

# GPS USER MANUAL

November 2015

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## Introduction

The Yallingup Rural Volunteer Bush Fire Brigade uses Samsung Galaxy tablets principally for GPS assisted navigation to fire scenes, location of water points in our area, and navigation on maps and aerial photographs.

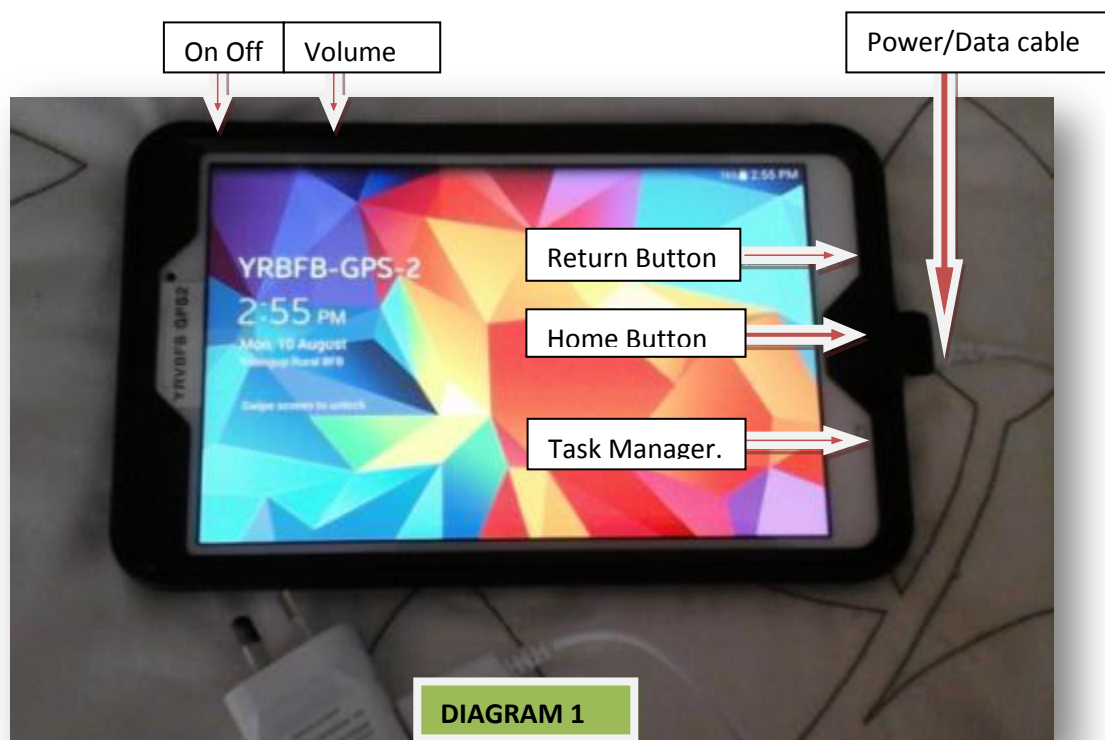
## Standard Operating Procedure for using GPS navigation

1. Turn on the Tablet and select Sygic immediately the vehicle is started. *(It may take several minutes for the unit to lock on to the GPS satellites.)*
2. Use Sygic to assist with navigation to the fire scene or waterpoint.
3. The Crew Leader is responsible for navigation. *(Not the driver when the vehicle is in motion.)*
4. Once at the fire scene, change to OziExplorer to get an appreciation of the local conditions from a map or aerial photograph. Automatically plot vehicle tracks, particularly in thick forest or unfamiliar terrain.

## Tablet

Samsung Galaxy Tab4, model SM -T330, Android Version 4.2.2 (August 2015)

## Hardware and buttons



- The Home button is under the soft rubber button in the centre of the lower edge.
- The Return button is the U shaped arrow.
- The Task Manager (nested screens symbol) shows open applications. Switch between applications here, close individual applications, or close all.
- Long press the On/Off button to start the tablet.

## Home screen

Swipe the Tablet opening screen, Diagram 1 to see the home screen, Diagram2:



In addition to the GPS software, there are icons for First Aid, a folder for GPS Guides, a Camera and Photo Gallery. Other useful icons may be placed here in the future.

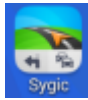


**Sygic** software uses road data for all of Australia for turn by turn navigation. All information is held on the device, no internet connection is necessary.

