



**By 2030 eThekweni will be Africa's
most caring and liveable city**



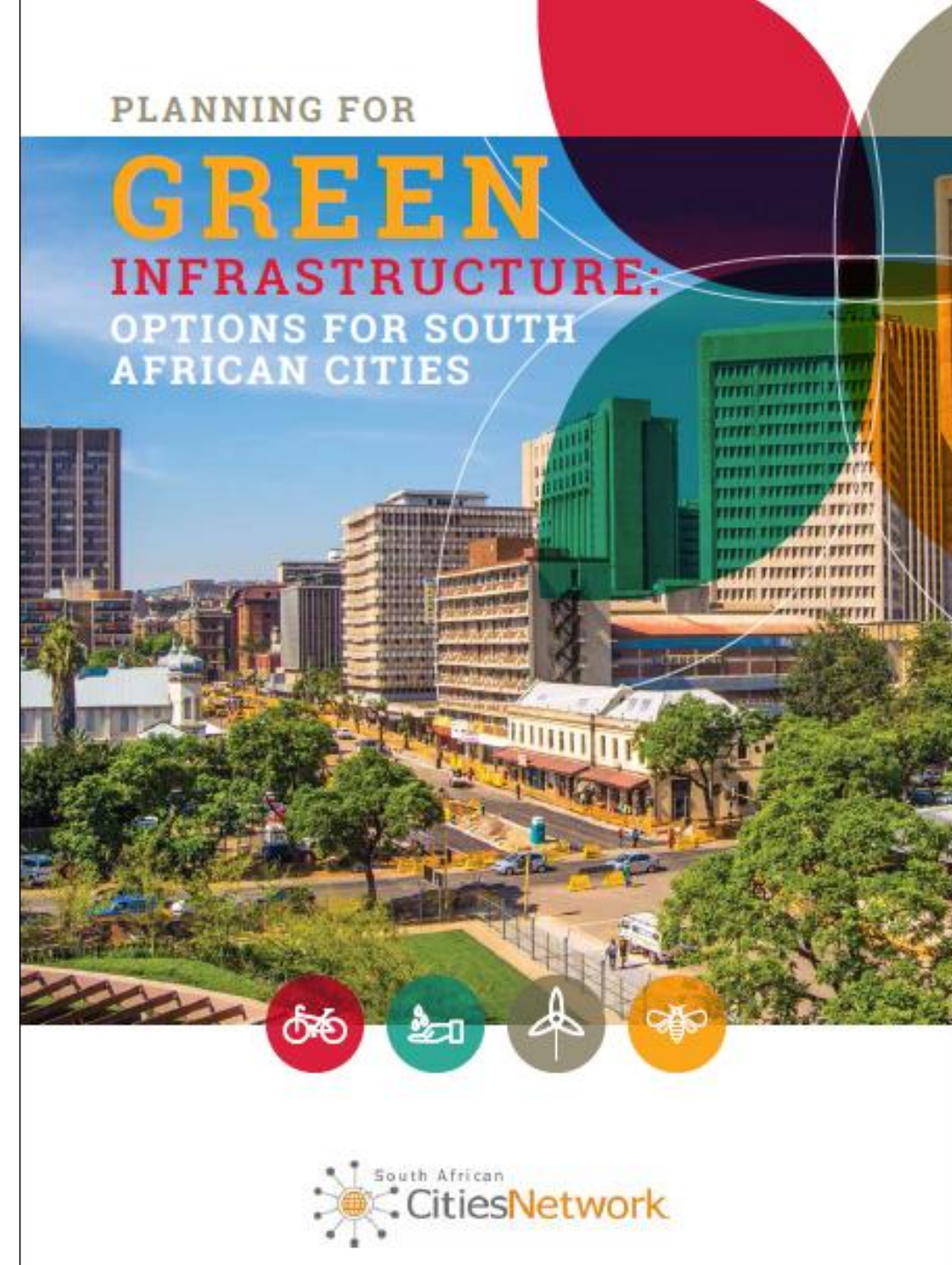
Urban **Trail** Networks

Revitalising public open space


Martin Clement | Durban Botanic Gardens | eThekweni Municipality

Introduction

- Accessible public greenspace is vital for the resilient future of South African cities.
- Our public green spaces need be better integrated and connected across communities.
- Recent ideas within place-making present opportunities to help revitalise public greenspace.
- Current challenges with public greenspace management:
 - Crime (vandalism, lack of responsible use)
 - Lack of community ownership



CONCLUSIONS: PLACING "GREEN-BENEFITS" IN SPATIAL PLANNING TERMS

	Greening approach	Implementation examples
	Protect and plan green networks	<ul style="list-style-type: none"> > Provide trees along sidewalks to maximize greening > Convert parking spaces into green land uses, such as outdoor seating spaces or urban gardens. > Clear vacant land parcels to make way for rain gardens and allotment gardens. > Demarcate outdoor retail areas with greening initiatives such as raised beds or pots instead of conventional railings. > Allow space for afforestation and increased green space cover. > Extend tree planting schemes beyond kerbside locations. > Encourage green roofs and green walls within cities.
	Improve connectivity between green spaces	<ul style="list-style-type: none"> > Connectivity should be enhanced by an integrated blue-green network. > Improve connectivity by creating common green areas, linked by green corridors, ecological highways and greenways. > Establish a street connectivity ordinance that is customized to various local factors, such as topography, natural features, climate and desirable historical precedent. > Provide accessible pathways to amenities and consider pedestrian-only streets where appropriate. > Implement multi-way boulevards. > Allow space for canopy trees, street lighting, bus stops with seating/shelters, and pedestrian refuge. > Plan and manage a network of green spaces and geographically formed corridors aimed at conserving ES values and providing benefits to humans. > Encourage combined functions within the same space. > Encourage stacking of green functions and integration of functions.

