

# Be Wild Fire Ready



## The Emergency Guide to Property Owners in High Wild Fire Inclined Areas

Please read and take action! Keep this booklet handy for  
fire emergencies.

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# Knowing The Fire Risk Profile Of The Western Cape

The Western Cape is exposed to a broad range of natural and human instigated hazards. It is regarded as one of the most disaster inclined provinces in South Africa.

## THE AREAS RECENTLY AFFECTED BY HIGH RISK FIRES IN THE WESTERN CAPE

| DATE             | AREA                          | IMPACT                                                                     |
|------------------|-------------------------------|----------------------------------------------------------------------------|
| June 2017        | Knysna                        | A wild fire destroyed 973 homes with more than 2000 people displaced.      |
| November 2017    | George                        | The wild fire was approximately four times the size of the Knysna fire.    |
| 30 December 2018 | Wupperthal                    | A wild fire destroyed an estimated 45 homes and left 200 people displaced. |
| 11 January 2019  | Overstrand Local Municipality | Three fires were faced, simultaneously on the same day.                    |

The impact of these hazards increases as human settlements continue to expand in ecologically fragile regions inland or coastal. Highly vulnerable communities are already highlighted in significant seasonal losses triggered by fire events, strong winds and heavy rainfall.

The Western Cape Disaster and Fire Directorate would like to acknowledge and thank the Pringle Bay community for allowing us to support this Fire Awareness and Fire wise initiative for communities living in high fire risk areas.

# What is a “Fire wise Community”?

## Why Must We Participate?

In 1998, America lost 1400 homes to fires. They formulated a system that South Africa’s “Working on Fire” has studied and adopted to this country.

It involves the realization that reducing the risk of fire is **EVERYONE’S** responsibility, including town planners, architects, developers, builders, official and voluntary fire fighters and every property owner!

### FIRST FIRE WISE COMMUNITIES SELECTED IN SOUTH AFRICA

- Pringle Bay
- Betty’s Bay
- Rooi Els



# What Does Being a Fire wise Community Involve?

|                                  |                                                                                                                                                                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fire wise Committee</b>       | <ul style="list-style-type: none"><li>● Community Stakeholders</li><li>● Cape Nature Representatives</li><li>● Fire Brigade Representatives</li></ul>                                                                             |
| <b>Conduct A Risk Assessment</b> | <p>RATING</p> <ul style="list-style-type: none"><li>● Under 30 - (Low)</li><li>● 40 - 60 - (High)</li><li>● Over 60 - (Extreme Risk)</li></ul>                                                                                    |
| <b>Strategy</b>                  | <ul style="list-style-type: none"><li>● Drawn up to reduce fire risk</li><li>● To increase community's ability to prevent and limit fire damage.</li><li>● This includes property owners assessing their own fire risk.</li></ul> |
| <b>Progress</b>                  | Monitored annually                                                                                                                                                                                                                |



## Step 1

# Understanding Our Fire Risk

### THE COMBINATION OF FACTORS CONTRIBUTING TO FIRE RISK



#### **FYNBOS**

Burns readily due to its fine and fibrous nature.



#### **ESKOM**

Collapsed power lines, due to our gale-force winds.



#### **ALIEN VEGETATION**

Rooikrans, gum trees and wattle catch fire rapidly.



#### **STRONG WINDS**

Despite the risk, people still braai and a spark could be fanned into a fire.



#### **HIGH-TRAFFIC ROAD SKIRTING**

Cigarettes butts carelessly disposed.

### DID YOU KNOW?

- The Western Cape is an extreme fire risk region and due to global warming that risk is increasing.
- Due to global warming there is an increase in wind strength, heavy rain storms and lightning.
- With every 1 degree increase in global temperature there is a 29% increase in fire risk.

## Step 2

# Be Prepared For A Fire Emergency

## WHAT WILL YOU DO?

When a two-kilometre-wide wall of fire approaches your residential area. Breathing becomes hard in the dense smoke and burning cinders blow into your property by the gale-force South-Easter wind. Suddenly, surrounding bushes are fanning into flames. There are no fire-fighters in sight and you have no idea what to do?

## HOW TO PREPARE FOR A WILD FIRE APPROACHING YOUR PROPERTY?

It is vital to have a plan of action in place in order to be prepared in case of a wild fire. Make sure that your possessions/assets are properly insured. However, the best insurer cannot replace computer data files, personal documents, family photos, souvenirs and artwork. How much time will it take to rebuild your life?

