

Scenario info: Property purchase

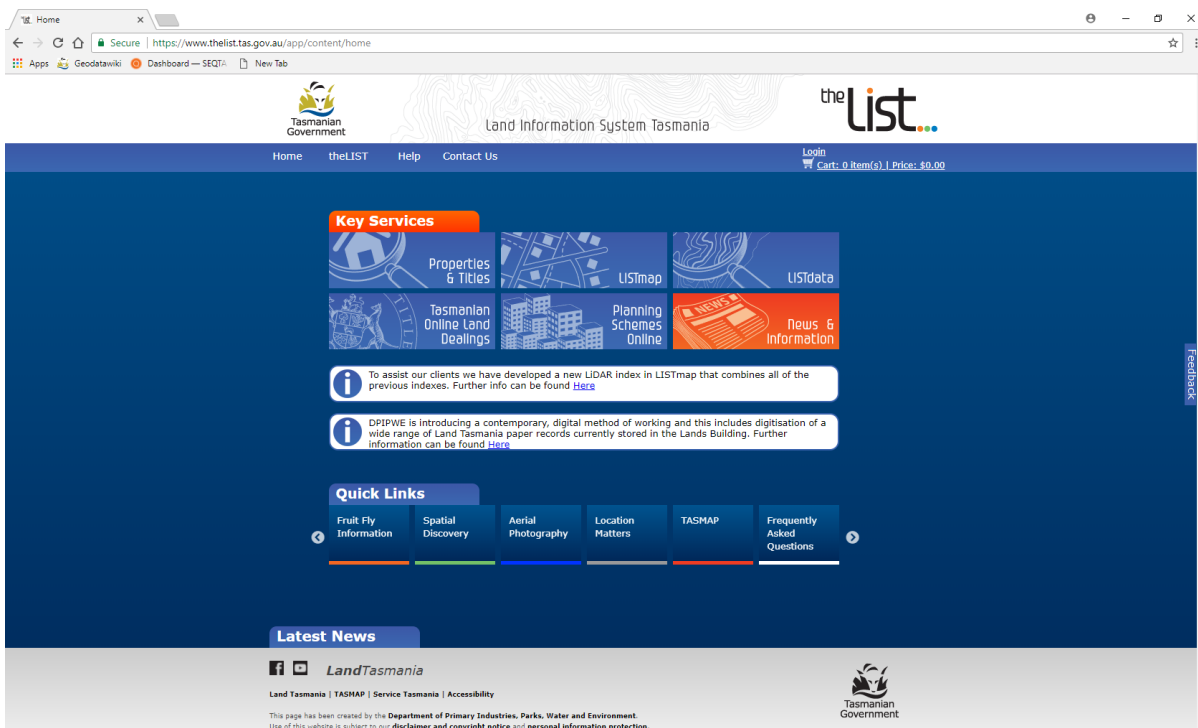
I am looking to purchase a property in the Municipality of Meander Valley near the township of Deloraine.

Before I make the purchase I want to get an idea of the properties that surround the parcel of land I am interested in purchasing, its topographic features, known weeds on the property and what enterprise suitable crops can be grown now and into the future.

