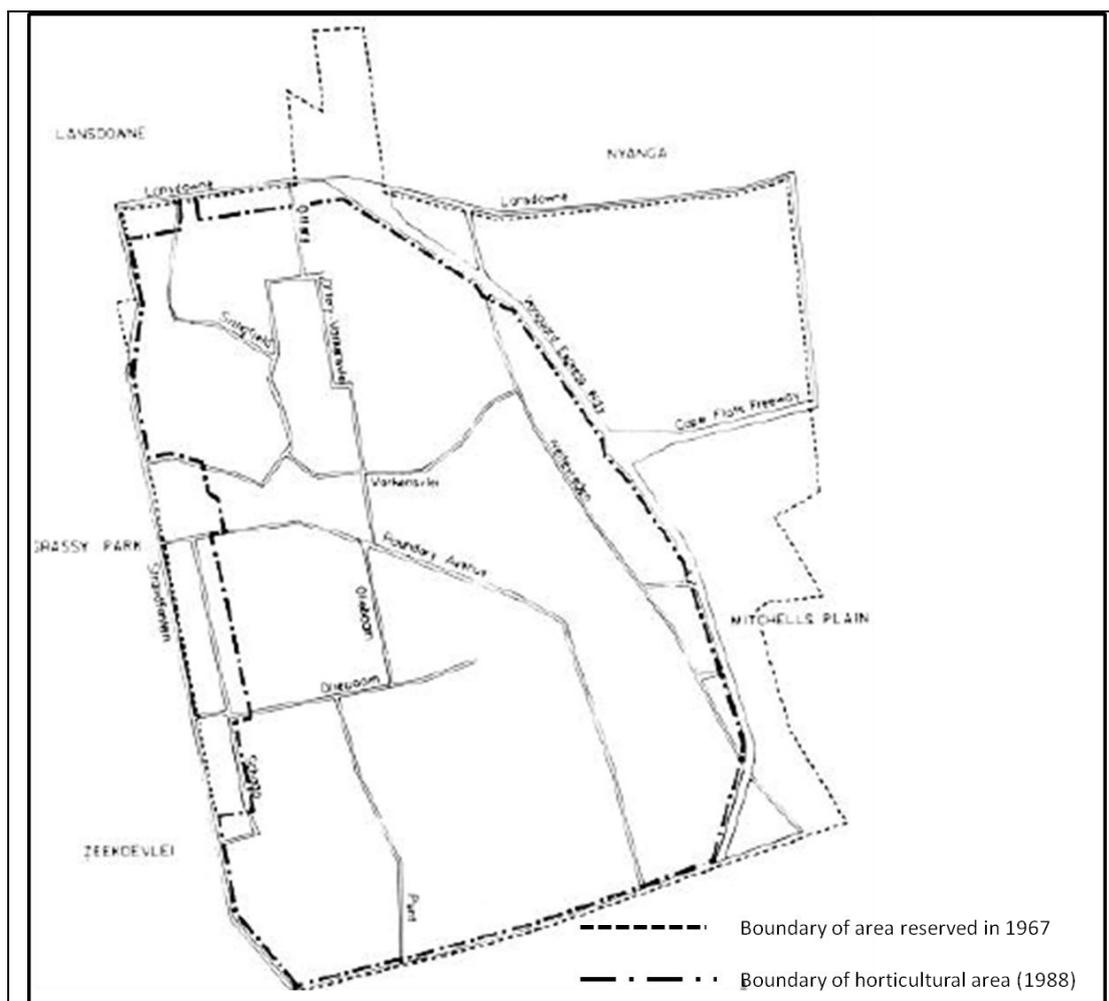


Figure 4: PHA detailing specific reservations as per 1967 (Guide Plan) and 1988 (LUPO) legislation (Source: CoCT, 1988)

There are also other histories pertinent to the area that reflect a far older historical narrative. Generally the accounts of settler and indigenous inhabitant interactions and conflict have originated from areas closer to the Castle of Good Hope, the conflicts between the Vrye Burghers and local groups and the conflicts that ultimately resulted in the planting of Van Riebeck's bitter almond hedge in February 1660 (Clare, 2010:23). The greater Cape Flats was used by indigenous hunter gathers for *millennia*. "It was the grazing ground for Khoisan herders for over 2000 years prior to the arrival of the European settlers and the Cape Flats became [one of] the contact points between the local herders and European settlers during the 17th century" (STPHA, ND).

Perhaps even more interesting is that in the process of working the land, farmers have reported finding artefacts of historical importance, particularly artefacts dating back to the time of Khoisan settlement within the area. Ironically, the value of these finds has not translated into further research into these histories and most of these artefacts remain held at farmer's homes and have not been handed over for research. This aspect of potential historical importance, unless urgently established and recorded could be lost if the area is further developed. One farmer has found Khoisan materials – shells and pipes on his land. This farmer has acquired a document from the national archives that lists descendants in the area in 1848 and before (George, 2012).

In more recent times, two specific planning interventions were commissioned and both attempted to delineate specific urban edges. The challenge associated with a constantly shifting urban edge is that it has arguably led to a sense that this edge is something that will always be subject to change and as such, serves little purpose in preserving the rural status of the PHA. The more recent reviews were the 1995 review of the urban edge, depicted in figure 2 (purple dotted line) and the Philippi Horticultural Area Management Plan of 2000.

In attempting to understand the history of the PHA it was also deemed necessary to gain insight into the historical shifts in policy pertinent to the area. As part of this exercise, research was carried out, looking at spatial plans that included the PHA and while the 1967 Guideplan was of interest, the specific changes were tracked from 1975. Within this process, it is argued that there have been specific shifts in how the PHA is articulated and represented in the figures below. Most interesting, are three key factors. In the earlier plans, the value of the PHA is articulated in terms of the silica sand resource and agriculture receives only scant recognition (figures 5, 6 and 7). This then shifts to a mention of agriculture (figures 8, 9 and 10) which would not exclude access to the sand resource. Second was the World Bank, Urban Sector Reconnaissance Mission carried out for Cape Town in 1993. This report argued that as an urban area, housing posed a more appropriate use of the PHA than agriculture (WB, 1993). It is argued that this report did change perceptions as to the most appropriate use of the PHA and it is after this report that the high importance of silica sand no longer appears in the reports, but with the emergence of some environmental aspects starting to appear (figure 11). The silica sand is still mentioned but no longer as a strategic resource and serious considerations are given to the urban edge (figure 12). Lastly, the 2003 spatial development framework is of great interest because within this report, an appendix argues that the PHA could provide for 26 percent of the CMA's housing land required (figure 17). What is interesting about this report is that in the draft version, the PHA is listed as firstly being agricultural land of high importance (figure 13) but further, a large portion of the land is listed as being non negotiable in terms of metropolitan green space (figure 14). This is not the case in the final SDF document where it is no longer reflected on the agricultural area map (figure 15) and its green space status is less than

in earlier documents (figure 16). While one can only speculate as to the reasons for this change, the dominant view of the area being necessary for housing is perhaps reflected in the historical articulation of the area.

This timeline detail does assist in explaining some of the views as to the PHA use and applicability. However, the 2009 finding within the Pepco review that the nature of the hydrology in the area - the close proximity to the water table - makes low cost housing developments financially prohibitive, within the current subsidy allocations, is critical when considered with the housing bias that has appeared in the reports. This assists in understanding the housing bias but now that low cost housing has been found to be inappropriate from a cost perspective, should the agricultural use not be asserted as opposed to other opportunistic housing developments?

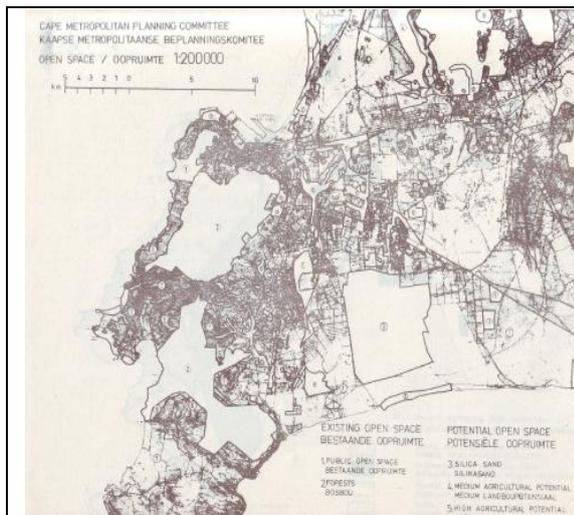


Figure: 5 Detail of Silica Sands (Source: Cape Metropolitan Guide Plan: First Report, Cape Metropolitan Planning Committee, November 1975: 32)

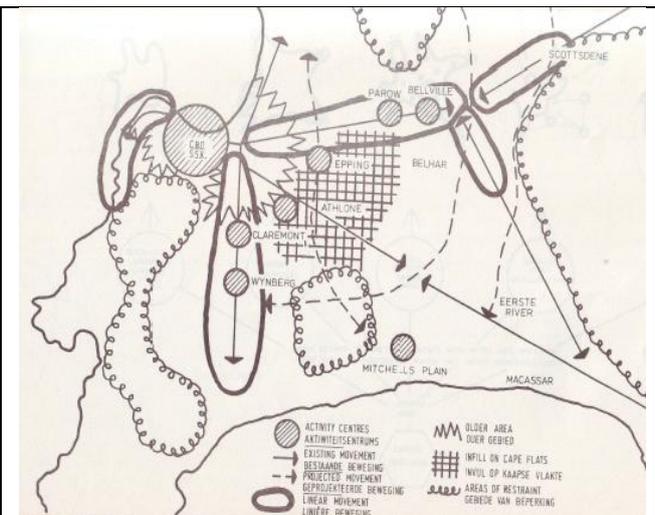


Figure: 6 Areas of restraint – Urban Edge (Source: Cape Metropolitan Guide Plan: First Report, Cape Metropolitan Planning Committee, November 1975: 45)

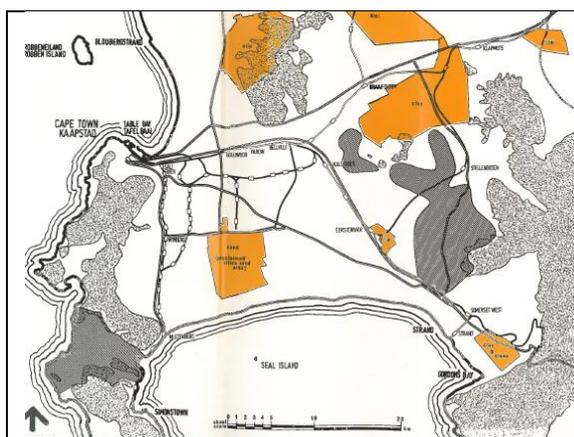


Figure: 7 Detail of Silica Sands (Source: Cape Metropolitan Area, Draft Guide Plan 1977 Volume 1: Peninsula, CMPC Map VIII)

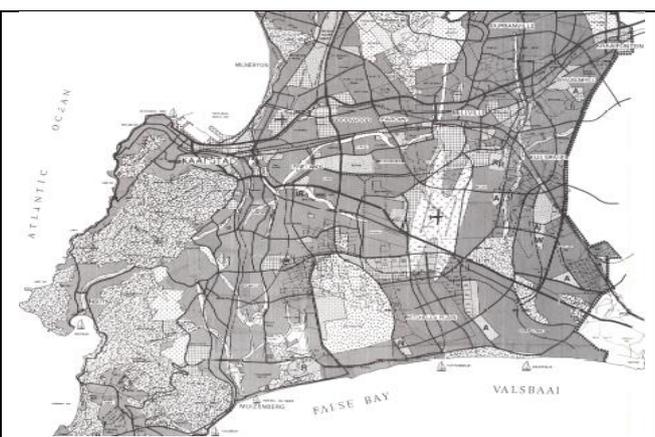


Figure: 8 Detail of agriculture and smallholdings (Source: Cape Metropolitan Area, Draft Guide Plan 1984, Volume 1: Peninsula, GP Committee for the CMA)

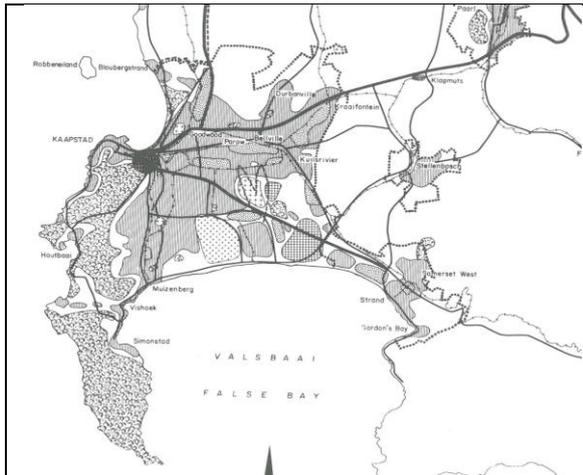


Figure: 9. Combined sand and agriculture listing (Source: Cape Metropolitan Area, Guide Plan 1988, Volume 1: Peninsula, Department of Development Planning, 1988:40/41)

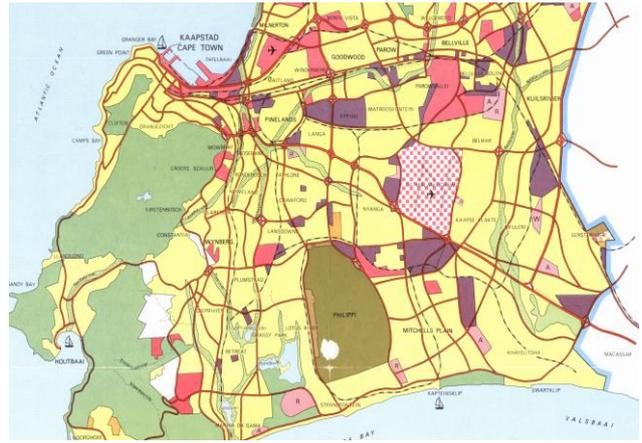


Figure: 10. First listing of horticulture use (Source: Cape Metropolitan Area, Guide Plan 1988, Volume 1: Peninsula, Department of Development Planning, 1988:71)⁷

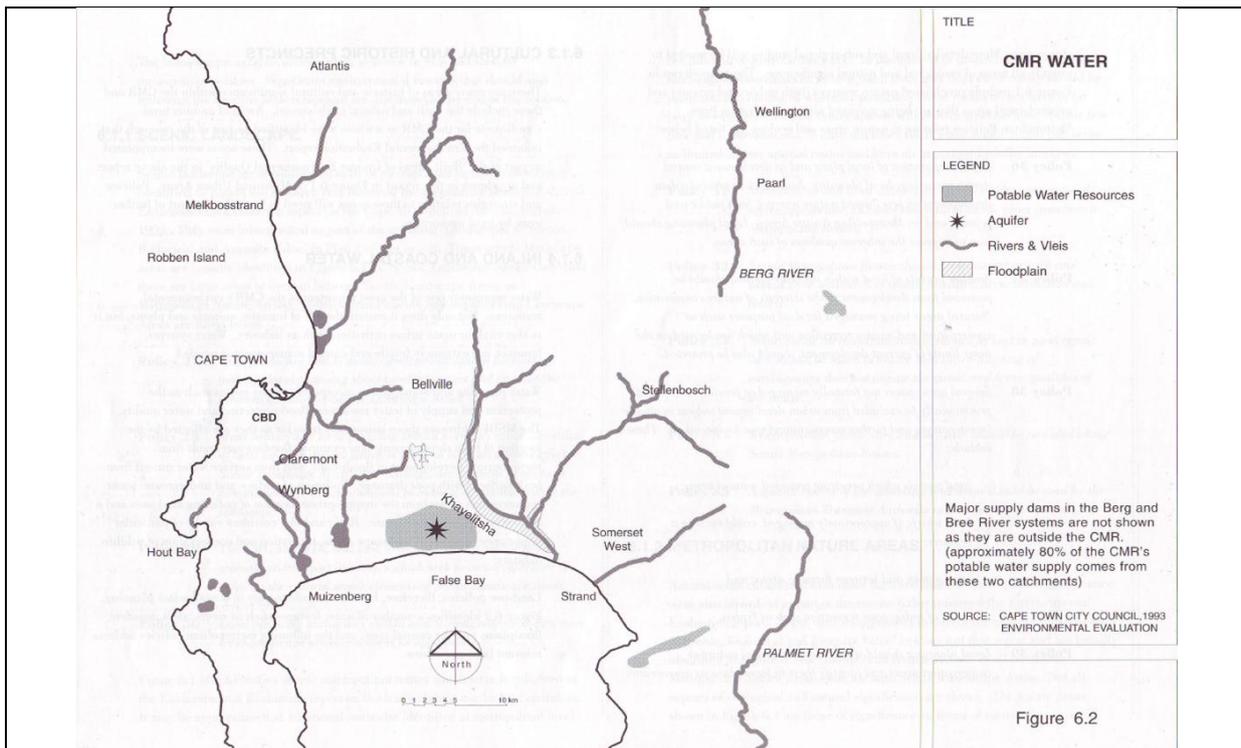


Figure: 11. First detail of Cape Flats Aquifer in any plan (Source: Metropolitan Spatial Development Framework, Guide for Spatial Development in the Cape Metropolitan Functional Region: Technical Report, April 1996:66)

⁷ The white area evident within the PHA is a damaged mark on the map in hard copy form and holds no documentary significance to the perspectives offered within this map.