We need to do everything we can to reduce the risk of a fire starting and gain those precious 'extra minutes' that will help give firefighters a better chance to get the fire under control. Reducing the fire hazards can make it safer for you to stay and defend your home.

## TAKE THE FOLLOWING STEPS BY REMOVING:



All dead vegetation from your property and verge.



All fast burning **alien vegetation** – rooikrans, pampas grass, port jackson, black wattle or gum trees from your property and verge.



Any **bushes** close to windows, glass doors, wood decks or beams etc.

## WHAT MAKES A FIRE WISE GARDEN BENEFICIAL?

A well-maintained garden will reduce the fire intensity and help slow down the fire's progress. New gardens can be laid out as Fire Wise gardens. If yours is an established or natural fynbos garden then you should work towards achieving a Fire Wise garden every single year.

## Step 3

# Assessing Your Personal Fire Risk

**PLEASE ASSESS YOUR PERSONAL PROPERTY FIRE RISK BY ANSWERING THE FOLLOWING YES / NO QUESTIONS:**

*1. Is your property situated on a slope or subject to strong South-Easter winds?*

If YES, beware that fire naturally moves up a slope and is more intense higher up or in wind.

*2. Is your property close to a large, open and natural area?*

If YES, create a fire break on your property, next to the fire risk area. However, it won't stop the fire but provide fire fighters with better access.

*3. Do you regularly remove all alien vegetation, dead wood and combustible material from your property?*

If NO, then regularly remove all alien vegetation, dead wood and organic matter on your property.

*4. Is your LP gas cylinders housed legally?*

If NO, get advice from an LP gas stockist and revise your storage area accordingly.

*5. Is your house wood-framed or thatched?*

If YES, keep vegetation less than 20cm high around it.

*6. Is your firewood and compost heap stored far away from your property?*

If NO, create a 3m "clear zone" around your house. (See next page)

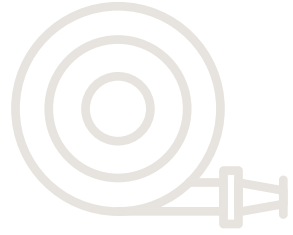
*7. Is your hosepipe accessible and does it reach right around your house?*

If NO, get an extra tap or hosepipe. A rainwater storage tank and pump would be ideal.

*8. Do you have any external electrical wiring hanging above trees or bushes?*

If YES, please remove or cover in metal conduit.





*9. Are fire hydrants easily accessible for fire-fighters?*

If NO, please advise your Fire Wise Committee or Fire Chief.

*10. Can a fire engine easily access your property right around?*

If NO, clear and open your driveway for more access.

*11. Do you/your neighbours ever burn garden waste?*

If YES, any burning is illegal (unless with a permit).

*12. Are all wooden decks or fences treated with fire-retardant?*

If NO, visit a hardware store or speak to a paint specialist about fire-retardant treatment.

*13. Are your roof trusses exposed under your eaves?*

If YES, box in exposed roof beams with non-flammable material.

*14. Do you/your neighbours ever braai without a hosepipe at hand and ready to use?*

If NO, always have a hosepipe ready, as fire risk is very high in summer.

*15. If someone is running a fire risk, do you advise them how to be firewise?*

If NO, please notify your Fire Wise Committee if they do not comply!