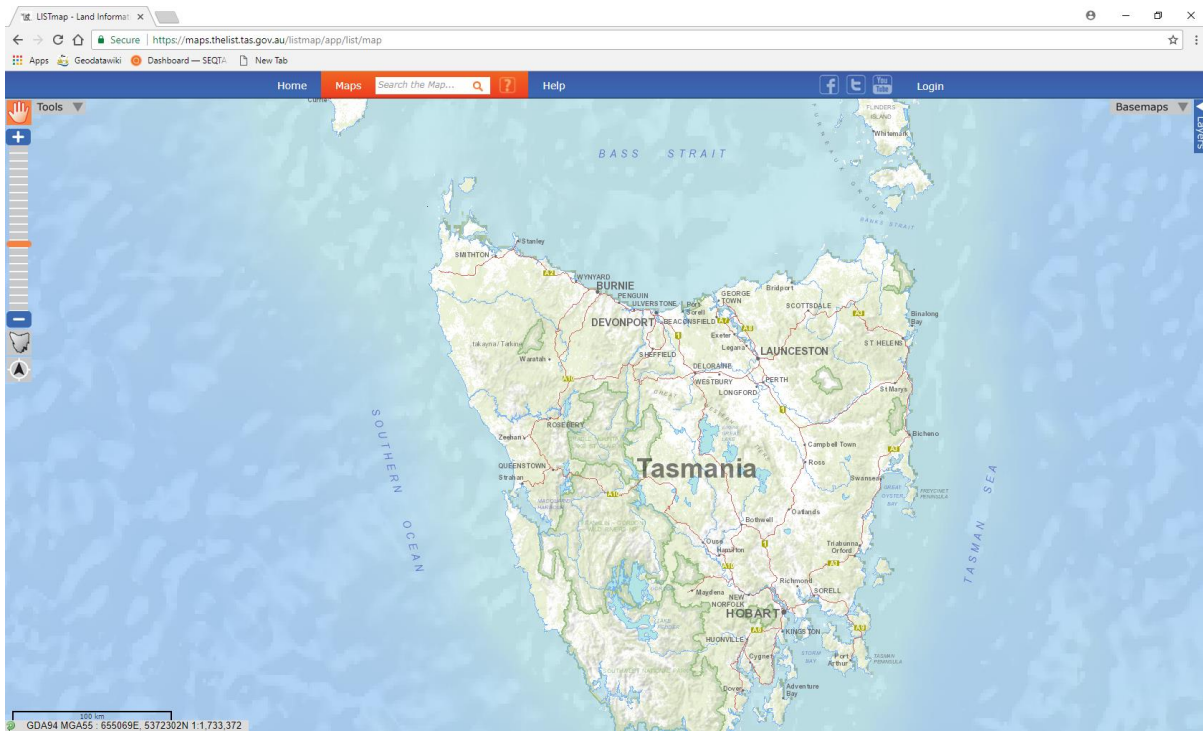
LISTmap is an online map viewer that allows me to find this type of information using a wide range of authoritative land-based information.

Start of Exercise:

1. Open up a web browser (Firefox, Chrome, Safari or Edge) and type in the following URL (www.thelist.tas.gov.au) – press Enter.
2. The LIST web site appears with a number of Key Services available.



