



BRACKENRIDGE ESTATE

## ENVIRONMENTAL CONTROL OFFICER REPORT

Report: # 1

Period: 1 May to 31 May 2024

Date: 29 May 2024

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## OVERVIEW

The aim of this report is to document the deliverables agreed upon between the Homeowners Association (HOA), the Environmental Management Committee (EMC) and the newly appointed Environmental Control Officer (ECO) to ensure the proper management of Brackenridge.

The report will be updated every month by the ECO, detailing the action plans for each deliverable, what has been achieved, what still needs to be completed and any recommendations for both estate management and homeowners.

All environmental management on the estate will be done in accordance with the Environmental Audit conducted by Professor Patricia Holmes in October 2023 and the updated Environmental Management Plan drawn up in October 2023.

Any new environmental concerns that are discovered during maintenance, or any changes found regarding the guidelines of the environmental audit, will be communicated in this report.

Any concerns or questions that homeowners may have in reference to environmental management can be addressed to either the General Manager or the ECO.

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**ACTION POINT:** Prescribed burns.

**RELEVANCE:** Regeneration and maintenance of endangered Garden Route Shale Fynbos; help circumvention of wildfires.

**DELIVERABLES:** Invasive alien control, fire belt cutting, permits, fuel reduction, prescribed burn, mopping up.

- Please refer to EMP, page 9 - 12 for more details.

## **Pre-burn preparation for Block 5 (1.68 ha).**

On the 6th and 7th of May the ECO conducted an inspection of block 5 to determine if any more pre-burn preparation is required by the fire team.

**Invasive alien control:** Upon inspection a young pine (*Pinus sp.*) and young Rooikrans (*Acacia cyclops*) were discovered. The pine was removed by the ECO however the Rooikrans was too well established for removal by hand.

The ECO will return to the estate on the 3rd of June and will remove the Rooikrans with a tree popper. Once the Rooikrans has been removed, block 5 will not require any more pre-burn invasive alien control.

**Fire belt cutting:** All fire belts surrounding block 5 have been completed by the fire team in compliance with the National Veld and Forest Fire Act (NVFFA).

The fire belts will require some maintenance due to growth which has occurred since the belts were initially cut. The fire team will be back on site on the 3rd of June and the ECO will work with the team to ensure this is done.

**Permits:** All permits have been obtained in advance for the prescribed burn to go ahead when preparation is complete and weather conditions are ideal.

## **Pre-burn preparation for Block 5 (1.68 ha).**

**Fuel reduction:** There is a portion of block 5 (-34°04'17.2"S; 23°21'08.6"E) where the vegetation is high and dense which needs to be reduced before the burn. Once this area has been thinned out, block 5 will not require any more fuel reduction before the burn.

A second portion of block 5 (-34°07'13.5"S; 23°35'23.8"E) is covered in sourfig, which is fire retardant, and is positioned in front of the fire belt. The ECO will clarify with the fire team if this will be removed or will remain in place.

## **Pre-burn preparation for Block 6 (3.00 ha).**

On the 8th and 9th of May the ECO conducted an inspection of block 6 to determine if any more pre-burn preparation is required by the fire team.

**Invasive alien control:** Upon inspection, Pine (*Pinus sp.*) and Lantana (*Lantana camara*) were identified on site. During the first week of June the ECO will arrange a hacking day with some residents wanting to assist. Lantana is poisonous and the proper precautions will be put in place when removing it from block 6 (i.e. gloved hands).

Once the Pine and Lantana have been removed, one more walk through will be conducted to ensure all invasive aliens have been removed, after which block 6 will be declared clear of invasive alien species (IAS) for prescribed burn.

**Permits:** All permits have been obtained in advance for the prescribed burn to go ahead when preparation is complete and weather conditions are ideal.

**Fire belt cutting:** All fire belts surrounding block 6 have been completed by the fire team in compliance with the NVFFA.