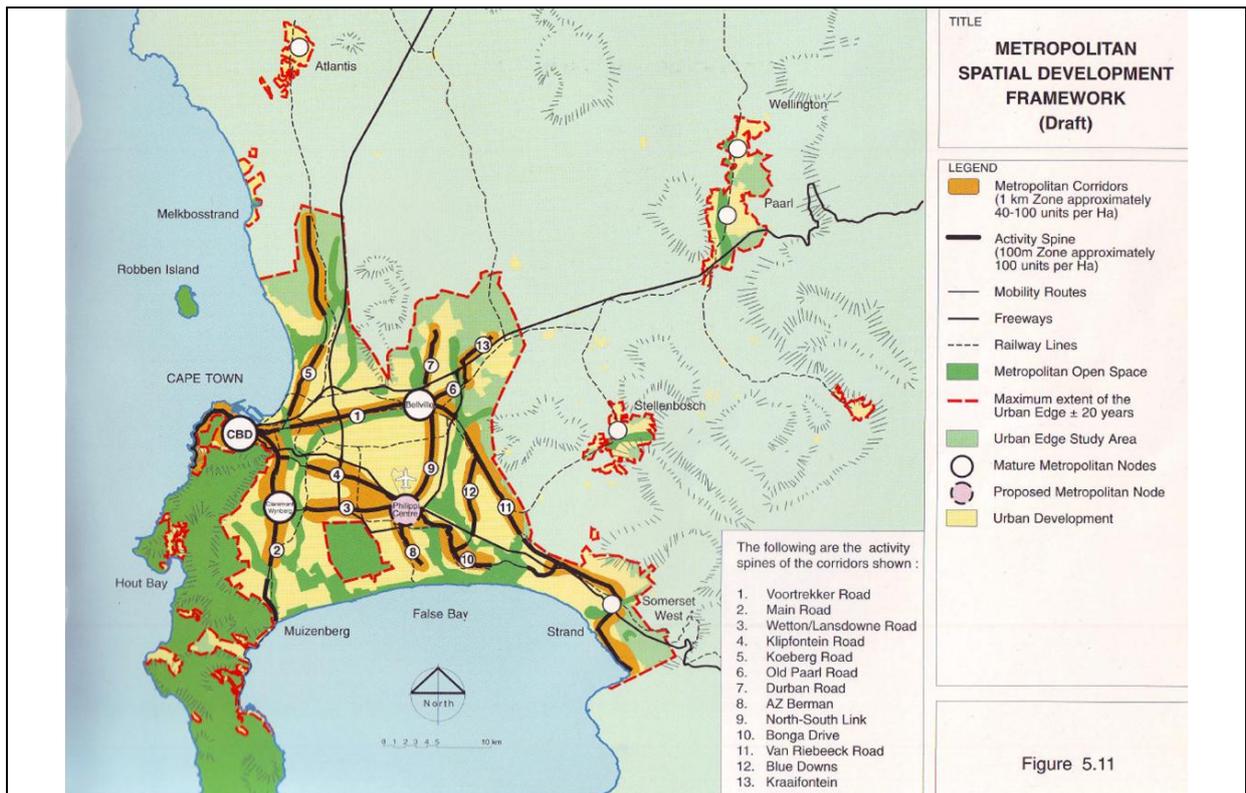


Figure: 12. Detail of both urban edge and mention of metropolitan open space
 (Source: A Guide for Spatial Development in the Cape Metropolitan Functional Region: Technical Report, April 1996:109)



Figure: 13. PHA detailed within agri-zones
 (Source: MSDF Review, Phase 1: Spatial Analysis, Trends and Implications **Draft** April/ May 2003, PEDS: 2003:51)

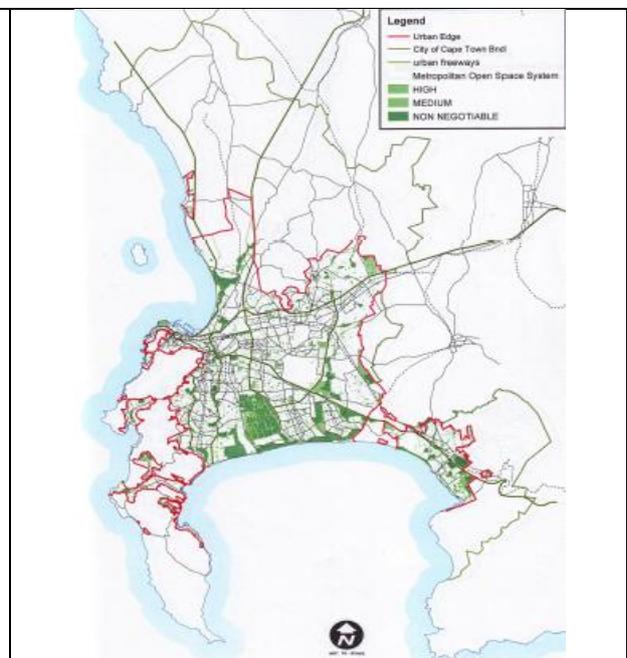


Figure: 14. PHA Detailed non-neg open space
 (Source: MSDF Review, Phase 1: Spatial Analysis, Trends and Implications **Draft** April/ May 2003, PEDS: 2003:52)

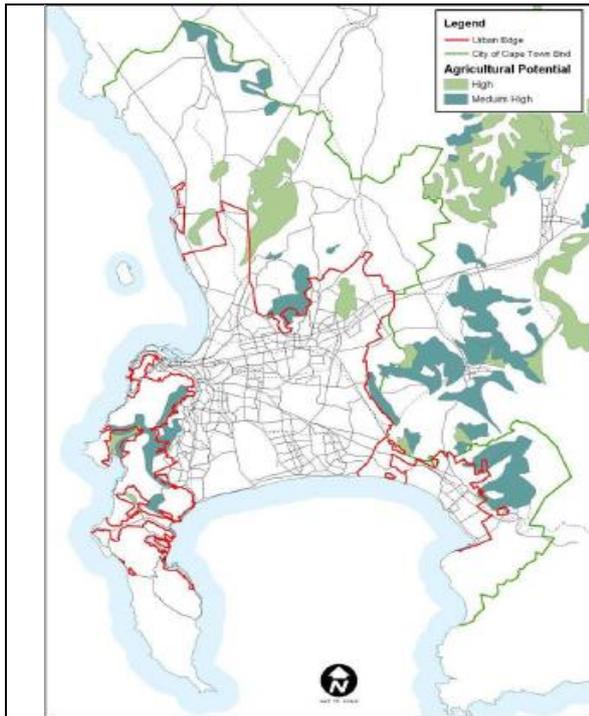


Figure 15. PHA not an agri-zone or area of agricultural potential. (Source: MSDF Review, Phase 1: Spatial Analysis, **Final Trends and Implications 2003**)

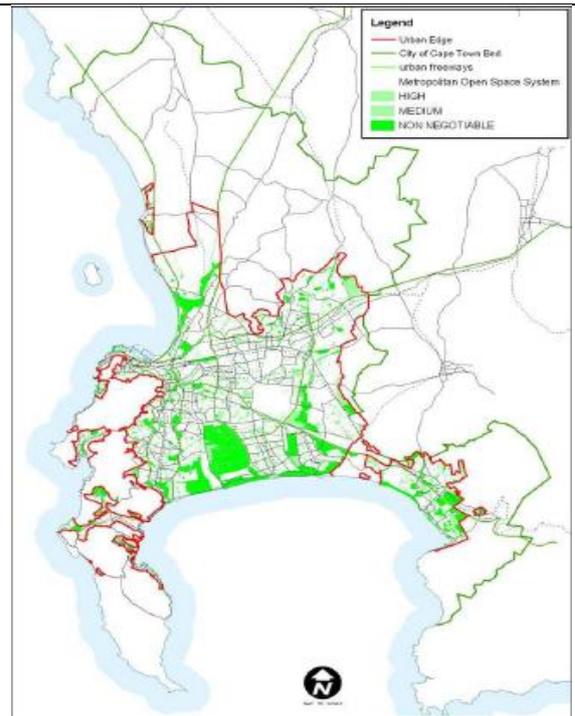


Figure 16. PHA detailed metro open space (Source: MSDF Review, Phase 1: Spatial Analysis, **Final Trends and Implications, 2003**)

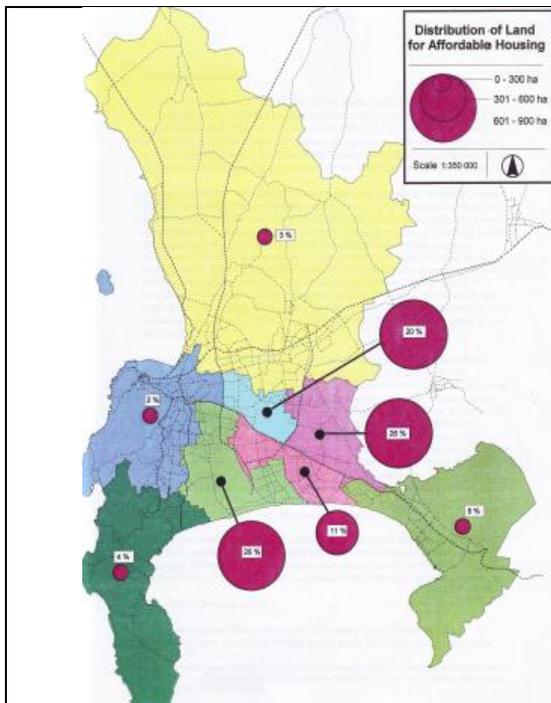


Figure 17. PHA Detailed as option for 26% of CMA Housing space (Source: MSDF Review, Phase 1: Spatial Analysis, Trends & Implications **Draft April/ May 2003 PEDS: 73**)

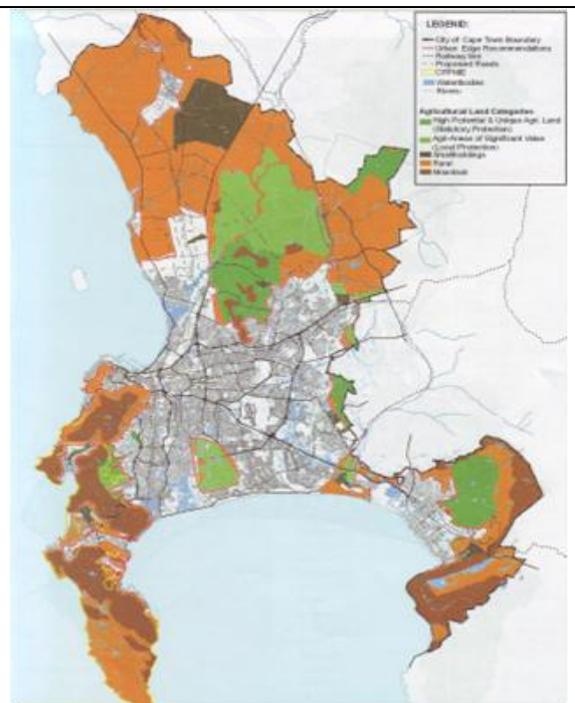


Figure 18. PHA detailed as secondary level agri land: note parts of Constantia of same value as PHA. (Source: Cape Town Spatial Development Framework, Technical Report, **Draft, 2009: 55**)

Cultural, social and ecological significance

The area holds cultural, social and ecological significance to both the City and beyond. This value applies to a broader stakeholder set and not just the specific groups that have a historic link to the area. This importance was recognised by the city in the city's heritage advice pamphlet in 2007. Please see box 1 for the detail of the significance of the various roles played by the PHA in this respect.

The PHA Horticultural Area performs a number of significant roles:

- It serves as the interface between the city and farmland. The area is a large green lung for the surrounding residential area.
- It provides an ecological link to the False Bay coast via Strandfontein and Weltevreden Expressway.
- It exhibits a range of conservation-worthy qualities, namely historical, aesthetic, social and scientific.
- It provides amenity spaces for the urban environment in the form of nurseries, riding schools as well as being an educational environment.
- The historical fabric associated with earlier rural land uses, is embedded within the area: the homesteads, the landforms generated by farming requirements such as the water dams and the use of long rows of branches and bushes as windbreaks. The large gum trees soften the edges and create distinctly different sub-spaces within the larger whole.
- The characteristic tendency to plant blue-gum trees for shade and wind protection, further accentuate their significant landscape value.

Box 1: Specific and important roles played by the PHA (Source: CoCT, 2007:1)

The historical and social benefits of the area offer important attributes that further enhance the area's potential. However, one of the often mentioned but seldom effectively articulated benefits is the ecological importance of the area. The PHA provides the city with vital ecosystem services, assisting in rainwater recharge and acting as a sink for a wide variety of organic wastes generated within the urban system. The services provide a critical resource in climate change mitigation.

The Cape Flats Aquifer

The challenge of rainwater and the role of farmers on the Cape Flats Aquifer (CFA) has been a debate with conflicting opinions as to the impact that the farming operations may have. The undermining of the aquifer was used as a key argument in favour of the need for development, such as housing, that would offer greater levels of protection to the aquifer. This argument was refuted by Parsons in 2009 who argued that while the report used to make this claim, the Cave and Weaver (2000) report, did state that "While they recognized there were uncertainties related to their October 2000 groundwater level measurements, the report states that the latest survey of groundwater levels in the Philippi area provide strong evidence that the aquifer is over-stressed ..." but Parsons argued that Cave and Weaver erred in assuming that a drawdown was indicative of over pumping and / or the aquifer been stressed (Parsons, 2009: 2). Parson further argued that

It is my professional opinion that [the consultants] are not qualified or in a position to conclude that "the evidence of over abstraction of the aquifer just north of the PDS suggests that the PHA has already reached its optimum viable footprint and the further expansion should be avoided". They failed to recognize Cave and Weavers (2000) uncertainties about the data and their interpretations, the recommendation for a full investigation of groundwater use in the PHA and the availability of other potential sources of water. Again, it

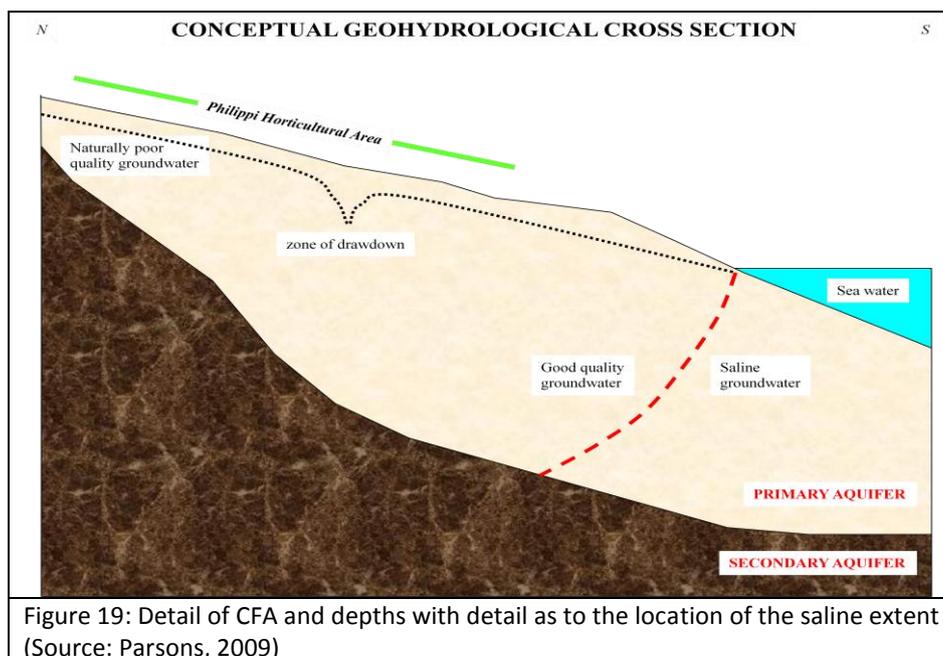
is my interpretation that this is not an objective assessment, but rather a biased statement in support of a particular outcome.

(Parsons, 2009: 3)

This statement reflects the manner in which various arguments are presented and supports the earlier comments as to the challenge that these approaches pose for decision makers. Parsons concluded his report by stating that

... water supply is not a limiting factor to the expansion and continuation of horticultural activities in the area. To the contrary, the availability of water for irrigation in the PHA is a strong motivation for the continuation of the current land use... a comparative assessment has not been made of the impact on the aquifer of the proposed rezonings and developments, and the pro-housing lobby has not addressed the impact urbanisation could have on the underlying groundwater body... It is probable that both horticultural activities and formal urban development will have a similar, but low impact on the underlying aquifer.

(Parsons, 2009: 5)



While Parsons concluded by arguing that neither farming nor urban development would have any greater negative consequence for the CFA, the report did also argue that the current land use should continue. The value of the CFA to the PHA is of critical importance and often not fully realised when agricultural areas are assessed. The critical importance of the CFA in the farming methodologies of all PHA farmers is paramount to the success of the Philippi farmers and plays a core role in how the farms are managed, the types of produce cultivated and the impact that this has on the entire farming operation. In interviews with PHA farmers, it was made critically clear that if the farmers were forced to move, their farming knowledge and operational practice is premised on the current “water/farm/production” relationship⁸. The farmers have made calculations as to how additional

⁸ Rix, 2012, Terreblance, 2012; Horstmann, 2012

water costs would impact on both their productivity and general farm viability and argued that if the farmers were moved, they would not be able to remain viable unless they had access to a similar supply of water and at the same cost⁹. As this seemed unlikely all farmers interviewed stated that due to the relationship between water access and alternative farming options, supply and costs of water in the other areas meant that they would not move off the PHA.

Water thus plays a critical role in the farming operations and if plans were made to relocate the current larger scale farmers, the relocation package would need to consider far more than simply a transfer of land.

The knowledge and understanding of the behaviour and cycles of the CFA in relation to farming operations was abundantly clear in the site review process where farmers have a clear understanding of the micro climate and hydrology of the area, and even more specifically, of their respective farming areas, managing their farms accordingly. This means that certain farmers plant specific crops that are best suited to their specific landholdings. This results in an array of different crops being planted in different areas. The farmers have a detailed understanding of this and while boreholes and overhead irrigation is used, the amount of water varies in different areas of the PHA and as such, different areas are farmed in accordance with very localised natural resource limits. Water access and climatic conditions play a key role in lands that are used and the types of farming that takes place (or does not). For example, in the north eastern, dryer and warmer area, more squash and leeks were grown while in the south western section where water quality and quantity is better and where the cool sea breezes enable more leaf crops, lettuce is grown.

It is argued by some of the farmers interviewed that the areas of land that are generally not farmed and appear idle to those travelling through the area are generally land areas where water quality is either poor or where pump volumes are weak. These are the most unviable areas within the PHA. Some areas are also subject to flooding in winter. Flooding in certain areas is such that the land use is not generally suited for horticulture but other forms of agricultural practice, such as grazing. The challenge of flooding was also found to have other challenges, particularly in the areas on the western edge of the PHA where informal settlements have begun to emerge. Certain interviewees argued that some land owners (and not active farmers) have allowed this settlement to take place, arguing that the land owners feel that the City would be forced into changing land use zoning as a result of these settlers¹⁰. In order to address the flooding, these new settlers (or possibly even the land owner) have allowed for illegal dumping on the land in an effort to raise the ground level and mitigate the risk of flooding. This practice, as was argued at a stakeholder meeting of the Schaapkraal smallholders, results in a serious threat to the CFA as this waste results in the ingress of leachate into the CFA. As flood retention areas are filled in through this illegal dumping practice other areas now face increased localised flooding, further adding to both conflict and contestations about the area and undermining those actively working the area as it is zoned and intended.

Other farmers, particularly the small farmers in the Schaapkraal section have invested heavily in installing drainage (Pula, 2012) or moving in sand (Jonathan, 2012)¹¹ (whilst retaining flood

⁹ Rix, 2012

¹⁰ This assertion was made by members of the Skaapkraal farmers association and was further supported in the preliminary research findings of Van der Westhuisen.

¹¹ 67 trucks of sand @R250 a truck to raise the level

retention areas) in order to mitigate the risk of flooding. This localised, positive and soil building (as opposed to the waste dumping approach) adaptation to the challenges associated with the area reflects a financial and settlement investment in the area, an investment that would not be made should the area be as marginal as often argued by certain parties.

The relationship between climate and the PHA is a critical one. This relationship extends beyond just the PHA area but is further impacted on by how the micro climate of the PHA area relates to the climatic conditions within the region. As can be noted from figure 20, the specific climate attributes within the PHA are further reinforced by dramatic increases in temperatures in the areas just outside the broader Cape Town region. Average temperature changes from 19 degrees to 32 degrees are noted within a short distance. This factor, linked to access to water, enables specific production approaches but also means that the area is of critical importance to areas beyond the Cape Town food basket. If the challenges associated with climate change are aligned with these existing challenges, the implications are dire.