3. Select the LISTmap key service with a left mouse button. (LISTmap start screen pictured below)

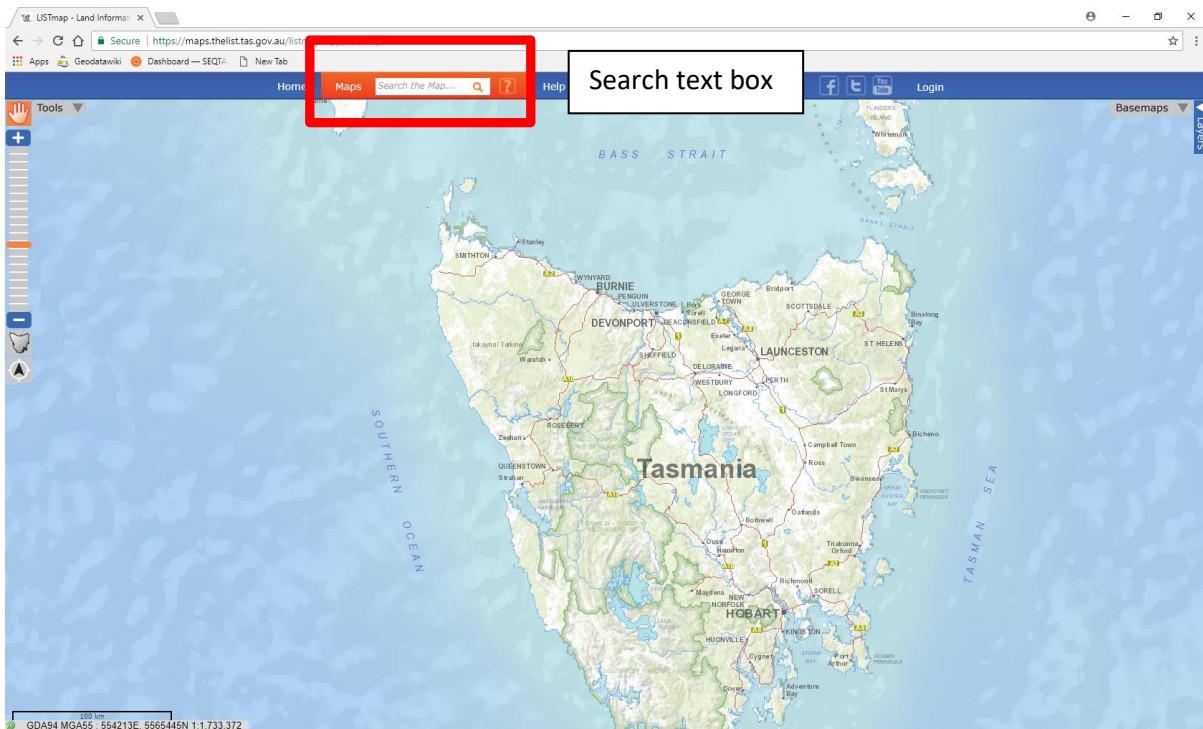


a. Other Key Services:

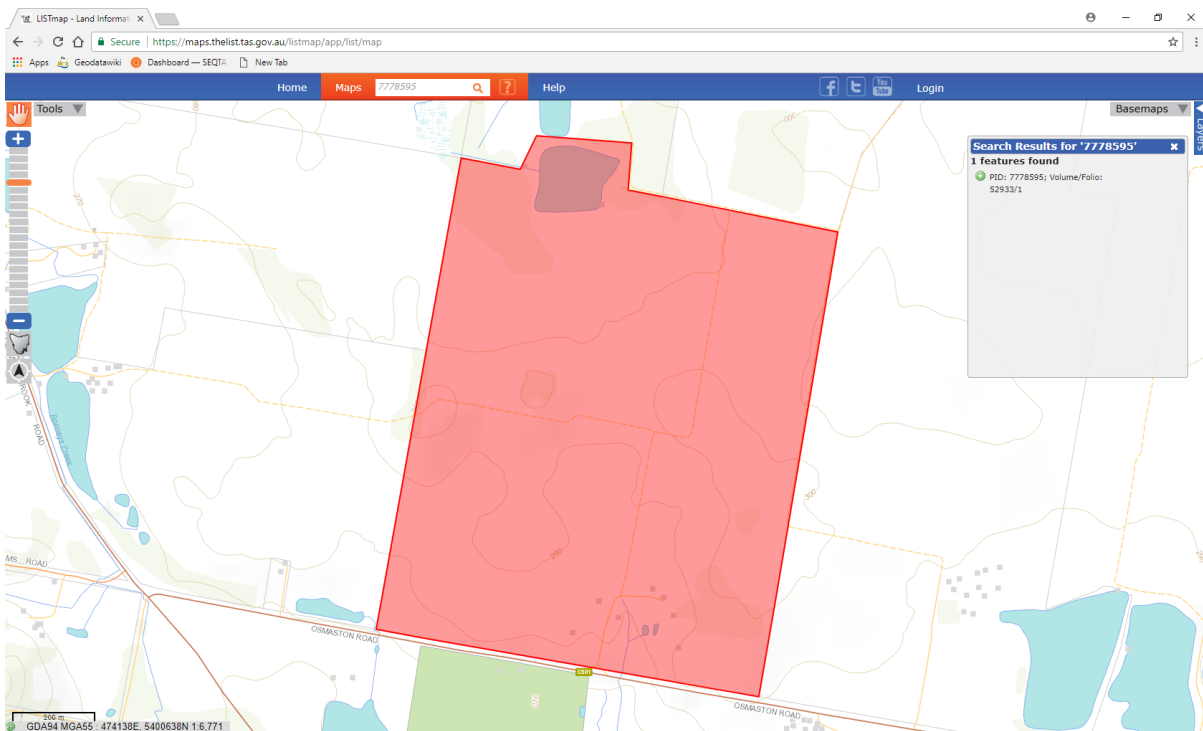
- i. **Properties and Titles** - The Properties and Titles search provides options for searching and obtaining a range of documents relating to Tasmanian land titles and other property information.
- ii. **LISTdata** - LISTdata is a contemporary online metadata portal that facilitates the discovery and reuse of Tasmanian spatial information.
- iii. **Tasmanian Online Land Dealings** – A link to the Tasmanian Online Land Dealings page to obtain blank instrument forms for lodging in the Land Titles office.
- iv. **Planning Schemes Online** – A link to I-Plan, a statewide resource for planning and development in Tasmania.
- v. **News and Information**
- vi. **Quick Links** - There are a number of other “Quick Links” at the bottom of the page that link to other Land Tasmania core business activities.

