



# Where Do You Live ??





# Verge Maintenance Policy

- Road reserve/verge not maintained by the adjacent property owner/occupier cut 7 times per year on a 6 week cutting cycle. (September to June).
- 4762 hectares per cut X7 = 33 334 hectares of unmaintained road reserve be cut during 2016/2017
- Number of cuts is subject to prevailing weather, climatic ,ecological conditions and due to additional work that require to be done in terms of safety, security and or sight line obstructions.



# Verge Maintenance Policy Contd.

- Work undertaken by 269 Co- Ops
- Planting policy: 70% indigenous





# ROAD RESERVE CONSERVATION PILOT PROJECT

**PROTECTING NATURE - INSPIRING CHANGE**

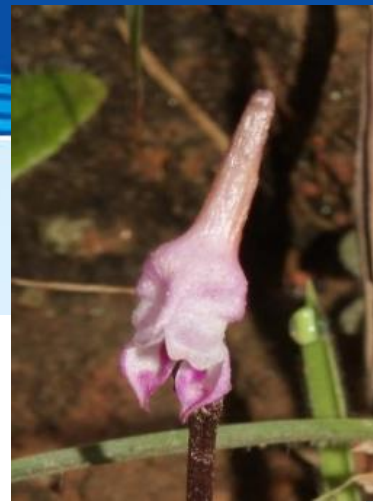
**Conservation of Southern African Indigenous  
Orchids in their Natural Habitat.**

**Find out more :[www.durban.gov.za](http://www.durban.gov.za) / Roadside Ecology**





# ROAD RESERVE CONSERVATION PILOT PROJECT



**Subject:** Summerveld : Disperis woodii

Hi Mike,

I understand from Barry Lang that you are responsible for maintenance of open spaces, verges etc in the Outer West, more particularly, the Summerveld area.

I head up the Durban branch of CREW, and we have recently been looking for the rare and endangered Disperis woodii in the Summerveld area. Previous records showed there being plants at a site in Summerview Place, GPS S29.802774 E30.703989. We duly visited the site in Summerview Place on 17 May. On the verge alongside the road cutting next to no 33 Summerview Place we found between 50 to 100 Disperis woodii plants in flower. This is an amazing find and the plants need to be protected. We have spoken to the homeowner of no 33 regarding the importance of these plants and to be on the look out for more that may be on her property and the adjacent vacant lot. A few days later a few more plants were also found on the roadside cutting outside no 37 Summerview place GPS 29.804353S E30.699741.

On 22 June we revisited the site to check on the plants and to see if they had formed seeds. To our consternation the verge had been brushcut and few signs of the plants were to be seen. This is very unfortunate.

On behalf of CREW and SANBI I would like to request that no brushcutting of verges be done in this area from April to July inclusive in order that these rare plants may be protected and allowed to increase in number.

Kind regards,  
Jocelyn Sutherland

11 JUN 2016

# TRADITIONAL ROADSIDE GRASS CUTTING PRACTICE AND POLICY

- The systematic mowing and heavy handed management practices is ecologically destructive as damages, removes indigenous vegetation and that promotes the success of alien invasive species by exposing IAP seeds to light.

21/11/2016 10:59

# TRADITIONAL ROADSIDE GRASS CUTTING PRACTICE AND POLICY

Grass cutters do no favours by indiscriminate trimming, preventing growth, maturation of the flowers and hence seed production and causing their eventual demise.

- Birds feeding and nesting material



*Eulophia speciosa*  
Cut down inflorescence  
seed capsules

# TRADITIONAL ROADSIDE GRASS CUTTING PRACTICE AND POLICY

- As the cut grass decomposes it changes the pH of the soil , in many cases creating intolerable soil conditions for indigenous plants
- Cutting existing IAPS without treating them with environmentally friendly herbicide also encourages vigorous regrowth.





# TIME FOR ACTION

What about declining, rare , endangered indigenous, endemic flora and fauna on these near pristine condition roadside natural remnants / green corridors .

