

ROTARY CLUB OF NEWLANDS "The club that appeals"

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24 April 2017

WEEKLY UPDATE

P O Box 44735 **CLAREMONT** 7735

MEETINGS: Western Province Cricket Club Sports Centre, Ave De Mist, Rondebosch,

every Monday at 18h00 for 18h15.

ATTENDANCE: Notice of apologies and guests and/or meal specifics to email Melinda

Stapleton at mjstapleton@webafrica.org.za and copy to Bill Meyer at

meyport@iafrica.com before 10h30 on Monday mornings please.

Comment

Graham Finlayson & Jamie Hart

Philippi Farmlands and Cape Town Water

A special bumper issue this week. In the next few pages, following on from the talk at our last meeting on the 10th of April, Graham and Jamie put some of their thoughts in writing.



Philippi Farming Area

Graham Finlayson

This Comment is the written version of a response to the recent talk we had about the Philippi Horticultural Area (PHA), which focussed on the natural sub-terrain aquifer and about how threatened the farming area is due to the City's lack of will to control or manage land development of the area.

This is a personal perspective and I feel it is a topic worthy of further research and comment.

Intro

Many of you may have visited or passed the Philippi Farming or Horticultural Area (PHA) during your life time, without realising the prominent sustainable role it plays within our beautiful City. This is probably because it has no distinctive or scenic land marks as found in much of the rest of Cape Town: it is a flat, sandy, cultivated vegetable farmland with few man-made elements, mostly unattractive farm homesteads and even less fences or walls to demarcate the farms.

It has been the City's proverbial backyard veggie patch for over 100 years.

When we undertook the Philippi Children's Centre (PCC) project, I experienced scenes of déjà vu, while driving in the area. My introduction to the Philippi Farms or Cape Flats Farms was as a child, when I accompanied my mother to purchase truckloads of carrots from the farmers in the 1960's. She was the original farmer in our family and she had an export licence for fruit and vegetables. Table grapes were the main export product, with carrots a filler crop during the winter off-season. The carrots were washed in 45 gallon drums, packed into wooden boxes with paper between layers and shipped in refrigerated cargo ships to the UK, before the days of container shipping. The practice of exporting carrots and other veggies to the UK remains in operation today by a group of farmers in Philippi, according to Lizanne Schultz who was the Cape Flats Agricultural Association's representative on the PCC project guiding committee. As mentioned in the talk delivered, the PHA provides thousands of tons of vegetables to the City and beyond.

History

The original Cape Flats Farmers were a group of German settlers placed there by the British between 1860 and 1880 (post Industrial Revolution times), who managed to survive the harsh environment by developing appropriate farming methods, creating the cultivated landscape we see today. The family names are still around in local farming communities, such as Horstmann, Manka, Rix, and Schultz. The community's social centre was the Philippi Lutheran Evangelical Church located on the corner of Lansdowne and Springfield Roads, where the pastors were sent out from Germany on missions of a few years each, until the 1970's. The PCC premises are the original farmers' children's school which started +/- 1910, which fell into disrepair during the 1990's. This 'German Settler' community is now almost completely diluted and absorbed into Afrikaans and other communities, where the remaining parents are more affluent than their forefathers and the children attend well established Model C Schools in the suburbs.

Resources

Soils are very poor, summer southeaster winds are dehydrating to crops and winter flooding is regular in parts due to the high water table. Winter flooded areas, or vleis, with flocks of birds are common and natural to the Cape Flats. The farmers' methods to deal with these challenges include growing vegetables using methods verging on hydroponic systems: vegetable growing beds are created by raised sand platforms to allow for good drainage while being moist, using minimal organic compost / fertilisers (derived from livestock manure, and sometimes from the Seekoevlei municipal sewerage works), and irrigating continuously in the summer when the South-Easter blows to prevent leaf-burn. The high water table provides a convenient water source: all the farms have wells from 1m to 2,5m deep from which the farmers pump to irrigate, tapping into the natural aquifer. They have developed

low-tech sustainable methods of cultivating vegetables. To top this, their big advantage is its close proximity to market which translates into low transport costs.

I recall my mother being excited about an article in the press of how the City was investigating the Cape Flats aquifer as a water source, due to demand exceeding the then water resources. This was before the Wemmershoek, Voelvlei, Theewaterskloof and Berg River dams were built. Yes, we had water restrictions in the 1960's, when using hosepipes, washing paving and cars, etc. was prohibited for a couple of years, until the Wemmershoek Dam came on line. The news of continuing research into the aquifer was about when I was a student at UCT.