Human wellbeing and the value of urban parks

*Urban parks were originally created so people could escape from the dirty reality of city life. In the 21st Century the best city parks are also **multi-use destinations** and **catalysts for community development**.*

<https://www.pps.org/category/parks>

*...parks fulf[fil] a basic human need for connection to (1) family, loved ones, and friends; (2) community and neighborhood; (3) self; and (4) nature. Based on these data, we proposed a **human-centered framework** for future research and interventions aimed at catalyzing parks as a vehicle to improve health and wellbeing.*

Ewelina M. Swierad and Terry T. K. Huang | An Exploration of Psychosocial Pathways of Parks' Effects on Health: A Qualitative Study*

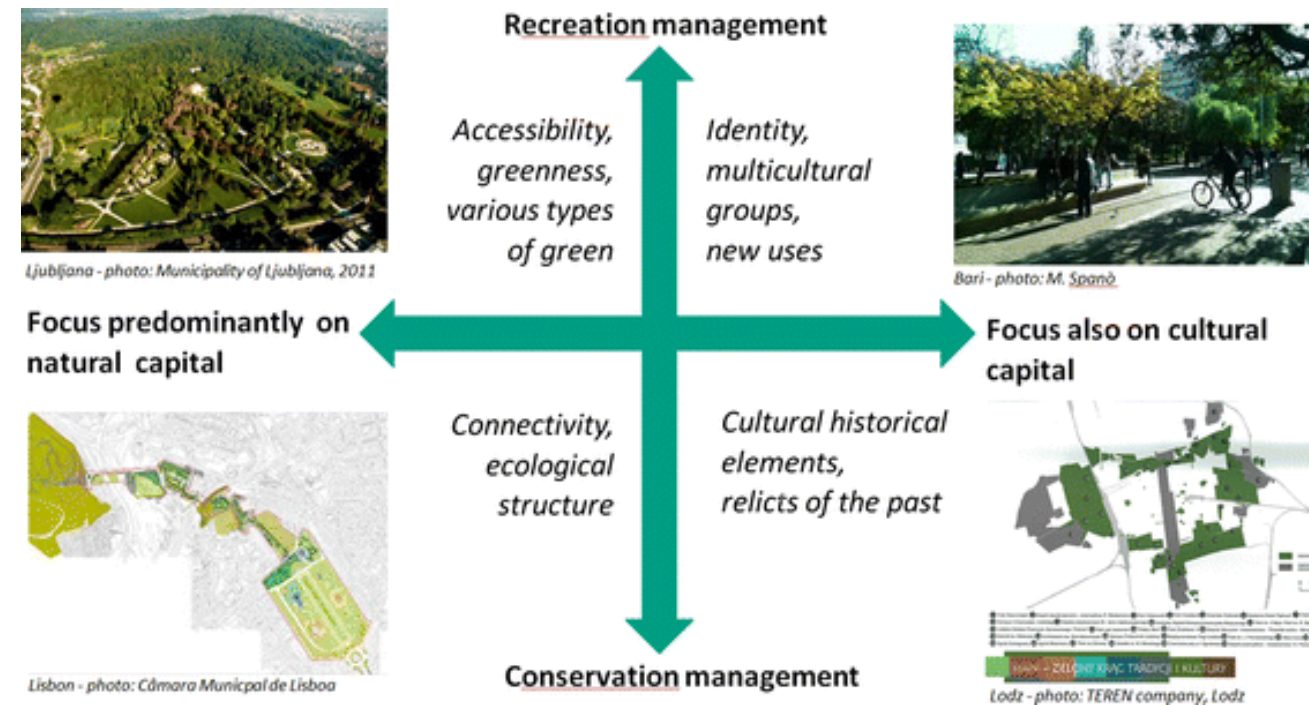
J Environ Res Public Health. 2018 Aug; 15(8): 1693.



LOCATION PLAN

Biocultural diversity

- **Interrelatedness** between people and their natural environment,
- **local values and practices** of relating to biodiversity of different cultural groups - starting point for sustainable living with biodiversity.
- **Future societies** will largely diverge from today's societies, the cultural perspective on living with (urban) nature needs careful reconsideration.



Biocultural diversity: A novel concept to assess human-nature interrelations, nature conservation and stewardship in cities
H.M.ElandsaK.VierikkobE.AnderssonL.K.FischerdeP.GonçalvesfD.Haas
eghl.KowarikdeA.C.LuzfJ.NiemeläiM.Santos-ReisfK.F.WiersumaUrban
Forestry & Urban Greening
Volume 40, April 2019, Pages 29-34

