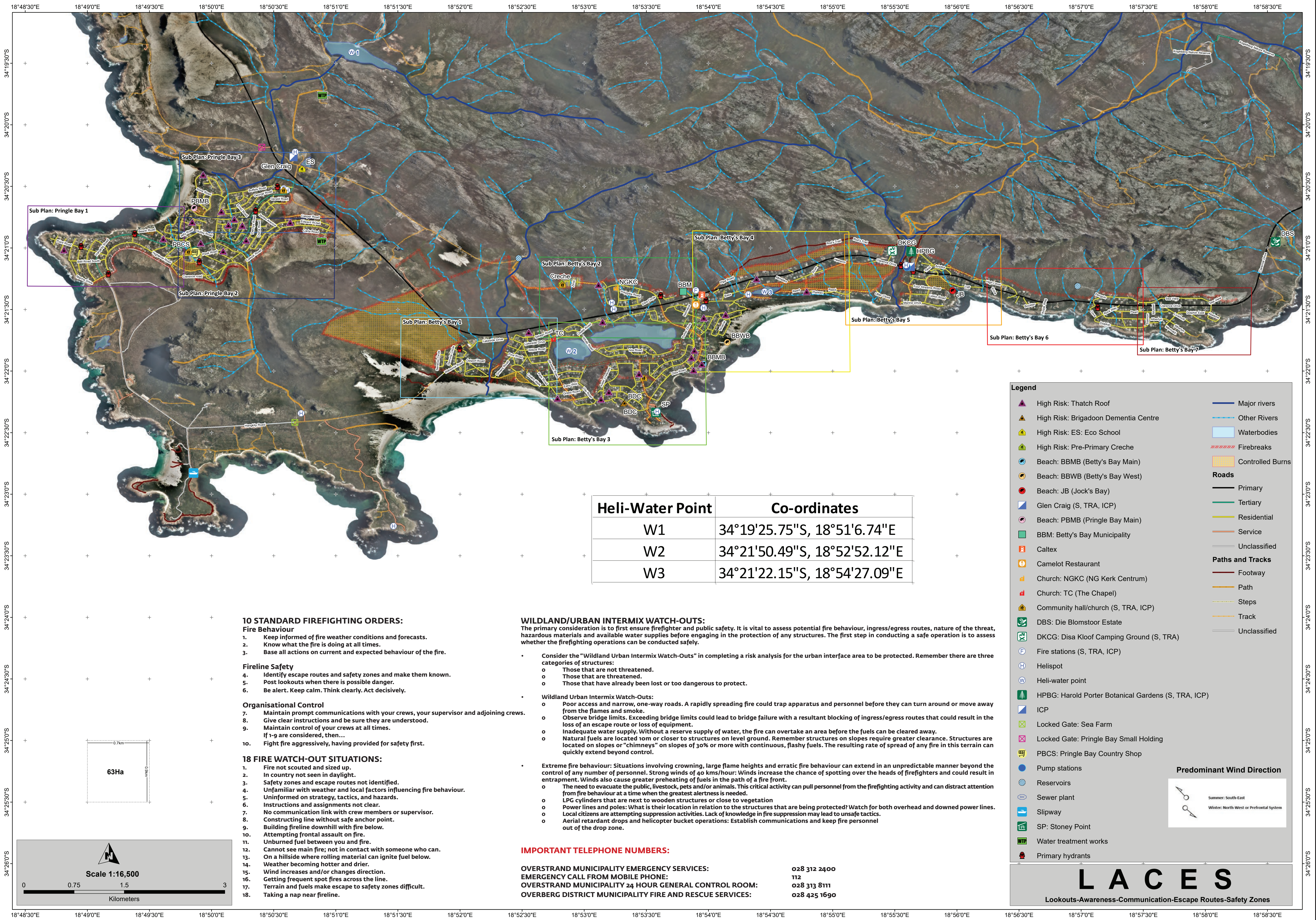


BETTY'S & PRINGLE BAY WILDFIRE PRE-ATTACK PLAN



Heli-Water Point	Co-ordinates
W1	34°19'25.75"S, 18°51'6.74"E
W2	34°21'50.49"S, 18°52'52.12"E
W3	34°21'22.15"S, 18°54'27.09"E

10 STANDARD FIREFIGHTING ORDERS:

Fire Behaviour

1. Keep informed of fire weather conditions and forecasts.
2. Know what the fire is doing at all times.
3. Base all actions on current and expected behaviour of the fire.