The fire belts will require some maintenance due to growth which has occurred since the belts were initially cut. The ECO will work with the fire team to ensure this is done.

## **Pre-burn preparation for Block 6 (3.00 ha).**

**Fuel reduction:** There are portions of block 6 which are still dense and high. The ECO will clarify with Steve Ritky if these areas will be left as thicket or if they will still be thinned out before the burn.

There are White Milkwood (*Sideroxylon inerme*) trees growing on the border of block 7. This is a protected tree species, and the ECO will work with the fire team to ensure these trees are protected during the burn.

To date, no other plant species of concern have been found and final walk throughs will be done in June to ensure none have been overlooked.

Concerns have been raised regarding the effect the block burns will have on the wildlife living on the estate. The ECO is currently arranging the following:

- **Tortoises:** In the first week of June the ECO will work with the Working on Fire team to walk both blocks for tortoises. Any tortoises found will be relocated to a safe area. The ECO is looking into the possibility of building a temporary boma in one of the parks for the tortoises, whereupon, after the burns the boma will be removed.
- **All wildlife:** The ECO will contact Robberg Vet and speak to Brandon who is a qualified wildlife veterinarian. The ECO will arrange for Brandon to be on standby should any wildlife be injured by the fire and need medical assistance.

The ECO has the following recommendations for block 5 and block 6.

**Fixed-point photography:** For environmental monitoring of the blocks post-burn, it is recommended that fix-point photography sites are identified on each block.

These sites will be used to take photographs pre-burn and every month post-burn to document the regeneration of the Fynbos.

- The ECO will set up these sites up in the first week of June and take the first pre-burn photographs.
- The ECO will speak to Steve Ritky and ask if it is possible to use his drone to take the photos, especially for block 5. This block is very flat and it will be difficult to find appropriate ground sites.

**Species lists:** To compare species density pre-burn and post-burn, it is recommended that species lists are drawn up for each block.

- During May, the ECO created plant species lists for block 5 and block 6 (see Appendix A and B). All species identified thus far have been placed on iNaturalist (a citizen science platform) for future reference in need.

**Post-burn:** Invasive alien control will need to be done post-burn and both blocks will need to be continually monitored for any seedling emergence.

- The ECO will do IAS training with the garden maintenance team, estate management team and any residents who would like to get involved.
- The ECO is currently sourcing tree poppers for sapling and young tree removal, Kaput 100 gel for stump treatment and Garlon for foliar application.

## RECOMMENDATIONS

The ground of the current path in block 5 is very compacted. It is recommended that after the fire the top layer of soil should be loosened to help with seed germination and seedling growth.

It is recommended that after the burn of both blocks the areas should be checked for soil erosion, and should any areas be identified; appropriate measures must be put in place to stabilize the soil and prevent further erosion.



**ACTION POINT:** Control growth and spread of invasive plant species.

**RELEVANCE:** Restoration of native ecosystems.

**DELIVERABLES:** Invasive alien control, Integrated Fire and Alien Species Management Plan.

- Please refer to EMP, page 13 for more details.

Eldred and his team have already begun the process of IAS removal along the perimeter fence of the estate.

The EMC have also begun IAS removal above Orchid valley and to date have removed over 90 Port Jackson (*Acacia saligna*) in a three hour period. More hacking days will be schedule each month and any residents interested in becoming part of the hacking team are invited to contact the ECO.

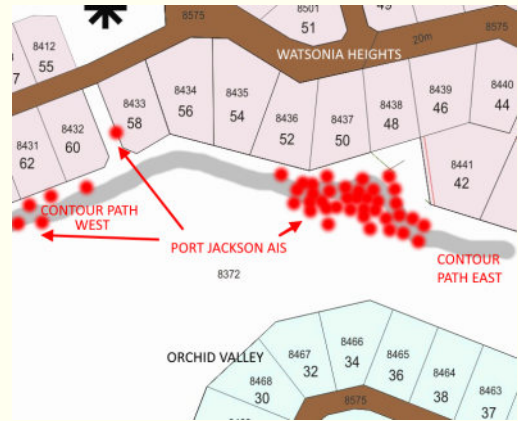
The ECO is currently identifying priority areas with a high IAS density for clearing. As mentioned on page 10, all equipment is currently being sourced to undertake IAS removal as required and staff training will be implemented by the ECO.