THE BENEFITS OF GREAT PLACES



Examples of place-centred greenspace innovations

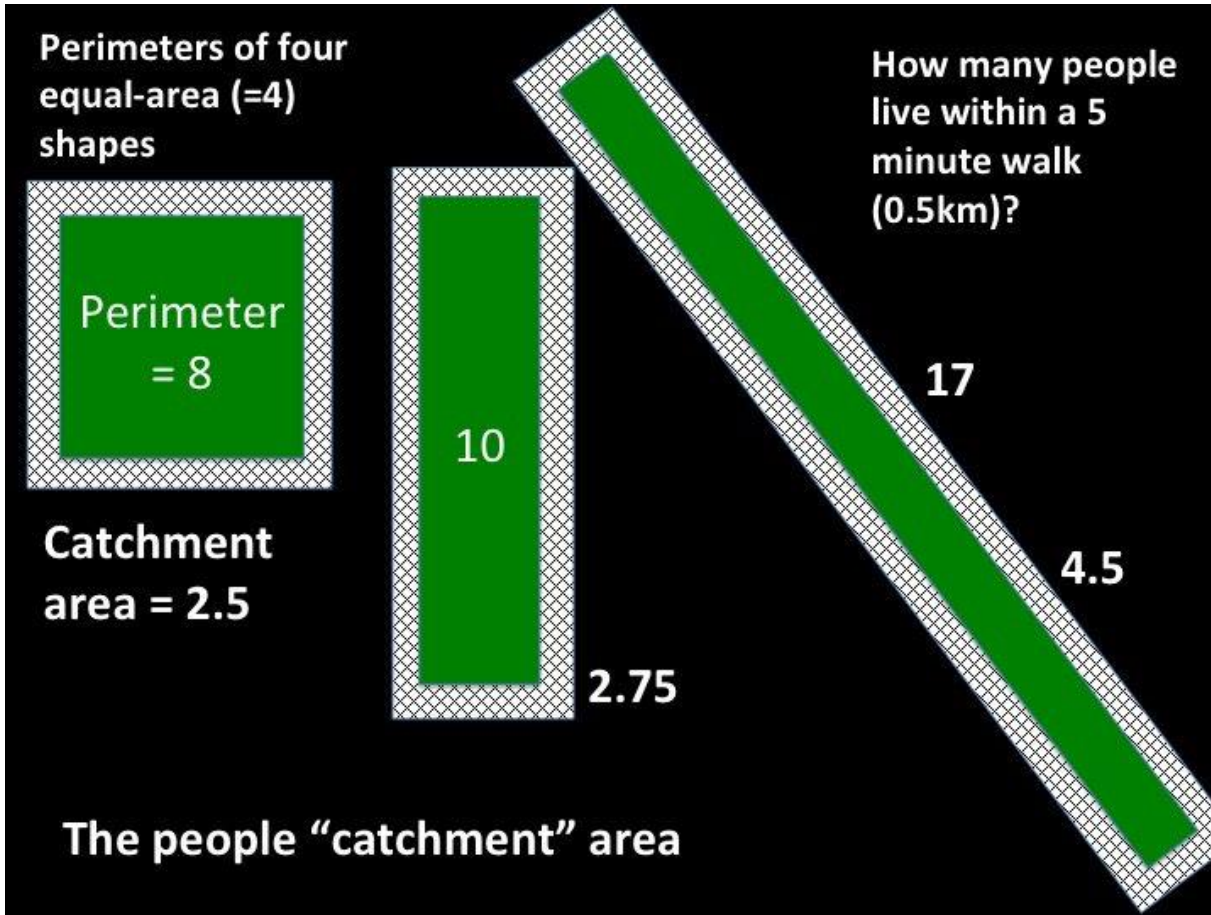




Linear Parks: The Importance of a Balanced, Cross-Disciplinary Design

Ana Faggi, Buenos Aires. Claudia Zuleyka Vidal, Cali. Florencia Gustelar, Buenos Aires. Romina Lopez, Buenos Aires.
18 January 2017

The case for linear parks



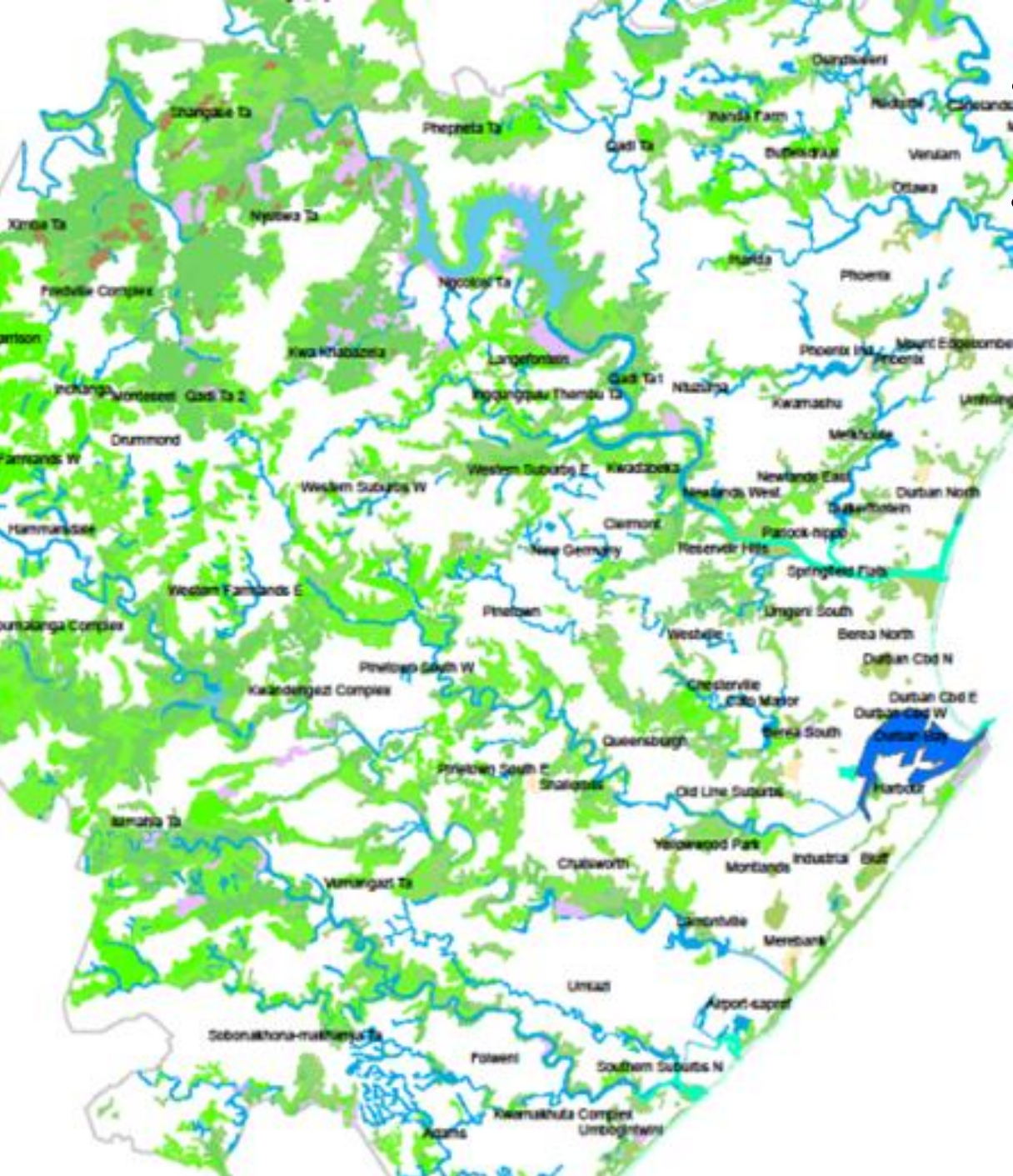
People catchment area. Four equally sized parks have dramatically different perimeters because of their shapes. The long and skinny park is within 1/2 km of almost twice as many people as the square park.