Fireline Safety

4. Identify escape routes and safety zones and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.

Organisational Control

7. Maintain prompt communications with your crews, your supervisor and adjoining crews.
8. Give clear instructions and be sure they are understood.
9. Maintain control of your crews at all times.
10. If 1-9 are considered, then...
11. Fight fire aggressively, having provided for safety first.

18 FIRE WATCH-OUT SITUATIONS:

1. Fire not scouted and sized up.
2. In country not seen in daylight.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behaviour.
5. Uninformed on strategy, tactics, and hazards.
6. Instructions and assignments not clear.
7. No communication link with crew members or supervisor.
8. Constructing line without safe anchor point.
9. Building fireline downhill with fire below.
10. Attempting frontal assault on fire.
11. Unburned fuel between you and fire.
12. Cannot see main fire; not in contact with someone who can.
13. On a hillside where rolling material can ignite fuel below.
14. Weather becoming hotter and drier.
15. Wind increases and/or changes direction.
16. Getting frequent spot fires across the line.
17. Terrain and fuels make escape to safety zones difficult.
18. Taking a nap near fireline.

WILDLAND/URBAN INTERMIX WATCH-OUTS:

The primary consideration is to first ensure firefighter and public safety. It is vital to assess potential fire behaviour, ingress/egress routes, nature of the threat, hazardous materials and available water supplies before engaging in the protection of any structures. The first step in conducting a safe operation is to assess whether the firefighting operations can be conducted safely.

- Consider the "Wildland Urban Intermix Watch-Outs" in completing a risk analysis for the urban interface area to be protected. Remember there are three categories of structures:
 - o Those that are not threatened.
 - o Those that are threatened.
 - o Those that have already been lost or too dangerous to protect.
- Wildland Urban Intermix Watch-Outs:
 - o Poor access and narrow, one-way roads. A rapidly spreading fire could trap apparatus and personnel before they can turn around or move away from the flames and smoke.
 - o Observe bridge limits. Exceeding bridge limits could lead to bridge failure with a resultant blocking of ingress/egress routes that could result in the loss of an escape route or loss of equipment.
 - o Inadequate water supply. Without a reserve supply of water, the fire can overtake an area before the fuels can be cleared away.
 - o Natural fuels are located 10m or closer to structures on level ground. Remember structures on slopes require greater clearance. Structures are located on slopes or "chimneys" on slopes of 30% or more with continuous, flashy fuels. The resulting rate of spread of any fire in this terrain can quickly extend beyond control.
- Extreme fire behaviour: Situations involving crowning, large flame heights and erratic fire behaviour can extend in an unpredictable manner beyond the control of any number of personnel. Strong winds of 40 kms/hour: Winds increase the chance of spotting over the heads of firefighters and could result in entrapment. Winds also cause greater preheating of fuels in the path of a fire front.
 - o The need to evacuate the public, livestock, pets and/or animals. This critical activity can pull personnel from the firefighting activity and can distract attention from fire behaviour at a time when the greatest alertness is needed.
 - o LPG cylinders that are next to wooden structures or close to vegetation
 - o Power lines and poles: What is their location in relation to the structures that are being protected? Watch for both overhead and downed power lines.
 - o Local citizens are attempting suppression activities. Lack of knowledge in fire suppression may lead to unsafe tactics.
 - o Aerial retardant drops and helicopter bucket operations: Establish communications and keep fire personnel out of the drop zone.