The Integrated Fire and Alien Species Management Plan is currently being developed by the ECO.

# INVASIVE ALIEN CONTROL



A Port Jackson-infested section along the contour path above Orchid Valley.



EMC team in action.

**ACTION POINT:** Maintain open spaces to standard specified in the approval of the site development plan.

**RELEVANCE:** Open spaces are aesthetically pleasing and ecologically viable.

**DELIVERABLES:** maintenance of roads, services and pedestrian network, erosion control, waste, and litter control.

- Please refer to EMP, page 14 - 15 for more details.

**Roads:** Eldred and his team are currently maintaining roads and reopening overgrown roads to avoid unnecessary roads or vehicle access paths to restore them back to their natural Fynbos habitat. The ECO will work with the team to restore areas where the road is wider than necessary, returning them back to appropriate widths and allowing regeneration of the vegetation.

**Pedestrian network:** The ECO is currently working with Deborah Constant and Steve Harcourt-Cooke of the EMC to determine appropriate widths of walking paths.

The ECO is currently working with the garden service team to ensure proper maintenance of the public open spaces.

# OPEN SPACES

Opening of overgrown maintenance road.



Eldred's team and Home from Home team getting things done.



Area behind tractor will be rehabilitated to natural habitat.



Tractor mulching debris.



# Appendix A

## Block 5 pre-burn plant species list

SCIENTIFIC NAME	COMMON NAME	COMMENTS
<i>Acacia cyclops</i>	Rooikrans	Invasive
<i>Buddleja salciifolia</i>	Sagewood	
<i>Centella asiatica</i>	Asian pennywort	
<i>cf Carpobrotus</i>	Sourfig	Awaiting ID
<i>cf Gnidia</i>	Cape saffron	Awaiting ID
<i>cf Restio</i>	True Cape reeds	Awaiting ID
<i>cf Satyrium</i>	Satyr orchid	Awaiting ID
<i>Chironia baccifera</i>	Christmas berry	Endemic to SA
<i>Chloris gayana</i>	Rhodes grass	
<i>Cliffortia stricta</i>	Staid Cape rose	Endemic to Fynbos
<i>Colpoon compressum</i>	Cape sumach	
<i>Erica canaliculata</i>	Hairy grey heather	Endemic to Fynbos
<i>Eriocephalus africanus</i>	Wild rosemary	Endemic to SA
<i>Euryops virgineus</i>	Virgin true-eye	Endemic to SA
<i>Haemanthus sanguineus</i>	Smooth bloodlily	Endemic to SA

# Appendix A

SCIENTIFIC NAME	COMMON NAME	COMMENTS
<i>Helichrysum cymosum</i>	Fume everlasting	Endemic to SA
<i>Helichrysum foetidum</i>	Stinking everlasting	Endemic to SA
<i>Helichrysum petiolare</i>	Silver everlasting	Endemic to SA
<i>Hippia frutescens</i>	Scrambling stinkals	Endemic to SA
<i>Leucadendron salignum</i>	Common sunshine conebush	Endemic to Fynbos
<i>Metalasia acuta</i>	Pointy blombos	Endemic to Fynbos
<i>Metalasia pungens</i>	Stink blombos	Endemic to Fynbos
<i>Osteospermum monolifera</i>	Bietou bush	Endemic to WC
<i>Oxalis imbricata</i>	Tile sorrel	Endemic to SA
<i>Passerina corymbosa</i>	Common gonna	Endemic to SA
<i>Pinus sp.</i>	Pine	Invasive
<i>Podalyria burchelli</i>	Hairy Cape sweetpea	Endemic to Fynbos
<i>Selago canescens</i>	Skinny bitterbush	Endemic to Fynbos
<i>Selago corymbosa</i>	Stiff bitterbush	Endemic to Fynbos
<i>Seriphium plumosum</i>	Common snake bush	
<i>Sersia lucida</i>	Blinktaaibos	