It is no accident that the Hadeda Ibis has migrated and become a prolific resident around Cape Town.

I saw my first Hadeda in CT in +/- 1973. The current habitat here is now most suitable for them due to the City's water consumption exceeding the capacity of reservoirs within its rainwater catchment area, since the early 1900's. Steenbras Dam was the first water source to supply the City from another rainwater catchment area, followed by the others listed above. The effect of this import of water with its discharge into the sewerage works and landscape within the urban areas, read Cape Flats, is not clearly understood; never mind the impact on the Cape Flats aquifer. To claim that removing the PHA farming activity or converting it into urban development will remove the aquifer, is questionable and simplistic. The water issues are more complex than this.

Pressures and challenges

There are a multitude of pressures and challenges for the PHA, such as the following:

Housing Developments:

The Cape Flats was a vast vacant area until demand for housing and development in Cape Town pressurised the City to commence sub-economic and economic housing on what was available as relatively low-cost land. Even today, the sale cost of land is probably the largest hurdle to low-cost housing in the greater Cape Town area. In the early 1900's, my mother's family rode horses from Sandown Road, Rondebosch, to Muizenberg Beach and back without crossing any formal roads, except for Milner Road, through Cape Flats fynbos. The development over the last 40 years of Hanover Park (north), Mitchell's Plain (east) and Strandfontein (south) housing estates has put formal development pressure onto the PHA. Informal housing or squatter camps have developed around the periphery of the PHA, exacerbating the demand for housing development.

Crime:

Associated with low-income and squatter communities, which surround the PHA, tends to be crime. The form of crime is mostly theft, which can lead to fear of safety due to limited security from state services and the cost of implementing expensive prevention measures. Farmers are vulnerable to theft and physical threats due to their semi-remote locations or spatial distances in relation to each other and any formal protection services, particularly if their labour practices are strained.

Sand Mining:

Both the construction industry and glass manufacturing has sourced sand from the PHA sand mines for many decades. The scale of the mining has been relatively small, but appears to have grown over the last couple of decades. The mining rights are controlled by the National Department of Mineral Resources (DMR). The national departments' interests are not always in synch with the local City authorities, which has led to legal proceedings between the City and the DMR in one case, as an attempt to clarify who has the management rights over mining developments within the City areas.

Economic conditions:

Farming is a marginal economic activity on average, which is dependent on many factors such as labour performance, market conditions, weather conditions, etc., particularly for small and medium scale farmers; it is a profession that carries many risks. Vegetable farming is an intensive labour practice, required for planting, weeding and harvesting. Once food retailers and the economy experience pressures, these are in turn imposed on the farmers, the lowest tier or primary tier of food production, which in turn can put pressure on the farmer's labour relations. If land values increase

and are good in the land development market, i.e. offer good opportunity for property developers or the City as a low-cost housing developer, it is very difficult for small and medium scale farmers to resist the offers.

Some of the Rix families relocated to larger farms, outside of Kraaifontein, on the Bottelary Road and the Old Paarl Road during the 1970's. Others moved out of the farming profession. Farmers are expected to survive under a free-market environment, which has rewarded large scale farming. Large scale farming practices use economies of scale, specialised business practices and low mark-ups on large volumes to obtain reasonable or good profit to succeed. The same applies to chain store food retailers.

Local authority controls

The City's Town Planning or Land Use Management sections have are mandated and have attempted to manage the PHA land use rights through the Town Planning Land Use Zoning Schemes, currently the Cape Town Integrated Zoning Scheme, which carries legal structure. It is difficult to amend the land use rights or rezone property from the Agricultural Zoning to Residential or other more intense land use Zonings. The PHA land use rights for agricultural use was reinforced in the Metropolitan Spatial Development Forum's (MSDF) Guidelines developed for the Cape Town Metropole during the late 1980's, when all political and extra-political parties agreed on the formalised City's development guidelines and goals. But, these town planning land use rights can be undermined by irregular land use on the ground, poor policing of this irregular land use and undermining by politicians within the local authorities that control and manage the land use rights, due to pressures outlined above. Unless voters (where farmers are a minority sector) pressurise politicians, business is most able to convince politicians with their resources and offers to the City bureaucracy for any advantageous changes to land use rights.

What is the future?

