



Environmental Portfolio

Monthly Progress Report # 01

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Environmental Portfolio Report

This is the first Environmental Portfolio Report to be tabled at the monthly CHE board meeting. Although many items have been discussed at previous board meetings, this report is a summary of work undertaken to date and includes future plans for improving our community area. The Environmental Portfolio covers the following four focus areas:

➤ **Biodiversity Restoration Project**

The Cowies Hill Conservancy
CHE Conservancy Sites

➤ **Greening & Aesthetics**

Gate Gardens
Beautification sites
Roads & Verges
Public Open Space Maintenance
Barrier planting
Litter collections

➤ **Infrastructure, Community Parks & Facilities**

Condition assessments
Municipal interventions / maintenance

➤ **General Collaboration**

Stakeholders & Affected Parties

1. BIODIVERSITY RESTORATION PROJECT

The objective of the Cowies Hill Estate Biodiversity Restoration Project (BRP) is to facilitate interaction and partnerships between all parties interested in or active in environmental conservation and to generate broad-based support and recognition for the need for the project. The BRP is aligned with the overall objective of the Cowies Hill Estate which is to protect the safety of the general public, and to conserve and rehabilitate the natural environment and promote environmental awareness and engage in clean-up projects in the area of Cowies Hill.

1.1 The Cowies Hill Conservancy

In pursuit of the CHE objectives, the Cowies Hill Conservancy (Reg No 105 CKZN-02) was registered with KZN Conservancies Association in October 2021 with the view to integrating and replicating conservation best practice within Cowies Hill. The CHE manages all donations from individuals and businesses as well as the contributions collected from members who are members of the Cowies Hill Estate and will allocate its resources to, inter alia:

- Promoting and protecting the safety and security of the general public,
- Conserving, cleaning up and maintaining the environment,
- Uplifting and improving public and common areas

- Promoting indigenous planting within the area and its surrounds.

1.2 Conservancy Areas

The following Public Open Spaces and focus areas have been identified for intervention as Conservancy Areas under the Biodiversity Restoration Project.

- Avon Place Conservancy Park
- Turnbridge Conservancy Park
- Comrades Corner
- MacDonald Rd Wetland Area
- Palmiet River & Tributaries

Trails paths and stream crossings will be established in the Avon Place and Turnbridge Conservancy Parks. Once the trail paths have been cut, a list of tree species will be compiled and Tree Identification tags will be obtained for environmental education purposes. It is proposed that boards with a QR code will be positioned at the Tunbridge Conservancy in order for users to obtain information on all plant and grasses, wildlife (mammals and reptiles) and birds to be found in the conservancy park. A list of 102 bird species found in Cowies Hill has been prepared and a bird identification App will be developed for community education, bird logging and general information sharing.

In addition, Zapper payment boards will be erected to enable users to contribute towards the maintenance of these Conservancy Parks.

1.2.1 Avon Place Conservancy Park (ERF 3921 Pinetown _ 18 Belvedale Road _ SG 3082/1965 _ 0,8094 Ha Approx. 320meters long 50 meter wide

Avon Place Conservancy Park is currently in a very healthy condition. CHE has contracted Invasive Vegetation Management Services cc. (Mr. Rob Jamieson) to undertake the removal and control of various invasive alien plant (IAP) species. Herbicide was applied to IAPs in December 2021 and a maintenance sweep was undertaken again in March 2022.

In early March a bridge was constructed over the stream utilizing recycled street poles and 19mm stone. CHE has procured a brush cutter and the trail pathway will be cut along the contours of the Conservancy Park soon. The trail will provide access to walkers / birder watchers etc and also facilitate ease of access for IAP maintenance.

Once the trail has been prepared, tree identification tags will be fixed to various indigenous tree species. Signage and QR code for environmental education will be erected as well as a Zapper payment sign for users to contribute towards the upkeep of the park.