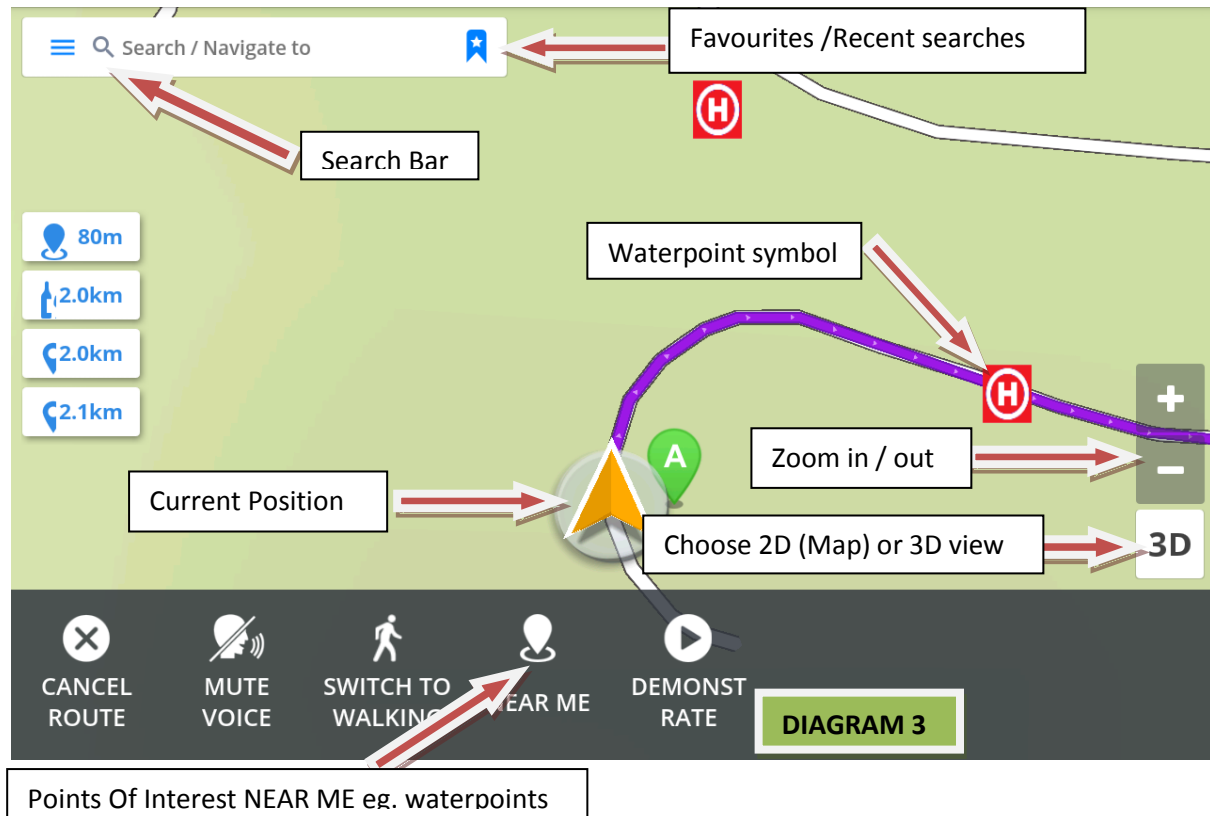


**OziExplorer** is used for display of map images of the fire area - photographs or scanned maps, including the LSW Emergency Service Directory maps. The GPS position is displayed as an arrow over the moving map. Images are restricted to WA, and are most detailed in the lower Southwest. See Diagram 15.

## Using the SYGIC Navigation Software



Tap the icon on the Samsung Tablet home screen (Diagram 2) to open Sygic (Diagram 3).

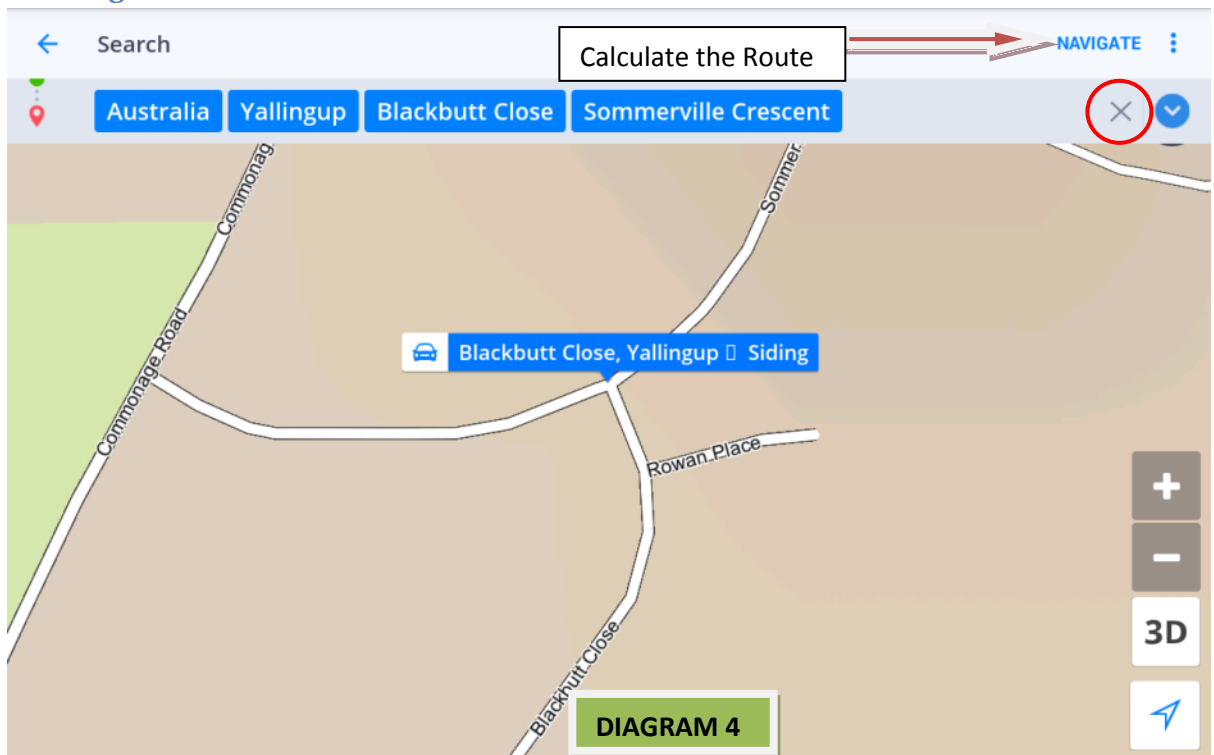


## Using the Sygic touch screen .

- Use the search/Navigate bar to enter the destination, pg.5.
- Waterpoint  and hydrant  symbols appear on the screen when zoomed in to larger scales. These are from the YRVBFB and LSW hydrant databases. Waterpoints indicate mostly the YRVBFB local standpipes; hydrants are street mains hydrants.
- The  buttons increase or decrease the scale. The screen can also be zoomed and shifted by pinching or swiping. Once the screen is moved away from the local area, the GPS tracking automatically turns off. To return to the GPS location, press the **RESUME** button which will show in the lower right corner.
- The Favourites/Recent Searches icon shows places recently searched.