*Disperis woodii*



*Drosera sp.*



# WILD ORCHIDS SOUTHERN AFRICA

WOSA is a public benefit and non-profit organisation  
Registration numbers: PBO 930050871; 141-119NPO



- WOSA is a NPO
- Affiliated to SAOC
- [www.wildorchids.co.za](http://www.wildorchids.co.za)



# WILD ORCHIDS SOUTERN AFRICA STRATEGY

- WOSA Mission Statement is : To conserve Southern African indigenous orchids in their natural habitat.
- WOSA Vision : To engender a real interest in indigenous orchids which will render them valuable and worthy of protection



# WORKING MODEL ROADSIDE ECOLOGY SCHOOL INITIATE : FOREST HILLS

- KwaZulu Natal Sandstone Sourveld vegetation extending from Mariannahill Toll plaza to Cato Ridge - listed nationally as endangered



*Eulophia speciosa*





# RATIONALE FOR THE PILOT PROJECT

- Shongweni where the orchid documented remnant roadside verge is in near pristine condition with fauna biodiversity.
- KwaZulu -Natal Sandstone Sourveld.
- Municipality has a yearly verge competition but for 2017 / 2018 want to focus on conservation of declining vegetation zones and plants.



*Disperis woodii*



15/12/2016 11:39



*Aristea sp.*



*Hypericum sp.*



# INDIGENOUS PLANTS IDENTIFIED ON THE ROADSIDE AND ADJACENT VACANT PLOTS

*Acalaphya punctata, Alepidea natalensis, Aristea woodii, Becium obovatum, Berheya umbellata, Chascanum hederaceum, Cheilanthes hirta, Cheilanthes viridis, Commelina africana, Crassula alba, Cyanotis speciosa, Cyperus albostriatus, Cyperus rupestris, Dierama argyreum, Dissotis canescens, Eriosema salignum, Euphorbia striata, Euryops tysonii, Festuca scabra, Gerbera natalensis, Gerbera piloselloides, Gnidia kraussiana, Haemanthus puniceus, Halleria lucida, Helichrysum adscendens, Helichrysum oreophilum, Hypericum aethiopicum, Hypoxis argentea, Hypoxis hemerocallidea, Hypoxis muliceps, Hypoxis rigidula, Indigoera hedyantha, Lobelia flaccida, Lobelia decipens, Lotononis corymbosa, Lycopodium clavatum, Maesa lanceolata, Melinis repens, Pelargonium luridum, Pellaea calomelanos, Pentanisia augustifolia, Pentanisia prunelloides, Psammotroopha myriantha, Pseudarthia hookeri, Scabiosa columbaria, Searsea dentata, Senecio erubescens, Striga bilabiata, Watsonia densiflora*



# OBJECTIVES

- To **balance road safety**, infrastructure maintenance and biodiversity conservation in roadside.
- To engender real **public interest** in getting to know our indigenous orchids in eThekweni municipality which will render them valuable and worthy of protection.
- To **conserve** Southern African indigenous orchids in their natural habitat.

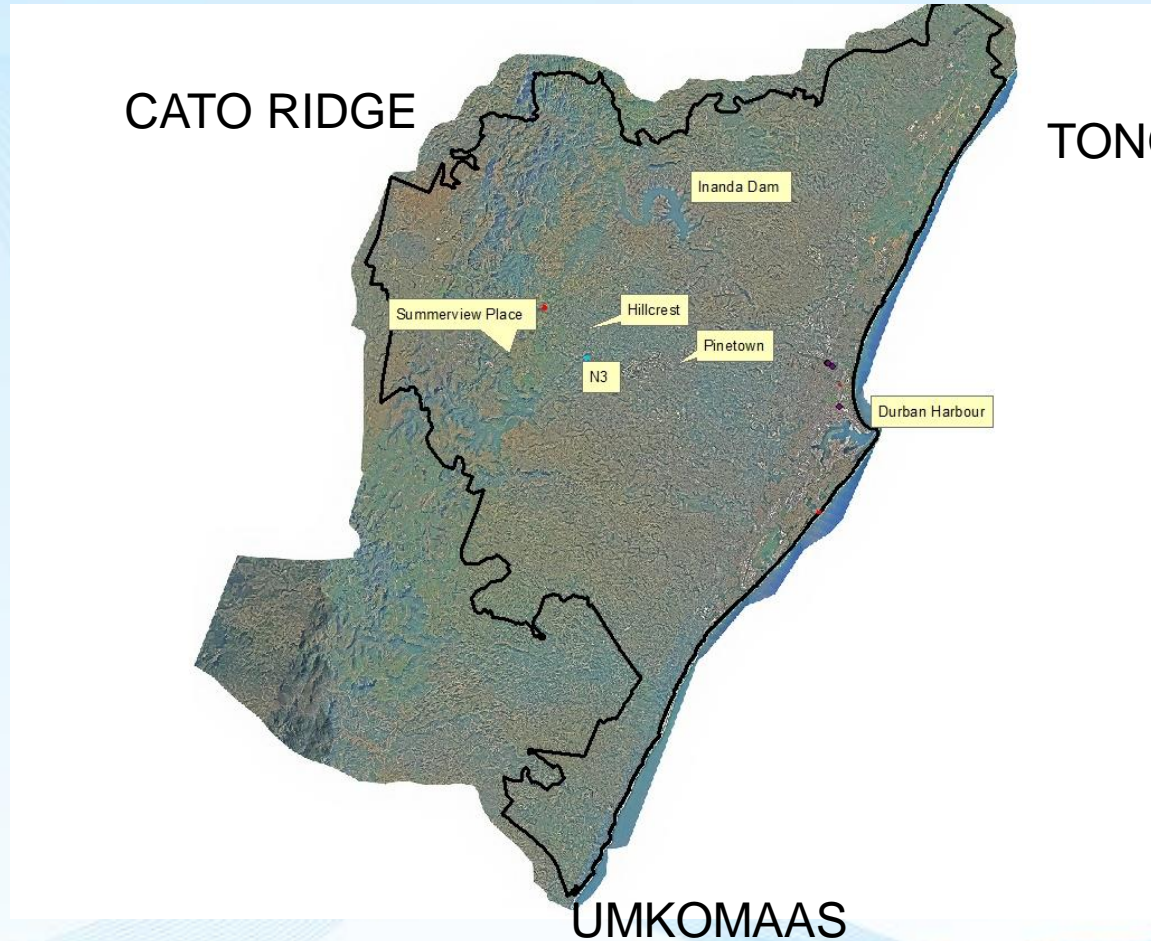
**ENGENDER REAL PUBLIC INTEREST  
IN GETTING TO KNOW OUR ORCHIDS  
IN ETHEKWINI MUNICIPALITY.**