1.2.2 Turnbridge Conservancy Park (ERF 251 Woodside 33 Turnbridge Drive – SG 1567/1950 – 1,148Ha) 230meters long 50 meter wide

Initial clearance of very heavy invasive alien plant infestation over the full length and breadth of the park including the verges was undertaken in December 2021. The team also dealt with undesirable plants on the adjacent verge (across the road) and sprayed the **Drimaria Cordata** (Tropical Chick Seed) where it was infesting that verge. All litter encountered was removed and re-cycled/suitably disposed of.

Overall, it was necessary to apply 210L Garlon/Actipron mix and 91L Glyphosate foliar spray and 12L Diesel/Garlon mix as a basal stem treatment.

A follow-up visit was undertaken early March 2022 and IAPs that were not eradicated in the December operation was again sprayed with foliar herbicide whilst some of the larger plants and trees had basal stem treatment.

As with Avon Place Conservancy Park, a bridge was constructed over the stream utilizing recycled gum-poles and 19mm stone. A trail will be cut to open the park up for nature lovers and to provide access to the IAP maintenance teams.

1.2.3 Comrades Corner

The Comrades corner is the western entrance point into the Cowies Hill Estate. A comprehensive invasive alien plant (IAP) removal and control sweep was carried out over the full width of the North verge up to the junction with Kloof View Road (about 400m in length). This is a healthy belt of wonderful indigenous bush and forest along the residential boundaries. In some places this belt of bush is 30m deep.

An IAP removal and control sweep was also carried out along the South verge working west to east from the pavement down to the residential boundaries and thereafter 20 to 30m deep. More than 60% of the area was extremely heavily infested with mature undesirable plants including **Tithonia diversifolia** (Mexican sunflower), **Montanoa hibiscifolia** (Montanoa) and **Cromolaena odorata** (Triffid weed).

Herbicide application at the Comrades Corner included foliar spray 150L Garlon/Actipron mix, 85L Glyphosate and applied 12L Garlon/Diesel mix as a basal stem application. About 12 gum trees were treated to die in situ.

The IAP team also removed about 27 filled-to-capacity black refuse bags of litter were disposed of and 4 sacks of glass and cans which were recycled.

1.2.4 MacDonald Rd Wetland Area

The site includes the reed filled wetland, the Berm and strips of land on both sides of Morewood Crescent. In March 2022 the MacDonald Rd wetland area was treated for IAPs. Weed species include **Cardiospermum gradiflorum** (Balloon Vine Thorn), **Ricinus communis** (Castor-oil plant), **Canna indica** (Indian Shot), **Bilens pilosa** (Blackjack) and **Anredera cordifolia** (Madeira vine)

1.2.5 Palmiet River & Tributaries

No budget was requested for the Palmiet River & Tributaries as the eradication of IAPs and clean-up of the river catchment will be done under the auspices of the Public Employment Programme (PEP). (See 6.2 PEP & 6.3 DUCT below).

Individual members of Cowies Hill Estate have however privately commissioned Invasive Vegetation Management Services cc. to deal with undesirable plant species along the cul-de-sac end of Tunbridge Drive on the banks of the Palmiet that is heavily infested with **Arundo donax** (Spanish Reed), **Tithonia diversifolia** (Mexican sunflower) and **Solanum mauritianum** (Bug weed). This is the site where the bushpigs were caught on camera. The AIPs have recently been cut back for access and herbicides applied to prevent regrowth.

2. GREENING & AESTHETICS

2.1 Gate Gardens

Formal landscaped gate gardens have been established at booms and major access points, with the most prominent Gate Garden being at Rockhaven. The Rockhaven gate has a prominent landscaped rockery with predominantly aloes and similar succulents planted. Unfortunately, the site is very shady and not suitable for these sun-loving plant species.

Ben Botha Landscapes was contracted to provide a once off maintenance operation at all of the Gate Gardens in mid-February.