## Navigating to a destination

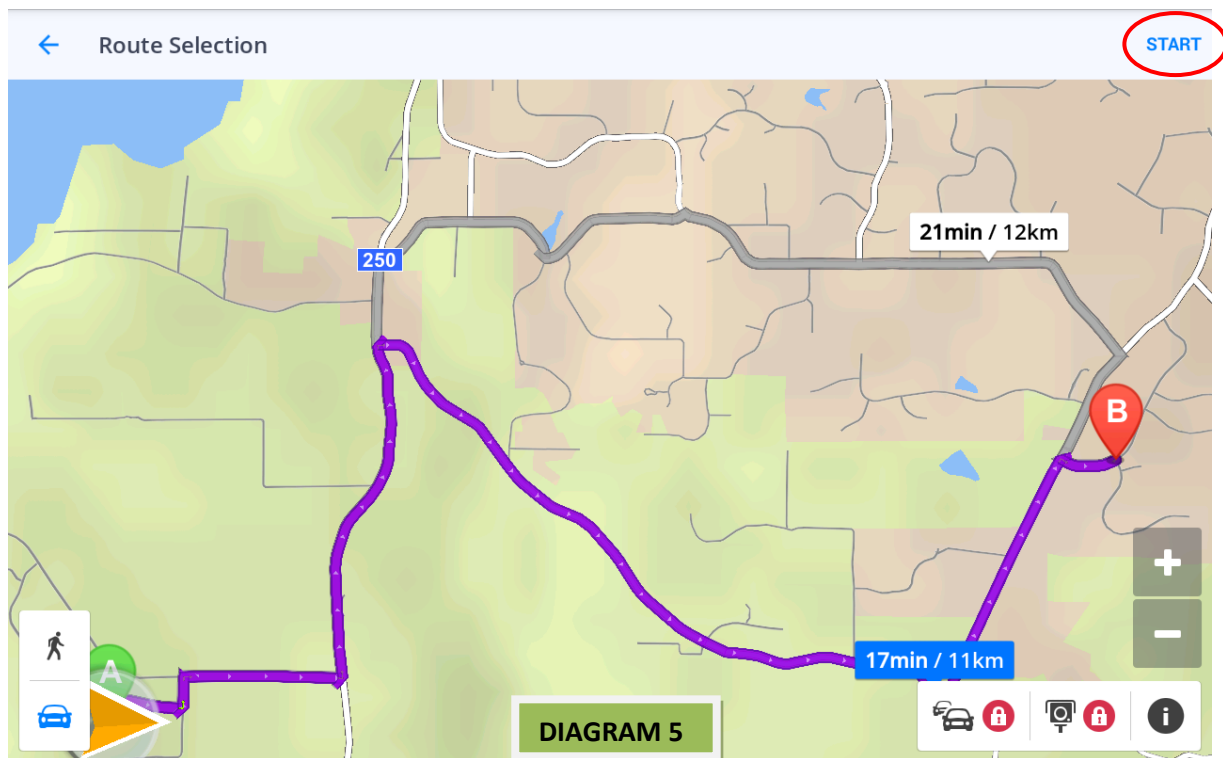
### Method 1: Using the full address



1. Tap on the Search/Navigate bar in the top left hand corner (Diagram 3) to open up the keyboard. *(To dismiss a keyboard, swipe downwards or use the return button on the Tablet (Diagram 1). If the Search/Navigate bar is not visible, tap the screen).*
2. Follow the prompts to enter Country, City, Street, Street number. As an alternative to street number, select the cross street as above (Sommerville Crescent). *Select from the drop-down lists.*

*The item to be entered is in grey; once selected, the item changes to being highlighted in blue, and the prompt for the next item is shown in grey.*

3. When complete, tap the Navigate button (top RH corner Diagram 4), to create a route. A screen similar to Diagram 5 will display.



Sometimes, up to 3 alternative routes are shown together with distance and time for each.

4. Select the route that you prefer by touching it on the screen. It will then highlight.
5. Start navigating by pressing the START button in the top right hand corner (Diagram 5).
6. Follow the turn by turn audio instructions and map display.
7. Adjust the volume with the volume toggle switch on the tablet near the On/Off button Tablet (Diagram 1)

### Method 2: Using only the street name

The Search bar can be used as a Google type search. This is useful if you are unsure of the suburb.

1. Dismiss the Country etc. By pressing the X at the right hand side of the Search/Navigate bar (Diagram 4).
2. Type in the street name and press 'Go' on the keyboard. *(Ignore the **Select Country or State** in grey - it will disappear once you start typing.)*
3. Select the street name in the appropriate suburb from a list of all streets of that name in the database which display with the nearest one at the top of the list. *(Even slightly misspelled streets are often found. Try **Commonege** for **Commonage**. The difference between this method and following the **Country, City, Street** etc search is that Sygic then takes you straight to the location of the street, and you must pick the cross street or location by selecting it on the screen.)*
4. Follow the audio turn by turn instructions and map display.

The same technique can be used to find other useful POI's such as police, hospital or waterpoints. Type in 'police' and 'Go' on the keyboard to find the nearest station. See the following instructions on Navigating to a Waterpoint.

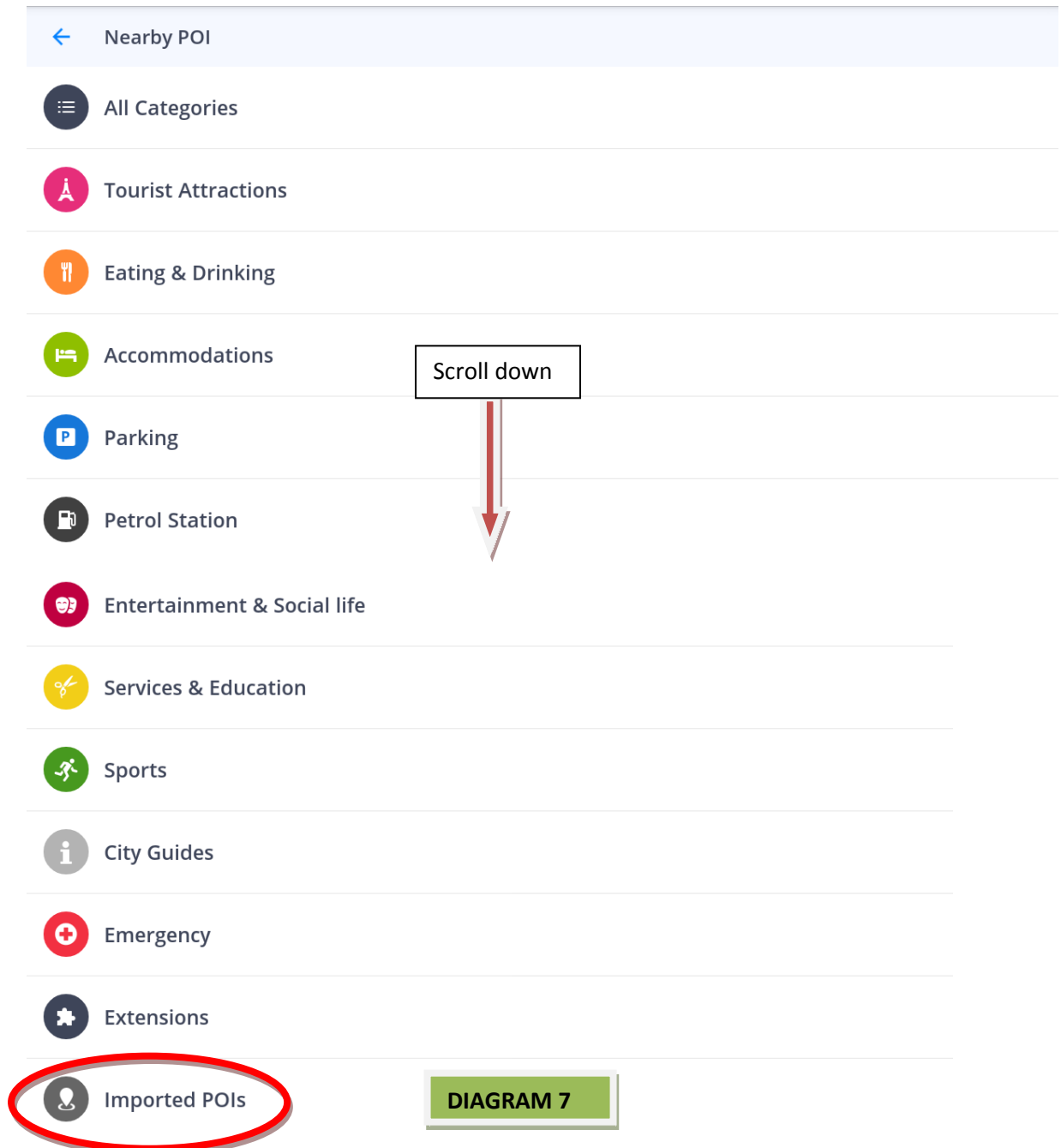
## Navigating to a Waterpoint or Hydrant near your current location.