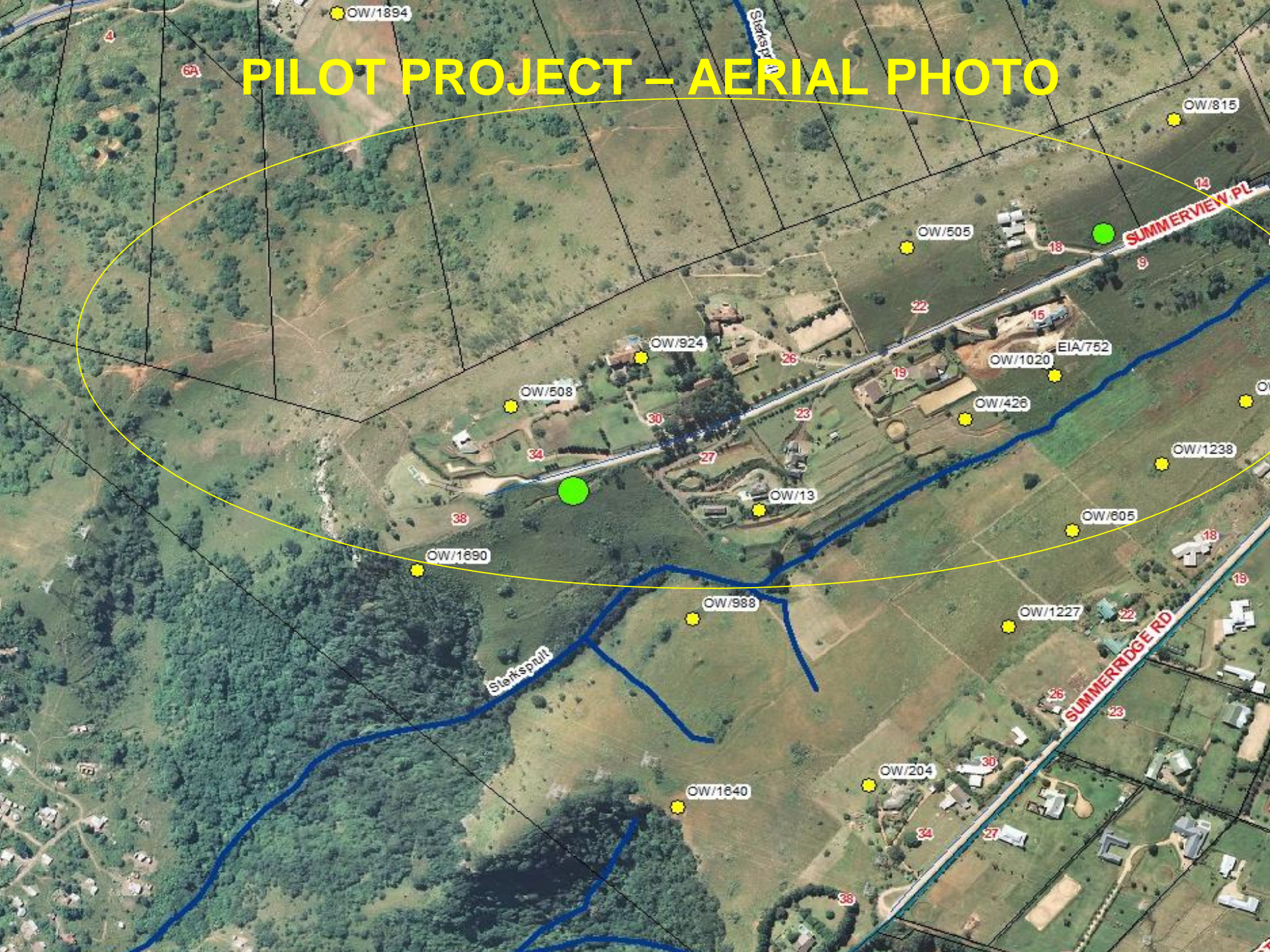




# PILOT PROJECT LOCATION WITHIN ETHEKWINI



# PILOT PROJECT – AERIAL PHOTO





# NATURAL SEEPAGES ZONES





# PILOT PROJECT

## Orchids Documented

**KwaZulu -Natal Sandstone  
Sourveld - listed nationally  
as endangered.**

**Residential Verges  
Summerview Place  
Shongweni .**



*Disa chrysostachya*

15/12/2016 11:28



*Disa woodii*



*Disperis woodii*



*Satyrium  
longicauda*

15/12/2016 11:52



*Disa brevicornis*

14/11/2016 11:12



# *Disperis woodii* flagship species

- Rare - Found in Eastern Cape and KwaZulu–Natal in damp, usually sandy grasslands sometimes within the grass tussocks
- Sea level to 1800 m.
- Grows up to 150 mm – single flowered