Image: David Maddox

Justice and Geometry in the Form of Linear Parks

David Maddox, New York. 18 April 2016

<https://www.thenatureofcities.com/2016/04/18/justice-and-geometry-in-the-form-of-linear-parks/>



• Durban Metropolitan Open Space System (D'MOSS)

- D'MOSS is a system of
 - open spaces, comprising **94 000 hectares** of land and water that incorporates areas of high biodiversity value linked together in a viable network of open spaces.
 - Some areas of **privately-owned land** are also included in D'MOSS.
 - D'MOSS is mapped by the Biodiversity Planning Branch of the Environmental Planning and Climate Protection Department (EPCPD) using the **Systematic Conservation Planning approach** which is recognised by National and Provincial environmental authorities as the accepted methodology for the prioritisation of areas for biodiversity and ecosystem service protection in South Africa
 - According to a World Bank report produced in 2017, natural and semi-natural systems within the eThekweni Municipal Area give rise to flows of ecosystem services worth at least **R4.2 billion per year**.
 - The total asset value of these areas was estimated to be at least **R48-62 billion**

ETHEKWINI 5 YEAR NON-MOTORISED TRANSPORT PLAN



NMT: footpath system and crossings



DETAILED EXTRACT OF THE FOOTPATH SYSTEM TO BRIDGE CITY



The case for trail running as an urban greenspace activator

- Eco-sports e.g. trail running is beginning to demonstrate the value of developing urban trail networks in South African cities.
- Potential environmental psychology of trail running and its place attachment to specific green spaces.
- Case examples – Riverside Trail (Virginia Bush) and Stella Athletic Club (Glenwood public green spaces)





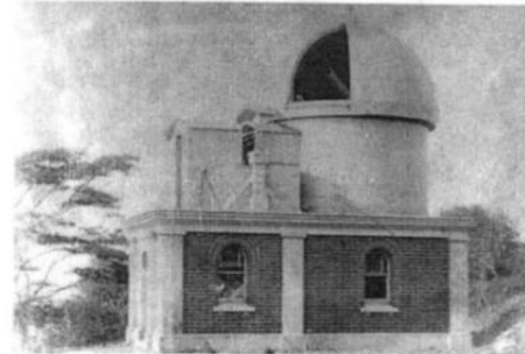
Upper Gardens.....opportunities for connection



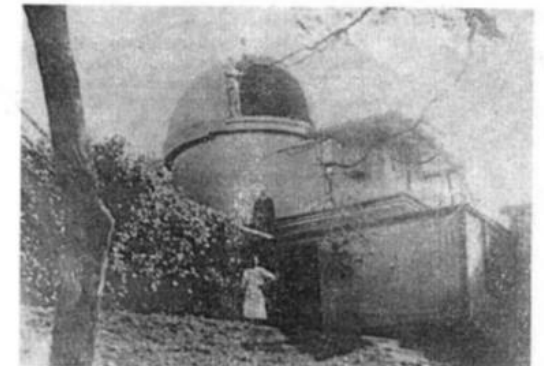


The Natal Observatory Land

In 1884 The Natal Observatory officially opened. The dome and 8 inch Grubb telescope had been erected specifically for the observation of the transit of Venus that year. Back then this was an event of particular significance as it allowed for the accurate measurement of the Earth's distance from the Sun. The land secured for the Observatory was then 2 acres of Lot A, Botanic Gardens 2602. Today this is 230 Currie Road. This land was officially transferred on the 7th of January 1884 from the Durban Botanic Society "unto the Colonial Secretary of Natal and the Surveyor General of Natal for the purposes of The Natal Observatory ". It is interesting to note that this property was never transferred at Union in 1910, as many properties were, and the original 1883 title deed still states that the land is owned by The Colony of Natal. (See Appendix A.) The Natal Observatory was not an entity in the form of a company or society - with only a single, ill-funded astronomer, no such organisation existed in this period. The provision was rather an expressed purpose for this site. The land was specifically sold for zero pounds by the Botanic Society for the purposes of an observatory.