In the context of the above pressures and the lack of political support from local or national government, there is little incentive for farmers of advanced age or their next generation to continue with their high risk profession, particularly if a good offer is made for their land which will allow them to either retire or move to farmlands outside of the City where they would be free of most of the pressures outlined above. Under these conditions, it is extremely difficult for the town planners within the City to defend the current land use rezonings, albeit advising the politicians otherwise. The scenario is similar with law enforcement. It requires a coordinated approach from all local authorities to secure the PHA's future. Currently, it is disjointed, like much in SA.

Is it worth enforcing and retaining the PHA?

For reasons of sustainability and food security: low transport costs to market, visual aesthetics, ecological 'green-lung', labour based low tech and heritage values, there is merit, in my view. It will not be an easy exercise considering the current pressures, but these can be managed and can come to pass with time, with sufficient political will and support.

Much of South Africa's food is transported long distances, from source to market. Like most chain stores in SA, Woolworths, for example, obtains each product generally from one supplier. 80% of their yogurts are supplied from a processing plant in Howick, Kwazullu-Natal. This is not a sustainable model and is costly to consumers in the long-term.

The big and immediate challenge to preserve PHA as a vegetable growing domain is to inform and convince City voters and civic groupings that it is in their interest that the PHA is retained, whether in its current format or another - small or large scale. This is required so that pressure can be brought to bear on the local authorities, developers and food retailers, for a coordinated approach.

Cape Town Water Situation

Jamie Hart

After the meeting on the Philippi horticultural area, Mike Young asked me to write a short synopsis of where Cape Town is in relation to its water supply

At the risk of simplifying a complex situation to the point of absurdity, the situation is really dire in that Cape Town has relied on surface water stored in dams for most of its supply through the years. Most of these occur outside the Cape metropole and the last one built was the Berg River dam just outside Franschhoek just a few years ago. There are very few sites, if any, available and the nearest one, the damming of the Palmiet river in the Kogelburg biosphere might just cause a major environmental storm!

In the past few years, the department of Water Affairs and Sanitation has been encouraging the development of alternative sources of water. De-salination is a possibility but is very expensive and requires a lot of energy, something the city doesn't have access to at present with the current Eskom supply. Another source is the use of re cycled water from the city's waste treatment plants which can be purified to a very high standard and used as potable water. This water is currently either discharged to the sea or used to water sports fields. Before everyone has a fit, major cities such as London, Paris and New York use this water as a supply and it could be said the water drunk in London has been through possibly 7 previous systems as most of the towns upstream of London make some use of the River Thames as a source of water.

Another alternative is the use of underground water which is certainly abundant but not necessarily easy to source. The Table Mountain aquifer which is underneath the Philippi area is one such source but has to be very carefully managed. There are also major aquifers underneath the Cape Fold mountains extending as far as Port Elizabeth which are relatively easy to access by drilling but require very special handling if they are to be used sustainably for the future. This is as a result of the geology of the mountains which are largely sandstone. Effectively the city has to make an application to DWAS for a borehole and then comply with a very stringent set of parameters for extraction of the water. These include the depth that can be drilled to, the amount of water that can be abstracted without affecting other water sources and the surrounding flora - this is usually done in a series of stages before full volume is reached. One major parameter is to check the level of electrolytes in the water. If this gets too high it may mean the borehole is affected by sea water and rendered unusable.

The chemical composition of the water may be significantly different from the water taken from a dam. This water has filtered through from the surface and dissolves chemicals on its path downwards. For example the water used in Hermanus, which has a borehole system under development, contains significant quantities of iron and manganese dissolved from the rock. These do not show up initially, but as the water is exposed to oxygen from the air they turn the water brown which causes chaos with the residents' laundry! The elements are removed in a special biological filter plant before being blended in with water from the local dam. It is therefore very likely that any underground water from these aquifers would need special plants building before the water could be blended in to supplement surface water.

One of the important things to understand about aquifers is that they need to be re charged on a regular basis as they are effectively storage sponges. Most are replenished by rainfall in the catchment areas which is why it is so important when pumping to see what the drop in levels is, and if the level stays constant at a given pumping rate showing it is sustainable. The Table Mountain aquifer draws its water from a large catchment area including the Cape Flats, and urbanisation has affected the amount of surface water filtering to the underground reservoir. One possible shorter term

solution using the Philippi aquifer would be to divert water currently discharged into the sea from Strandfontein treatment plant and feed it through reed beds to purify it before feeding it underground to supplement the aquifer. This is also one reason why wetlands are so important in the environmental balance as a source of good quality water.