Search Function

4. In the “**Search bar**” area (identified below) enter either of the known key identifiers of the parcel - Title reference 52933/1 or PID 7778595 and hit the ‘Enter” key. LISTmap will zoom to the parcel of interest.



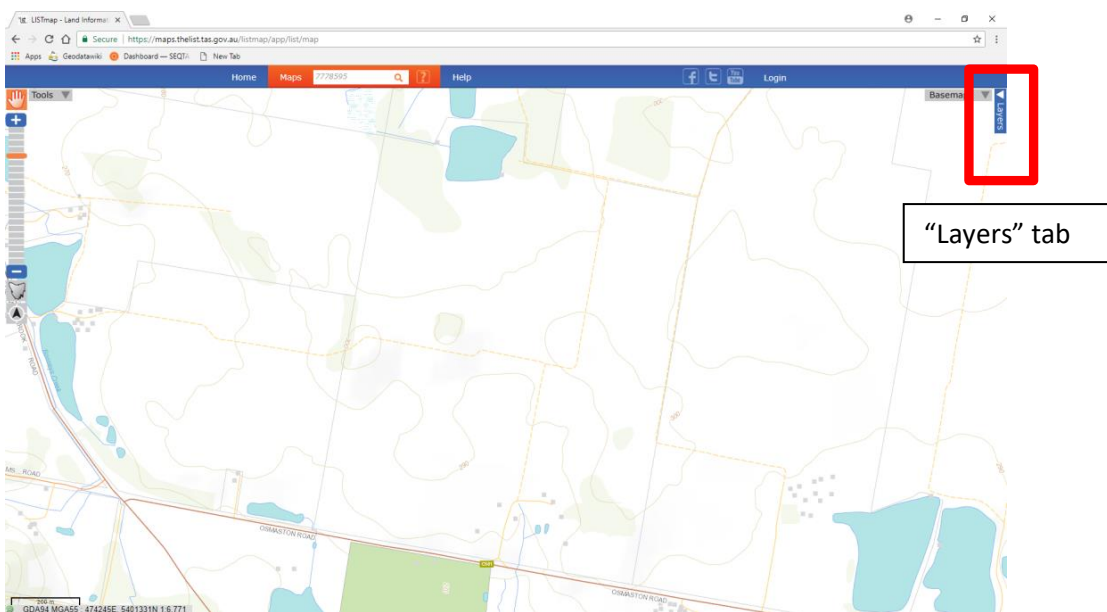
Result:



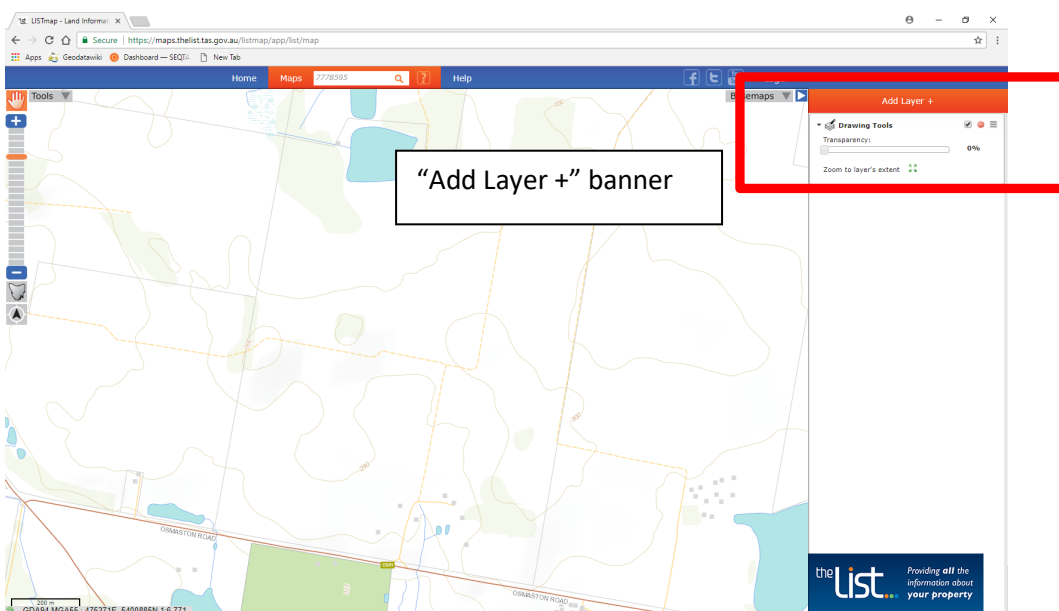
Layer Management


5. Now using the **“Layer Management”** tab (pictured below) add in the necessary authoritative layers that will allow us to gain an understanding of the land. Layers to be added include:
 - a. Cadastral Parcels
 - b. Contours
 - c. Enterprise Suitability Crops
 - d. Enterprise Suitability Crops (Scenario B1 and A2)
 - e. Weeds Watchlist points
 - f. Conservation Covenants
 - g. Landslip areas
 - h. Surrounding Land Tenure

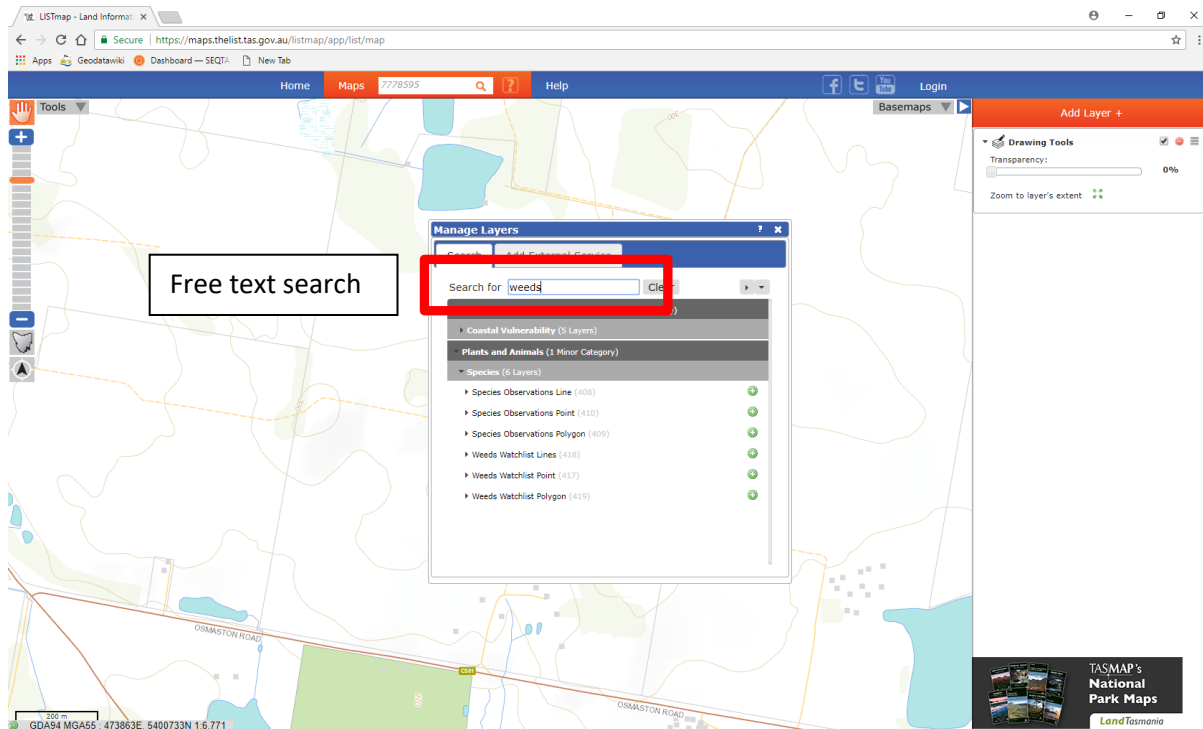
Step 1 – Select the layers tab with a left mouse button.