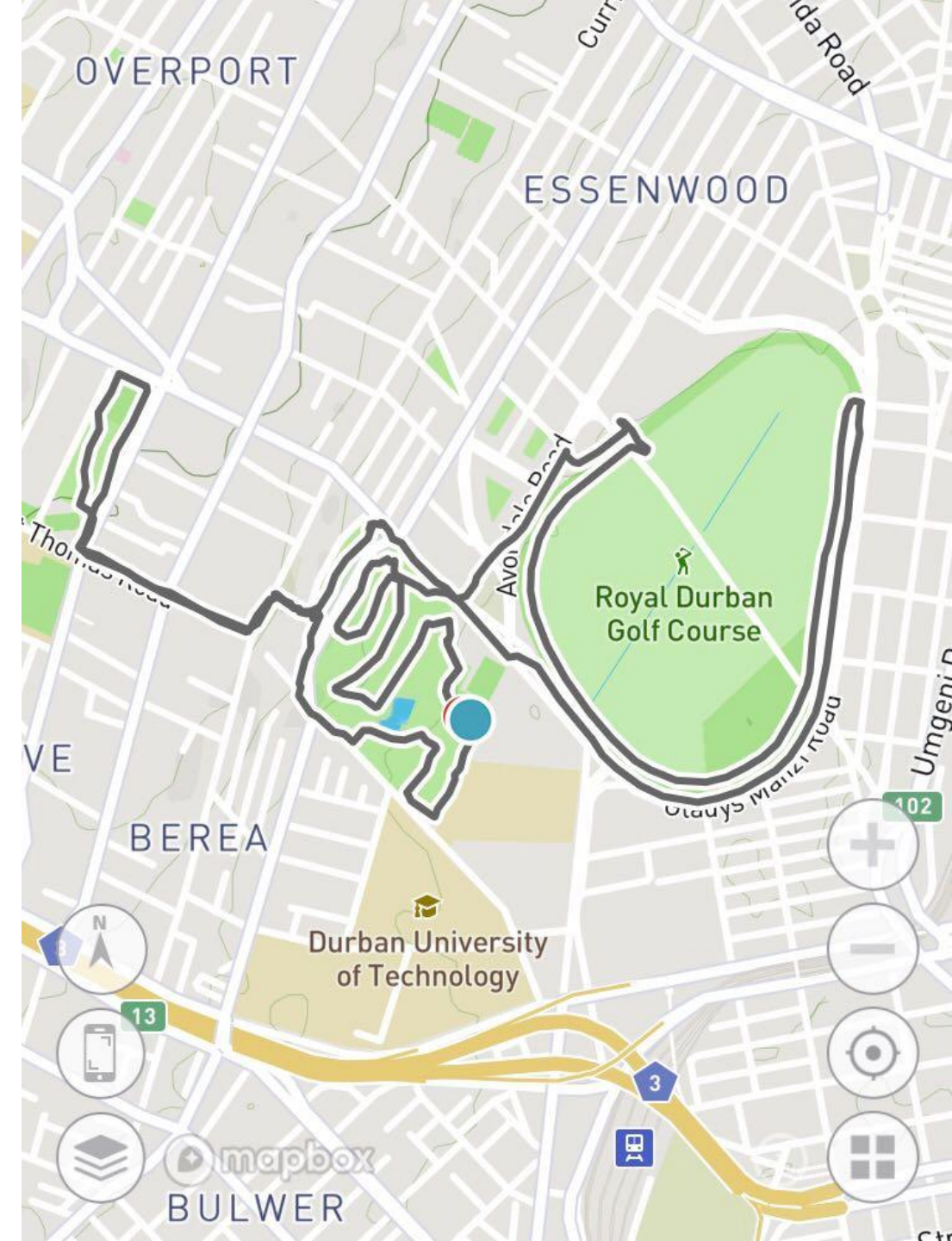


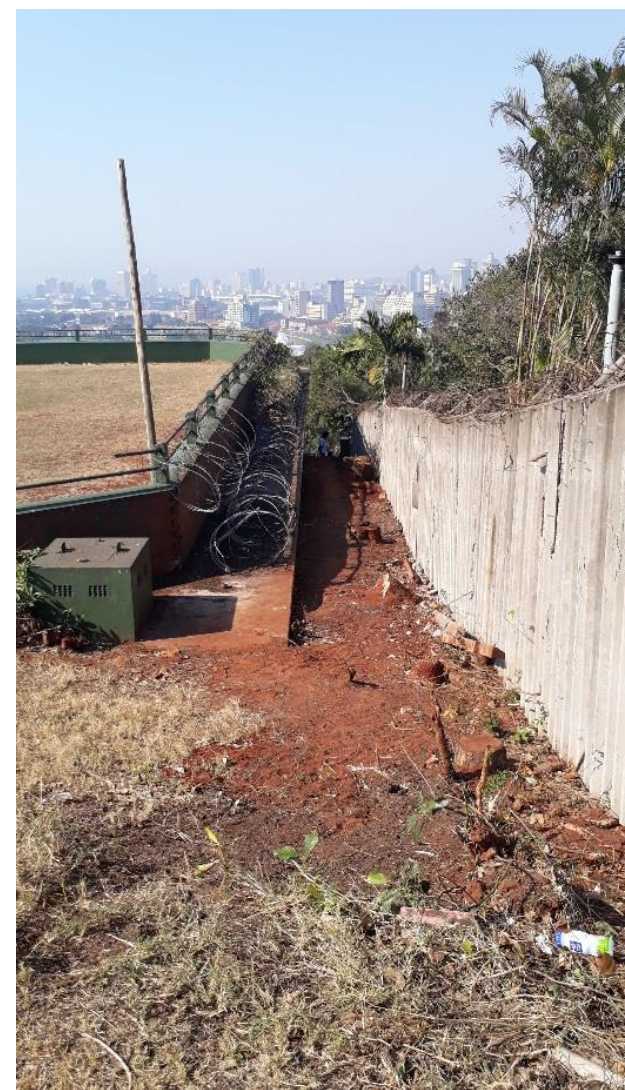
Photographs of the Observatory and 8 inch Grubb telescope.



Urban Trail Network - phase 1

- Botanic Gardens – Currie Road - Berea Park









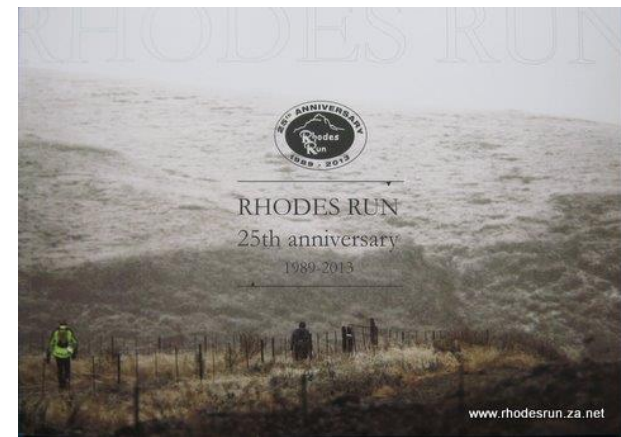
RIVERSIDE
TRAIL



Riverside Trail case example



BLITZING his way to an incredible finish, Eric Ngubane showed his fine form in his final event of the year as he claimed top honours in the uMhlanga Trail Run on Sunday 18 December at the uMhlanga Summer Festival. <https://www.news24.com/SouthAfrica/Local/Hillcrest-Fever/hillcrest-star-takes-umhlanga-trail-run-2016-20161219>



- Initiated by Buzz Bolton in 2010
- Inspired by the Rhodes Run (52km)
- Runs - every Wednesday, Thursday and Saturday mornings from Seattle Coffee at Virginia Circle, Durban North, at 5:15 am (Virginia Bush and surrounds).
- See Riverside Trail Facebook page.



- 1. Lower Path
- 2. Upper Path
- 3. Ankle Alley
- 4. Northern Side
- 5. Middle Path
- 6. Southern Side

- 7. Malcolm's Bridge
- 8. Base Camp 1
- 9. Froggy Pond
- 10. Knobbly Tree
- 11. Administration Office
- 12. Grassy Verge

- 13. Up Left
- 14. Big Hole
- 15. Hydroponic House
- 16. Secret Spot
- 17. Wasp Alley
- 18. Magic Tree Stairs

- 19. Base Camp 4
- 20. Staircase
- 21. Top Gate
- 22. Barking Dogs
- 23. Everest
- 24. Graffiti Wall

- 25. Secret Path
- 26. Fallen Tree
- 27. Slippery Bridge
- 28. K2 Gate



City's Burman Bush intervention welcomed

THE news the City has allocated around R5-million to replace the damaged fencing around Burman Bush Nature Reserve has been welcomed by Glenashley resident, Buzz Bolton.