### Method 1: Use the NEAR ME button

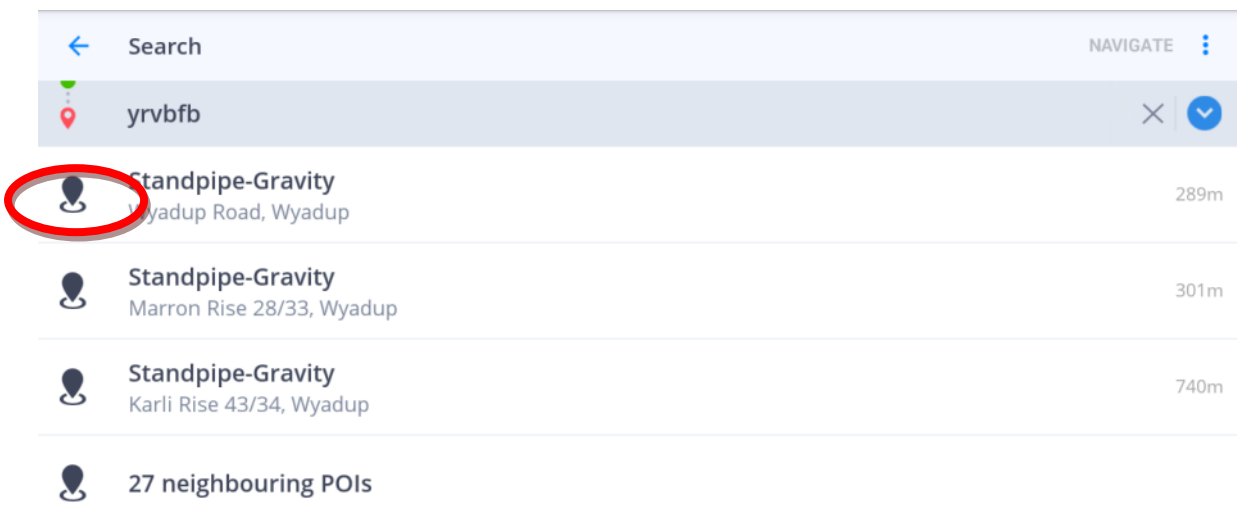
1. Use the NEAR ME button above (Diagram 3).

*All nearby POI's will appear in a Category list.*

2. Scroll down to **Imported POI's** as shown below in Diagram 7.



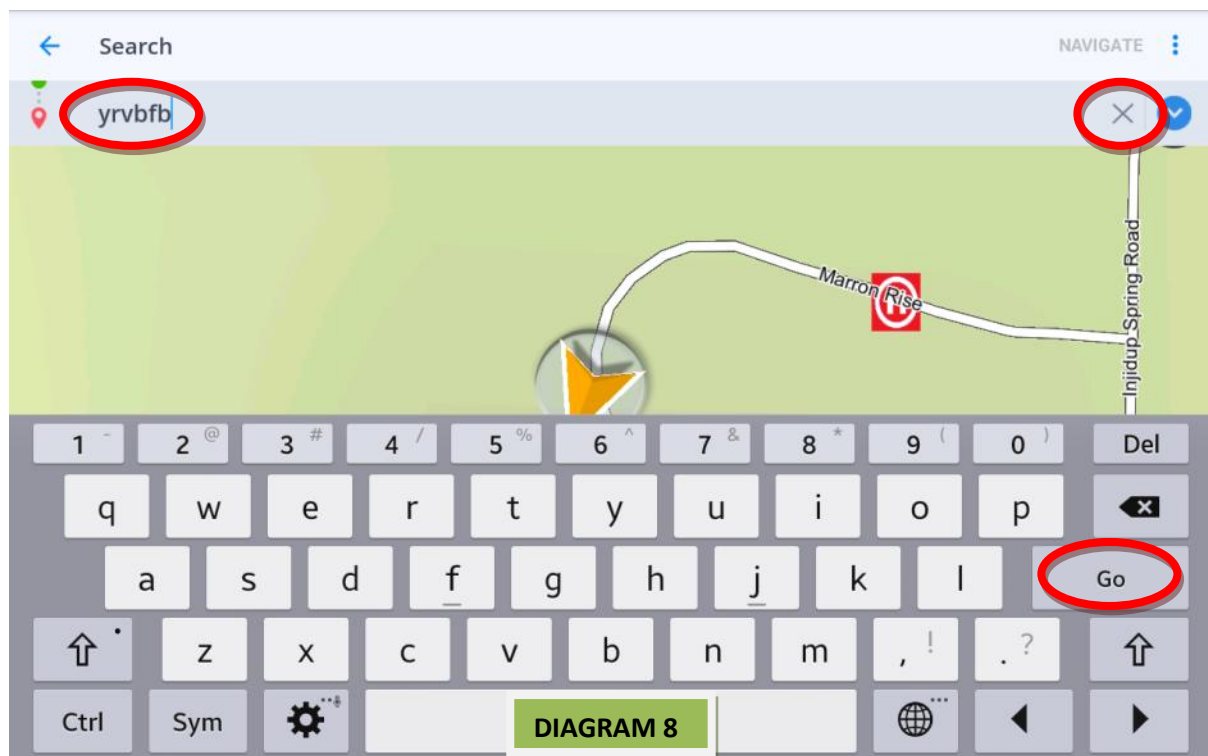
3. Select Imported POI's and the following screen will display.



Select the waterpoint required from the list, and navigate to it using [Get directions](#).