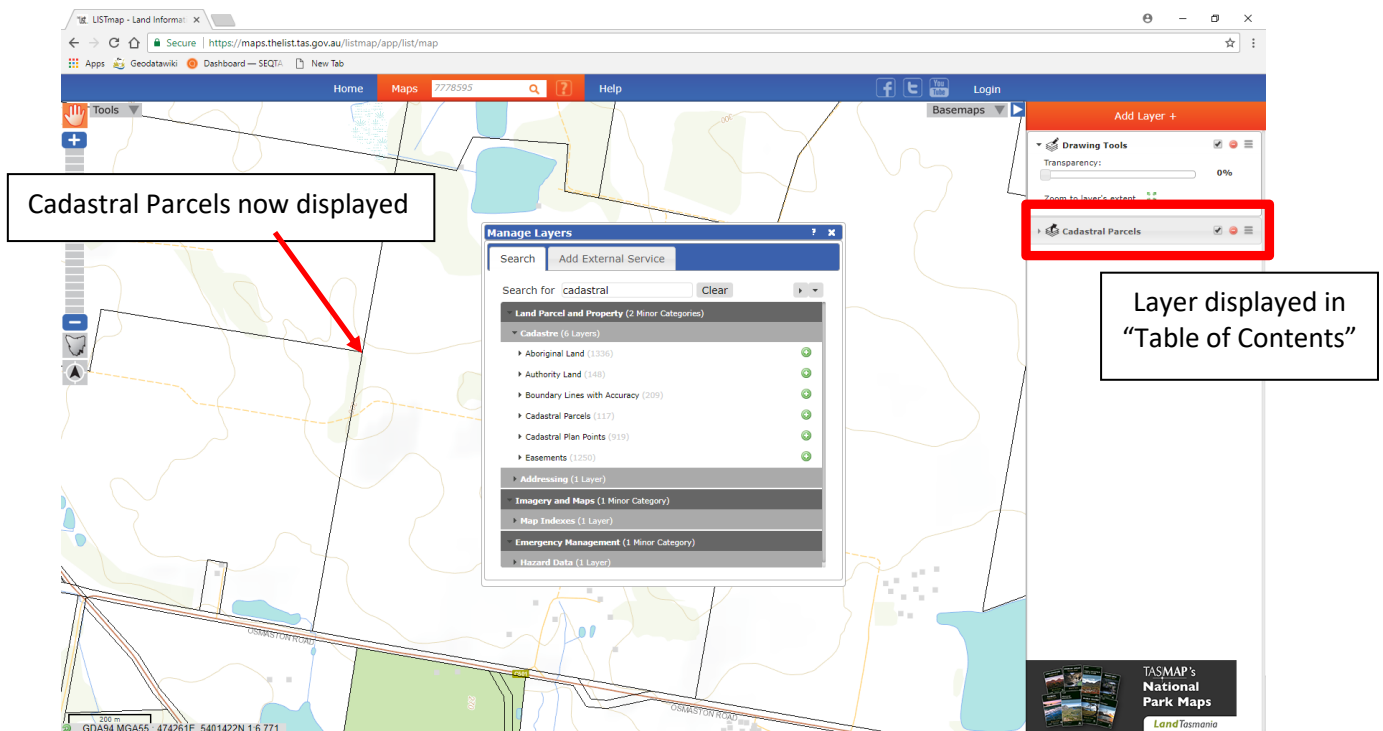
Step 2 – Now select the **“Add Layer +”** banner (Left mouse button)




Step 3 – Now using the free text search – search and find the layers described. Add the selected layer(s) by clicking a left mouse button on the  located to the right of the desired layer.