IMPORTANT TELEPHONE NUMBERS:

OVERSTRAND MUNICIPALITY EMERGENCY SERVICES:
EMERGENCY CALL FROM MOBILE PHONE:
OVERSTRAND MUNICIPALITY 24 HOUR GENERAL CONTROL ROOM:
OVERBERG DISTRICT MUNICIPALITY FIRE AND RESCUE SERVICES:

028 312 2400
112
028 313 8111
028 425 1690

Legend

- High Risk: Thatch Roof
- High Risk: Brigadoon Dementia Centre
- High Risk: ES: Eco School
- High Risk: Pre-Primary Creche
- Beach: BBMB (Betty's Bay Main)
- Beach: BBWB (Betty's Bay West)
- Beach: JB (Jock's Bay)
- Glen Craig (S, TRA, ICP)
- Beach: PBMB (Pringle Bay Main)
- BBM: Betty's Bay Municipality
- Caltex
- Camelot Restaurant
- Church: NGKC (NG Kerk Centrum)
- Church: TC (The Chapel)
- Community hall/church (S, TRA, ICP)
- DBS: Die Blomstoor Estate
- DKCG: Disa Kloof Camping Ground (S, TRA)
- Fire stations (S, TRA, ICP)
- Helispot
- Heli-water point
- HPBG: Harold Porter Botanical Gardens (S, TRA, ICP)
- ICP
- Locked Gate: Sea Farm
- Locked Gate: Pringle Bay Small Holding
- PBBS: Pringle Bay Country Shop
- Pump stations
- Reservoirs
- Sewer plant
- Slipway
- SP: Stoney Point
- Water treatment works
- Primary hydrants
- Major rivers
- Other Rivers
- Waterbodies
- Firebreaks
- Controlled Burns
- Roads
 - Primary
 - Tertiary
 - Residential
 - Service
 - Unclassified
- Paths and Tracks
 - Footway
 - Path
 - Steps
 - Track
 - Unclassified
- Predominant Wind Direction
 - Summer: South East
 - Winter: North West or Prefrontal System

LACES

Lookouts-Awareness-Communication-Escape Routes-Safety Zones

OPERATIONAL & SAFETY BRIEFING:

MISSION / COMMAND ORGANISATION:

- Command - Incident Commander (IC) / Immediate Supervisor
- IC's Intent
- Specific tactical assignments

REPORTING:

- Report to the Incident Command Post (ICP) on arrival at the incident
- Receive briefing from the relevant IC, Operations Section Chief (OSC) or Divisional Group Supervisor (DIV/SUP)
- Make sure you understand the IC's objectives and intent
- Ask for a contingency plan in the event of the current plan failing
- Confirm the Division you are assigned to
- Confirm preferred communication method
- Confirm your chain of command
- Confirm reporting intervals
- Confirm operational period
- Ask what Hazards/Risks might be encountered

STRUCTURE DEFENCE NOTES:

- Most homes have above ground utility lines and some LPG tanks for cooking – usually at the back of the house
- In many instances there is little to no defensible space around structures
- If firefighters are in danger undertaking structure protection, application of Class A foams /retardants by engines or helicopters around these structures will be necessary. Firefighters may need to ensure that residents have left, apply foams/retardants, and then leave the areas and return after the head of the fire has passed to extinguish residual fire
- The OSC or any DIV/SUP considering defensive backburning, is required to get approval from IC prior to initiating the backburn

COMMUNICATIONS:

- Incident-specific WhatsApp Group
- Radio communication may be intermittent
- Cell phone reception is usually poor
- Tactical, command, air-to-ground frequencies, cell phone numbers, etc
- If available, request a secondary tactical frequency
- Responding agencies are to maintain their own communication system amongst their own resources and then link to ICP

RISK MANAGEMENT:

- Identify known and expected hazards and risks

GENERAL SAFETY:

- Brief crews on LACES (Lookout, Awareness, Communications, Escape Routes and Safety Zones), 10's and 18's
- Keep hydrated, watch others crew members for signs of hypothermia and hyperthermia as well as fatigue

SITE AREA HAZARDS:

- Ingress and egress pose critical complications for firefighters entering and civilians exiting on the same roadways
- Safe areas for firefighters and civilians are limited. See map for community halls and temporary refuge area (TRA), safety zones and assembly points
- Identify control measures to eliminate hazards and reduce risk
- Brief crews on the resource considerations for the area
- Identify trigger points for disengagement or revaluation of the operational plan

WHEN TO GET OUT!