**PLEASE REDO THIS ASSESSMENT EVERY YEAR.**

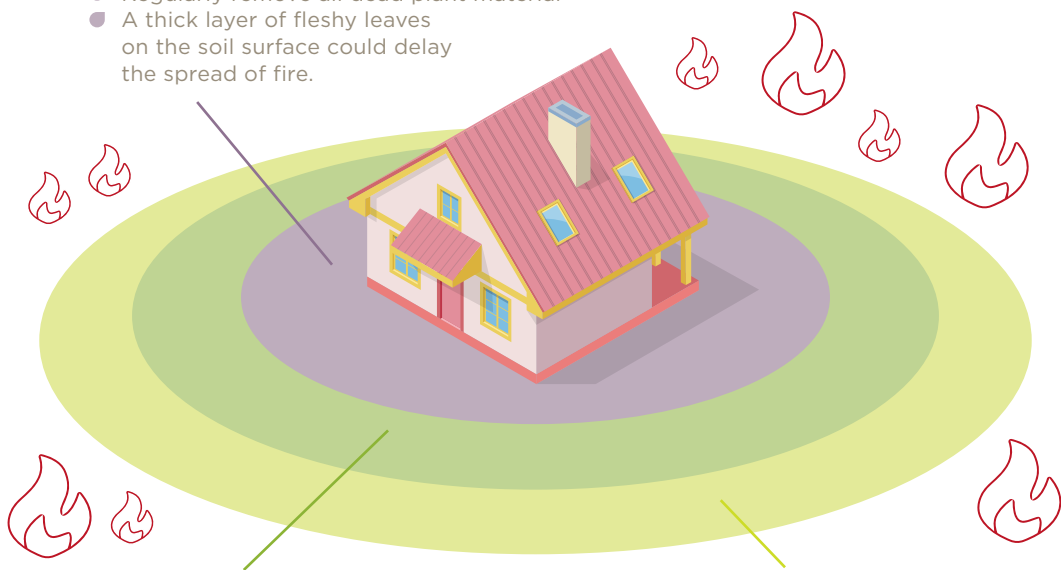
## Step 4

# Maintain a Fire wise Garden

A well-maintained garden will reduce a fire's intensity and help slow down its progress. SANBI recommends that new gardens are laid out in three Fire Wise 'zones'. Established gardens or natural fynbos gardens should work towards achieving these Fire Wise "zones" every single year.

### FIRE WISE/CLEAR ZONE

- No large shrubs
- No climbers or trellises on the walls
- Use low growing plants and ground-covers scattered with gravel or lawn
- Fynbos should be trimmed to 20cm high
- Regularly remove all dead plant material
- A thick layer of fleshy leaves on the soil surface could delay the spread of fire.



### MEDIUM RESISTANT MIDDLE ZONE

- Mix tall and short fynbos shrubs to reduce fire heat

### HIGHLY RESISTANT OUTER 'BUFFER' ZONE

- Low growing plants with high resistance to fire

# Fire wise/Clear Zone

| RECOMMENDED PLANT TYPES                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                          |                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| GROUNDCOVERS                                                                                                                                                                                                                                                                                                                                                                                                                    | SMALL SHURBS                                                                                                                             | SUCCULENT LEAVES                                                                                                                             |
| <p>Gazania pectinate</p> <p>Gazania krebsiana</p> <p>- Red Gazania</p> <p>Arctotis angustifolia</p> <p>- Sandveld</p> <p>Artotis stoechadifolia</p> <p>- Silver</p> <p>Helichrysum retortum</p> <p>Cliffortia ferruginea</p> <p>- Glastee</p> <p>Carpobrotus edulis</p> <p>- Sour Fig</p> <p>Carpobrotus acinaciformis</p> <p>- Sour Fig</p> <p>Lampranthus furvus</p> <p>- Vygie</p> <p>Lampranthus bicolor</p> <p>- Vygie</p> | <p>Agathosma ciliaris</p> <p>Coleonema album</p> <p>Phyllice ericoides</p> <p>Gnidia squarrosa</p> <p>Stilbe ericoides</p> <p>Ericas</p> | <p>Cotyledon orbiculate</p> <p>- Pig's Ear</p> <p>Crassula coccinea</p> <p>- Red Crassula</p> <p>Crassula fascicularis</p> <p>- Klipblom</p> |



# Medium Resistant Middle Zone

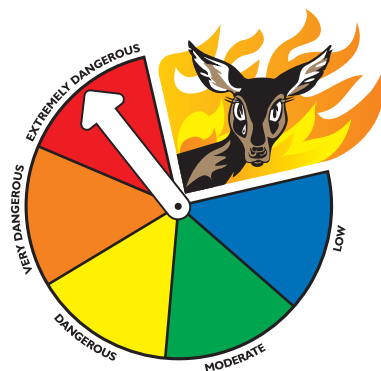
| RECOMMENDED PLANT TYPES                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPROUTERS                                                                                                                                                                                                                                                                                                                                                                                                | RESISTANT TREES                                                                                                                                                                                         |
| <i>Leucadendron salignum</i><br><i>Protea cynaroides</i> – King protea<br><i>Mimetes cucullatus</i> – Rooi stompie<br><i>Rhus lucida</i> – Blinkblaar Taaibos<br><i>Pelargonium cucullatum</i> – Wild Malva<br><i>Maytenus oleoides</i> – Klipkershout<br><i>Brachylaena discolor</i> – Kusvaalbos<br><i>Olea europea</i> subsp <i>Africana</i> – Wild Olive<br><i>Chondropetalum tectorum</i> – Dekriet | <i>Brabejum stellaifolium</i> – Wild Olive<br><i>Cunobia capensis</i> – Rooiels<br><i>Ilex mitis</i> – African Holly<br><i>Halleria lucida</i> – Tree Fuschia<br><i>Canthium mundianum</i> – Rock Alder |