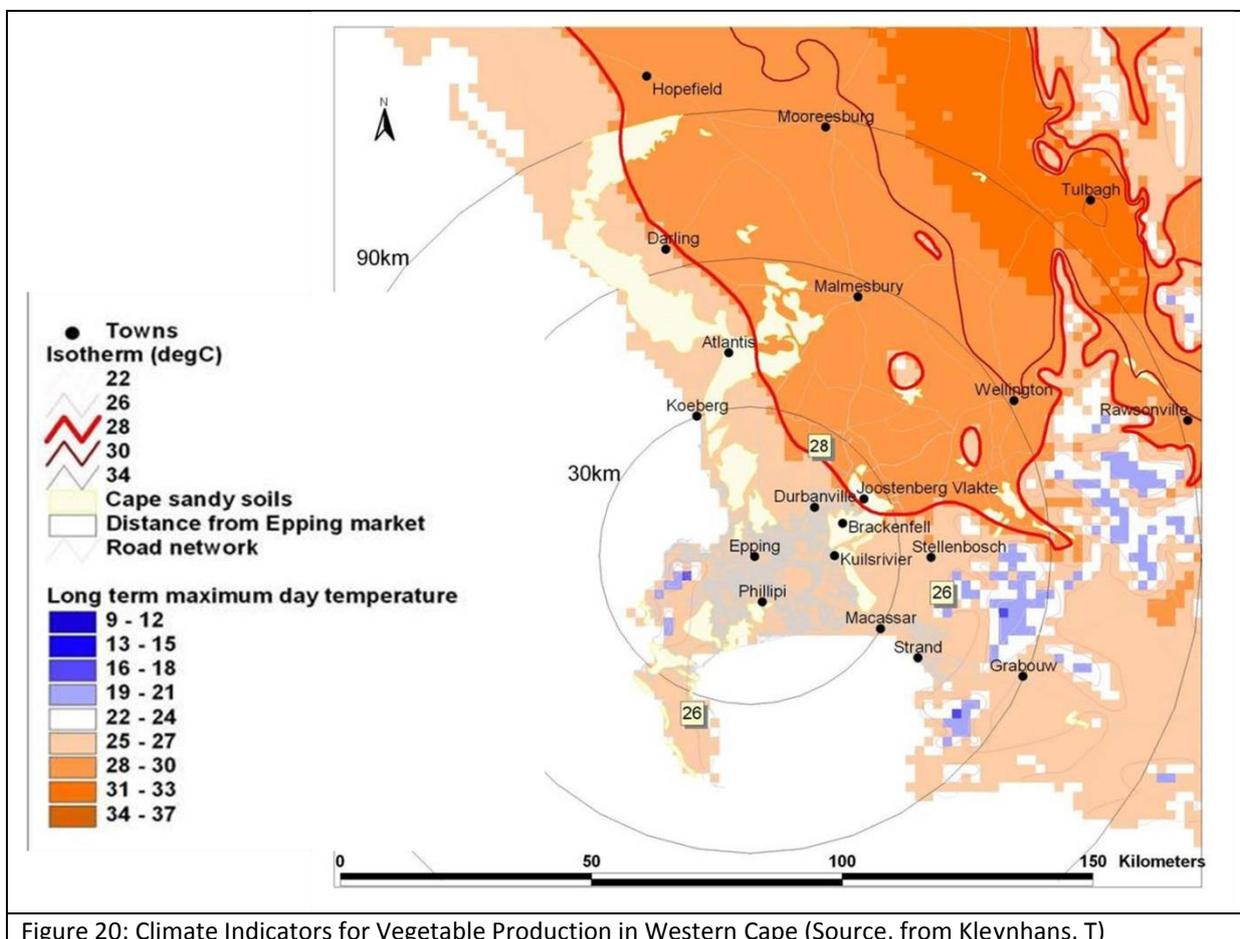


Figure 20: Climate Indicators for Vegetable Production in Western Cape (Source, from Kleynhans, T)

Open Green Space

Apart from providing essential ecosystem services to the city, the PHA also remains one of the primary open spaces within the area. While this open space status has potentially led to the area being seen as a viable area for development (a view that open space is less protected than other such land use designations), the open green space is essential to the general wellbeing of residents

within the area. This is made all the more necessary in an area where there is a distinct lack of open green space. The areas adjacent to the PHA, particularly the Brown’s Farm area are some of the most densely populated areas within the city (Alard, 2009). In assessing the value of this open space, the city argued that “the Philippi horticultural area, comprises several features which are integral to the various components of the city-wide ‘green space’” (CoCT, 2007:1), detailed in box 2:

- Major component of the ecological conservation areas and green corridors as per CMOSS (Cape Metropolitan Open Space System)
- It is part of an integrated green web system, such as the Lotus River stormwater relief system and detention system.
- Abuts open space systems such as the Strandfontein sewer plant which is a direct link to the False Bay coast contributes to a unique and special public open space.
- Contains dune thicket in southern portion.
- It has the Varkensvlei Forest Reserve.
- Contains the Edith Stephan Wetland Nature Park as part of the Cape Flats Nature Reserve

Box 2: Features which are integral to the city-wide ‘green space’ (CoCT, 2007:1)

Farmer interviews revealed other open green space perspectives, concepts that serve to assert the central role that the area plays in the lives of many of the communities neighbouring the PHA. All the emerging farmers are engaged in some form of nature based experiential support to local schools, crèches, and other youth groups, providing access to open space, nature and opportunities to learn about food, its production and even its origin. These activities provide vital outlets for the youth, whose day to day experiences desperately need alternative environments to counter their developmental and lived experience challenges. The value of being able to encounter open green space, food production and inspiring elders will play a vital role in offering alternative perspectives of possible futures. This challenge is argued by Pieterse as

The Western Cape is a violent place. This is evident in very high homicide rates (47 per 100 000 population) as well as a range of other serious social crimes such as sexual violence against women and children. However, much of the violence is concentrated in poorer areas.

(Pieterse, 2012)



Figure 21 & 22: Cape Bird Club and learners visit the PHA facilitated by the Flamingo Birding Society (Photos: Sondag, N)

Providing places of refuge and space to enable the imagination and realisation of an alternative future is critical. The PHA provides a critically important space for respite from lived challenges. This opportunity is argued to be one of the core motivators listed by the emerging smallholder farmers for the settlement and investment in the PHA. The nature of the area, the environment and its location offers a unique opportunity as a space to respond to a greater South African and Cape Town developmental challenges as well as an agenda fostering greater cultural and social integration.

The value of the open green space provided by the PHA is not limited to developmental and educational experiences only. The natural beauty and ecosystem functioning of the area means that other ecological assets are present. These assets link to a number of other green spaces within the area and make up a broader place based ecology. This adds great value to a number of groups with organisations using the area as a base for recreational activities. Organisations such as the Flamingo Birding Society are active in the area (see figures 21 and 22).

The Philippi Horticultural Area in Hectares

There are conflicting reports as to the scale and productive area within the PHA. This results in a variety of different perspectives being offered. One of the greatest challenges is the fact that the total area of the PHA is often used in an effort to justify the argued low levels of production. A demonstration of this is the argument that the “Philippi Horticultural Area is a large area, exceeding 3000ha and of this, only a small portion, less than 1000ha is farmed productively”¹². This argument, that only one third of the PHA is effectively farmed is used to reflect a poorly utilised resource, one requiring alternative land uses. Another articulation was demonstrated by the statement by Ebrahim Isaacs of the Philippi Market Operating Company, also in 2009, when he stated that the PHA was a 1000ha area of agriculturally zoned land (from Isaacs, 2009). The great challenge emerges when this statement is used with elements of the previous statement. The end result is a misquoted argument that only one third of the total 1000ha is effectively farmed, thus just 330ha being used. This is fundamentally untrue but results in an undermining of the perceived and real value of the PHA.

With these numbers being used without substantiation, the actual size of the area is misrepresented. Using City of Cape Town data and informed by most recent land use approvals and reservations, the following has been used to determine the extent of the PHA. In calculating this, figure 2 was used as this was determined to be the most recent map of the area and contains detail of the zoning application for the MSP project that was approved by the PGWC in 2010.

According to this map (figure 2), the different areas were calculated to determine the PHA area. This is reflected in table 1. While table 1 reflects a significantly large area of land detailed as being accessible for agricultural use, this land size is further reduced by the following core aspects:

- A large area of land in the southern area of the PHA (excluding the recently rezoned allocated land) remains sand dunes and is not farmed. While this could be farmed in the future, it currently remains in its natural state and development of this land for agricultural purposes, while potentially feasible, could result in challenges from the likes of biodiversity lobbies, etc.
- An area of land, although small has been allocated to housing, specifically the area of Highlands Estate.

¹² Argument raised by official in pre planning meeting in preparation for a PEPCO review in July 2009

- Mining is currently taking place in an area of the PHA separate to the area mined in the south
- While arguably still a rural land use, areas of the PHA have, for a number of years been used as stud farms and grazing areas by the turf club of Cape Town. The turf club have made significant investments into this land in terms of fencing, stabling and other infrastructure (in a recent Horse Flu breakout, this was one of the only areas that were not affected by the outbreak). The turf club owns the land.
- A number of areas have established operations on the land that while argued to be rural in nature, are certainly not horticultural and as such have resulted in land being removed from potential horticultural use. These activities include brick making facilities and parking for film industry support vehicles.
- There are areas that are highly prone to flooding and as such are not suitable for production. These areas can however be used for grazing but often the quality of the grazing is poor due to the impact of flooding.
- Within the area there are a number of horticultural and agricultural support activities that are taking place and while not producing food, these areas provide essential services to the agricultural community. These areas include seedling nurseries, the packhouses (8 packhouses with 6 of these being fully active (Horstmann, 2012)), compost making sites and 'die kööp' land area.

Area	Hectares	Comment
Horticultural Consolidation Area	2 638.20	Area includes existing farmland and dunes and other use areas such as Highlands Estate
Proposed Sheffield Road Alignment	176.50	Area already removed from agriculture
Schaapkraal Smallholdings	160.41	Some small scale production present
Vanguard Drive Island	231.03	Some production in place but area now opened up for development
Area rezoned by Province	445.90	Area currently being mined but now zoned for development
Total Area	3 652.04	
Less other use and excluded areas	1 013.84	
Total agriculturally "accessible" land	2 639.00	
Table 1: Area of PHA in ha.		

Thus a number of sources were used in calculating the area under viable and direct agricultural activities. These sources included direct farmer interviews with an average area quoted as being 1300ha (Rix, 2012; Horstmann, 2012; Terrebalche, 2012) and other sources, such as interviews with officials quoting 1200ha (Hennessy, 2012) and other city documents, 1110ha (CoCT -EESP, 2012).

Using these various land size estimates and through questioning the land used for other activities, an estimated agricultural land utilisation was calculated to be averaged at 1250ha of viable and productive agricultural land.

Area	Hectares
Total Area	3 652.04
Less other use and excluded areas	1 013.84
Total agriculturally “accessible” land	2 639.00
Breakdown of accessible land use	
Estimated areas of non agricultural use	300.00
Estimated rural but non productive areas	200.00
Estimated agricultural support areas	150.00
Estimated unviable land	200.00
Estimated natural areas (incl dunes)	350.00
Total land viable for agriculture/farmed	1 250.00
Total accounted land	2 450.00
Table 2: Estimated agricultural land and open land in PHA in ha.	

Farmer Reviews

Socially and ecologically, the PHA has a vital role to play in the broader system that makes up both the PHA community as well as how this community impacts on the even larger communities of the Cape Flats and the City of Cape Town in general. In understanding this community and the variety of diverse and at times confrontational actors, a greater understanding of the dynamics, challenges, aspirations and contradictions of the various actors was deemed to be essential in generating a broader understanding of the area as a whole.

The farmers within the PHA are broadly made up of two distinct groups. While history originally separated these two groups by more than just farm size, namely race, this is no longer the case. Today the general differentiation used is that of farming location and what could be referred to as farming capacity. What this means in practice is that the larger scale and more successful farmers are all members of the Kaapse Vlakte en Distrik-Boerevereniging, a grouping of about 38 farmers and farm based actors (including nursery businesses in the PHA) (KVDBV, 2012). The second group is made up of farmers who are all members of the Schaapkraal Developing Farmers Association (SDFA). It is estimated that for a variety of reasons, only 7 of these farmers are currently active. These farmers include recent land reform recipients but the majority of the Schaapkraal smallholder farmers have purchased their current land with their own funds and some of these new farmers are accessing some support, either directly or indirectly, from agricultural development sources such as the DoAWC and the DRD&LR. The value and frequency of this support is a matter of concern (dealt with in later sections of this report). Some farmers are members of both organisations.

Collectively, all farmers face similar challenges within the PHA. These challenges include, as articulated, the uncertainty about the area, the significant increases in input costs, changes in market access and food chain requirements, a general reported lack of support from authorities, significant increases in theft and a lack of support in this regard, to name but a few. While certain responses to these challenges may be similar, the two groups have also adapted to and addressed these challenges in different ways, seeking out responses that align with their specific needs. For this reason, the next section of this report has drawn from the interviews conducted with the two groupings and detailed information specific to these groups separately. The following section thus details the specific narratives of the two groups under separate headings but both narratives offer

core insights as to the lived realities, aspirations and adaptive responses on the part of all the farmers in the PHA

Large Scale Farmers

The large scale farmers referred to within this report are made up of the 38 members of the Kaapse Vlakte en Distrik-Boerevereniging (KVDBV). The breakdown of the farming typologies are made up of the following: 20 focus solely on horticultural products (vegetables), 11 are engaged directly in livestock, 1 packshed operator is a member, there is 1 member engaged directly in flowers (with 2 other predominantly vegetable farmers also growing some flowers), 2 members are seedling growers and 3 members farm a mix of horticultural products and livestock. Aside from the farming activities, 5 members operate farmstalls (see table 3).

Predominant type of agricultural activity	Quantity
Horticultural product	20
Mixture of horticulture and livestock	3
Livestock and animal products (eggs & milk)	11
Seedlings	2
Packshed	1
Flowers	1
Total	38
Farmers who also operate farmstalls	5
Table 3: KVDBV operational profile	

Many of these farmers' families have been farming the land for generations. During one interview, a farmer was able to point out the home in which his grandfather had been born, on the farm adjacent to his current farm.

While this group is formally organised within the farmer's organisation (KVDBV), the farmers remain distinctly individual and no farmer was comfortable speaking on behalf of other farmers, even the KVDBV stressed the importance of speaking to the individual farms and did not want to be seen to be speaking for any farmer in the area.

In discussions with the larger farmers within the PHA, while each farmer had their own specific narrative, success story, frustration, concerns and market avenue, there were a number of aspects that applied to the majority of the farmers and could be argued to be common narratives and trends amongst this group of farmers. While these aspects are detailed here in general terms, specific aspects and dynamics pertinent to a particular farmer may at times contradict certain generalisations. In this instance, this will be highlighted in order to ensure consistency in how these trends and practices are reported.

General land holding

The amount of land held by the PHA farmers varies significantly. This issue is compounded further by the fact that while most members of the KVDBV own land in the PHA, they are also actively renting land from other landholders to supplement the land available to them. A further core trend is that the land market is fluid with five sale boards observed on the main road in the PHA for a single real

estate agent, Rainbow Homes. When this was questioned in interviews with the farmers, all advised that these farms were poorly suited to agriculture, most were in the northern section, and were too small (less than 4ha) with even less farmland, to be viable farming investments. To argue that no farmers are leaving the area is incorrect. Some farmers are leaving the PHA, confirmed by the manager of the agricultural market (Conradie, 2012). The reasons for departure from the area differ but farm financial viability was a key factor argued by Conradie (2012). However, as these farmers depart, the general trend is that the farms are then acquired by the existing farmers. What is clear is that at a smaller scale, there is a measure of consolidation taking place within the PHA. While the land market is currently active, this is not a new trend. One farmer, who currently holds in excess of 150 ha of land detailed the process of land acquisition with land being acquired in 1999 (25ha), 2000 (16ha, 10.5ha, 16ha), 2005 (18ha) and 2011 (30ha). While this took place, other farms were also acquired but as these did not match a particular growing approach, these were then released back into the market. Some farmers have smaller land holdings but then rent larger farm areas in order to remain competitive. The area of land held is also directly influenced by the type of production and the nature of the farming. Farmers who farm on what could be referred to as mixed farms generally have smaller areas of horticultural land but are engaged in intensive livestock processes as well.

Land viability for those farmers engaged in horticultural practices is directly linked to the quality and strength of the water supply. It could be argued that one of the primary reasons for alternative and non horticultural practices taking place on certain land areas within the PHA is directly influenced by the nature and quality of the water resource. This fact is being further influenced by the sudden increases in electricity prices. Land that was only made viable through the use of deep boreholes is now being driven from certain types of production due to the costs of energy required to pump this water. This aspect does not necessarily apply to all farms and is a greater factor in the north western section of the PHA.

While certain farmers own as little as 2ha, others own as much as 300ha. Each farmer seems to supplement land requirements by renting other areas of land within the PHA from non farming landowners. For example, the farmer who owns just 2ha rents a further 12ha elsewhere in the PHA. This trend was noted in most of the farmer interviews.

Through the review, it was estimated that the average owned farm size within the KVDBV members was 32ha. However, this figure included all farmers and as a result increased when only the horticultural farmers were considered and was found to be 43ha. Regardless of the average size of the farms within the areas, the different production typologies and other value addition processes play a direct role in the viability and scale of the farming operations. For this reason, using land size as a proxy to determine viability of the farms is counterproductive. Further to argue that the consolidation of the farms indicates an erosion of the viability of the farms is not correct, the erosion of the viability cannot be attributed to the PHA but rather, is a direct result of the broader agricultural trends within South Africa. Since 1990, farmers farming on land of over 20ha have reduced from 60 000 to an estimated 42 000 in 2008 (Vink and van Rooyen, 2009) and while there are conflicting reports today, the estimate is that there are between 35 000 and 28 000 farmers on land greater than 20ha in SA. From the farmer interviews, it was however observed that the rate of consolidation within the PHA is taking place far slower than is the general trend in South Africa (Holmes, 2012).

While the changes in agriculture production and market will be discussed later in this document, what is clear from observed farmer practices in the area over a period from 2009 until this research intervention (2012) is that far more land is being placed under production. This fact was confirmed through stakeholder interviews (van der Westhuisen, 2012).

Food system trends

In the past 15 years, there have been fundamental changes within the agricultural economy in South Africa. The PHA farmers have not been immune to this and due to their very specific type of production and arguable smaller scale, have had to be extremely innovative in order to remain successful. One of the key outcomes of these changes within the agricultural system has been the consolidation of land, as discussed above, and the exiting of farmers from the system.

However, while the PHA has seen attrition, this has not been as drastic as other areas and a distinct decline in departures has been observed over the past four years. In 1994, Callie Bröcker, then chairperson of the KVDBV argued that there were 100 farmers active in the PHA (Die Burger, 1994). While this figure is high, it does include farmers active within what is now the Schaapkraal smallholdings area as well. Calculated roughly, this indicates a decline in farmer numbers by about 50 percent. The general South African trend between 1990 and 2008 was a decline in the number of farmers of 76 percent (from Vink and van Rooyen, 2009), supporting Holmes's assertion that the PHA is not following the general South African trend in this regard.

In response to the economic challenges faced by the farming sector nationally, the PHA farmers have changed their relationships with the market. A number of the farmers have moved away from selling into the Cape Town Fresh Produce Market and have increased their contract sales to supermarket chains. This transition has not been easy and the farmers remain under constant pressure, but those who have been able to adapt have retained viability. This is not a new phenomenon with this trend starting as soon as supermarketisation started to take hold in South Africa with declines in produce going to the Cape Town Market¹³ from the PHA being reported as early as 1975 (Fick, 1994).

One of the primary pressures has been the recent drastic increases in input prices, the two main contributors to this have been in the cost of electricity (primarily for running the boreholes but also for other farm based operations) and fertilisers and pesticides. A further cost has been in labour but while certain farmers raised the issue of the daily minimum wage, the primary cost was attributed to the administration of wages which has a significant time and opportunity cost. Lastly, an ever increasing cost in the PHA is the costs associated with both security and the replacement costs of lost equipment and infrastructure (discussed later). These costs, some at the global scale (energy and inputs) and others at the local scale (admin and security), have also resulted in adaptations by the farmers.