# Appendix B

## Block 6 pre-burn plant species list

SCIENTIFIC NAME	COMMON NAME	COMMENTS
<i>Aspalathus ciliaris</i>	Fringe Cape gorse	Endemic to Fynbos
<i>Asaragus asparagoides</i>	Bridal asparagus	
<i>Burchellia bubalina</i>	Wild pomegranate	
<i>Centella asiatica</i>	Asian pennywort	
<i>cf Anthospermum</i>		Awaiting ID
<i>cf Asteriodae</i>	Daisy	Awaiting ID
<i>cf Carpobrotus</i>	Sourfig	Awaiting ID
<i>Chironia baccifera</i>	Christmas berry	Endemic to SA
<i>Cliffortia stricta</i>	Staid Cape rose	Endemic to Fynbos
<i>Colpoon compressum</i>	Cape sumach	
<i>Diospyros dichrophylla</i>	Poison star apple	
<i>Erica canaliculata</i>	Hairy grey heather	Endemic to Fynbos
<i>Erica peltata</i>	Shield heath	Endemic to Fynbos
<i>Grewia occidentalis</i>	Common cross berry	
<i>Halleria lucida</i>	Tree fuchsia	

# Appendix B

SCIENTIFIC NAME	COMMON NAME	COMMENTS
<i>Helichrysum cymosum</i>	Fume everlasting	Endemic to SA
<i>Helichrysum petiolare</i>	Silver everlasting	Endemic to SA
<i>Hippia frutescens</i>	Scrambling stinkals	Endemic to SA
<i>Hypoxis villosa</i>	Shaggy star grass	
<i>Leucadendron salignum</i>	Common sunshine conebush	Endemic to Fynbos
<i>Metalasia acuta</i>	Pointy blombos	Endemic to Fynbos
<i>Metalasia pungens</i>	Stink blombos	Endemic to Fynbos
<i>Monopsis unidentata</i>	Wild violet	Endemic to SA
<i>Nidorella ivifolia</i>	Oven bush	
<i>Nidorella ulmifolia</i>	Ulm vleiweed	
<i>Osteospermum monolifera</i>	Bietou bush	Endemic to WC
<i>Oxalis imbricata</i>	Tile sorrel	Endemic to SA
<i>Oxalis purpurea</i>	Purple sorrel	Endemic to SA
<i>Passerina corymbosa</i>	Common gonna	Endemic to SA
<i>Pinus sp.</i>	Pine	Invasive
<i>Plecostachys serpyllifolia</i>	Petite-licorice	Endemic to SA



# Appendix B

SCIENTIFIC NAME	COMMON NAME	COMMENTS
<i>Podalyria burchelli</i>	Hairy Cape sweetpea	Endemic to Fynbos
<i>Psoralea axillaris</i>	Violet-flash fountain bush	Endemic to SA
<i>Rapanea melanophloeos</i>	Cape beech	
<i>Selago canescens</i>	Skinny bitterbush	Endemic to Fynbos
<i>Selago corymbosa</i>	Stiff bitterbush	Endemic to Fynbos
<i>Seriphium plumosum</i>	Common snake bush	
<i>Sersia lucida</i>	Blinktaaibos	
<i>Sideroxylon inerme</i>	White milkwood	Protected
<i>Struthiola hirsuta</i>	Shaggy Cape spray	Endemic to Fynbos
<i>Tarchonanthus littoralis</i>	Coastal camphor bush	Endemic to SA
<i>Tecomaria capensis</i>	Cape honeysuckle	
<i>Westringia fruticosa</i>	Coastal rosemary	