# Highly Resistant Outer ‘Buffer’ Zone

| RECOMMENDED PLANT TYPES                                                                                                                                                    |                                                                                                |                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUNDCOVERS                                                                                                                                                               | BULBS                                                                                          | GOOD HEDGE TREES                                                                                                                                                                                                                     |
| <i>Carpobrotus edulis</i><br>– Sour Fig<br><i>Carpobrotus acinaciformis</i><br>– Sour Fig<br><i>Lampranthus furvus</i><br>– Vygie<br><i>Lampranthus bicolor</i><br>– Vygie | <i>Haemanthus coccineus</i><br>– April Fool<br><i>Brunsvigia orientalis</i> – Kings Candelabra | <i>Rhus crenata</i><br>– Dune Crowberry<br><i>Rhus glauca</i><br>– Blou Koeniebos<br><i>Thus lucida</i><br>– Blinkblaar Taaibos<br><i>Tarchonanthus camphoratus</i><br>– Campher Bush<br><i>Chrysanthemoides monolifera</i> – Bietou |

# Stay Informed

The Fire Danger Index or Rating predicts the fire behaviour should a fire start and how dangerous it would be attempting to extinguish the fire. The higher the rating, the more dangerous the conditions. On Orange and Red days, NO FIRES should be lit.



## LOW

Fire Danger Index 0 - 20      Flame Lengths (m) 0 - 1

[Fire Control Guide regarding fire danger rating application](#)

Low fire hazard. Controlled burning operations can normally be executed with a reasonable degree of safety

## MODERATE

Fire Danger Index 21 - 45      Flame Lengths (m) 1 - 1.2

[Fire Control Guide regarding fire danger rating application](#)

Although controlled burning operations can be done without creating a fire hazard, care must be taken when burning on exposed, dry slopes. Keep a constant watch for unexpected wind speed and direction changes. reasonable degree of safety

## DANGEROUS

Fire Danger Index 45 - 60      Flame Lengths (m) 1.2 - 1.8

[Fire Control Guide regarding fire danger rating application](#)

Controlled burning is not recommended when the FDI exceeds 45. Aircraft should be called in at the early stages of a fire. reasonable degree of safety

## VERY DANGEROUS

Fire Danger Index 61 - 75      Flame Lengths (m) 1.8 - 2.4

[Fire Control Guide regarding fire danger rating application](#)

NO CONTROLLED BURNING OF ANY NATURE should take place. Careful note should be taken of any sign of smoke anywhere - especially on the up-wind side of any plantation. Any fire that occurs should be attacked with the maximum force at hand, including all available aircraft at the time. reasonable degree of safety

## EXTREMELY DANGEROUS

Fire Danger Index 76 - 100      Flame Lengths (m) 2.4 +

[Fire Control Guide regarding fire danger rating application](#)

ABSOLUTELY NO BURNING. All personnel and equipment should be removed from field. Fire teams, labour and equipment are to be placed on full stand-by. At the first sign of smoke, every possible measure should be taken in order to bring fire under control in the shortest possible time. All available aircraft are to be called without delay. reasonable degree of safety

# Do You Stay or Evacuate?

Once you have assessed the fire risk and taken the physical steps to reduce the hazard, you must plan for a fire emergency. Decide whether to stay and defend your property or evacuate? If you decide to evacuate, do so well before the fire approaches the area. A home is more likely to be saved if there are able-bodied people to quickly extinguish small fires on or near the house during a veld fire. But you need the proper equipment and you must be mentally and physically prepared to fight fire.

## IF YOU DECIDE TO STAY, YOU WILL NEED THIS EQUIPMENT



A hose sprinkler system to keep the area soaked. Take note, to wait until fire is close by, as radiant heat accelerates evaporation.



Fill a bath and buckets as water pressure will drop dramatically due to other firefighting efforts.