- Fire is making sustained runs and you have inadequate defensible spaces based on the length of the observed flames
- Your water supply will not outlast the fire threat
- More spot fires than you can suppress
- Fire intensity dictates leaving the area immediately
- You can no longer ensure compliance with LACES
- Notable atmospheric instability (fire whirls, winds snaps and pyro-cumulus clouds)

OBJECTIVES:

- Protect the lives of the responders and public.
- Protect residences and structures using aggressive perimeter control tactics.
- Plan for and develop potential Structure Protection Group(s) to conduct reconnaissance, prepare structures for defence, and assist as needed with protection and evacuation of citizens if perimeter control cannot be achieved.

GENERAL COMMAND CONSIDERATIONS:

- All fires (structural and wildfire) in this area fall under the jurisdiction of the Overstrand Municipality.
- The early designation and use of incident facilities such as ICP's, Staging Areas and Temporary Refuge Areas is critical due to the narrow road structure and minimal turnaround space. The IC may exercise the option to shelter residents in place or evacuate as the incident dictates.
- Temporary refuge areas should not be used in lieu of evacuation.
- Ingress and egress routes pose critical complications for firefighters entering and civilians exiting the same roadways.
- Communications in the area are challenged; most areas have limited cellular coverage. Radio coverage may be poor in some areas.

SPECIFIC COMMAND CONSIDERATIONS:

Demographics:

- Betty's Bay and Pringle Bay can be summarised as being predominately middle-upper class coastal residential area consisting of single-family residences, interspersed with vacant plots forming part of a complex wildland-urban intermix. Many residences remain vacant except for holiday weeks and weekends in the summer months. The community in both areas is predominantly retired and elderly.

Structures:

- Structures in and around Betty's Bay and Pringle Bay can be summarised as a mix of large medium-high income value, single residential holiday residences along with low-medium income permanent residents. Structural building materials vary widely. However, wooden structures and thatched roofing are noted. Garden landscaping preferences include low maintenance indigenous vegetation interspersed with woody invasive alien vegetation adding to the complex wildland-urban intermix.

Fences and gates:

- There are numerous security gates and access control points throughout the two areas, however most of these gates can be opened with little effort. If possible IC is to arrange for gates to be opened in advance
- There are no substantive gates or fences in Betty's Bay.
- In Pringle Bay, there are two locked gates controlling specific roads and the IC would need to notify the gate controllers in advance.
 - Sea Farm Nature Reserve gate can only be unlocked by the warden on 083 4583773
 - Pringle Bay Small Holding gate can only be unlocked by the owner on 083 227 5498

Access:

- Many homes are accessed by tight narrow driveways with little to no turn around areas.
- Roads in many areas are narrow and there are no laybys for pulling over to let vehicles pass.
- Roads are overgrown in some places with vegetation (indigenous and invasive species).

Fuels:

- The fuels comprise dense, low to medium tall scrublands interspersed with patches of taller emergent plants
- Trees and tall shrubs are more prevalent within the residential areas.
- The coastal strips comprise dense, medium-high closed vegetation with a prevalent succulent shrub community. Many of the areas are inundated with invader plant species that will make the wildfires more intense (burn hotter and for longer).
- Boggy marsh vegetation is common and the dense mat of subterranean organic matter can smoulder for many days unseen making re-ignitions in these localities with unburnt edges likely.

Topography:

- The two areas comprise of high narrow kloofed mountains with steep to gentle slopes, undulating, foothill plains and hills of varied aspect.
- Wetland seeps and seasonal streams fragment these flats and drain into small lakes or the coast with either rock edged or medium to low sand dunes giving way to the ocean.
- Soft soils, steep slopes, dense vegetation and marshy areas make for slow and sometimes impenetrable crew movement through the veld.