- Common name Wood's *Disperis* (*Grannys Bonnet*) named after the famous John Medley Wood (1827 – 1915), a botanist and collector.





# THE HABITAT OF *Disperis woodii*

Flowers between April ( May ) to August







# THREATS

- These exquisite orchids are declining and under threat from urban development, heavy handed verge grass brush cutting, alien invasive plants, sugar cane cultivation and lack of education on planting practices on road verges.







# MANAGEMENT PLAN

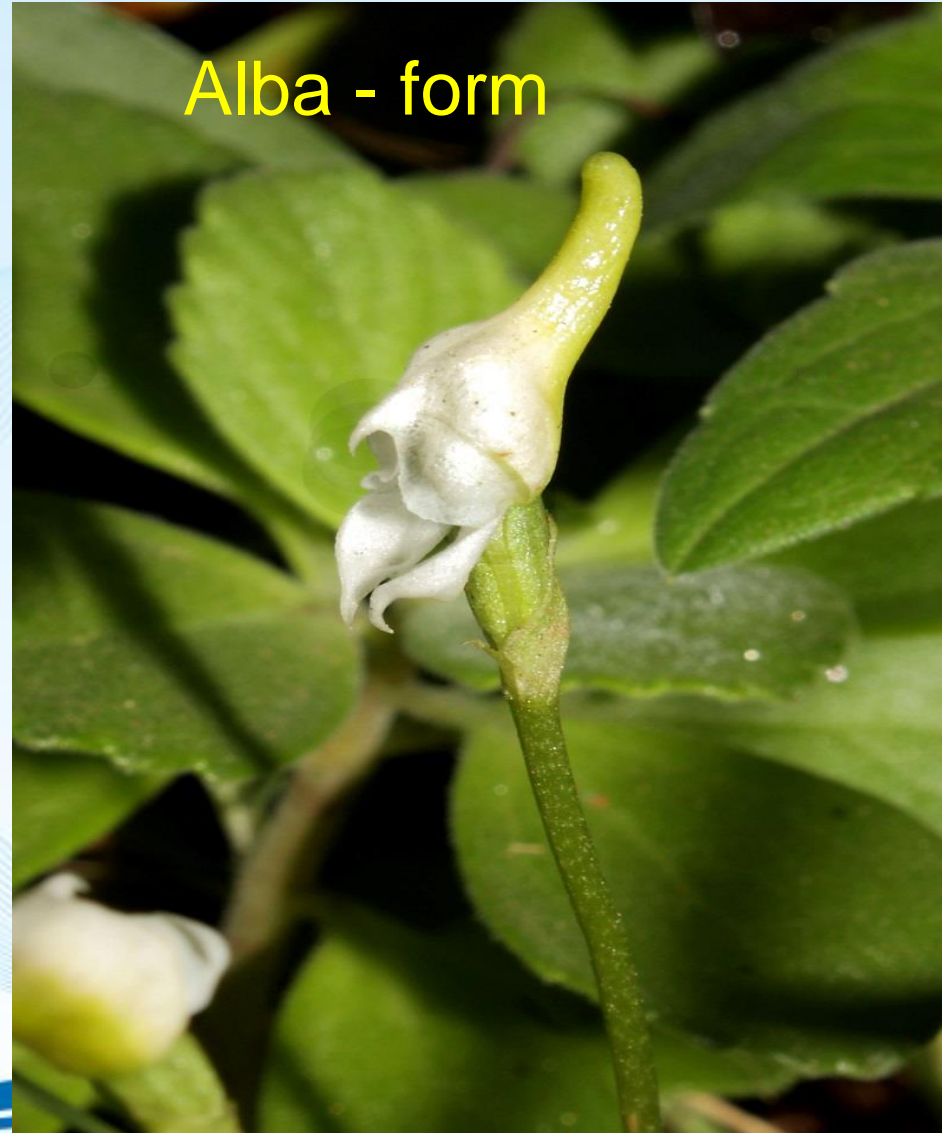
- Property owners have bought into the project.
- Verge to be **managed** by PLC District, PLC Natural Resources Division ,Local Conservancy and CREW
- Must still comply with legislation / road by laws etc.