#### Method 2 :Use a Google type search.

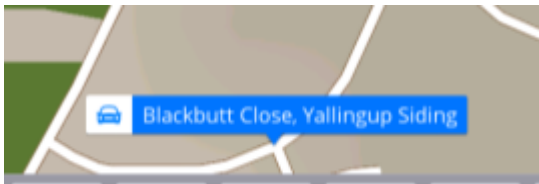
1. Press the X at the right hand end of the search/navigate bar (Diagram 8)
2. Type YRVBFB (which is a tag in the waterpoints database)



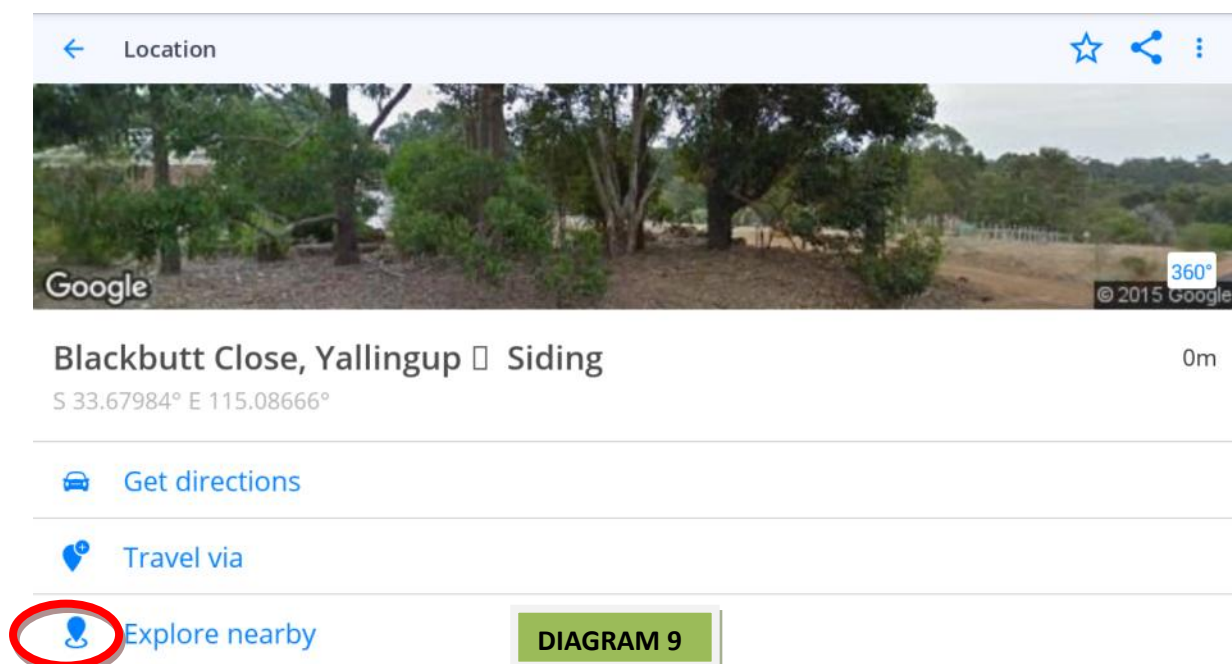
3. Press 'Go, and the waterpoints will be listed beginning at the closest. (Even 'YRV' will work for this.)
4. Select the waterpoint required from the list as above, and navigate to it using [Get directions](#).

## Navigating to Waterpoints at other locations

1. Pan the screen to the remote location and touch the screen on a road. A blue bar will appear.



2. Touch the bar and then the **Explore nearby** icon on the next screen (Diagram 9)  
The street image below will only be displayed (via Google Street Map) if you have internet connection.

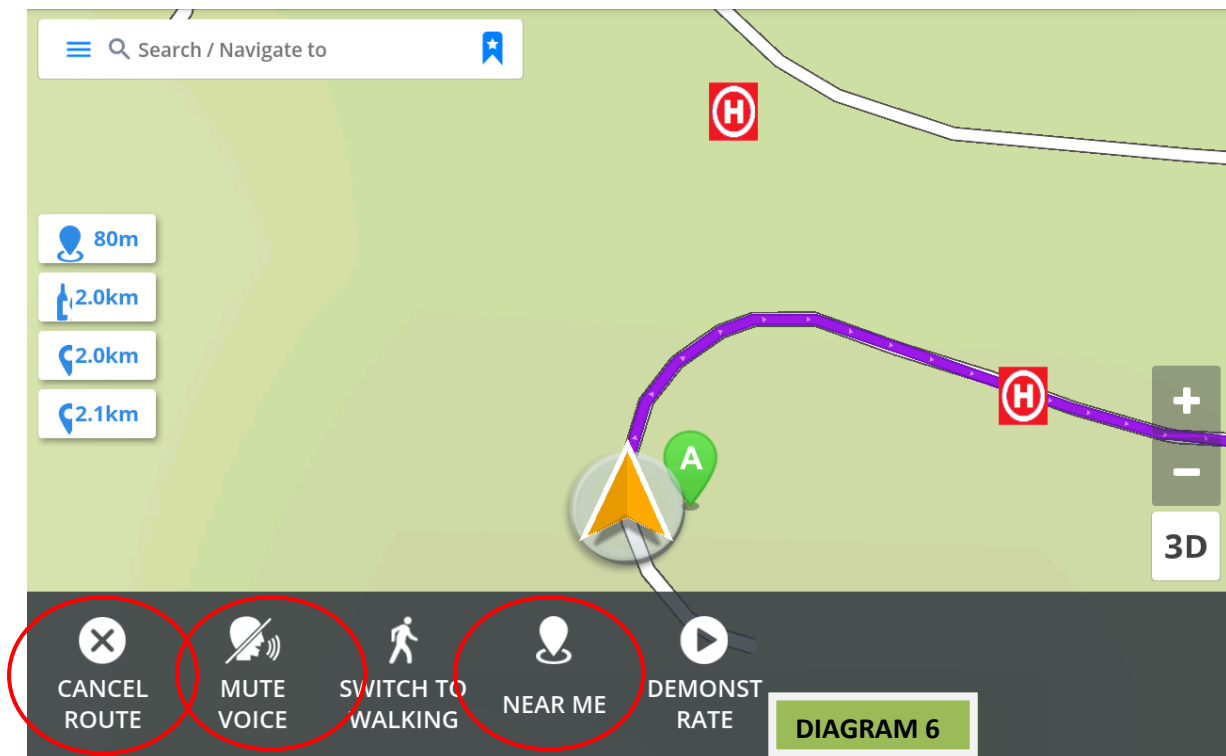


*All nearby POI's will appear in a Category list.*

3. Scroll down to Imported POI's as before in Diagram 7.
4. Select the waterpoint required from the list, and navigate to it using **Get directions**.

## Cancelling the Route

1. Tap the screen, and a menu will appear at the bottom. The Search/Navigate bar also appears at the top (Diagram 6).
2. Select CANCEL ROUTE



## Muting voice prompts

1. The voice prompts can be muted from this menu. *(If there are no voice prompts, check here first to 'UNMUTE VOICE', then check the volume setting.)*

## Closing SYGIC

Tap the screen to display the menus, press **CANCEL ROUTE**, then press the return button on the Tablet (Diagram 1) and respond to the close down prompts

Note that both Sygic and OziExplorer can both be running at the same time. Swap between them by pressing the 'Home' button on the Tablet (Diagram 1) and select the other application from the home screen icons.