In conclusion, therefore, there are certainly solutions but whether they can be implemented very quickly is not likely. Most of these solutions may take up to 5 years to put the infrastructure and monitoring in place. With the rapid increase in urbanisation of the city the demands on our water supply will increase significantly. When we look at the predictions of weather in the future, it will be seen that our climate is going to get drier rather than wetter in the long term. This will exacerbate the problem so the sooner the city implements a strategy for developing alternative water resources the better!

Previous Meeting

Minutes of the meeting on 10 April 2017 Scribe: Terry Lancaster

Sergeant Mike Walwyn opened the meeting after a delay due to the missing projector.

President Chris Beech asked all present to stand in silence in memory of George Dommisse, a past President who had passed away.

President Chris then welcomed our speakers Nazeer Sonday and Susanna Coleman and guests Marietta Daubenton and Barbara Murphy.

The 4 Way Test was read by Lucian Pitt who introduced a new version for which he was fined later.

The Grace and Toast to Rotary International was done by Corinne Hudson.

Stirrer Spoon – Remains with Geraldine.

Wine Swindle – Won by Richard Burnett who donated his prize back to the club.

Graham Finlayson asked for volunteers for his incoming board.

Bill Holland raised his concern about our speaker system which is hardly ever up to standard.

Mike Young then introduced our speakers Nazeer Sonday and Susanna Coleman from PHA — Philippi Horticultural Area who spoke for the need to protect the farmlands of Philippi that supply up to 80% of the city's vegetables each year. These farmlands are under threat from developers who want to develop these farmlands and build over the Cape Flats Aquifer which is vital for the water needs of the city and needs to be recharged naturally. A number of questions were raised and Nazeer asked that we all have a mind set to save water.

After dinner President Chris thanked everyone who had worked at the Rotary Fun Day.

He also congratulated all those having wedding anniversaries and birthdays.

Happy Rands were then collected and Sergeant Mike closed the meeting.

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Newlands Rotary ClubRunner Calendar

FUTURE FIXTURES

Year Planner

Please advise the secretary promptly of any additions or changes

April 2017

Mon 24 Business

May 2017

Mon 1 No meeting (Workers Day)

Mon 8 Partners

Mon 15 Ordinary

Mon 22 Ordinary

Mon 29 Business

Happy Birthday

5 May Graham Finlayson 25 April Peter Ennis

7 May John Biesman-Simons

Discount for Seniors!

well. Check it out!

CHICKEN AND BISCUITS DINNER

Those wonderful cooks of the Alburgh Legion Auxiliary are at it again! They will be preparing a delicious Chicken and Biscuits Dinner on Saturday, July 27 starting at 6 pm. The menu includes: chicken and biscuits, potatoes and gravy, vegetables, dessert and coffee. The cost is a donation of \$10 for Adults, \$9.99 for Seniors and \$8 for kids age six to twelve. Bring the family and enjoy a home-cooked meal that you don't have to prepare yourself!

UMPIRES AND SCORERS

DATE	24 April	1 May	8 May	15 May
MEETING	Business	No Meeting	Partners	Ordinary
SERGEANT	Andy Ismay		Jana Forrester	Jamie Hart
4 WAY TEST/ OBJECT	Graham Lowden	Public Holiday Workers Day	Pippa McLeod	Corinne Hudson
GRACE & TOAST	Peter Henshilwood		Tony van der Lith	Jenny Ibbotson
ATTENDANCE	Abe Oliver		Terry Lancaster	Lucian Pitt
FELLOWSHIP	Nora See		Henry Campbell	Wybe Meinesz
MINUTES	Paul Spiller		John Stephenson	Bill Holland
COMMENT	Glynis Menné		Anthony Galloway	Michael Walwyn
THANK SPEAKER			Heidi Andersson	Melinda Stapleton
INTRO SPEAKER			Graham Finlayson	Vanessa Rousseau

Invited GUEST SPEAKERS

8 May Lew Botha – Sustainability in Rotary

If you cannot do your job on the day, <u>please</u> find someone who can do it instead of you, then contact the Sergeant on the day to update the roster. Please don't leave this until the Monday afternoon — let the Sergeant know in advance if you have not been able to arrange a swap. If you are going to be away for particular future meetings let Peter Ennis know.



Rotary Club of Newlands Office Bearers

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Books for the World

For all educational school books and novels for age from early education to High school

CONTACT: FRANCOISE NDAYIZIGIYE 0737317056

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