One of the primary adaptations has been to shift markets. In the past, the vast majority of the farmers sold produce directly into the Cape Town Market (CTFPM) (often referred to as the Epping market). What became evident is that this market is not considered to have moved with the food system trends and as such no longer offers the required service to both the customer and the farmer. This point was explained through the following scenario: "if produce is to go to the CTFPM

¹³ At the time, this was a municipal market falling under the authority of the City.

on a Wednesday, it is then harvested on the Tuesday, enters the market on the Wednesday, moves from there through the agents or the traders to the retailers on the Thursday and is available to the customers on the Friday” (Horstmann, 2012). However, through the use of on-site processing facilities, cold rooms and refrigerated vehicles, the PHA farmers now pick produce early in the morning, process this and it is generally delivered directly to the retailers by that evening, with the cold chain having been maintained for the entire period, something that the CTFPM cannot provide. This means that the quality of the produce is retained and the produce is fresher.

This system has resulted in two immediate changes for the farmers, the first being that they have had to enter into direct agreements with retailers, which in and of itself is a challenging process. In addition, the farmers have had to make significant investments in on-farm infrastructure (or source these services elsewhere) so as to enable access to these new opportunities. The general view is that the retailers prefer this approach. What this has further enabled is that some farmers have developed specific brands and are able to sell through other smaller markets as well. Some farmers, while directly involved in farming practices also seem to generate far greater incomes through using their networks to play a wholesaler role, selling their produce but also importing produce from other areas (and at times other farmers in the PHA) for sale through their networks.

In 2009 it was estimated that 70 percent of PHA produce went directly through retail chains (CoCT-PEPCO, 2009), but it is now believed that that figure could be as high as 85 percent with most farmers interviewed reporting sales in excess of this 85 percent figure to retailers. While this trend was argued to be a new trend in 2009, the relationships and networks with retailers have developed over time and it is argued that this trend has worked for the farmers and resulted in increase land going under production.

The farmers report selling directly, and indirectly through retailer agents, to the four major retail chains and responding to the procurement needs of the different retail chains accordingly. Generally only the second grade produce goes to the CTFPM.

While most of the farmers sell to stores and distribution processes specific to Cape Town, some farmers have been drawn them into larger national retailer distribution processes, or they have established their own distribution operations to facilitate this.

The PHA farming operations cannot be seen in the context of Cape Town and the region alone. The scale of agriculture in South Africa means that all agricultural regions and off-take is interconnected. While some PHA farmers are contributing to the national food chain and others are supporting a more local supply process, all farmers are directly linked to farming practices and trends within the broader South African region.

Nationally, there is greatest demand for horticultural produce in the months of December through to the end of April. This demand is driven through specific climatic pressures in other growing regions. Examples of such pressures include generally low water availability in the George/Southern Cape region over this period and this area is increasingly prone to draught, having been declared a disaster area in 2010 as a result of failed rainfall. In the inland regions, summer climatic conditions and associated hail and land flooding in the Highveld growing areas has a direct impact on production availability and off-take and influences prices for fresh produce and availability. These trends will increase as a result of climate change with extremes becoming more prominent, making

the PHA increasingly important to the national food system and in particular to the poorer communities in Cape Town, communities with the least resilience to respond to the resultant increases in food prices.

While this appears to be the dominant trend with horticultural produce, in the area of livestock production, slightly different trends were reported. A number of farmers farm livestock and livestock based products exclusively, specialising in certain items. The predominant livestock items are pork and beef with chickens being farmed on a smaller scale. Many of the larger farmers mentioned specific distribution approaches, linking into formal markets but a number of the farmers sell directly to the informal market. The larger farmers have specific relationships with either abattoirs or take responsibility for on-site processing and sell finished products directly to the retail outlets, predominantly the four large retailers.

While the larger and more established meat markets are utilised by the larger farmers, an alternative market is active and one that is accessed effectively by the smaller commercial farmers. The key opportunity that is emerging in this regard is that the farmers sell the animal on the hoof, live, into the informal sector. This aspect has interesting implications for how this animal is slaughtered although there are processing facilities within the PHA. One farmer commented that he thought some of the livestock was being used for ceremonial purposes. This was a trend noted in the review of the iThemba farmers in the Electric City area carried out in 2010 (Haysom, 2012).

What is clear from the food system processes is that the farmers have been able to effectively adapt to meet the changing needs and dynamics within the food system. The current farmers are able to anticipate and respond to key trends in a proactive manner, optimising the opportunities and planning their role within the food system in such a way that they are able to ensure a measure of resilience and sustainability, regardless of the volatility of the market.

Perhaps one of the areas where this is most evident is in the response by the larger farmers to the changing dietary requirements of consumers in the city. With the settlement of a number of residents from other countries, certain vegetable products have been sought. The farmers have responded to this by planting and distributing these items through new market channels where intermediaries servicing these markets collect this produce directly from the PHA and then distribute the produce to retailers servicing this foreign market. An example of this is the planting of products such as kale, covo, rape, mustard and broccoli leaves.

The farmers of the KVDBV have refined their production and marketing systems so as to respond to the changes in the food system and generally, those farmers that remain active at this time are the farmers that have been able to effectively respond to these changes in the system. Ironically, for the emerging farmers, the extension support that they are receiving appears to direct the newer farmers to a food system that has in effect be rejected by the larger and more established farmers.

An aspect that does influence production and prices that are attained for the fresh produce is that when fruit is plentiful and readily available for sale in the various markets, the demand at the local level for vegetable products declines. Farmers are aware of this and the use of alternative market avenues assists in cushioning farmers from the consequences of this.

Items produced

As mentioned, the larger scale farmers are currently producing a large quantity and variety of fresh produce. The items grown are influenced primarily by soil type and water availability. Market demand, if the particular product can be grown in a particular area, then also influences the items produced. While not an exhaustive list and one that does, as per interviews, change per season and as per emerging trend, table 4 has attempted to document the wide variety of horticultural products grown on the PHA.

General Horticultural Products Grown in the PHA				
Cabbage	Celery	Fennel	Maize	Broccoli leaves
Potatoes	Broccoli	Cauliflower	Peas	Kohlrabi
Carrots	Swiss chard	Beans	Onions	Artichokes
Lettuce (variety)	Spinach	Cucumbers	Covo	Pac choi
Beetroot	Parsley	Celery	Rape	Tat soi
Leeks	Coriander	Eggplants	Kale	Tomatoes
Spring onions	Basil	Rocket	Green Peppers	Rhubarb
Radishes	Squashes (variety)	Parsley	Patty pans	Strawberries
Turnip	Watermelons	Coriander/Danja	Baby Marrows	Chilli

Table 4: Listing of PHA produce

While a wide variety of items are grown, there are a number of dominant products that are produced in large volumes on the PHA. These include the following:

- Cabbage
- Lettuce
- Cauliflower
- Broccoli
- Spinach
- Carrots
- Potatoes
- Onions

The items grown play a vital role in the broader food system of Cape Town and it is argued that the items cultivated play a direct role in supporting food access within the city. A large number of items such as cabbage and cauliflower have a high weight and bulk challenge and as such, these items become costly to transport. The PHA farmers thus farm large quantities of these items and as such, allow for a more cost favourable flow of these items into the city's food chain.

Production volumes

Assessing production volumes is challenging. As mentioned farmers measure volumes differently. As part of the research process, farmers were asked to detail volumes of each item produced in kgs so as to attempt to generate a broader production picture of the area. While farmers were able to offer this, seasonal changes and reporting cycles have meant that this data requires additional analysis.

However, a number of other measures have been used in an attempt to detail production volumes from the area:

Firstly however, one of the great challenges with the PHA as detailed earlier is the notion that the area produces a large percentage of the fresh produce for the city with a figure of as high as 80 percent of all Cape Town's fresh produce being quoted at times. This figure is not true and dates to a far earlier research report (Rabe, 1992) and before, the Cape Metropolitan Guideplan of 1988 (CMA, 1988). It is however still believed that the figure of 40-50 percent of cauliflower, carrots, lettuce sold in Cape Metropole coming from the PHA (CoCT-PEPCO, 2009) still holds true.

What has been ascertained is that for the period March 2011 and February 2012, 11 367.67 tonnes of fresh produce was sold into the Cape Town Fresh Produce Market via the PHA farmers. In all the interviews with the farmers, a conservative estimate of the mix between produce going to the CTFPM and that being sold directly off the farm was about 12, 5 percent. Assuming that this is the case, something that would require more detailed review and seasonal correlation, the potential off-take from the PHA in volume would translate into an estimate of 91 000.00 tonnes of fresh produce.

These figures relate primarily to the first and second grades of fresh produce and a percentage of fresh produce sold directly via farm stalls and small traders for on-sell directly to the public via street stalls and similar outlets.

However, the third grade portion of farm produce is generally given to farm workers for no charge by the farmer. This produce forms a critical flow of food into the poorer areas that surround the PHA. Farmer interviews list this as being an estimated 3kgs per worker per day where a worker would work five days in every week. This is a general and accepted trend amongst all vegetable farmers. A conservative estimate in terms of labour presented a full time labour force working within the horticultural areas of the PHA at 2, 5 staff per ha and if at the suggested split of 75/25 between horticulture and livestock production is taken into consideration, this would mean that about 940ha are currently under horticultural production, this would translate into an estimated full time workforce of 2 350. If this group were to then receive 15kgs of produce per week, this would mean that an additional 1 833 tonnes of produce were coming off the land.

In addition to the full time staff, most farmers supplement their staff with temporary contract workers and through the interview process, it was ascertained that these workers receive the same benefits as full time workers in terms of vegetable *allowances*. The general trend in terms of temporary workers was calculated at 1.25 staff per ha for a 5 month period from December to the end of April. This would thus translate into additional staff vegetables of 380 tonnes of fresh produce going to temporary workers. This off-take is reflected in table 5 below.

While the amounts may appear to be small in comparison to the produce that flows through the supermarket and fresh produce market sectors, the amount of over 4 000 tonnes (informal trader network and free food allowances) of fresh produce per year entering into the poorer areas of the city constitutes a significant resource to these residents.

Supply Chanel	Amount (in tonnes)	% (1 & 2)	% (all ¹⁴)
Direct to retail	77 597	85.3%	83.3%
Cape Town Fresh Produce Market	11 368	12.5%	12.15%
Township trader network	1980	2.2%	2.2%
Total Grade 1 & 2	90 945		
Produce to workers (FT and PT)	2213		2.35%
Total Produce	93 158		
Table 5: Total estimated fresh produce off-take			

Sales areas and sales trends

This flow of food into the poorer communities provides food at reasonable prices but more importantly, this food is generally far fresher than food that has entered the system through the more formal market mechanisms such as the CTFPM. If the example, cited earlier, of a 4 to 5 day delay before food is at the customer is considered, this changes significantly with the food sold directly to the small traders in the area. This food is generally being sold to the customer by the evening of the same day that it was harvested and at most, by the following day. If general assertions of how food declines over time, losing various essential dietary qualities are considered, then providing food to communities that are already experiencing extreme hunger (see Battersby, 2011; Frayne, et al, 2010, Frayne, et al, 2009) and as a result, the consumers dietary diversity is significantly undermined, this flow of food, coupled with the freshness of this produce is of critical importance to the community. This benefit will be discussed later in this report.

What is less understood is the role that the CTFPM plays in the immediate local food system of the area around the PHA. From an initial review of a traders operating in a number of the residential communities around the PHA, many cited their main source of food as being the Epping Market¹⁵, generally through the smaller traders known as the People's Market. The value of this element of the market was confirmed by Jackson in research on the Cape Town food system (Jackson, 2010). However, understanding the flows from the PHA, to the CTFPM and then back to the Cape Flats communities would require additional research. At this time, this is still considered an essential flow and while the flows are somewhat more dispersed, they remain located within the general region.

For most of the produce sold directly into the retail sector by the larger scale farmers, the current trend is that of larger retailers purchasing directly from the farmers, or through buying agents, and the farmers responding accordingly in how they process goods to add value (a practice carried out by most farmers) and how they orientate their farming operations in response to this trend. The reorientation of farming operations does not take place over night and it is argued that the review of the PHA that took place in 2009 (CoCT PEPCO, 2009) did so at a time of transition and it is for this reason that significant increases in production are now being observed.

A further key trend observed was how certain farmers are also operating as wholesalers. Once direct market channels have been established, the farmers are then able to purchase produce from other

¹⁴ This does not take into account produce removed from the land due to theft and produce composted back into the soil

¹⁵ It should be noted that this could refer directly to the CTFPM or to the markets that are operational in that area.

farmers and channel this through to the market. This direct market channel is of significant value to those farmers who either do not have the volumes to engage in direct contracts with major retailers, who lack the processing and beneficiation facilities, or transport, to access these new markets. This local network is a key factor in the viability of a number of farmers. This practice makes use of product from the PHA but also sources produce from a number of other growing regions. The importance of this to the PHA is the fact that the consistent and regular market trips that the growing conditions on the PHA facilitate ensures that the retailers and the PHA farmers are in constant contact and as such - the market linkages are both strong and consistent. This means that not only are the farmers and produce from the PHA critical to the retail sector within the region but the type of operations that are enabled through the PHA further assist other farmers in the region in gaining ready access to markets.

Agricultural and farm management practices

The PHA is farmed in accordance with what would be termed small scale but intensive farming practices. This term however is often challenged as it is generally used to represent highly industrialised, mechanised and “peopleless” farming practices. These attributes would be incorrect if applied to the farming practices within the PHA. Where the PHA farming practices are intensive is in the levels of production and the farming cycles. This is enabled through the unique climatic and hydrological conditions that the area offers. Farming practices within the PHA, while following certain practices of more intensive farming approaches, generally reflects a unique blend of traditional farming mixed with modern agricultural methods.

There are three core factors that enable/result in this specific approach to agriculture. The first and most critical is the ready access to water via the CFA. This enables year round farming and while some crops may change with the season, the farmers are not subject to seasonal variations in rainfall. It could be argued that access to irrigation schemes would mitigate this advantage but this does not necessarily result in the assumed benefit. For the farmers within the PHA, each farmer is in direct control over their specific water accesses and align their management practices accordingly. As an example, farmers on land in the northern and central areas of the PHA would farm very different crops (leeks, squash, etc) to those active in the southern areas where other crops are dominant due to greater water availability (lettuce and other leaf crops). This immediate control over the water resource is of significant value; it allows a measure of control but also and perhaps most importantly, comes at a far lower cost to what it would cost if farmers were part of a more traditional agricultural irrigation scheme. Examples of this challenge in other areas of the region reflect real disempowerment felt by farmers. While the Theewaterskloof scheme assists farmers greatly, this is subject to shutdowns and if farmers utilise this as their sole water supply, they are significantly compromised when this system is either rationed or closed down, as took place recently due to water scarcity and again for maintenance reasons (Swarts, 2010). A similar experience was reported by farmers utilising the Lower Oliphants River Water Users Association (LORWUA) scheme on the West Coast where smaller farmers at the end of the scheme are subject to significant fluctuations in water availability, so much so that the DoAWC made significant investments in infrastructure to stabilise water supply (Taylor, 2008). Control over water access is a key determinant in the success of an agricultural enterprise.

The climate in the region is also an aspect that has a direct influence on the farming practices. The cool coastal breezes play a vital role in reducing the average temperature in the area and allow for far greater levels of production but also enable the cultivation of specific crops. This however, is not specific to the entire PHA with climatic conditions changing in relation to the distance from the sea and the prevailing winds. Again the areas in the south are generally cooler and allow for the production of certain crops while farmers further north experience warmer conditions. The air warms up as it travels from the coast to the northern area. This also influences the types of crops cultivated as well as other farm management practices such as critical harvest times. While the wind off the sea assists in a general cooling of the area, the wind can also be a significant challenge as the strength of the wind, particularly in the summer months, but not limited to that period alone, does create real damage to the crops if not effectively managed.

The understanding of these conditions means that farmers have adapted their farming practices accordingly. Driving through the PHA this response is clearly evident. Farmers have either cultivated windrows, lines of reeds, tall grasses and at times maize, to assist in reducing the impact of the wind. Other farmers have constructed windbreaks using shade cloth and in places, these barriers are as much as three metres high.

As a way of describing specific local knowledge, the example of weeding practice is used - understanding when to weed and area. While weeding is either done by hand or through the application of herbicides, the decision as to when this takes place is influenced by the growth of the specific crop. After new seedlings have been planted, farmers delay weeding an area until the seedlings have been suitably established; “as ons die onkruit te vroeg uithaal, waai die wind die plantjies uit die grond uit” (if we remove the weeds too early, the wind blows the seedlings out of the ground) (Rix, 2012).

One of the other key resources is that of the soil. Again, it is argued that the soil is managed in specific and locally adapted ways. Although generally assumed that the soil in the PHA is uniform, this is not the case and different farms (and areas) reflect different soil types and qualities. This again influences the farming practices. However, one common trend, something that is not seen in other larger operations farming along conventional lines, is the general practice of soil augmentation through the application of composts and manures, generally sourced either on site, from suppliers within the PHA or through established networks. This practice assists in building the soil life, in retaining water and in general, productivity. The practice assists in farm level productivity but importantly, a large portion of this soil augmentation is done using locally sourced materials. This further builds the local economy but also builds resilience and mitigates against the impact of price increase in externally sourced inputs, something that is directly impacting other farmers within the Western Cape (Metterlerkamp, 2010).

When these site specific agricultural practices are combined, they reflect a very specific and locally adaptive farming skill and while the larger scale farmers would certainly be able to move and farm elsewhere (some of the farmers have other farm holdings, both locally and internationally), this knowledge about the farming practices is not held by the farmer alone but by the entire PHA agricultural community, from farm workers to suppliers, to farmers.

The most critical aspect of the agricultural practice is the mode and scale of production, something specific to the PHA and something that does not occur in any other farming community in South

Africa, unless under protected agricultural conditions (greenhouses or tunnels) and with constant and high quality water access. Due to the various soil, climatic and water conditions, the farmers in the PHA are able to produce as many as 5 crop cycles per year. The general trend observed and reported is 3, 5 crop cycles per year, arguably double that of other horticultural production areas. While the amount of harvests would be determined by the actual crop, the farming operation within the PHA is one that allows for significantly greater levels of production. This is arguably unique to the PHA and plays a direct role in the food flows into the City as well as the aspects such as general food availability, and thus, it is argued, regional food security.

This type of farming operation, while mechanised to a certain extent, would not be considered to be a fully industrial farming model. The determining factor in this regard is the amount of labour used in the farming operations. Labour and the relationships between the farmers and labour are a key factor in the ongoing operations of the PHA.

Labour and employment

The relationship between labour and the viability and scale of the PHA has been argued in a number of documents and publications, “15-18 permanent labourers per 10 ha vegetables (1 650 - 1 980 workers for 1 100 ha), 30-40 percent more during summer” (CoCT-PEPCO, 2009) but often these figures are questioned or argued that other industries would generate greater employment opportunities. Farm labour figures of employment as high as 6 000 have been used but more recently, more conservative figures of 2 000 full time employees increasing to 3 000 over the peak season due to the increase in part time employment (CoCT-EESP, 2012). In addition to this, the CoCT-PEPCO (2009) report also argued that as much as 70 percent of this employment went to women.

This review found similar trends but although further and more detail review and testing is required, it is believed that employment could be significantly higher than the 2009 research and certainly more in line with the CoCT-EESP figures. This research process found a general trend of high labour usage with an average of 2, 5 full time workers per ha and an additional 1, 5 temporary workers per ha in the months from December to the end of April. This translates, using the estimated land area used for horticultural production of, 940ha, this would translate to 2 350 full time employees and 1 410 part time employees, a total of 3 760 job opportunities from the horticultural businesses alone. If this figures is broken down further, this would translate into an estimated 2 630 jobs allocated to female workers (at 70 percent of workforce calculation). Specific farms do make use of labour in different ways and as such, this figure should be read as a potential employment estimate and further research is required to gain a more accurate understanding of the real labour use.