Speaking to *Northglenn News* last week, Bolton encouraged walkers and trail runners to make use of Durban's reserves including Virginia Bush Nature Reserve and not to be deterred by criminals.

Bolton along with several members of the Riverside Trail group recently ran through Burman Bush stating it was their first run in the reserve since the murder of the former KZN philharmonic musician, Simon Milliken.

Milliken's death was the third murder at the reserve in the last four years.

The Riverside Trail group have used Burman Bush for their social runs regularly and Bolton has urged users of the reserve not to let the possible danger deter them.

"Since Simon's passing, walking and running in Burman Bush has naturally become limited. It is encouraging to hear that new and secure fencing will be erected around Burman Bush. I've heard the City have posted security personnel there and runners and walkers need to sign

Exclusive
to print



Christian Dlamini (ranger for the Natural Resources Unit) and Buzz Bolton urge residents to make use of Burman Bush Nature Reserve in Morningside and not be deterred by crime in the area.

in and sign out. I would like for them to go one further and give the number of the security officer to all who visit the reserve.

"We recently enjoyed another run from the main entrance to the

lookout platform. We are however always conscious of security and use the belief that there is safety in numbers. The yard stick rule followed is that there must be no less than five persons with the

majority being males. The other bit of advice we'd offer is to stick to the trail," he said.

Bolton also urged residents to make use of Virginia Bush Nature Reserve.





- *All funds raised are ploughed back into Krantzklouf Nature Reserve. Funds from the 2018 run were used mainly to upgrade the parking area at the Kloof Falls Picnic Site and for trail repairs.*

A promotional poster for the Kloof Conservancy 3 Falls Trail Run. The background is a dark blue sky with a white cloud. The logo from the previous block is in the top left. Below it, the text 'One of the most stunning, challenging and friendly trail runs in South Africa!' is in white. Further down, 'Start / Finish: Forest View Primary School' is in white, with '*Plenty of safe parking available' in a smaller font below it. At the bottom, 'Date: Sunday, 4 August 2019' and 'Start Time: 06:30' are in white, with '*Registrations opens from 05:10' in a smaller font below it. On the right side, there is a green circular callout with white text that reads: 'Through the unspoilt wilderness of Krantzklouf Nature Reserve, past refreshing waterfalls and breath-taking views, Kloof Conservancy's 3 Falls Trail Run is undoubtedly a trail running at its most beautiful.' A wooden stick is shown holding the callout from the bottom right.



KWA-XIMBA
CONSERVANCY
SONGA IMVELO

Kwa-Ximba Trail Run

- For nature

- This is the only source of income for the Kwa-Ximba Conservancy. All funds raised will be used to employ workers to maintain paths for hiking and nature walks as well as for promotional activities and projects of the conservancy.*

<https://www.kloofconservancy.org.za/trail-running/kwa-ximba-trail-run/>

IN PARTNERSHIP WITH LUBOMBI RIVER CORRIDOR
THE KWA-XIMBA CONSERVANCY AND THE KLOOF CONSERVANCY PRESENT

Kwa-Ximba Trail Run

..... TRAIL RUNNING FOR NATURE

All money raised goes to the Kwa-Ximba Conservancy to:
- Run the conservancy - Fund local environmental projects - Maintain the trail route

SUNDAY, 28TH OCTOBER 2018
START 8:30H AT DITHUMBA MONUMENTS
START TIME: 08:00

THREE DISTANCES:

Distance	Price	Description
Fun Run	(R 75)	Along the Ungeni River and Mgweni Valley.
Moderate Run	(R 120)	Including a climb in the Mgweni River Valley.
Tough Run	(R 200)	With steep ascents and descents involving Dingo Plateau, Mgweni River Valley and uThumba Mountain - a stunning granite dome.

ENTRIES OPEN 6 AUGUST
To enter, visit www.kloofconservancy.org.za or scan the QR Code
info@kloofconservancy.org.za | www.trailrun.kwa-ximba.org.za



KING SHAKA TRAIL RUN

"Follow in his footsteps"



18th AUGUST 2019

5KM - R90 / 10KM - R140 / 15KM - R160

START & FINISH AT REDDAM HOUSE, UMHLAGA

Entries at www.roag.co.za or www.wardevents.co.za

Pre-entries close 14th August 2019

Late entry fee: 5km - R120; 10km - R170; 15km - R190

Enquires: events@wardevents.co.za | 082 492 1995

Goodie bags to the first 200 entries



Lace up for King Shaka run

LOCAL residents Dave Ward and Buzz Bolton have urged residents to take part in this year's King Shaka Trail Run which takes place on Sunday, 18 August. The event is a fundraising event for Riverside Trails with some of the proceeds going to much needed projects in Virginia Bush Nature Reserve.

Speaking to *Northglen News*, route planner, Bolton said the event also has a heritage aspect to the event.

"With the event occurring so close to Heritage Day we will have a few Zulu warriors encouraging the runners on the course. This is now our fourth King Shaka event and this year we've found a new home with all the races beginning and ending at Reddam House in Umhlanga. There will be three distances on offer namely 5km, 10km and 15km, with a mixture of sugar cane roads, beautiful single track and paths in and among the cane fields.

"This is a fund raising event for Riverside Trails, with proceeds from the event going to assist with projects inside

the home of Riverside Trails namely the Virginia Bush Nature Reserve. One of the projects include the upkeep of the 8km of pristine running and walking trails and the upgrade of signage and staircase railings."

According to co-organiser Dave Ward, there will plenty of secure parking at the school and lots of activities on the day including jumping castles, food and drinks vendors, DJ, music and lucky draw prizes.

Event details

The King Shaka Trail Run takes place on Sunday, 18 August. The race starts and finishes at Reddam House Umhlanga and offers a 5km (R90), 10km (R140) and 15km (R160) trail options. There is a R30 late add on entry fee for those who enter on the day. To enter visit www.roag.co.za or www.wardevents.co.za.

For enquiries contact 082 492 1995.