Keep fire extinguisher/s in the house and bring garden hose into the house as it could be destroyed by the fire. **DO NOT** spray water onto windows as they may crack or shatter.



Only leave your home once the fire has passed before you deal with spot fires in the yard. Check for trees, electrical or telephone poles that may still be burning. Avoid any water coming into contact with electrical wiring.



Close all exterior openings and check interior for stray embers. Remove curtains from window openings as they will easily catch alight if window glass shatters in the heat.

However, if you decide to evacuate then ensure that you do not hamper the fire fighters or fire engines while making your exit. Assemble at your designated evacuation area.

# Prepare Your Home From Wildfire Risk

A well-prepared house can survive a wildfire. It is vital to be prepared before the wildfire season starts. The proximity of vegetation surrounding your home is just as critical as preparing your home from wildfire risk.

## FACTORS TO CONSIDER WITH REGARDS TO YOUR HOUSE

- The material from which your house is made and its design.
- The modifications done to your house can improve its likelihood to survive a wildfire.
- The number of modifications will depend on the type of house you own.
- Decks, windows, doors and roof areas have the greatest risk.

## PRIMARY CAUSES OF HOMES AND STRUCTURES CATCHING FIRE IN WILDFIRES

Burning embers are the primary cause of homes and structures catching fire. This is a constant threat with an active wildfire nearby. As a burning ember can be carried by the wind and land on or around your property. They can fall before, during and after a wildfire passes. An ember can be burning twigs, leaves and organic litter in your gutters.

## HOW TO IMPROVE THE FIRE-RESISTANCE OF A ROOF?



**Clear roof and gutters** from leaves or organic matter.



**Cover external skylights** with non-combustible fire screens.



**Treat roof** with reflective non-combustible sheeting to prevent embers from entering the roof.



A professionally installed **sprinkler system** can help fight embers.

# Fire Rules For A “Fire wise Community”

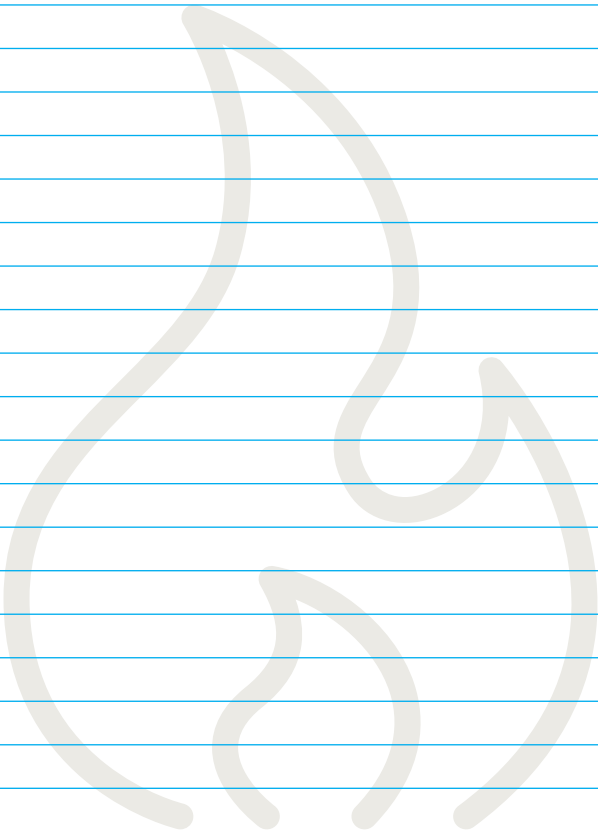
Fire is a constant danger in high fire risk areas.

## PLEASE FOLLOW THESE FIREWISE RULES

| NEVER                                                                                                                                       | ALWAYS                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Braai in gale-force winds.</p>                          | <p>Braai with a hosepipe close by.</p>                      |
| <p>Leave a fire unattended.</p>                            | <p>Completely extinguish braai fires.</p>                   |
| <p>Discard cigarette butts or fire-coals randomly.</p>    | <p>Clear gardens of alien vegetation and dead wood.</p>    |
| <p>Burn garden rubbish (unless with a permit).</p>       | <p>Keep tall vegetation away from windows and decks.</p>  |
| <p>Set off fireworks (unless in a designated area).</p>  | <p>Assist our local hack whenever possible.</p>           |



Notes:



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BETTER TOGETHER.