However, through observation and interviews with farmers to date, it is expected that this figure is not overly optimistic and that the CoCT-EESP figure of 2 000 full time jobs and a total of 3 000 job opportunities in the high season (2012) is deemed to be a realistic reflection.

As most of the employees in the area are engaged in agricultural activities, these staff fall within the band that would receive the minimum agricultural wage. This aspect was tested in the interviews with the farmers and all farmers argued, in different ways, that the pressures on the PHA, the external challenges to their operations and the conditions imposed by their clients, the retailers, all farmers have to ensure that they are compliant in terms of wages paid to staff. As staff interviews

were not conducted, this could not be verified but two farmers presented reviews carried out by organisations working on traceability for which labour was an area reviewed. Due to the increases in other input costs, no more than the minimum wage is generally paid. The shortage of employment within the area also means that the farmers are under no pressure to pay higher wages. This means that the legislated minimum wage of R 1 503.90 (DoL, 2012) is the base wage within the area. Calculating wages informed by this and using the EESP figure of 2 000 full time employees, this translates into net wages of R 36 000 000 for full time employees and R 7 500 000 for part time employees, a total wage opportunity of R 43 500 000. If other mandatory (leave, sick pay, etc) and non mandatory benefits (loans, etc) are calculated, this figure will further increase.

A further trend is that there does also appear to be a distinct shift, one that runs contrary to current market trends, is that of increasing the full time (permanent) staff compliment. This trend appears to align with the relationship with the retailers, the confirmed market and what could be deemed a stabilisation of market and production practices.

In addition to this, some differences in employment profiles were also reported. Certain farmers reported that the majority of employees were women, many of them having only basic education and many only speaking isiXhosa. However, on other farms it was reported that while this had been the trend, the shortage of employment opportunities has resulted in most temporary workers now having a grade 12 certificate but being unable to find other employment. In enquiring further, it appears that the employment of temporary staff is driven through existing employees who bring members from their community to the farms when jobs are available. This farm worker to community link is one that is not clearly understood and is an aspect that would require further research¹⁶.

A small percentage of the workforce lives on the farms in the PHA. These staff are often longer serving staff and at times, the employment has been generational. Many of the staff who reside in the PHA are in more senior positions, although this is not a generalised trend. The exact percentage of staff residing in the PHA is deemed to be below 10 percent of employees. While there is a trend to more full time employment, the consolidation of farms in other areas of South Africa has meant a destabilisation in on farm tenure. This is a phenomenon that would require further review. The general trend is that staff employed in the PHA are from neighbouring communities and when questioned, these areas included Crossroads, Philippi and Browns Farm and Samora Machel specifically, but also Nyanga, Langa and Gugulethu.

Key challenges and threats

While the production on the PHA has increased with more land being placed under production, there are a number of significant challenges reported by the farmers. These challenges are viewed at different scales by different farmers with generalised issues creating significant frustration for all farmers interviewed. Each farmer also faces specific localised market and farm based challenges that have a direct bearing on the nature of their operations. For the purposes of this report, the more generalised challenges will be discussed and elaborated on.

¹⁶ This link would also include food transfers as well as other opportunity benefits such as the doubling of both food and income per households and the opportunities that this adds to the family system

There are arguably four major challenges faced by the larger farmers in the PHA, significant increases in input costs, infrastructure theft and policing challenges, disregard for the area by officials and a lack of certainty as to the future of the PHA. While in no order of importance, the fuel and energy cost increases mentioned earlier, represent a real challenge to the viability of the farms. Most farmers reported a doubling in both of these inputs and as the farming operations intensify, the need for greater electricity access has resulted in direct cost increases. The increase in these core resources has resulted in changes in how farmers operate but these increases are not easy to circumvent as these two inputs are critical to the farming operations. The fuel and energy challenge has a double impact in that farm inputs such as fertiliser and pesticides are generally derived from oil based products and as such, the increasing costs of oil impacts on input costs. Certain efficiencies and other technologies may relieve some of the costs associated with these increases but also come at a significant cost, and risk, as the likes of solar panels and other energy sources are very difficult to secure. This relates directly to a further challenge, that of theft.

All farmers interviewed argued that the energy/fuel price increases and the challenge of infrastructure theft are the two core issues that forced marginal farmers off the land and are issues that place their existing operations at risk, undermining the potential sustainability of farm operations.

The theft of infrastructure poses a real and highly frustrating challenge. At times, farmers have responded to this in ways that have further undermined the relationships between the farmers and the police and it is argued that the relationship between the farmers and the police is strained. The challenge of infrastructure theft is compounded by the fact that securing the area is a great challenge and if people are found stealing from the farm and are subsequently arrested, the charge is generally a suspended sentence. More than one farmer reported catching the same person engaged in theft after recently receiving such a sentence. The farmer is also only able to lay a charge for the stolen items found in the possession of those apprehended and this is argued by the farmers to be a minor percentage of the actual items lost through theft. A number of farmers believe that there is a general awareness of the scrap yards where much of the stolen items are sold and express deep frustration that these operations are not either shut down or effectively policed. In one instance, on the night before an interview, the specific farmer had had over R 20 000.00 in irrigation equipment stolen. While this is not a challenge specific to agriculture in the PHA (Liebenberg, 2012), the scale, frequency and inability to see any real way forward out of this challenge is a real concern to the PHA farmers. One farmer argued that the greatest operating cost is now that of security and insurance. The reality is that the PHA boundaries are porous and farms are not fenced.

There are two main types of theft from the PHA farms, the first and most damaging to the farming operations is that of farm infrastructure and equipment. The second is theft of produce. Due to the nature of the farming operations, all farmers reported factoring a certain amount of off-take from passersby, "collecting a cabbage on the way home a few times a week", but the scale of theft is increasing with farmers noting bakkies entering the area at night and loading these full of produce. As a response strategy, farmers in high theft areas are changing the produce that they grow to items that are not stolen. The implication of this is that key food items are removed from the regional food chain and replaced with speciality items (such as rocket, basil, artichokes, etc). While one farmer reported an effective response to a recent theft incident from the local police, the general consensus is that the police are both unresponsive and dismissive of the challenges faced by the farmers, with a

number of examples of different policing priorities being applied. This does not apply to the large scale farmers alone. In attempting to establish a community of farmers within the PHA, the Schaapkraal Developing Farmers hold regular meetings and to date, although representatives from the police services have been invited, they do not attend meetings.

A further challenge to the PHA is the clearly evident lack of public investment in the PHA in general. This is in and of itself a paradox. The challenge is that the PHA is a rural area and as such, infrastructure investment is aligned along argued rural standards, of dirt roads and minimum services. While this may be true for distant rural areas, the PHA is located within a far broader urban system with the area being used as a thoroughfare for high volumes of traffic. The challenge is further compounded by the sand mining activities taking place in the PHA and the heaving vehicle volumes which undermine the engineering integrity of the roads. The paradox is that if this infrastructure were to be upgraded, it would potentially result in a further increase in traffic and would undermine the rural nature of the area which has other intrinsic benefits. By way of an example, a number of the Schaapkraal smallholder farmers cited the rural nature of the area as a key factor in moving to the area and a departure from the crowded and chaotic residential areas in which they grew up. These farmers want to bring their children up in a different environment.

A further significant challenge to the PHA is the encroachment of other non-farm activities and specifically informal settlements in the area. This challenge is one that attracts significant concern and allocations of blame. It is argued by the farmers that the city is not doing enough to prevent the non authorised activities, specifically the profusion of informal dwellings (shacks) in the area. Some farmers see this challenge as being one of a lack of overall PHA governance and argue that the shack settlement is at times driven by the land owner who is trying to force both the city's hand and that of the broader PHA in order to accelerate land use change authorisations. When questioned, no farmer would name specific land owners.

A further governance concern for the farmers is the sense that to the department of agriculture is not serious about the area and specifically about the larger farmers in the PHA. As a result of this lack of attention to the PHA by the DoA, opportunities, programmes and interventions that could be facilitated through the DoAWC and the DRD&LR do not materialise and if these do take place, these actions are outdated and no longer appropriate for the PHA. While certain farmers have direct links to specific officials in the various agricultural departments, generally in high authority, it is at the programmatic scale and in implementation that the frustration is directed. The general consensus is that the farming operations within the PHA are not taken seriously and thus the area is ignored. This challenge to the officials of these departments reflects similar challenges from other farming areas but when challenged, the farmers argued that while this may be true, the other areas have alternative opportunities available to them that would mean that the land would remain in agriculture and that the current practice on the part of these departments does not assist in the retention of this area as an agricultural area. The farmers reflected deep frustration at the lack of government recognition and support.

The challenge of a lack of focus in the PHA from the designated responsible government departments was further directed at officials in both the city and the province, arguing that the lack of a clear policy and land use planning for the PHA, and contradictory and confusing policy decisions made in terms of the PHA is a real and serious threat to the area. The continual zoning change

requests in respect of the area were cited as proof of the consequence of this lack of clear and strategic decision-making in terms of the area.

All these challenges make the operating environment one that is deemed to be high risk and as a consequence, the potential levels of external investment into the land and the farming operations are curtailed and at times suspended. The ultimate impact of this would be a longer term undermining of the general viability of the entire area. This challenge is further compounded by the fact that farmers face increasing input costs while produce prices remain flat.

While increased farmer led investment has been noted in the PHA and those farmers increasing production and land use see a short term future for the area, if far greater certainty existed about the future of the PHA, if the area were better secured and if official structures recognised the PHA as a key city and regional asset, all farmers argued that they would make significantly greater investments in the area. Some farms are in the process of being handed over to the next generation of farmers (Rix, 2012) and these new farmers, while still operating under the guidance of the 'older generation of farmers', want to invest further in the land and see themselves being active on the land well into the foreseeable future. In order to enable this, certainty about the PHA is required.

Small Scale Farmers

The larger scale farmers in the PHA were, in the main, descendants of the original German farmer families who settled in the PHA. There have been a number of newer farmers in the PHA but these have followed similar farming practices and operations. However, more recently, a number of generally small scale new, predominantly Coloured farmers have entered the PHA and sought to develop their land and farming operations. Race is noted as it plays a role in how these farmers are (or should be supported) and also influences the networks available to these farms and those networks that they are not able to access. These farmers experience a number of challenges similar to the larger farmers. However, these new farmers also experience their own set of challenges specific to their land, the period of time that they have been farming and perhaps most importantly, how the size of their land holdings influences the type of operational practices in which they engage.

As part of this review, these emerging farmers were also interviewed. There are 7 farmers active in the area, one of which is female. These farmers represent a total of just over 90 ha of land within the PHA. Two of the farmers are land reform recipients. The size of the farms ranges from 2, 2ha to 33ha. Individually, each of these farmers has a set of stories linking the farmer to the land, each investing significantly in the farming business but being enabled through a variety of different strategies.

Due to the time spent in the farming operations, other dynamics associated with efforts to remain viable (such as dual income strategies) and the processes associated with increasing production quality, these farmers were generally unable to provide exact figures for what was being produced on the farm. All farmers are in production and are continually attempting new crops and other new strategies in order to ensure a viable farming enterprise. There are two key determining factors that are pertinent to this group of farmers: All make use of product diversity in order to remain viable and to enable them access to as many sales avenues as possible. However more importantly, all

farmers, except two are engaged in other livelihood strategies. Diversification is working on two levels for these farmers, one at the production scale and another in the income generating scale. No farmer is currently at a point where they can rely completely on the farming operation to survive. These livelihood strategies range from having permanent employment elsewhere to operating shops and other businesses. The farmers argue that it is impossible to farm at this scale without alternative sources of income to support the activities as they grow. This is however, only part of an argued transition to ultimately being full time and active farmers in the area, a goal articulated by each of the farmers, albeit in their own way.

The markets they are tapping into (with the exception of two farmers) are all very local with a strong presence within the Halaal market. The farmers are also connected to local charitable groups (mosques, crèches etc) selling some produce through these markets but also supplying a large percentage of their produce to these groups for no charge. A key action on the part of these farmers is a sense of the farm having far greater value, to both the farmer and the broader network of these farmers, than simply being a place to grow food. All the farmers are actively bringing people from their client groups to the smallholdings, exposing them to the beauty of open spaces, places of safety and places for the imagination of other possibilities. These are opportunities that members from these communities seldom access. The PHA is providing this, facilitated through the smallholder emerging farmers. While these activities have no direct and measurable financial value, they represent an ability to generate other value for many of the visitors. This non financial value may exceed the financial value usually measured?

For the farmers, this sense of the beauty of the area is argued to be one of the key reasons for the farmers choosing to settle here and engage in agriculture. The PHA offers them a significant respite from the challenges of the communities from which they recently moved. The farmers see the area as an opportunity to offer their families a better environment in which to grow up and develop. This plays a key role in their commitment to the PHA and its future.

As with the larger scale farmers, for the emerging smallholder farmers there is a sense of lack of clarity from the City and others on the future of the PHA. This is unsettling for them and hinders forward planning. They argue that there is a need for a strong declaration of protection of the PHA and a clear delineation of what activities are permitted in the area once protected.

Mandated support to emerging farmers

As two of the group are land reform recipients and the remainder of the group all qualify for assistance from the Departments of Agriculture and Rural Development, these farmers should be able to access and receive the required support from these departments. This is however not the general rule. All the emerging farmers are deeply frustrated with the Department of Agriculture failing to deliver on promises. The department is seen as unresponsive and uninterested. The City is also seen as uninterested – and the proliferation of informal settlements without recourse is seen as symptomatic of this. The farmers all cited numerous examples of poor levels of service from the Department of Agriculture even going as far as to say that generally the extension officers are unable to provide them with advice and when they do give advice, this is inappropriate to their needs. This links to the changes in farming practices evident with the large scale farmers. It was

argued by the new farmers that this lack of contextual understanding of the state of play within the PHA, the current farming practices and current market dynamics, further reflects the disinterest in the area on the part of the departments. A number of the farmers cited mutual support between farmers and even technical support from certain large scale farmers as far more valuable than entitled support.

Regardless of this, all farmers, with the exception of one, have networks and resources that help them circumvent the worst of the departmental neglect. They have access to markets through connections and have been able to draw on personal resources to keep their farms viable. It is however ironic that the farmers say that the most appropriate support they receive is from the larger scale farmers in the PHA. For example, two of the emerging farmers use the larger farmers as their market and sell directly to these farmers, who then sell this produce on to their more established markets. While this provides the larger farmers with additional produce and the emerging farmers with a market, the emerging farmers have to accept the prices offered by the larger farmers. While these prices may not be similar to what may be able to be achieved elsewhere, the emerging farmers do argue that the pricing is at least consistent and payment takes place quickly. This market channel does afford the emerging farmers a further level of support and although this may be conditional at times, the reciprocity is of value – it is in the interests of the larger farmers to support the emerging farmers if they want to ensure that they receive consistency in terms of quality and yield from the emerging farmers.

For the emerging farmers, theft remains a key challenge. For some of the emerging farmers, there is an implied sense that the perpetrators of the theft are not the immediate communities who reside on the borders of their land, either formal or informal. For some of the emerging farmers, there exists a sense of mutual respect and support between the farmers and their neighbours. However, the levels of theft, particularly of infrastructure are as debilitating for these farmers as with the established farming operations. The theft is indiscriminate and the scale of theft means that the emerging farmers are least able to afford the knocks resulting from the theft. As an indication of the scale of the theft, one emerging farmer has experienced theft of in excess of R 200 000 over the past two years (Swart, 2012). The scale of this loss means that the farmer has to rely on multiple livelihood strategies, requires far greater networks and often may incur far greater debts (either formally through loans, or through favours and other forms of reciprocity) that keep the farmers from the land and means that the ability to develop the farm to a point of full viability is inhibited.

Regardless of these challenges, these farmers reflect a positivity in the PHA and the area in general and have invested significantly into their farming operations in order to firstly make them viable, and secondly to provide for a stable property from which to build their farming operations. One farmer, whose farm was subject extreme flooding, imported sand and raised the entire farm, whilst at the same time investing in drainage so as to ensure this did not result in greater flooding elsewhere. The emerging farmers believe that there are many more potential smallholders out there and see themselves as spearheading the movement. They are all committed to being in the PHA.

Emerging farmer farming approaches

The emerging farmers, while striving for economic viability, are also seeking out ways to farm in a manner that builds not just farm resilience but also longer term ecological resilience. Many of the emerging smallscale farmers are currently farming organically, or would argue to be in conversion. While not formally certified, the farmers are approaching production in this way for personal value-based reasons but also because they see this as an alternative market as well as giving them more immediate control of the farming operations. They are thus not as susceptible to fluctuations in input costs, particularly costs associated with petrochemical based inputs. The emerging farmers are also orienting their markets differently, further attempting to mitigate other costs such as transport and supply associated costs. These farmers are aligning their operations with the locavore movement, attempting to supply their produce to communities within the vicinity of the PHA. These farmers already have active local markets but their core development strategy, while seeking to expand operations and viability, is to do this through local markets and through the local communities. Most of these farmers do not see themselves supplying into large and dispersed national food supply chains.

Employment

The smallscale emerging farmers draw on labour from local communities and pay according to legal requirements but are actively seeking to develop the staff within their operations and furthermore, all emerging farmers expressed a desire to ensure as many full time employment opportunities as possible. This desire is further supported by the farming style, that of using more labour and less, or no, external inputs. Regardless of the levels of viability experienced by these farmers, similar employment trends were evident on these farms, namely, a large proportion of female employees and all employees from local communities.

Smallscale farmer investments in the PHA:

The smallscale farmers are making significant investments into the PHA. These investments, as mentioned, are being made without the entitled support from the various land and agricultural departments designated with the responsibility of offering support.

The PHA smallscale farmers are first and foremost investing in their land. This investment has been primarily in building fertility and productivity of the soils though both the addition of organic materials and compost but also through the planting of green manures and nitrogen fixing crops. Apart from soil productivity interventions, the farmers are also actively working to prevent the leaching away of this value through the development of measures to retard flooding.

While each farmer is developing their land differently, all are investing in farm based infrastructure, building structures that would support their emerging farm based needs. These structures include packaging areas, store areas, etc. In addition to this, the farmers are also developing their own homesteads, indicating a sense of their own permanence within the area.

Smallscale farmers and the PHA

While the emerging farmers are not contributing greatly to the production on the PHA, their role in the area is critical. The emerging farmers are perhaps more active than the larger scale farmers in their engagements with officials, various government departments, and civil society networks, specifically as one body. This results in the development of a powerful voice for the PHA. These farmers are adding further diversity to the farming operations and opening up new outlets for the products grown. These farmers are enabling a variety of different channels for produce coming from their operations, into markets that traditionally would have relied on or been subject to the existing food system. This alternative food system assists greatly in building food based resilience for communities which are vulnerable and face the risk of food insecurity. The emerging farmers are further enabling access to the PHA for a variety of new groups, groups who in the past have not had access to the area. This new type of 'agri-tourism' offers opportunities to disadvantaged communities but also allows for the ascribing of a different value to the PHA. This different value, one that links poor and vulnerable communities to places of beauty, education, retreat and healing, offers far greater value to these communities than the produce alone. The fact that the emerging farmers are facilitating the unlocking of this value demonstrates the critical role that they play in the area.