Pre-entries close on Wednesday, 14 August. There are goodie bags for the first 200 entries. All races start at 7am with on day registration starting from 6am at Reddam.



organiser, Buzz Bolton hopes the community will come out and support the King Shaka Trail Run which takes place on Sunday, 18 August. PHOTO: S

Fund raiser for Riverside Trails and looking after Virginia Bush

Glenwood Trial Trail Run

Wednesday 17 October

Starts at Stella Athletic Club

17:15pm

+/-10-12km

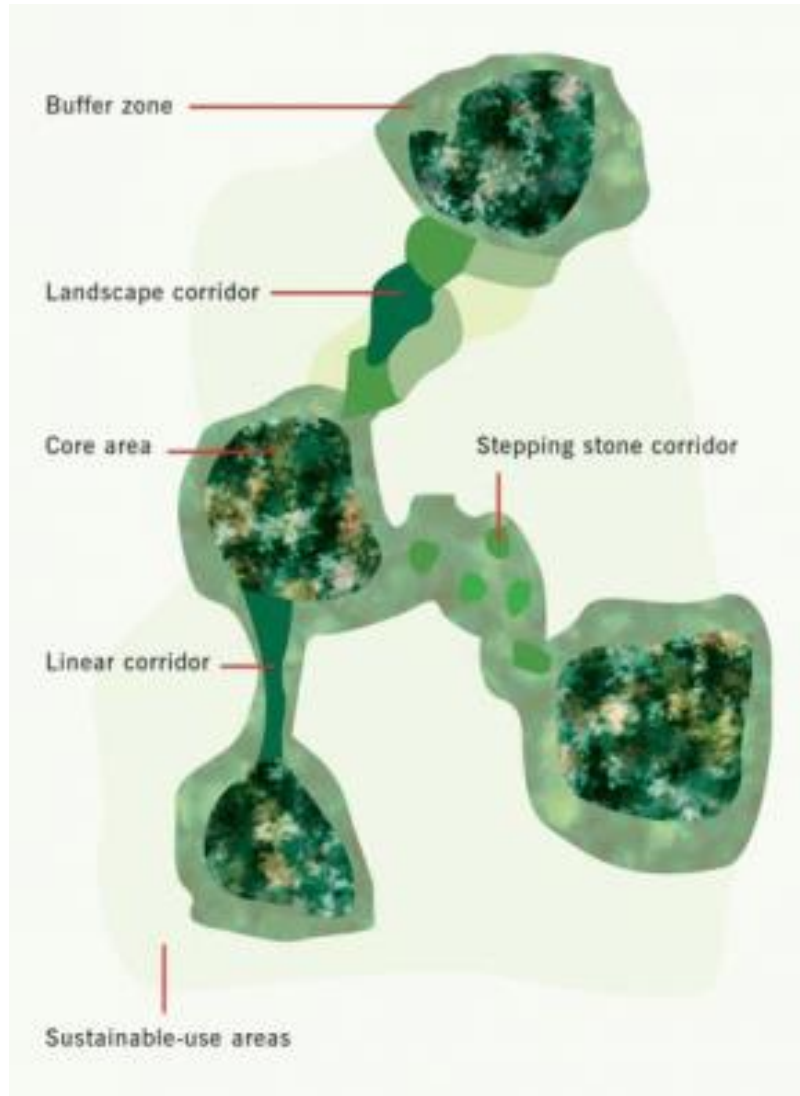
Tester route will include Pigeon Valley and Msinsi Reserve (UKZN)

An initiative of Durban Botanic Gardens' Urban Trail Network



Verges & sidewalks: Roadside Ecological Networks

Ecological networks consist of core areas, corridors and buffer zones. Corridors create a permanent connection between core areas. <http://www.sicirec.org/definitions/corridors>



Manor Gardens Primary eco-verge



Developing park identity & green side walk connections

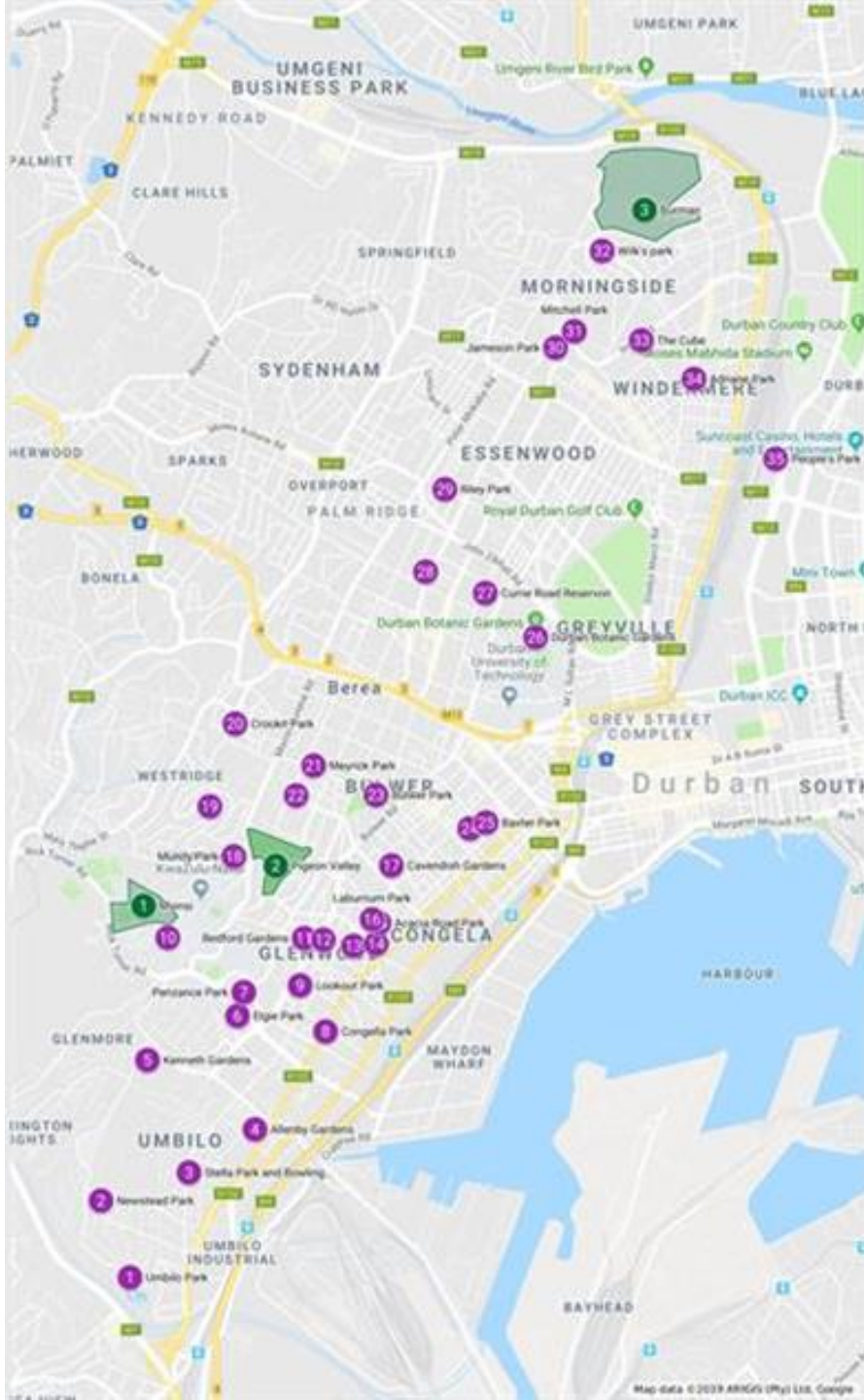
Meyrick Park, Glenwood (#21 on the map)