## Using the OziExplorer Maps Software

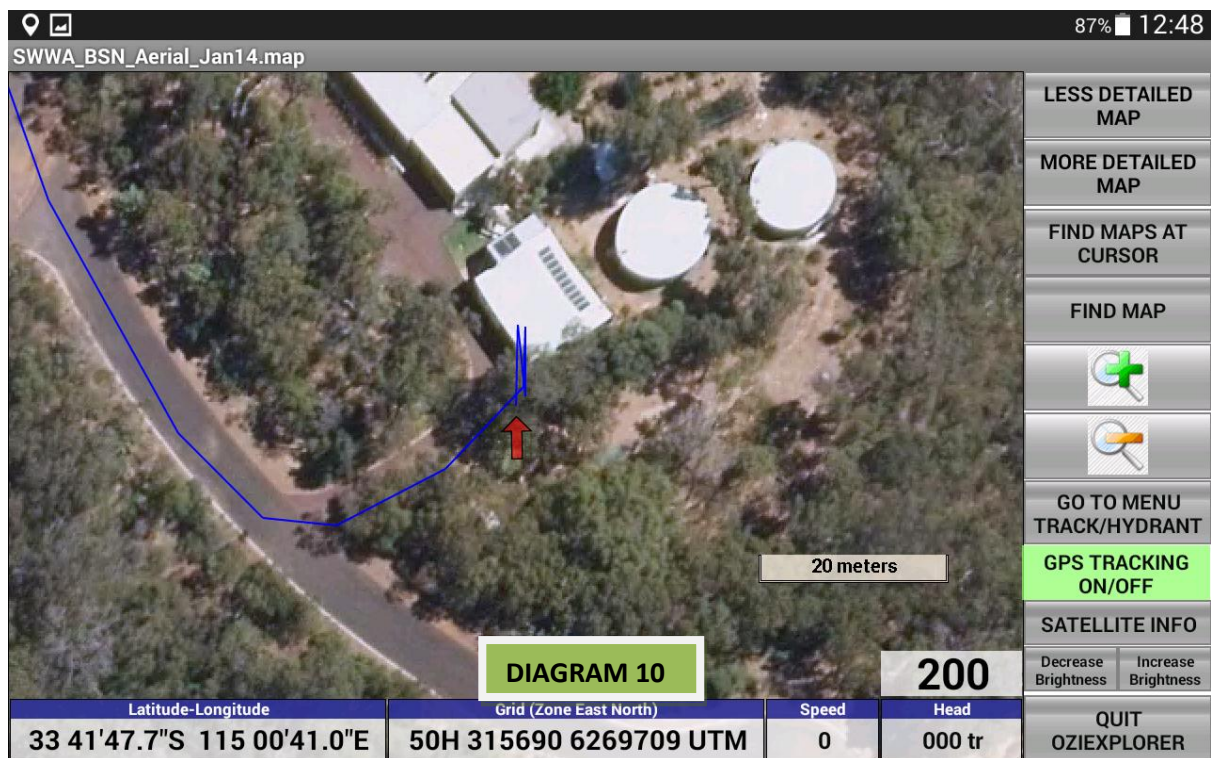


Tap the icon on the Home screen to open OziExplorer.

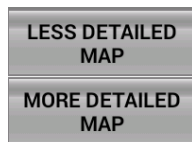
OziExplorer contains City of Busselton aerial photographs, the Lower South West Emergency Services Directory (ESD) maps, and other topographic and town maps. See Diagram 15 at the end of this document for the mapping coverage. OziExplorer cannot be used for turn by turn navigation to the fire scene but it is useful for locating the vehicle on a map or aerial photograph, and showing vehicle tracks. The current location is shown as the red arrow on Diagram 10. The list of waterpoints and LSW hydrants is also available.

### Main Maps screen

MAIN MAPS Screen and Menu Bar - showing an Aerial photography screen



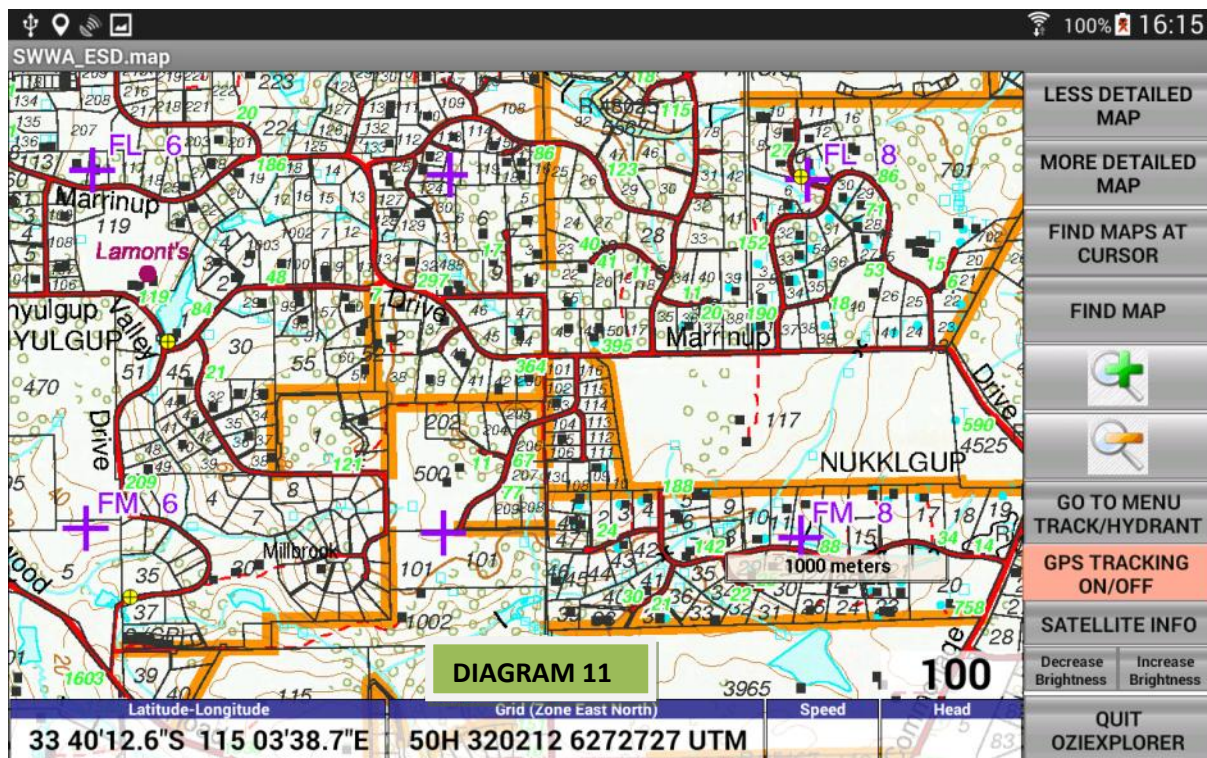
### MAIN MAPS Screen buttons



Moves between displaying different scale backdrop maps or photos available at this location, for example:

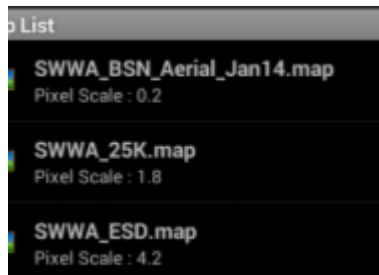
- Aerial photo as above, (Diagram 10)
- 1:25000 topographic map,
- LSW ESD (Emergency Services Directory), shown below (Diagram 11).