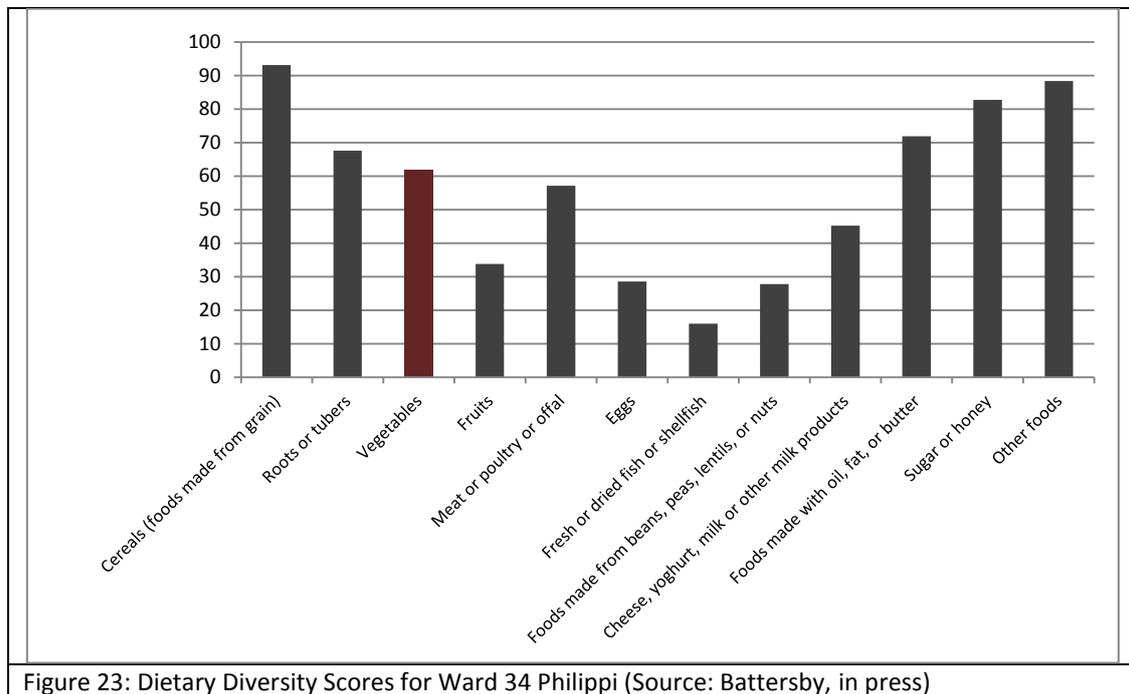
Philippi Horticultural Area impact on food security

The communities located on the outskirts of the PHA face some of the most severe food security challenges in Cape Town. While this may be argued as an indictment to the area and how it does not serve the immediate community, this is not true and when seen in the calculation of PHA level off-take, it is argued that in the absence of the PHA, food insecurity would be far worse.

Research carried out in Ward 34 (Philippi and Brown's Farm) found high levels of food insecurity. Levels of food insecurity proved to be extremely high in the surveyed communities. According to the Household Food Insecurity Access Scale (HFIAS), 84 percent of households were either moderately or severely food insecure (Battersby, 2011:14), a figure that rose to as high as 89 percent in Khayelitsha. Only 15 percent of households could be classified as food secure. When Philippi and Khayelitsha are combined, less than 10 percent of households were food secure (Battersby, 2011:13).

These levels of food insecurity are impacted directly by other social challenges such as informality and the lack of employment opportunities, with 53, 8 percent of respondents stating that they were unemployed (Battersby, 2011:7). In this context, considering the amount of food that was flowing into the immediate environs of the PHA, it could be surmised that food given to workers on a daily basis plays a vital role in the food flows into the region. This assumption is informed more by a reported practice of selling some of this "free food" to local traders or distributing this food to others as the quantities are at times too much from personal consumption (Jackson, 2011), and less about residents from the area having direct employment in the PHA. The AFSUN research found only 2, 9 percent of respondents being employed in agriculture, while a number of respondents reported being involved in unskilled manual work, 11, 8 percent (Battersby, 2011:7), which could have

denoted some temporary agricultural work or work in other agricultural based, but non farming, activities on the PHA.



Measurements of food security include the scale and nature of dietary diversity. It is arguably here where communities face significant challenges. While certain basic foodstuffs may be available to those at risk of food security, not having sufficient diversity in one’s diet would result in immediate and long terms challenges. These challenges may then manifest and have a bearing on the ability of the individual to attain a measure of health, education and general wellness. The reported dietary diversity of the community sampled in Ward 34 was low with four food groups dominating, these were “other” (generally tea and coffee), “cereals and grains” , “foods made with oil, fat or butter” and foods with “sugar and honey” (Battersby, 2011: 15). Thus the role played by the opportunity for vegetables to enter the area, either directly or indirectly, as a result of links to the PHA, is vital role in the value that the PHA has to these residents. Figure 23 reflects the dietary diversity reported in Ward 34, detailing the different food groups and the role that vegetables play in this diet.

Without the flows from the PHA into this area, the situation would potentially be far worse. It is argued that the low levels of food security are more as a result of informality and the lack of employment opportunities than the role that the PHA would have in the area. The PHA is critical in the role that it plays in reducing the nature and scale of vulnerability to food based challenges, including food insecurity, to the communities in the vicinity of the PHA. The PHA does play a critical role in mediating food insecurity from a general food availability perspective, but as a result of the increased vegetable flows to these areas, the PHA also assists in increasing dietary diversity.

Philippi Horticultural Area impact on local economy

A wide variety of flows enter into the local economy as a result of the activities taking place in and around the PHA. These links and specific practices have been discussed within this report. The roles of mutually supportive linkages between agricultural service providers such as seedling and other input suppliers within the area allow for what is argued to be a vibrant exogenous economy. The salaries paid also play a direct role in supporting the local economy and play a multiplier role feeding back into the PHA activities (through food purchases from farm stalls, etc). Employment within the general area of the PHA, it is argued plays a vital role as those employed in the PHA are generally the breadwinners for a far larger household. The scale of unemployment mentioned is a reflection on the importance of full time work for those in the area and PHA is thus vital to the local economy. If the generally argued trend of one breadwinner providing household livelihoods for as many as 15 other extended family members is used, the livelihood value of the PHA, considering a conservative employment estimate of 2000 staff, is potentially as high as 30 000. If the total estimated potential employment, including temporary employment is considered, and if the breadwinner to beneficiary ratio is increased slightly to 20 (as higher figures are used at times), this figure exceeds 60 000 potential beneficiaries.

This importance is reflected in other areas where the buying patterns of the residents within the area are considered. These patterns are different to those in other more upper income group areas and as such, require further consideration and understanding.

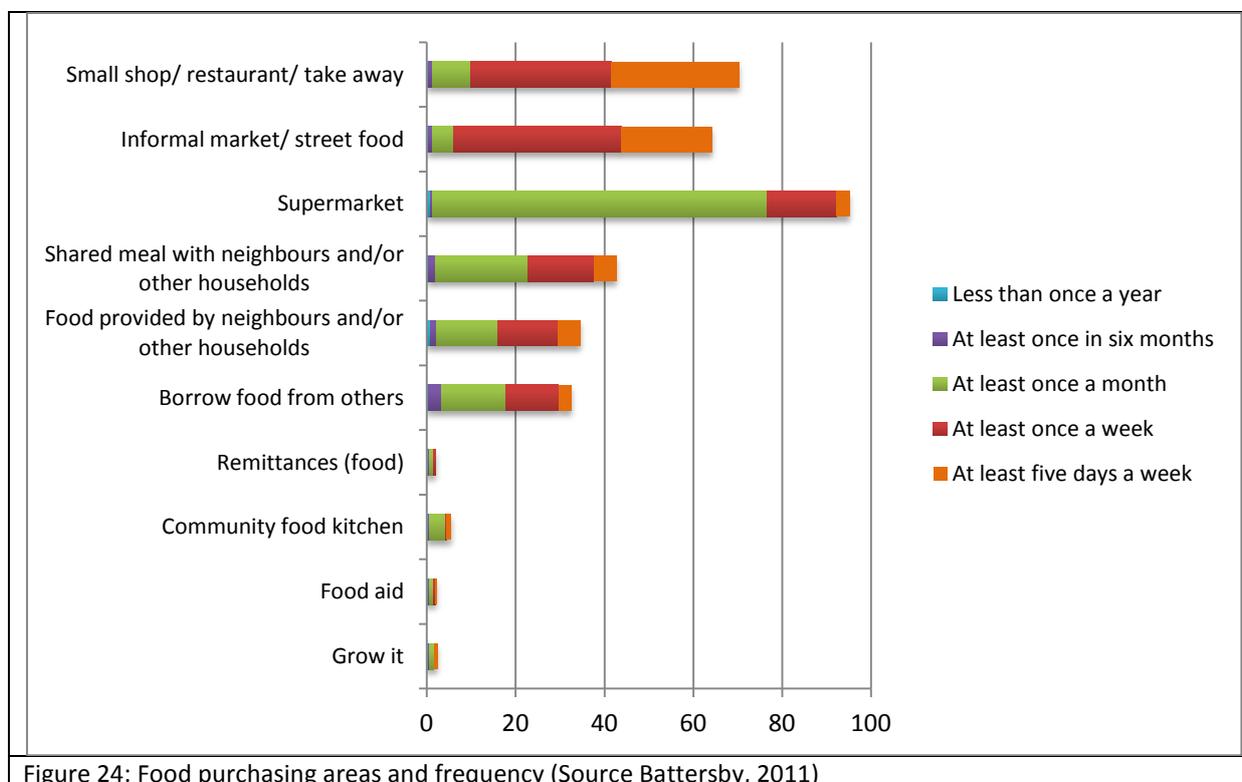


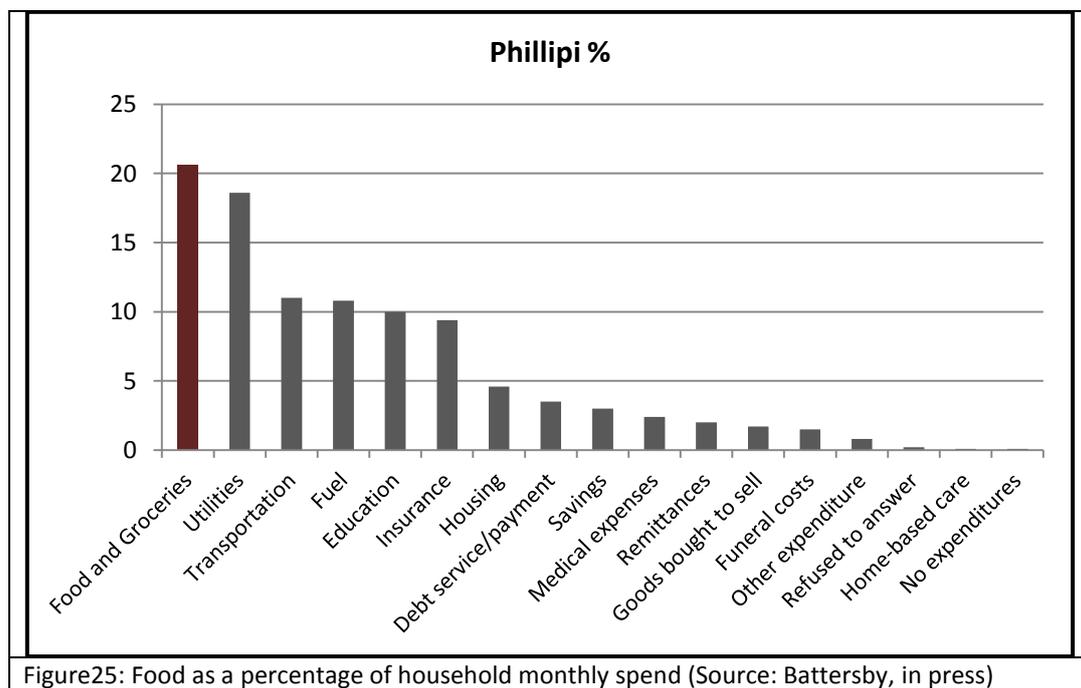
Figure 24: Food purchasing areas and frequency (Source Battersby, 2011)

If the trend observed in the AFSUN research is considered, the sources used to access food reflect interesting trends. The AFSUN review sought to understand where food was purchased but also,

how frequently these sources of food were used. Again, while specific localities may reflect some differences and the AFSUN work cannot be used to explain the entire area surrounding the PHA, the data from Ward 34 does offer certain insights that question food flows and purchasing patterns. As can be seen in figure 24, while the supermarket is a dominant area of purchase, the frequency of purchase at the supermarket is low. Small traders, street stalls and spaza shops are visited far more frequently and thus play a far more important role in the general food economy of poorer communities. The role that the produce from the PHA has in feeding into these markets is critical.

Informal markets, street traders and spaza shops thus play a vital role in the local food economies within these areas. The PHA does play a key role in providing produce and other products, particularly meat (and chicken specifically) to these outlets. Assessing the precise flows is a critical exercise and while some indicative information has been gathered in this research process, greater time is required in order to fully understand the trends, seasonal differences and general networks that enable these food flows.

Food plays a vital role in the local economy and food also makes up a large portion of the general household expenditure. This is all the more true in poorer communities and for many households, food is the main expense item. This was found to be the case in the ward 34 community as the AFSUN research reflected (figure 25). The PHA thus plays a key role in ensuring food availability, at least in part, and it is argued, plays a further role in food affordability.



What has been ascertained at this time, as a result of reviews with a variety of traders, including small shops at intersections or areas of high volume foot traffic, spaza shops, pavement shops outside non food selling retail outlets and the traders at the CTFPM (the People’s Market Traders) is that the vast majority of the food sold through these outlets is sourced from the CTFPM and some, from the PHA directly. However, when questioning further, it is necessary to understand some of the

trader networks and how these operate. There are certain traders who acquire most of their produce from the PHA while there are others who receive no produce directly from the PHA. Some of the traders who receive produce from the PHA may trade in close proximity to the PHA while others with larger volumes from the PHA may trade some distance from the PHA (for example, street vendors in Mowbray are selling produce procured from the PHA – on the same day as collection). What is clear is that the relationship between trader and the source of produce is more a factor of networks and relationships than a factor of opportunity provided by the location of the PHA within the communities. Making decisions about the future of the PHA without a far greater and in depth understanding of these networks would be irresponsible.

In terms of the PHA farmstalls, this is a very different scenario as the farmstalls function in a different manner. Two of the farmstalls were found to act as wholesalers, selling to traders or trader agents and procured a large amount of their produce from the PHA, but in order to ensure the required diversity of product (particularly fruit and certain grains), procured produce through other sources as well, generally the CTFPM. Other farmstalls, while buying in less produce from elsewhere service the general public and these are generally part of diversification strategies on the part of the farms within the PHA and the majority of produce sold through these outlets originates in the PHA.

There are a wide variety of other market linkages in place; all these are informed by strong and developing relationships between farmers and specific market groups or communities. Farmers within the PHA are selling livestock directly to customers, some live, while others are sending these to specific processing plants for formal breaking into a usable form. This may then be sold by the farmer or may go from processing directly to a wholesaler. Protein is in increased demand and chickens are becoming more and more critical to the communities around the PHA. The small and emerging farmers have recognised this opportunity and a number of the farmers are currently going through the EIA process in order to construct the necessary facilities to enable them to capitalise on this. Other farmers are responding to specific needs of an increasing immigrant population in the area and the broader Cape Town. The farmers are doing this by changing the crops that are grown and responding to approaches by buyers acting for markets used by these groups. Recognising these different markets, even if informal is a critical response strategy from all PHA farmers. More important is the ability of these markets to access growers on the PHA to facilitate these responses. It is necessary to question how this mutually beneficial process would play out in the absence of the PHA? Without the immediate proximity to the PHA, gaining access to producers who are free to respond to market needs in the manner that the PHA farmers do would be highly unlikely. These dynamic and at times fluid networks ensure that the food enters a wide variety of markets through a wide variety of market channels. Having the ability to negotiate these networks and fluid market channels is a real skill and proves the adage that being a successful farmer is a lot more than farming the land.

The PHA, it is argued, plays a critical, if unseen role in the broader food economy of Cape Town and to an even greater extent to the communities located in the vicinity of the PHA.

The Philippi Horticultural Area and the broader food system

The PHA is a vital component of the Cape Town food system. The links between the PHA and a variety of other food system players ensure a measure of food supplied to the residents of the city in ways that are only recently beginning to be understood. Due to the complex nature of the Cape Town food system, the challenge is that the flows of food and other food system services provided by the PHA would only be missed once these are gone. While produce could certainly be sourced from other production areas, this would have to travel significant distances and as such, this would come at an ever increasing cost to the consumer. The wealthier consumers, those connected into the more formal markets, would still be able to acquire food as required but those that are vulnerable and not effectively connected to these global food systems would be disadvantaged in significant ways. The role played by the PHA currently is thus vital to the broader Cape Town food system. If the anticipated increases in oil, and thus petrol, are factored into the role that this plays in the food price, the PHA becomes even more valuable. If the role that the PHA plays, and certainly will play, in mitigating the effects of climate change are considered, its value increases even further.

For most households, the connections to the food system are not just about affordability and having the means to purchase food, but extend way beyond this. This includes having access to transport to get to the more cost effective food items; once these items are acquired, the ability to store and secure this food is also of critical importance. All these aspects influence the food basket of the household. Those that are not able to engage in these various different food networks would still acquire food but the current trend is that food rationing then starts to take place. This will become more extreme in the future. What this means is that at first, dietary diversity shifts and fewer items are included in the diet. This is generally not uniform across the household. What then occurs is that certain members of the household either sacrifice (or are forced to forgo) certain food items or even meals – this sacrifice generally has a distinct gender dynamic to it.

The PHA it is argued, plays a critical yet unseen role in ensuring a measure of food availability for a broad group of city residents but also contributes to greater levels of general food security. A further aspect is that the PHA enables a wide variety of economic flows, often flows that are not seen or are indirect and this further supports the resilience of the Cape Town food system.

The value (or lack thereof) of the Philippi Horticultural Area to the city

The value of the PHA to the broader Cape Town region is often a cause for great debate. In the 2009 zoning challenge, when a large portion of the area was to be allocated to the MSP housing development, the PHA was presented as being of little value, from a job creation perspective, but also from a more generalised agricultural perspective¹⁷. From this emerged a discourse within the city where it was argued that it was necessary to present the real economic value of certain pieces of land in order to afford these a measure of protection. In this argument, the PHA was often sidelined at the expense of agricultural areas such as Constantia, but also areas on the outskirts of the city such as Mamre and Durbanville. Responding to this challenge was difficult as each area presented different attributes, different opportunities and at times very different produce (grapes versus

¹⁷ General arguments presented by those within the city arguing for the zoning change but also in the discourse offered by ward councillors and other parties in the debate.

vegetables). This was a real case of not being able to compare ‘apples with apples’, in reality trying to compare cabbages with grapes.

In the general discourse on the viability and future of the PHA these questions became critical and as such, it was deemed essential that in the general review of data, a means to engage in this question in a realistic manner was critical to this research process.

The opportunity to respond to this emerged in the form of a document commissioned by the Spatial Planning Directorate of the City of Cape Town, the City of Cape Town Agricultural Land Review (2008). This review drew on the findings of a further report, the 2006 Agricultural Land Study.

Within the brief to the consultants who conducted the 2008 Agricultural Land Review, the following was expressly stated:

While the 2006 Agricultural Land Study identified the broader agricultural blocks or addresses (e.g. Durbanville Hills, Bottelary Hills, etc.), the current planning requirement requires a review of the agricultural potential of such blocks at and in the immediate environs of where refinement of the urban building blocks is required.