After assessing value for money on Ben Botha Landscapes' maintenance costs, all future composting, weeding and general maintenance will be undertaken "in-house" and basic gardening services will be undertaken utilising domestic worker staff. (See 2.5 Public Open Space Maintenance below)

Future maintenance options at the Rockhaven Gate may include some tree felling (Jacaranda) or trimming to allow more sunlight into the rockery or a substitution of the succulents with forest margin type plant species.

2.2 Beautification Sites

The three beds of **Agapanthus** planted out on the east side of Old Main Rd between Ernest Whitcutt have been weeded and plants have rooted well. Sadly, the bed under the Ernest Whitcutt sign was decimated by municipal "weed-eater" contractors.

A row of **Erythrina caffra** (Coast Coral-tree) saplings has been planted along the upper portion of verge opposite the petrol station the M13 Offramp to make the entrance into CHE more attractive. New stock of Erythrina saplings will be planted to create an avenue along the M13 East bound Exit 13 offramp so as to obscure the ugly rear wall of the petrol station.

The Comrades Corner roadside verges and Exit 13 (M13 - West) area will also be prioritised as Beautification sites as these are the key access points into Cowies Hill.

The public open space at the Stafford Rd Bridge (north eastern access point) into CHE has unfortunately been converted into an exotic plant garden by the abutting property owner (who maintains the garden at his own cost). Whilst this garden and lawn is neat and well maintained, I intend to negotiate with the resident with a view to replacing the exotics with appropriate local endemic plant species

2.3 Roads & Verges

Mr Errol Douwes (The Senior Manager, Restoration Ecology Branch of eThekweni's Environmental Planning and Climate Protection Department) was approached for assistance to eradicate **Drymaria cordata** (Tropical Chick Weed) within the CHE. He reported that currently Drymaria is not listed as an invasive alien species in South African legislation. As such there is no mandate to implement control of this plant on Municipal owned land such as road verges. Furthermore, the South African National Biodiversity Institute (SANBI) advised that their database indicates that the plant is indigenous, though this information appears to contradict other literature that Mr Douwes had reviewed.

Notwithstanding, Drymaria is still regarded as an invasive weed and in early December 2021 foliar spraying of Drymaria cordata and other IAPs was done along verges of Avon Place and Braby Place. This was a follow up of work done previously along these roads in August and October 2021. No proposals or cost estimates have been developed for tackling Drymaria and other weed species along road verges.

The removal of tree cuttings by municipal electricity contractors has been a problem and this has been reported to CHE management. The eThekweni officials were notified for the removal of the debris

2.4 Public Open Space Maintenance

CHE has purchased a brush cutter in March 2022 and this will be used to keep public open spaces clear of overgrowth and neat. Labour will be properly trained and the machine will be serviced on a regular basis. Labour costs will be a monthly reimbursement by the CHE against a scheduled monthly maintenance programme and record (photographic or other) of activities undertaken.

Given the extent of the CHE and the desire to demonstrate to the residents (both members and non-members) the value CHE offers in cleaning up our environment, the board may wish to consider utilising additional labour to maintain our public open spaces.

2.5 Barrier Planting

2.5.1 Norfolk Terrace (cul-de-sac)

Approximately 200 **Carissa macrocarpa** (Amatungulu) had been planted to create a hedge along Norfolk Terrace cul-de-sac in early/mid 2021. These plants have not rooted well and some have died off. New holes were dug (2 March 2022) with the view to replace the dead plants but it was discovered that the hedge was planted directly above an old layer of tarmac road about 250mm below the ground surface. This site will be placed on hold until the viability of the planted stock is established.

2.5.2 Paradise Valley Fence

A mixed selection of the following barrier plants **Scutia mytina** (cat-thorn or Isiphingo – an impenetrable scrambling creeper), **Dovyalis caffra** (Kei-apple) and **Acacia caffra** (Common Hook Thorn) was planted along the old fence at Paradise Valley at the M13 flyover to SASOL. These plants will gradually close off the paths into the bush that are used by vagrants and undesirables.