## MAIN MAPS Screen and Menu Bar - showing an ESD Directory screen



FIND MAPS AT CURSOR

Opens a window listing (shown below) of the available maps at the **cursor** location - (the GPS red arrow, Diagram 10).



Go directly to that map by selecting it, rather than using the **LESS DETAILED MAP** or **MORE DETAILED MAP** buttons.

FIND MAP

Shows all the maps available in the database - including about 36 town maps and the 1:100000 scale WA state maps.

All maps and photos are stored as large mosaics, rather than individual tiles. This means that there are no partially blank screens at the edge of tiles, but it does mean that when changing between maps/photos there can be about 10 seconds of pixilation before the image settles at full resolution.



Are Zoom buttons. OziExplorer does not respond as well as Sygic to screen panning and pinching due to the large datasets, so use the Zoom buttons.

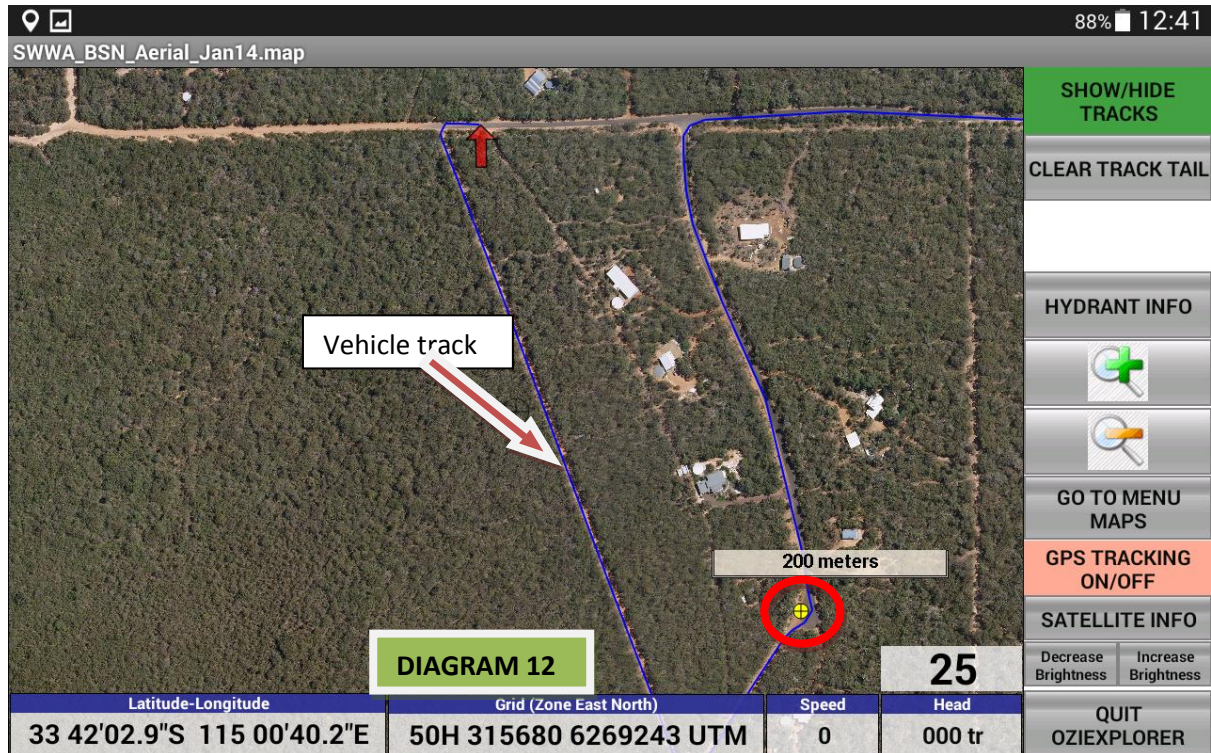
|                             |
|-----------------------------|
| GO TO MENU<br>TRACK/HYDRANT |
| GPS TRACKING<br>ON/OFF      |
| SATELLITE INFO              |

**GO TO MENU TRACK/HYDRANT** and **SATELLITE INFO** buttons open new screens with new Menu bars.

**GPS TRACKING ON/OFF.** Turn **GPS TRACKING OFF** (**button turns orange**) if you want to scroll the map to a different location. Turn **GPS TRACKING ON** (**button turns green**) to return the map to the current GPS location.

## Track/Hydrants screen

### TRACK/HYDRANT Screen and Menu Bar



### TRACK/HYDRANT Screen buttons

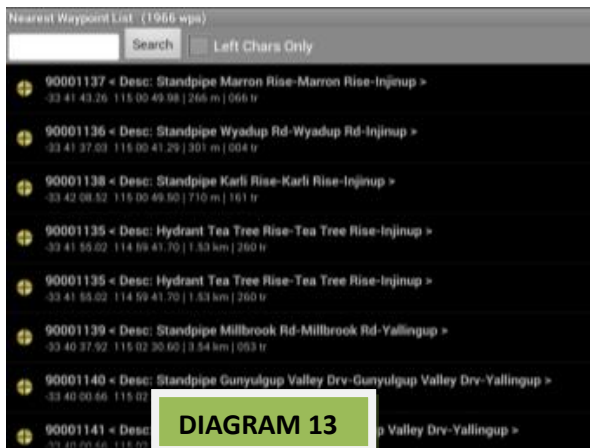
|                     |
|---------------------|
| SHOW/HIDE<br>TRACKS |
| CLEAR TRACK TAIL    |

**SHOW/HIDE TRACKS** either shows a blue track trail for vehicle movement (Diagram 12, **button Green**, or no track trail **button Orange**)