The task approach focused on the review of agricultural areas at such identified locations, with such review informed by an evaluation and consideration of the following:

- *The status of the “homogenous farming area” (e.g. fragmentation) in which such agricultural area is located.*
- *Current and future agricultural performance and significance of the area.*
- *Current environmental status and future performance of the area.*
- *Specific agricultural potential informants inherent to the area.*
- *Other heritage, cultural and aesthetic considerations.*

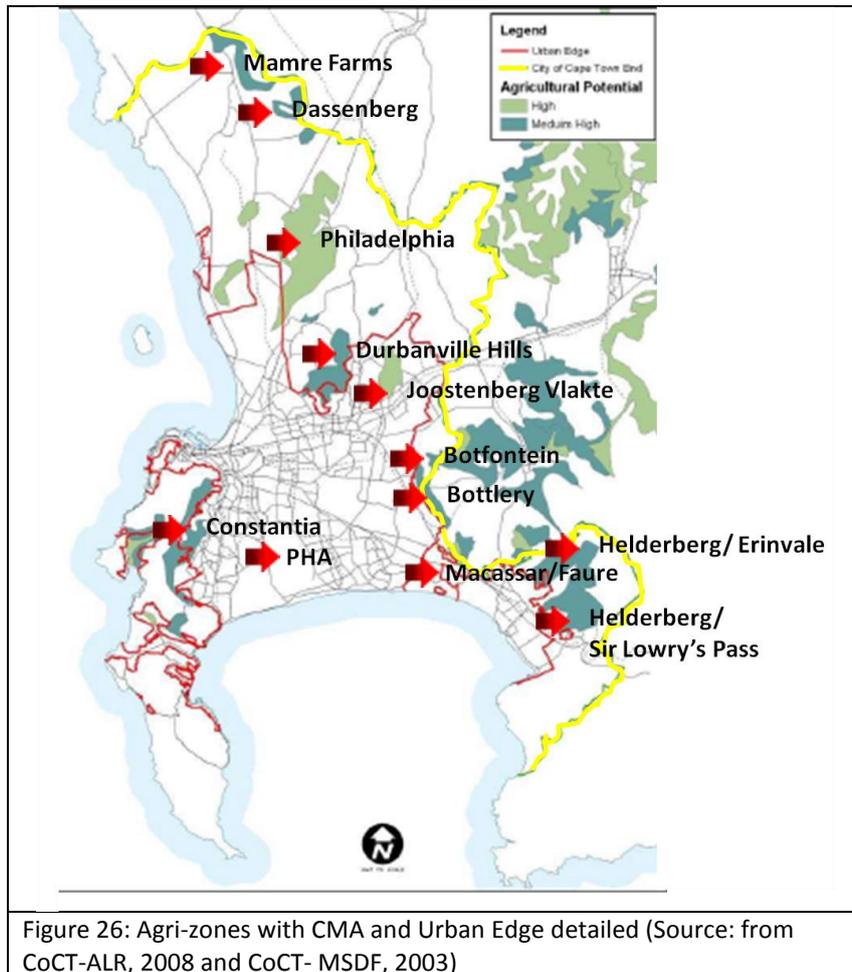
Thereby the need for protection of the agricultural areas is ascertained, their boundaries defined, their protection status determined and the spatial relationship between such agricultural areas and the urban building blocks established.

(CoCT-ALR, 2008)

In this report, the twelve agricultural areas, referred to here (in this PHA review) as agri-zones, requiring review were identified by Spatial Planning and included the following:

- Helderberg, including: Helderberg – Erinvale and Helderberg – Sir Lowry’s Pass Road
- Macassar and Faure
- Bottelary and Blackheath
- Botfontein
- Joostenbergvlakte
- Olyfantsfontein
- Dassenberg
- Mamre
- Tygerberg Hills
- Constantia

- Philippi - *the PHA*
- Philadelphia



A detailed reason for the express identification of each of these areas was provided in the CoCT-ALR, 2008 report. These areas fall within the Cape Metropolitan Area and are generally zoned to be located outside the urban edge. As a result, for clarity, when referring to the areas and their respective values within the report, the value is assigned to the Cape Metropolitan Area (CMA) and not the City of Cape Town (CoCT). However, the CoCT falls within the CMA. The relationship between the city and the CMA and the detailed location of the different argi-zones are detailed in figure 26:

What is of great value in this report is that a far more holistic view was applied in the assessment of the land. As opposed to simply questioning agricultural viability and value in a simplistic and generalised manner, the 2008 Agricultural Land Review considered a wide variety of indicators to assess and evaluate each area of land.

It is of interest as to why these various attributes have not been used to offer a broader set of indicators when discussions have taken place about the viability of agricultural land areas, particularly the PHA.

Five core focus areas, with detailed sub categories were used in the assessment of the land. For clarity within this PHA review, in describing the different categories, the term *Areas of Significance* have been applied to these five core focus areas of agricultural potential, economic significance, land use significance, landscape significance and environmental significance, and are as follows:

Agricultural potential

- Soil potential
 - Overall
 - Perennial
 - Annual
 - Horticultural
- Terroir¹⁸
- Irrigation Scheme /Groundwater / WWTW

Economic Significance

- Agri-production
 - Primary
 - Secondary
- Critical Mass
- Agri-tourism
- Food Security
- Market Proximity / Crop Perishability

Land Use Significance

- Existing Agriculture
- Homogenous Farming Area
- Rural Living
- Land Use Buffer / Interface

Landscape Significance

- Agricultural Working
- Cultural / Heritage
- Natural

Environmental Significance

- Biodiversity
- Biodiversity Interface
- Open Space
- Recreation

Each of these indicators and sub indicators were then evaluated per designated rural area under review within the CoCT-ALR. The evaluation approach used was to rate the individual sub categories of the main five areas of significance as being rated *high*, *medium* or *low* in accordance with specific

¹⁸ This is a general agricultural term and is used to describe the value of a number of natural agricultural 'services' within the farming area including soil, water, climate, mineralogy, etc. How these all interact and influence agricultural production is referred to as *terroir*.

place based question. The rating allocation was done by a team of agricultural specialists assessing the real agricultural value in each of the areas of significance and within each sub category. The ratings are arguably subjective and reflect the views of those involved in the assessment. These ratings were also done in accordance with specific characteristics pertinent to each of the designated agricultural areas under review. This was then placed in a table and attached to the CoCT-ALR report. The rating process was uniformly applied across all agri-zones.

For this PHA review, in order to enable a measure of comparison, these ratings of high, medium and low were found to offer little value as areas overall could not be effectively rated and neither could the specific impact of certain areas of significance be compared.

It is argued that the first area of significance, that of agricultural significance, became the proxy and generalised assessment measure for all these areas. As such, while some areas reflected high agriculture potential per the measure applied in the 2008 CoCT-ALR report, other areas that were deemed to have slightly lower agricultural potential but higher overall significance, were not considered to be of value. These areas with a lower rating of Agricultural Potential but higher ratings in other areas were thus not suitably considered as the single measure of significance dominated. The overall value could not be effectively measured and in the absence of a measure of comparability, officials and commentators on the value of the various agri-zones from an agricultural perspective, defaulted to the consideration of Agricultural Potential only.

For this reason, the table was reworked and scores of high, medium and low were assigned numeric values of 5 = high, 3 = medium and 1 = low. This allowed for a far more detailed analysis and an effective means of aggregation and comparison. The assigning of numeric values also allowed for overall scores to be generated and for the areas of significance to be tested against one another, comparing the different farming areas and enabling the generation of an overall score for the entire area. The end result was a tool which allowed for the uniform comparison of all the areas as well as comparison against averages for all the areas. This also enabled a rating of each agri-zone's performance in accordance with a specific area of significance.

It is appreciated that the process may be deemed to carry a measure of subjectivity, both in terms of the process of assigning numeric values and by the process which informed the allocations of ratings in the 2008 report. However, it is argued that the process allowed for uniform comparison of all the areas and is the only uniform means of measure to enable an effective and detailed assessment of the perceived, and arguably real value, to the city, of each of the agri-zones.

As a result of this process, the Philippi Horticultural Area is reflected as having significant value to the city overall. The value is deemed to be so significant that on the strength of these findings, it is argued that the area should not be subject to any further development changes and that the areas role as an agricultural area be formally and effectively protected.

The value of the area is reflected in figure 27 below where Philippi is reflected as being the fourth most significant area within the CMA. It should be noted though that the PHA and Philadelphia were separated by 0.02 percentage points only. The review further found that when compared to the other agricultural areas, the PHA rated far higher in terms of Economic Significance, rating first, and in terms of Land Use Significance rated second.

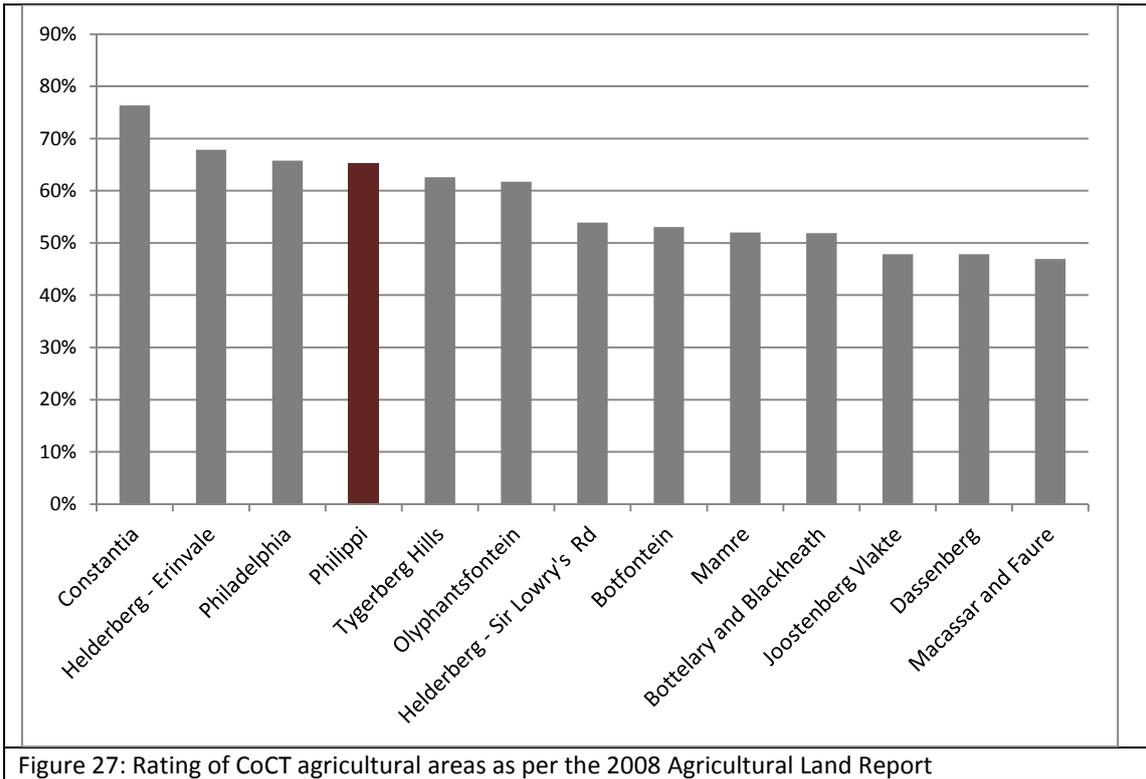


Figure 27: Rating of CoCT agricultural areas as per the 2008 Agricultural Land Report

When just the agricultural potential area of significance is evaluated, the PHA scores well but not as well as other areas. However, using the ratings allocated for each agri-zone, converting these to numeric scores and then averaging these, it was possible to generate an average score for each *area of significance*. The PHA was then rated in the same way and its score, per area of significance determined.

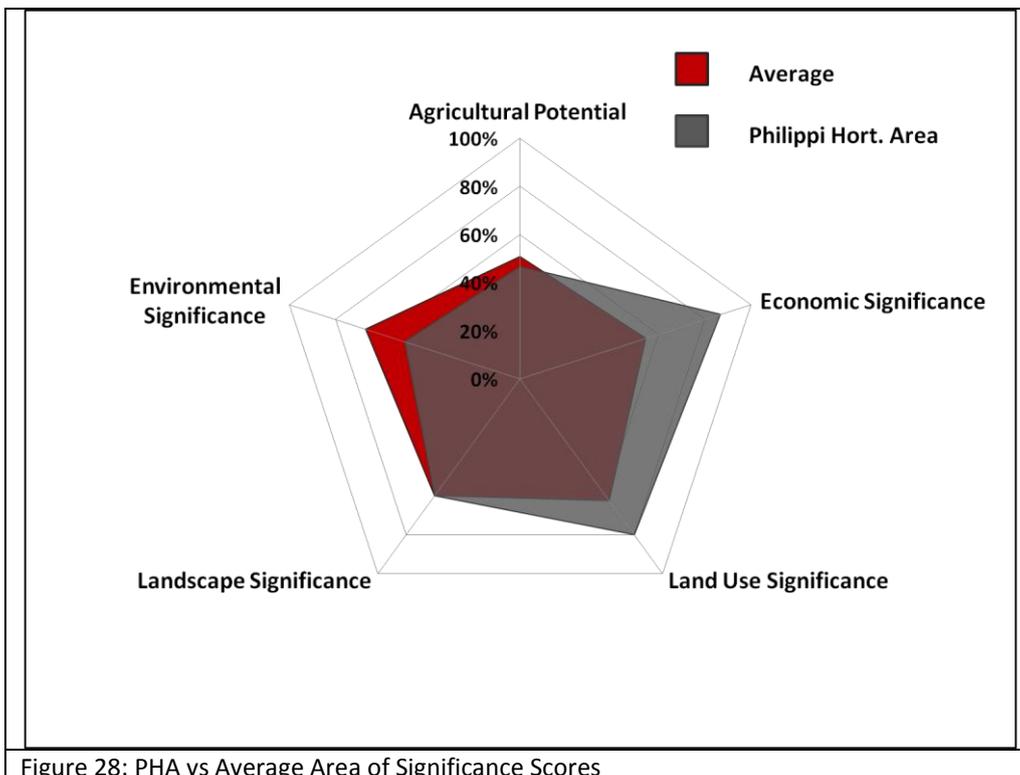


Figure 28: PHA vs Average Area of Significance Scores

The average score for all agri-zones and the PHA score were then compared. As can be seen in figure 28, the PHA scored higher in all areas excepting being slightly below in the agricultural potential score as well as being low in the ecological significance score. These scores enable a useful means with which to question the general narrative that exists in respect of the potential of the PHA as an agricultural zone. Informed by the City’s own research, data that has been available since 2008, it is argued that the PHA was found to have far higher value than that which was ascribed to it and its real significance.

This review raises further questions and issues of time and scale impact on some of the contextual views at the time of the 2008 research. While these aspects would potentially prompt a review of all the agri-zones, it should be noted further that subsequent to the 2008 review, the Pepco 2009 review and particularly the findings by Parsons (2009) in respect of the relationship between the PHA and the ecological resource of the CFA, coupled with current trends and the use of the PHA for its natural beauty, the environmental rating ascribed to the PHA in the 2008 ALR is potentially lower than its current and real understood value. At the time of the 2008 report, the PHA was in a period of transition with new markets being identified and new production processes being implemented. This has changed significantly since then as this research has demonstrated. It is therefore argued that the rating of Agricultural Potential and Environmental Significance of the PHA is now far greater and more significant than it was at the time of the 2008 ALR. In order to demonstrate this, an exercise was carried out, reviewing just the Environmental Significance scores within the 2008 CoCT-ALR report. Within this report, the two ecological indicators (biodiversity interface and recreation) that were assigned a low score (rated as 1 in this report) were altered to reflect a medium score (3 within this report). This change had a significant impact on the scores assigned to the area of significance, placing this as above the average score for all the agri-zones combined for the environmental area of significance (see figure 30) but also altered the overall rating of the PHA (see figure 29) where the PHA emerged as being rated as the second most important agri-zone within the CMA.

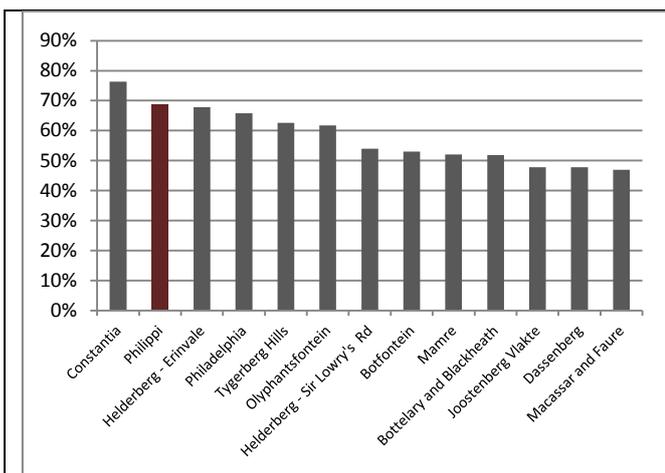


Figure 29: Reworked Agri-zone rating exercise

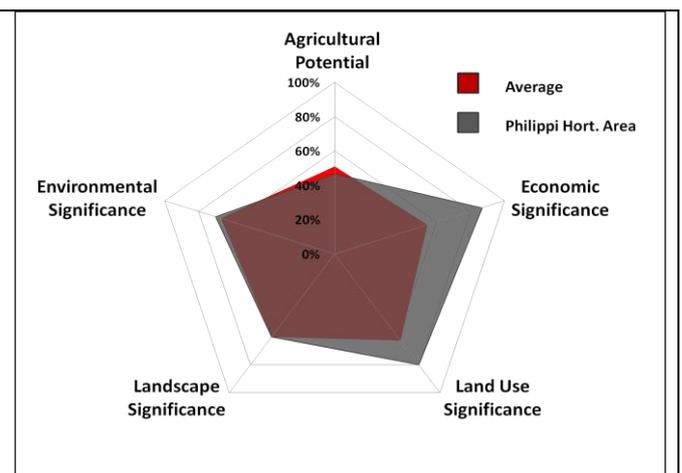


Figure 30: Reworked Area of Significance exercise

While only an exercise and while it is appreciated that to have any direct bearing, all the other agri-zones would need to be subject to a similar review of all ratings, something that has not been done in the generation of the figures 29 and 30, the exercise does bring into question the general view of the value of the PHA to the City of Cape Town and the Cape Metropolitan Areas as a whole.

Even without the alteration exercise, this report and the use of the data from the 2008 ALR report present a fundamentally different picture of the PHA, it shows that the area is of significance and has potential, something that has been identified and actioned by the farmers, both large scale and emerging. This value needs to be protected and processes need to be put in place to capitalise on the value offered by the area.

Conclusion

While additional review is required in order to effectively assess the scale of influence that the PHA has in the local food economy and how these flows of food impact on the livelihoods and general food security of the members of the communities surrounding the PHA, this research has demonstrated a number of critical aspects pertinent to the PHA. Primarily, the research has allowed for the emergence of a more recent picture of the PHA, one that counters a number of other narratives about the PHA, narratives that argued that the area was in decline. This research has found that this is certainly not the case. A further narrative that has been debunked is the notion that the commercial farmers are simply waiting for offers from developers and will then leave the land as they are old and their children are not interested in farming. This is certainly not the case with the majority of farmers, larger scale and emerging smallholder, investing heavily in the land and actively working to improve the areas viability and their livelihoods. A number of the farmers are young, two of whom were under the age of 30 and see the area as having a real future (conditional of a number of institutional certainties). A further narrative was that the net levels of agricultural production are declining. This was certainly found to be untrue and while levels of throughput through the CTFPM are certainly declining, off-take from the farms is increasing as new markets are identified and engaged with directly by the farmers.