Weather:

- The predominant winds that contribute to the increased risk in the two areas are as follows:

- In Pringle Bay, the high risk wind is the South Easterly as this will drive fires into the residential areas from the surrounding natural areas.
- In Betty's Bay, the high risk wind is the North Westerly as this will drive fires into the residential areas from the surrounding natural areas. These are usually prefrontal winds and history has shown that these winds can be devastating.

PLEASE NOTE: If the above wind direction changes are noted, inform all concerned immediately as there is a potential change in wildfire behaviour.

- Coastal proximity results in a generally high morning RH level.
- The coastal regions ensure that the temperature variances are moderated.

Water resources:

- Hydrants – the hydrants are all indicated on the maps. The primary and most used hydrants are indicated on the main map. Please note that in some areas no more than three hydrants can be used at the same time due to the capacity of the lines as well as the pressure in the system. Check with the IC or OSC if there are concerns.
- Reservoirs – there is limited water storage capacity in the local reservoirs. If the power supply is interrupted, it will hamper the pressure and the supply of water.
- Water Bodies – there are multiple inland natural water sources and all may be used for combating wildfires. There are three water bodies from which the helicopters can collect water (besides the sea) and they are indicated on the main map with their respective GPS coordinates.

Evacuation consideration/road closures:

Should the IC decide to order an "evacuation" or "shelter in place" in a portion of the area, the following items should be considered:

- It needs to be ORDERED EARLY and communicated clearly!
- Identify and use routes of travel for all vehicles and coordinates with law enforcement/ South African Police Services, and consider the establishment of an Evacuation Task Team.
- Assign a Public Information Officer (PIO), an assistant or a fire services representative to any evacuation centre/point(s) as soon as possible.
- Consider animal/livestock evacuation needs.
- Many of the homes are built of non-fire resistant materials, have little or no vegetation clearance, with inadequate roads and turnarounds.
- The commonly used safety zone for residents of both communities is the Intertidal Zones (dunes/beaches/rocky shore) in the event of a wildfire. These areas are suitable for responders.

Resource request recommendations

- In some areas there is limited road access, where structural vehicles are too large and/ or where it is unsafe for them to enter. In these circumstances, the IC should strongly consider Bush vehicles in place of Structural vehicles.