Additional stock of **Ziziphus murconata** (Buffalo-thorn) (seedlings ready for transplanting) and **Dalbergia obovata (Climbing flat-bean)** and **Dalbergia armata** (Thorny-rope flat-beam / Umhluhuwe creeper), if seeds are available, will also be planted along this stretch in due course.

2.6 Litter Collection

Litter collection off Cowies Hill road verges continues to be undertaken once a week.

3. MUNICIPAL INFRASTRUCTURE, COMMUNITY PARKS & FACILITIES

3.1 Infrastructure & Condition assessments

An inspection of all road, curbs, stormwater drains etc needs to be undertaken to assess the roads in terms of condition and the need for maintenance and or repairs. Ideally this exercise should be GIS driven so that photographic records together with informed engineering advice can be forwarded to the municipality for appropriate action.

Whilst this is a serious matter, time constraints and other priorities have limited my involvement and ability to develop firm proposals for dealing with municipal services and infrastructure.

3.2 Municipal Community Parks & Facilities

3.2.1 Cecil Fisher Park

Cecil Fisher Park comprises a playground with swings, slides and jungle gym as well as an open field on the upper terrace. This park is maintained by the municipality.

The vision for Cecil Fisher Park is to establish a hedge along the road embankment and to plant out the banks with indigenous grassland flowers. This will assist in preventing motorbike scrambling and hedging will improve security.

Currently the signage has been vandalised and for unknown reasons, a number of trees have been planted by the municipality in the centre of the field. The grass on the field is overgrown and requires mowing.

3.2.2 Cowies Hill Hall

It is proposed that the all exotic and undesirable plants be replaced with indigenous local endemic species. This is not a priority but will continue to receive attention.

4. BROADER COLLABORATION

4.1 eThekwini Municipality – Biodiversity Management Department

We are engaging with Mr Russel Stow (CHE member) who is a Senior Environmentalist at the municipality’s Development Planning, Environment and Management Unit with the view to developing a funding proposal for our Biodiversity Restoration Project. This will be via the “City-Level Circular Economy Interventions to Protect and Enhance Biodiversity” (an international initiative that is currently being assessed by the municipality for implementation).

4.2 Public Employment Programme (PEP)

The Public Employment Programme (PEP) was introduced late 2021 by the eThekwini Municipality and the KZN Conservancies Association will act as the “umbrella body” to co-ordinate various PEP projects that will be undertaken by various local Conservancy organisations.

As business plans and funding applications had already been submitted prior to the registration of the Cowies Hill Conservancy, we missed the proverbial boat but we have been working in conjunction with the Westville Conservancy as part of their plan will be an IAP eradication project along the Palmiet River and its tributaries. The PEP plan is to deal with the massive infestation of **Tecoma stans** (Yellow Bells) along the M19 around Westville North and the Dunkeld Rd Bridge area.

Although there has been a significant delay with the implementation of the PEP, we were advised that funding from National Treasury has been released and a PEP recruitment process together with the finalising contracts (Service Level Agreements (SLA) or Memorandum of Agreement (MoA) documents with the respective Conservancies is now underway.

Further details of the PEP activity within the CHE will be provided once the programme commences

4.3 Duzi Umgeni Conservation Trust (DUCT)

The DUCT also started an IAP eradication programme along the Palmiet River (from the Stafford Rd bridge up to Tunbridge and Birdhurst Rd) late last year. We have been advised the Palmiet Restoration project will recommence soon. There may be a duplication of effort with both the PEP and DUCT focussing on IAP eradication in the Palmiet Catchment area!

4.4 Community Participation

A number of residents have responded to Wapp communication regarding the need to deal with *Drymaria cordata* infestation and Mr. Rob Jamieson has reported that he has been contracted by individuals to spray herbicides to kill off the weed.

4.5 Garden Services

We have begun to compile a list of Garden Service contractors who operate within CHE with the view to establishing a weed eradication protocol. This will involve educating the contractors to identify and remove problem plants in their clients' gardens as well as the cleaning gardening tools, overalls and boots etc to avoid spreading seed material across other gardens in the CHE.