Meyrick Park has a children's play area with swings, roundabouts and see-saws, and thanks to its position high up on the ridge provides a beautiful view over the Durban Harbour.

Bulwer Park, Glenwood (#23 on the map)

Bulwer Park provides a multi-functional hub that brings Glenwood residents together.

<https://bereamail.co.za/169122/enjoy-parks-on-the-berea/>



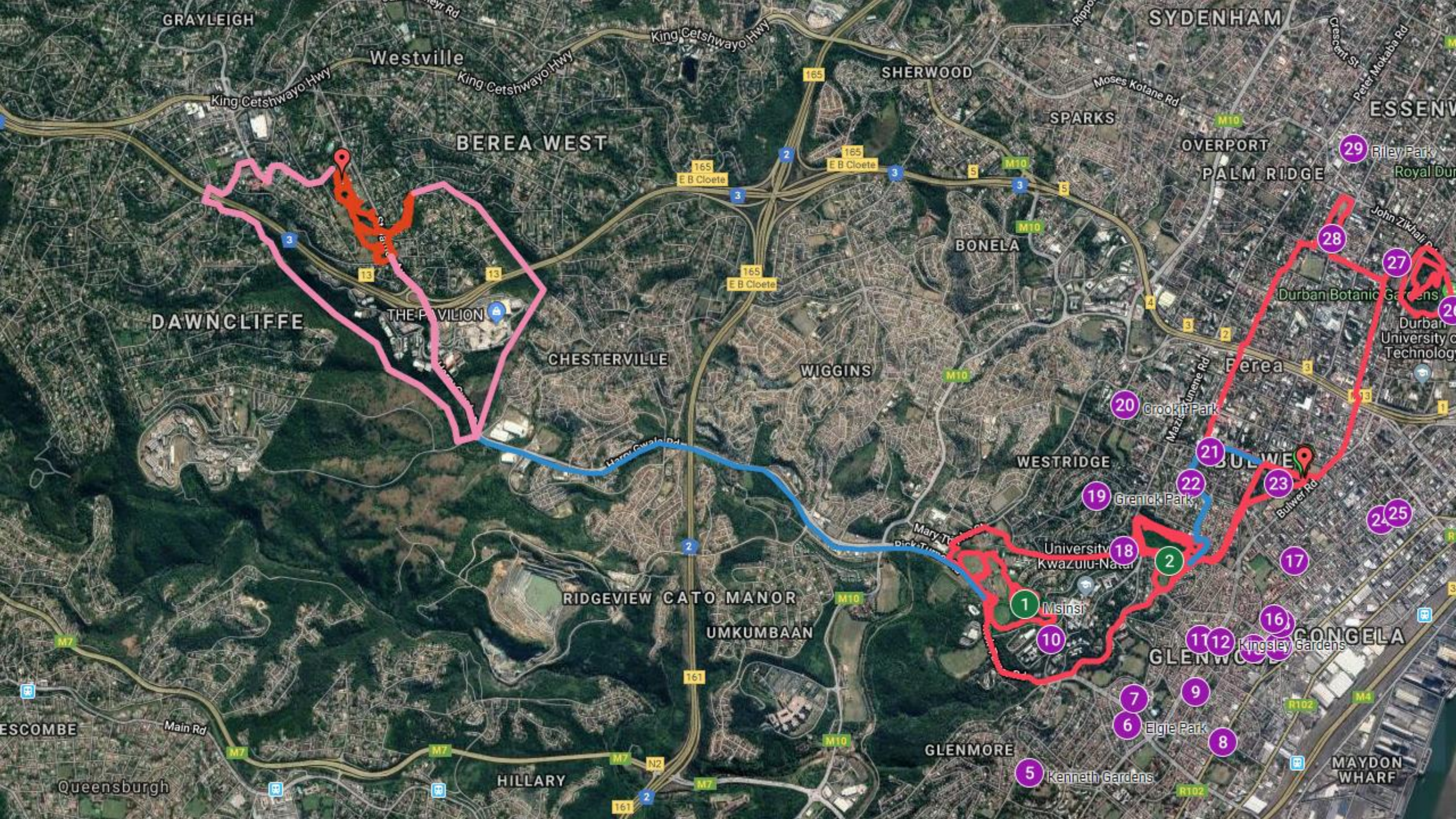
Global Heatmap



Search







Why Urban **Trail** Networks?

- Help revitalise public green space (connectivity & walkability)
- Linear park concept (linking multiple & various urban public spaces)
- Integrate hardened surfaces (sidewalks etc.) with park and urban conservation nodes
- Opportunity to rethink the value of verges, sidewalks & servitudes (improved green design esp. Sustainable Urban Drainage Systems (SuDs))
- Redefine what parks and public greenspaces mean for people
- Partnerships through complimentary active use e.g. sports (trail running/cycling community etc.) conservation (conservancies) etc.

**STADIUMS ARE FOR SPECTATORS.
WE RUNNERS HAVE NATURE
AND THAT IS MUCH BETTER.**

Juha Vaatainen