Cooperating agencies

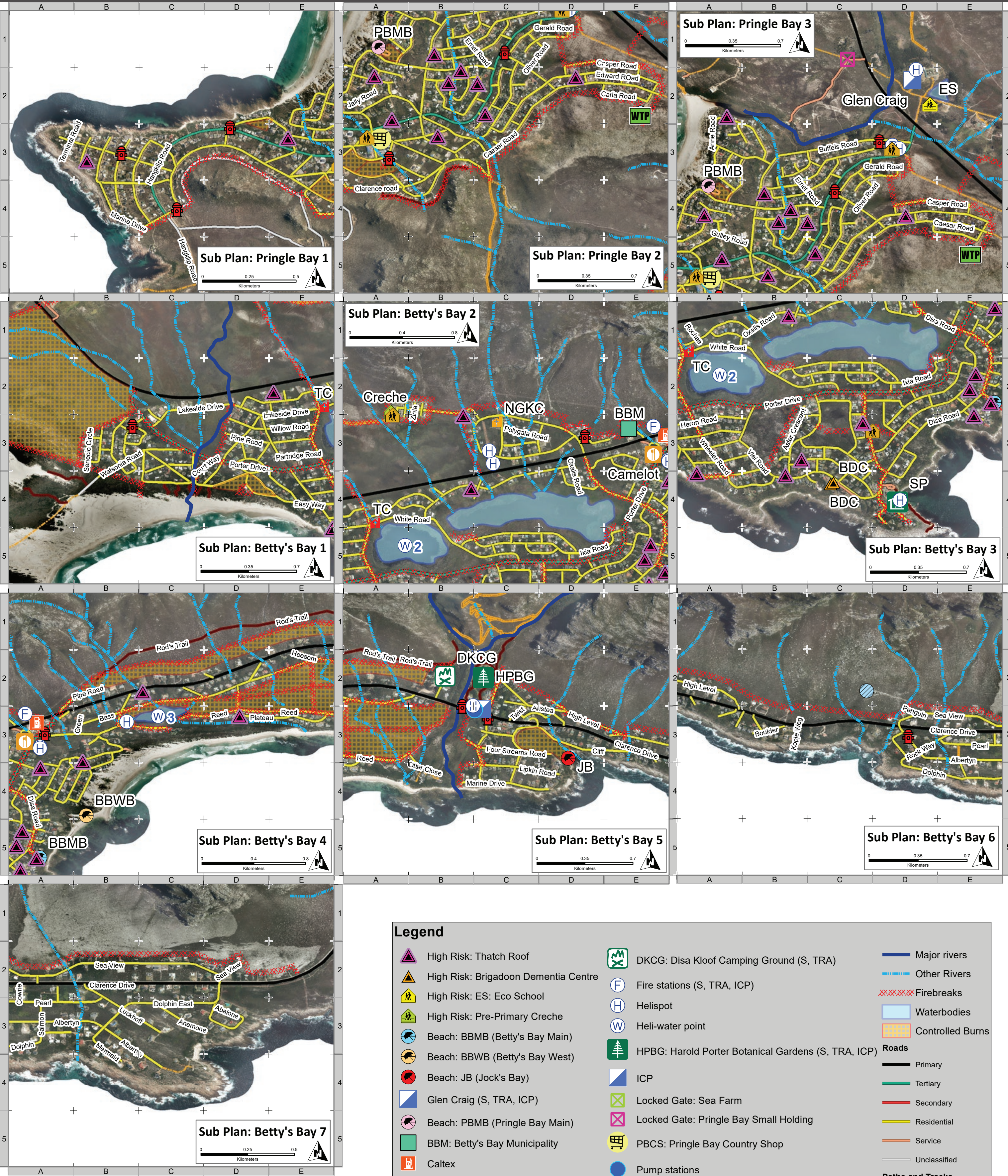
- Overstrand Municipality
- Overberg District Municipality
- WCPG - Fire Brigade Services
- WCPG - Disaster Management
- WCPG - Traffic Services
- WCPG - Emergency Medical Services
- CapeNature
- City of Cape Town
- South African Police Services
- South African National Biodiversity Institute
- Greater Overberg Fire Protection Association
- Working on Fire
- Volunteer Wildland Firefighting Organisations
- Contracted Wildfire Crews

POSSIBLE INCIDENT MANAGEMENT TEAM:

- | | |
|---|---|
| 1 | IC - initial attack IC becomes OSC |
| 1 | OSC |
| 1 | Liaison Officer |
| 2 | PIO (1 at ICP & 1 at Staging/Assembly area) |
| 1 | Safety Officer |
| 4 | DIV/SUPS |
| 1 | Planning Section Chief (PSC) |
| 1 | Logistics Section Chief (LSC) |

POSSIBLE FIRE SUPPRESSION RESOURCES:

- | | |
|-------|----------------------|
| 2-3 | Helicopters |
| 1 | SEAT (802 Bomber) |
| 1 | Spotter |
| 4 | Water Tankers |
| 12-15 | Fire Engines |
| 6+ | 600 Litre Skid Units |
| 2-6 | Ground Crews |
| 1-2 | Type 1 Ground Crews |



Legend

- | | | | | | |
|--|--------------------------------------|--|---|--|------------------|
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| | DBS: Die Blomstoor Estate | | | | Track |
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Predominant Wind Direction



LACES

Lookouts-Awareness-Communication-Escape Routes-Safety Zones



BETTY'S & PRINGLE BAY
Wildfire Pre-Attack Plan

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OVERSTRAND
Municipality

DISASTER
MANAGEMENT

FIRE
RESCUE
SERVICES

Western Cape
Government

NCC
National Fire Protection Association