## PLAN CONTINUED..

- **MANAGE-** Keep roadside free of alien plants and litter.
- Erect relevant signage.
- Pilot Project Campaign official launch programmed for May 2018 – coincide with flowering time of flagship species



Alba - form



# DRAFT SIGNAGE

## PROTECTING NATURE INSPIRING CHANGE NO MOW ZONE ROADSIDE ECOLOGY

### Conserving Wildflower Habitat

Find out more : [www.durban.gov.za /Roadside Ecology](http://www.durban.gov.za/Roadside%20Ecology)



# PHASE 1 OF THE PILOT PROJECT



*Disa chrysostachya*  
seed capsules

*Disperls woodii*



15/12/2016 11:32



# CHALLENGES / HOW DO WE MANAGE THE NATURAL REMNANT

- Still need to visit site weekly to document new flora .
- Cutting versus burning.
- Document fauna that use this verge as a green corridors or resident.
- No mow zone – woody herbaceous plants take over - is this natural succession – however programmed cutting and natural fire would prevent this.
- 5 orchid species flowering and setting seed at different times of the year as well as other indigenous flora.



## MANAGEMENT PLAN CONTD.

- No mow verge - no need to cut ?
- Naturally fire would come through the grassland every few years to rejuvenate biodiversity.
- Do research on grassland ecology to inform Horticultural practices to support roadside grassland biodiversity as these natural remnants are the last refuges of grassland biodiversity. Certain orchid species are reliant on burning.
- Controlled burn supervised by Working with Fire would have to be programmed. (Hot burn vs Cold burn alternate).
- If have to cut due to security, traffic hazard best time to cut , remove grass is going to be March – all orchids finished flowering and capsules burst.

# PERSECUTION OF MESSY LANDSCAPES



2-3 metres

15/12/2016 11:32



## WATCH THIS SPACE

- For years our M , D & N Roads have been subject to increasingly heavy handed management practices, that damage, remove indigenous vegetation and promote the success of alien species.
- This is the time to start foraging a new path that honours our natural remnant heritage and allows ecosystem functioning to return.
- **Policymakers need to be aware “ WE WANT OUR NATURAL REMNANTS/ VERGES TO BE MAINTAINED AND MANAGED AS ROADSIDE NATURE RESERVES “**





# THANK YOU

**PRC UNIT,**

**PLC DEPARTMENT**

**Nonhlanla Gumede : Horticulturist**

**Lance Rasmussen : Manager : Special Services**

**CONTACT DETAILS**

**[Lance.Rasmussen@durban.gov.za](mailto:Lance.Rasmussen@durban.gov.za)**

**0834549819**



**Acknowledgements:**  
**CREW (Custodians of Rare and Endangered  
Wildflower Species)**  
**Photographs: Hendrelien Peters**

**REFERENCE**

**Sue Milton–Deane. 2011. Road Verge  
Vegetation Management Guidelines for Eden  
District Municipality**