**CLEAR TRACK TRAIL** prompts for removal of the displayed track trails.

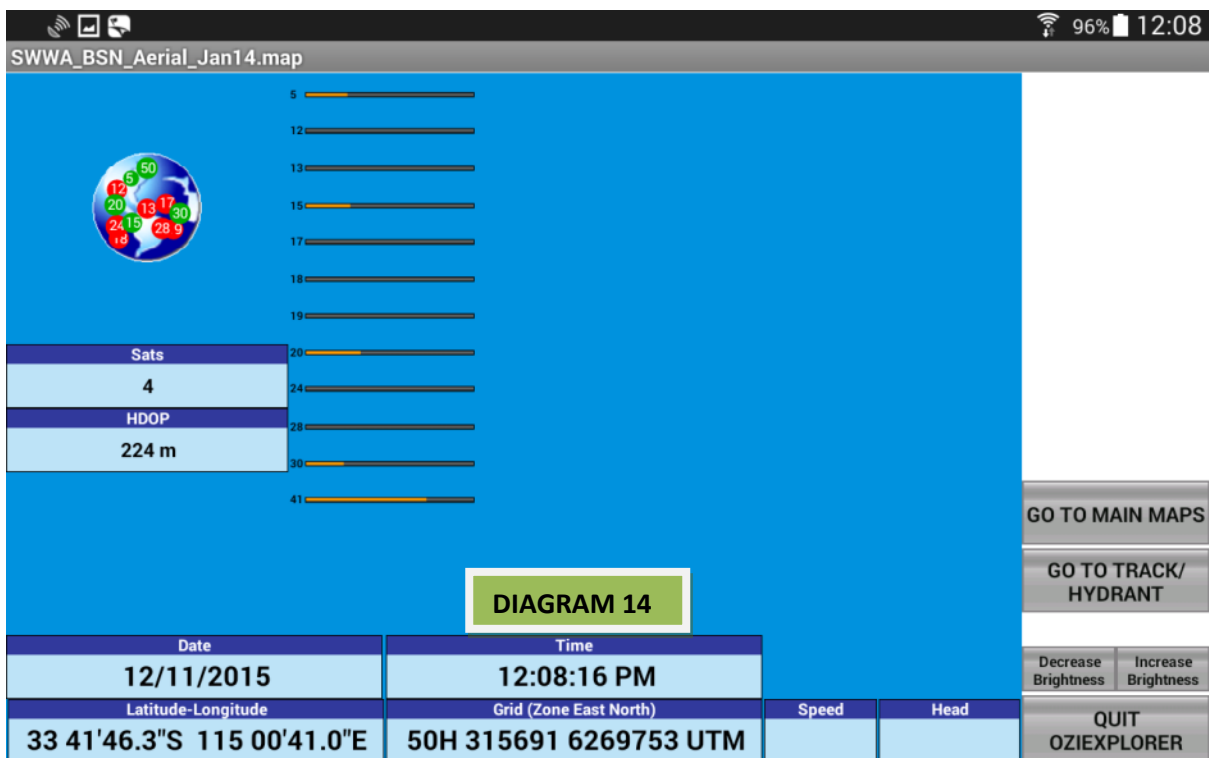
|              |
|--------------|
| HYDRANT INFO |
|--------------|

**HYDRANT INFO** shows all the waterpoints and LSW hydrants ( , circled in red on Diagram 12). They are listed starting at the nearest. (Diagram 13). In OziExplorer both waterpoints and hydrants have the same symbol.



## Satellite Info screen

### SATELLITE INFO screen and Menu Bar



This screen is available to check the satellite configuration, the number of satellites tracked, and their signal strength. Once a GPS fix has been acquired, all fields will be filled in. The last one to be filled is HDOP, so if there is a figure there, GPS lock has been achieved. Date and time are also available here.

### SATELLITE INFO Screen buttons



Opens the **MAIN MAP** screen (Diagrams 10, 11).



Opens the **TRACK/HYDRANTS** Screen (Diagram 12)

## Location Coordinates

Each screen has a bar at the bottom showing:

| Latitude-Longitude         | Grid (Zone East North) | Speed | Head | QUIT<br>OZIEXPLORER |
|----------------------------|------------------------|-------|------|---------------------|
| 33 41'46.3"S 115 00'41.0"E | 50H 315691 6269753 UTM |       |      |                     |

**Latitude-Longitude** In Degrees, Minutes, Seconds - South and East and;

**Grid (Zone East North)** in metres .

The example above shows: Grid Coordinates, Zone **50H**, East **315691**, North **6270039**, projection **UTM**

These should correspond within a few metres of the coordinates available through the F2 button on the WAERN radio.

## Closing OziExplorer

To close OziExplorer, press '**QUIT OZIEXPLORER**' button available on all screens and respond to the close down message.

## Shutting down the Tablet

On returning to the Fire shed, close both items of software individually, and shut down the Samsung Tablet with a long press on the On/Off button (Diagram 1) and respond to the 'Power Off' option.

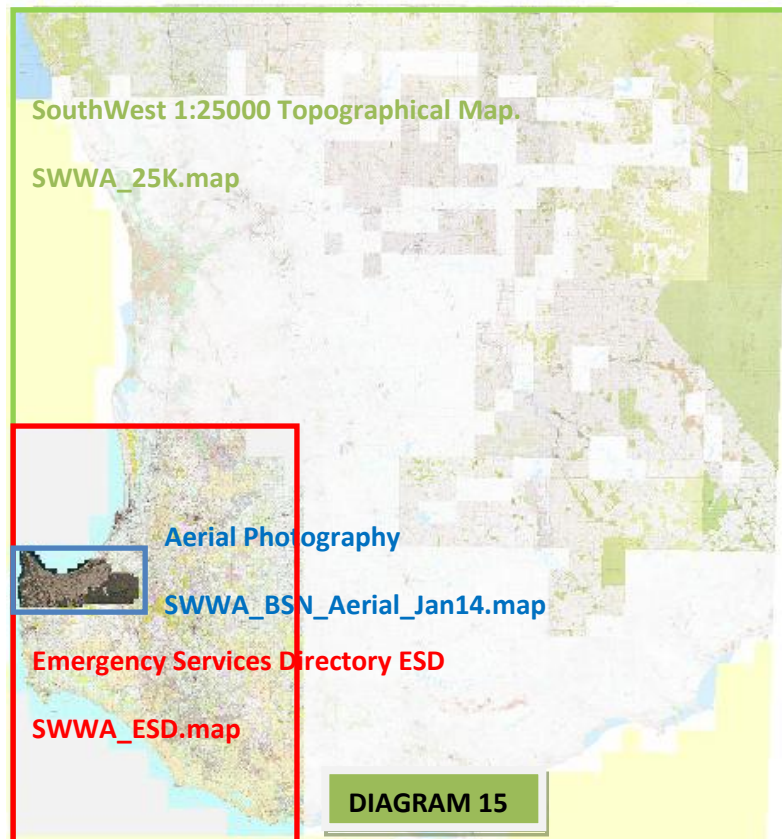
## Mapping coverage

### Sygis

All of Australia

### OziExplorer

As shown below



In addition, there are about 36 individual Lower SW town maps and 1:100000 coverage of all WA in two maps - WA North, and WA South.