The farmers reviewed, although extremely frustrated at institutional challenges, poor policing and zoning concerns, see themselves as playing a long term role in the PHA. A number of the farmers cited a 30 year horizon. While certain farmers have left the land, these farms are not idle, they have been purchased or are being rented by the current farmers who are growing their land holdings in order to respond to external price and input pressures, but also to position themselves to respond to the emerging markets into which they now supply.

There is also a new and active group of committed emerging farmers who are enthusiastically seeking ways to establish themselves in the PHA farming community – some of whom are already established. These farmers see their roles differently and while most of these farmers currently still engage in multiple livelihood strategies in order to make a success of their farming operations, they are investing significantly in the land and in their communities. Most of these farmers have identified alternative markets and reflect the market opportunities that remain for fresh produce and other agricultural products, particularly the identified market of the ethical and local consumer. These farmers are also enabling access to a number of other low income customers, some of whom are able to access food from these farmers at far lower prices, and at times at no cost, enabling a variety of survivalist food access strategies on the part of communities adjacent to the PHA.

While the general views of the PHA are positive, these are constrained by extreme frustration at the fact that the area is not protected, secured and resourced as an agricultural zone. The numerous

zoning request changes and the fact that there is clear disagreement on the part of officials as to the future of the area, precipitating more requests for change, is a cause of great frustration. The overwhelming request from all the farmers is for certainty and clarity as to the future of the PHA. Most farmers interviewed in this process are not planning or even aspiring to move from the PHA. Many of the farmers have invested significantly in their farming operations and if they were to be bought out at this time, this would not cover their investments.

From a broader food security and city food system perspective, the research has found that while the majority of the produce cultivated, and the livestock reared, on the PHA enters more general markets, the food that is retained within the local economy has significant value to that economy from both a financial and food security perspective. The localised food economies active as a result of the PHA feed multiple channels and are all mutually supportive. It is argued that should the PHA be removed from this process, while the market mechanisms would ensure that food would be available within the system, this would be at a far higher cost to the city and in particular to the poor and vulnerable within the city.

Perspectives of the value of the PHA have been informed by a number of narratives, oftentimes deliberately aligned to undermine the value of the area. However, following the City of Cape Town's own research, it was found that when compared with all the other farming areas falling under the auspices of the City of Cape Town, the areas within the CMA, the PHA was found to be of significant importance. This finding, coupled with the findings from the farmer reviews and the assessment of the value that the PHA offers the city, strongly suggests that any plans to remove the PHA from the food system require serious reconsideration. The PHA is a valuable asset to the city and should be retained. In order to do this the area needs to be secured in accordance with all the means available to the city and the province.

When considering the future of the PHA, the generalised and often used assessment of value excludes a number of intrinsic and other value assertions, thus labelling the PHA as an area of less value than other CMA agri-zones. This is a fundamentally flawed assertion and is incorrect.

The PHA is a key city resource that contributes in a significant way to building both longer term urban food resilience but critically, climate resilience. The PHA is a critical component in any assertion of Cape Town being a sustainable city. Removal of the area would undermine livelihoods, food security and a culturally important area. Removal of the PHA, even in part, would fundamentally erode any notion of Cape Town as a sustainable city.

Due to the PHA geography, production takes place at a greater scale but also spans the seasons. This fact is a critical benefit. There are times of year when other agri-zones, both within the CMA and nationally, are removed from production due to water scarcity, climate, heat, cold, etc. This does not apply to the PHA and contributes to price normalisation, but more importantly, to a continual and consistent supply of food items.

Through the research process, the PHA was found to be an area of critical importance. Further, when the current and future challenges that the city will face are considered, the PHA is a key city asset. This understanding exists within the city as the 2007 statement in the heritage brochure demonstrates. While this statement was drafted over 5 years ago, it remains true today:

The Philippi market garden is still active. It produces tons of vegetables and flowers annually for local consumption and export. It is labour-intensive and, a source of employment for the communities in the vicinity. This distinctive farming landscape is unique in the city. It forms a large green lung within a dense urban environment. It provides a valuable resource for diverse employment opportunities, recreational enjoyment and cultural activities.

(CoCT, 2007:2)

Access to food and water are rights enshrined within the South African Bill of Rights within the South African Constitution (Section 27 1 (b)). As the PHA is enabling a significant flow of food to those in need and thus facilitating, in part, the attainment of the right to food, it takes on other forms of significance. Removal of the PHA from the Cape Town food system may result in claims that those taking these decisions did not act to uphold the right to food. A key factor in the attainment of rights such as the right to food, as with the right to housing is that these rights cannot be addressed at the expense of other rights. Thus, removal of the right to food to enable the right to housing would be argued as prejudicial to the communities concerned. As the PHA is currently producing food, thus enabling the attainment of the right to food, at least in part, its status should remain and other areas sought for housing.

Recommendations

Informed by this report, three key themes emerged in the drafting of the recommendations. The first is a set of issues that need immediate resolution, second, is a set of needs that require further review and analysis and thirdly, a set of actions that are felt to be necessary and should be enabled in order to assist in more effective and robust governance of the PHA.

The issues that require immediate resolution include the following:

The urban edge needs to be clearly defined and the PHA secured as an agricultural area:

Resolution as to the extent of the urban edge in respect of the PHA is urgently required. Work to this effect is currently underway with a first draft for public comment expected in October 2012. This study, the Schaapkraal Smallholdings and Environs Urban Edge and Development Guidelines Study is essential and would assist greatly in resolving issues pertaining to illegal use and use encroachment. Once this project is complete, the urban edge should then be formalised and secured.

It needs to be stressed that while this is deemed a horticultural area, activities that result in successful horticultural activities fall within a broader agricultural remit. Thus, what is required is the cessation of non-agricultural activities and not non-horticultural activities. Such a response to the area would be counter-productive and limit the farmers' viability. The City further needs to engage with farmers to better understand what kind of land-use regulations are useful for them and their particular economic and spatial constraints. A finer scale, more locally informed assessment of existing land use patterns needs to be considered. For example, all plots with transport on them are not alike, some are used to support the agricultural activities and are thus necessary, but others are

simply used as scrap yards and even cheap parking areas for the film industry. The PHA is unique from an urban governance perspective and current rural zoning rules are not necessarily appropriate for the PHA/urban/agricultural context. Working with all farmers and agricultural stakeholders could serve to assist in the generation of mutually agreeable and applicable land use and zoning regulations that are in the interest of all parties.

This process should then be followed up with a resolution and cessation of non-agricultural activities within the PHA and through a consultative process, timelines given for the elimination of these activities.

All areas currently deemed to be viable and productive agriculture areas need to be retained for agriculture:

The viability of productive agricultural land is critical to the broader food system of the city of Cape Town and as such, this land needs to be secured. Further, the challenges in input cost increases and climate related disasters that have been experienced in the region (drought in Eden District, severe flooding in Theewaterskloof region) all point to extreme climatic volatility. The PHA offers a measure of resilience, acting as an insurance policy to protect city residents from the consequences of these climate related events.

Further, the Cape Town food system is embedded within the global food system and global food related issues pose a real threat to the city and particularly the poor residents within the city. Recently, extreme events such as fires in the Russian Federation, resulting in wheat price volatility, flooding in the USA, resulted in significant lost crops and price increases. These price fluctuations place the residents of Cape Town at the whim of the market and while faith in other market mechanisms to address this are generally argued, recent global issues have disproved this (the role that food has been found to play in the Arab Spring, as one example).

Lastly, global food prices have recently passed those experienced in 2008 and are expected to continue rising. This coupled with the other threats place the citizens of Cape Town in an extremely vulnerable situation, one that currently has a cushion, namely the PHA, and should this no longer be accessible, this would place the city in extreme risk.

The Departments of Agriculture and Rural Development need to be engaged and called on their lack of support for the farmers within the area:

While this may be deemed to be extreme and others may wonder if in fact the support from these departments is required, they have a constitutional mandate and as such, a fiscal mandate, to support the area. This support needs to be directed at making the emerging farmers as sustainable as possible but also needs to be directed to supporting the broader PHA as a key agricultural asset. The recent placement of a DoAWC office in the PHA is recognised but this needs to be part of a far larger and engaged process of support, research and investment.

The PHA farmers are small in comparison to other farming typologies in South Africa but are highly successful in horticultural agriculture that is economically viable, highly intensified and responsive to the specific climatic, market and ecological context. These aspects make the PHA farmers the best

suited and some of the most experienced farmers in the support of smallscale agriculture. With the current policy shifts and the focus on the development and support of smallscale agriculture, the PHA farmers are indispensable and potentially hold the key to the viability and success of the smallholder programmes. For the success of the Zero Hunger Strategy and other such initiatives, the PHA farmers, large scale and emerging, are vital, key strategic partners; partners that need to be recognised for their experience, insights and value.

Greater police visibility, resources and effort is required within the PHA:

The nature of the police responses to the needs of all farmers and broader stakeholders within the PHA needs serious attention. Existing policing challenges notwithstanding, regardless of how effective zoning changes may be or the potential positive impact from required further support from the DoAWC and DRD&LR, these would be in vain if the PHA is not effectively policed. As an identified asset with multiple benefits accruing to a wide variety of citizens, not protecting the PHA would result in its ultimate demise. Further, if the PHA was removed from the Cape Town food system, it is argued this would result in an even greater safety and security challenge than those experienced currently in the PHA area and the broader Cape Town environs. What is required is proactive and collaborative policing that assists in securing the area, and the current and future benefits that are, and will be, derived for all Capetonians from the area.

Within the City, one specific governance structure should be given full responsibility for the PHA. In addition, an intergovernmental task team needs to be established, with full decision making mandate to support and coordinate activities within the PHA:

City documentation in 2002 argued that “the different spheres of government generally have adequate legislation and policies in place to regulate rural land usage and ensure sustainable rural resource utilization. The problem experienced is a lack of consistency between different policies, a lack of capacity to enforce and implement, poor co-ordination between different authorities, and poor political commitment to the rural areas of Cape Town” (CoCT, RMF, 2002:6). However, currently in the case of the PHA, this is no longer the case. The policy and frameworks to protect the area are clear but a real challenge exists in specific competing land use needs within the city and the lack of relevant information that could support the protection of the area¹⁹. These issues are made all the more complex by varying priorities and perspectives within the different spheres of government and city departments on the value of the current PHA landuse to the urban fabric.

This issue needs immediate resolution and effective management. One structure needs to be given full authority for the PHA and the challenge of coordination between the different spheres of government needs immediate resolution. Similar governance structures exist currently within the city, such as the City Improvement District structures, Mayoral task teams or potentially structures similar to the Coastal Management Branch.

¹⁹ Currently departure change decisions have to be made informed by existing information and data available to the city.

A process is required to facilitate a different perspective on how the PHA and other residential areas align and are managed and governed, through both policy and practice:

The ongoing challenge associated with the PHA, the divergent views on its value, the challenges with policing and the fact that developers see this as an ideal opportunity for development raises concerns as to the way in which the area is viewed, the management systems that are in place to protect it and the limitations placed on both residents and officials in how these areas are managed. Practices from other regions of the world could be reviewed to assess if in fact the current governance processes are in fact relevant in a changing city context. In other regions, different approaches are adopted:

The Japanese metropolitan edge / rural area offers an interesting experience of a dense intermixture of supposedly incompatible land uses, for example horticulture, industry, schools, housing, garages and offices, as well as a refreshing absence of social aggregation. This land use mix or mosaic reflects a distinctive cultural tradition, but is regarded as a failure by European and American planning criteria.

Instead the Japanese emphasize the positive aspects of a development philosophy based on expansion and on urban / rural mixture and regard it as a more useful and realistic proto-type for the rapidly urbanizing and industrializing countries of Asia than the segregationist restrictive notions of land use planning embodied in the West (Herbert, 1988, in CoCT, RMF, 2002:22).

While these may appear to offer opportunities, the appropriateness of these would need to be evaluated from a developmental, zoning, historical and cultural perspective. This challenge also speaks to a number of other conceptual challenges faced by the PHA. This research found that the PHA is of significant value but also found that regulations to ensure its protection and regulations to police use are arguably inappropriate in terms of contemporary urban governance. Alternative and arguably radical urban governance perspectives are required to mediate the different use requirements but also, to enable a set of policies that have a positive impact on the PHA.

Alternative actions necessary in order to assist in more effective and robust governance of the PHA

Effective and proactive Land Reform interventions:

The South African Land Reform process is falling well short of the 2014 targets. As certain farmers leave the PHA, due to small farm sizes and other market related challenges, new Black farmers could be provided with land in the area. The case of the existing new emerging farmers in the area offer insights into opportunities that could be unlocked through this process. The development of a cadre of new land reform urban farmers could play a positive role in changing land holding and thus enable effective land reform.

This transition however, would only be possible if effective and appropriate support and assistance is afforded to these farmers by the designated government departments. The struggles faced by the current emerging farmers need to be addressed and alternative support mechanisms put in place to enable this. The emerging farmers have seen themselves as the trail blazers in this regard and need to be consulted in order to develop proactive and innovative land development interventions.

New market systems and governance structures need to be developed:

Linked to the above land reform potential, developing new farmers and then assuming that the current market options would be the most appropriate for them would be wrong. As evidenced by the new market networks developed by the emerging farmer group, new and alternative market opportunities should be considered.

This approach would require a fundamentally different perspective on the part of most in authority of the so called *informal sector*. This is the sector that supplies most of the daily food needs to the communities in the vicinity of the PHA and as such, these entities need effective and market relevant support.

This support would require very different forms of engagement and policy regimes. The current by-laws often serve to criminalise these groups and drive customers to inappropriate retail centres where the poor are unable to attain food that is appropriate or affordable (due generally to alternative sales regimes). The current mini mall model needs a fundamental review as this has been argued to be inappropriate to the needs most residents within the areas of most need²⁰.

Seeking out mechanisms and options to support and build a robust *informal sector* would serve both the potential land reform farmers with a market but provide appropriate access points to the communities that make the most use of these outlets.

Areas of review that require further review and analysis:

Significantly more information is required in on order to effectively understand the role of the PHA in the broader food system and how this impacts on the various stakeholder groups reliant on this area both directly and indirectly.

This research process has only started to generate an understanding of the PHA area and the role that the PHA plays in the region. Making decisions about the area without this information would be irresponsible. Further while those stakeholders that benefit from the area are not fully understood, no systems are in place to support these citizens. The region is fortunate to have access to a number of research institutions, the CHEC university network, the ARC, the MRC and the CSIR. These groups should be approached and specific research requests made of these groups in order to generate the necessary data to fully understand the area. The area is currently misunderstood and as such, its importance to the region and the city is underestimated.

Identification and mobilising of groups that could actively participate in and support the PHA currently and into the future:

The role of civil society and in particular, the non-governmental organisations active in issues of land access, food security, social justice and other social and economic rights advocacy has not been addressed within this report. These groups have a critical role to play within the PHA and while there

²⁰ Informed by three key factors: firstly, most of the entry level supermarkets have been found to be serving the second tier quintile and not the poorest residents within the city (Battersby, in press). This research found that only limited fresh produce was available at these outlets and the produce available (only potatoes, onions and tomatoes were reported) was of poor quality. Lastly, these outlets did not respond to customers buying needs – single items, credit at times, specials and specifically freshness.

may be certain differences of opinion as to what the future of the PHA may resemble (aligned to their own organisational mandates and imperatives), these groups need to be mobilised in order to firstly understand the net value of the PHA to all citizens within the city and secondly, to then assume a far greater responsibility for the attainment of an ultimate vision for the area.

These organisations have a specific and critical role to play in securing the area. They also have a key role to play in defining how the future of the area emerges and how the relationships between the PHA and its stakeholders are facilitated. These civil society groups need to become a voice for the voiceless.



Addendum

Subsequent to the drafting of this report, the City of Cape Town's Spatial Development Framework (SDF) was approved. The PHA features within the SDF, specifically in the section pertaining to the protection of valuable agricultural land. The recommendations within the SDF, while at a more generalised scale, compliment the findings of this report. The authors of the PHA report support the recommendations as detailed within the SDF specific to Policy 28 as it relates to the PHA.

Policy 28 Protect valuable agricultural areas, existing farmed areas and horticultural areas from urban encroachment, and support urban agriculture.

P 28.1 All land use management decisions should be guided by the development guidelines in the relevant district SDP.

P28.2 The section of the Philippi Horticultural Area that is excluded from urban development by the urban edge should be retained for horticultural purposes and the exploitation of silica in the long term.

P28.3 Discourage the further subdivision of land in the Philippi Horticultural Area below what is permitted by the zoning and no further township development should be considered.

P28.4 Discourage development that undermines agricultural activity in Philippi and Constantia, Lourensford and Durbanville winelands/cultural landscapes.

Box 3: Policy 28, Cape Town Spatial Development Framework (Source: CoCT – SDF, 2012: 65)

It is believed that the findings of this review of the PHA compliment the recommendations within the SDF and would assist in the delivery and protection processes detailed within the SDF.

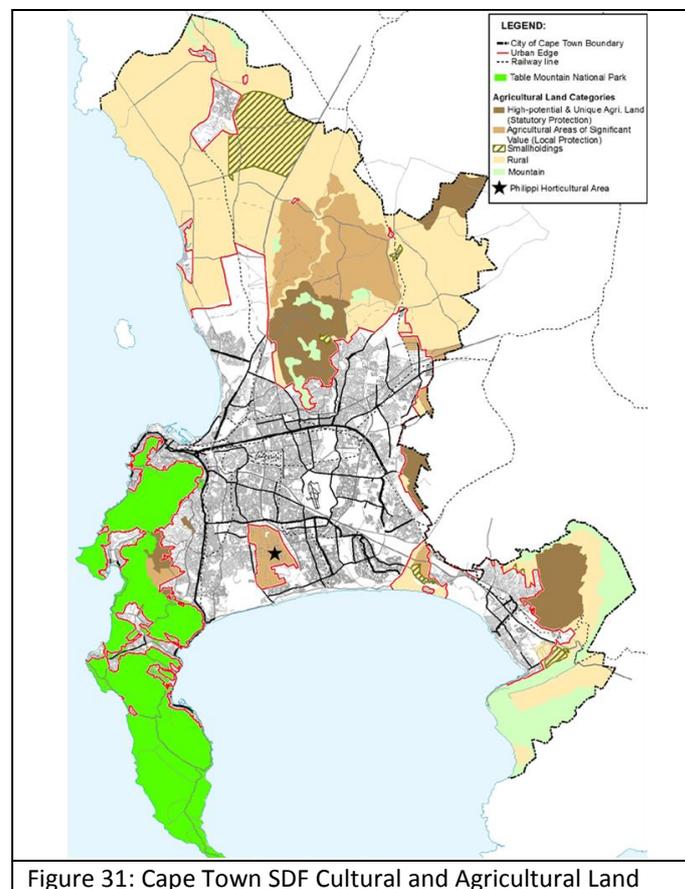


Figure 31: Cape Town SDF Cultural and Agricultural Land

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Pula, 26 April.

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George, 24 April.

Commercial Farmers

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Philip Horstmann, at Marydale farm, 24 April.

Leon Rix, at Geduld farm, 23 April.

Skye Fehlmann, at Gumtree, 25 April.

Gunther Rix, at Groenewald plaas, 30 April.

Johan Boch, at Rietveli Farm/Montagu Gift, 09 May 2012

Other stakeholders:

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Henk Conradie, Philippi AgriMark Manager at AgriMark, 12 April.

Keir Hennesey, Planner City of Cape Town, at City offices, Plumstead, 13 April.

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