Step 4 – The added layer will now appear in the “Map Viewer” window and be displayed in the “Layers” tab /Layer Management Table of Contents.



Do the same for the other identified layers. (i.e. Enterprise Suitability Crops, Enterprise Suitability Crops (Scenario B1 and A2), Weeds Watchlist points, Conservation Covenants, Landslip areas, Land Tenure).

- Now “toggle” between the added layers using the layer control tools  to either turn off, remove, or change the drawing order of the layer, to view the layers of interest.
- Close this session of LISTmap.

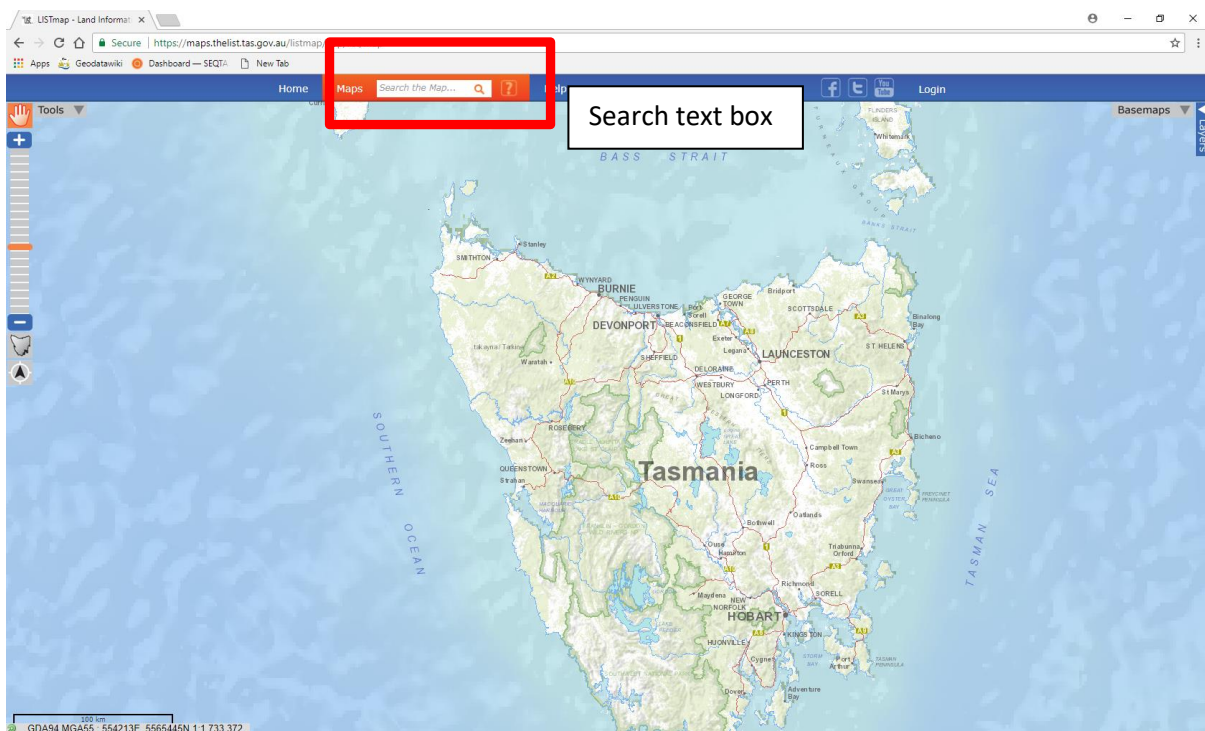
Scenario info: Paddock planning

After our investigations I am now satisfied that the property I am interested in is a great purchase and have subsequently brought the property.

One of the first things I wish to implement on my new farm are new paddock boundaries. Here I can use LISTmap to plan and measure some proposed paddock scenarios.

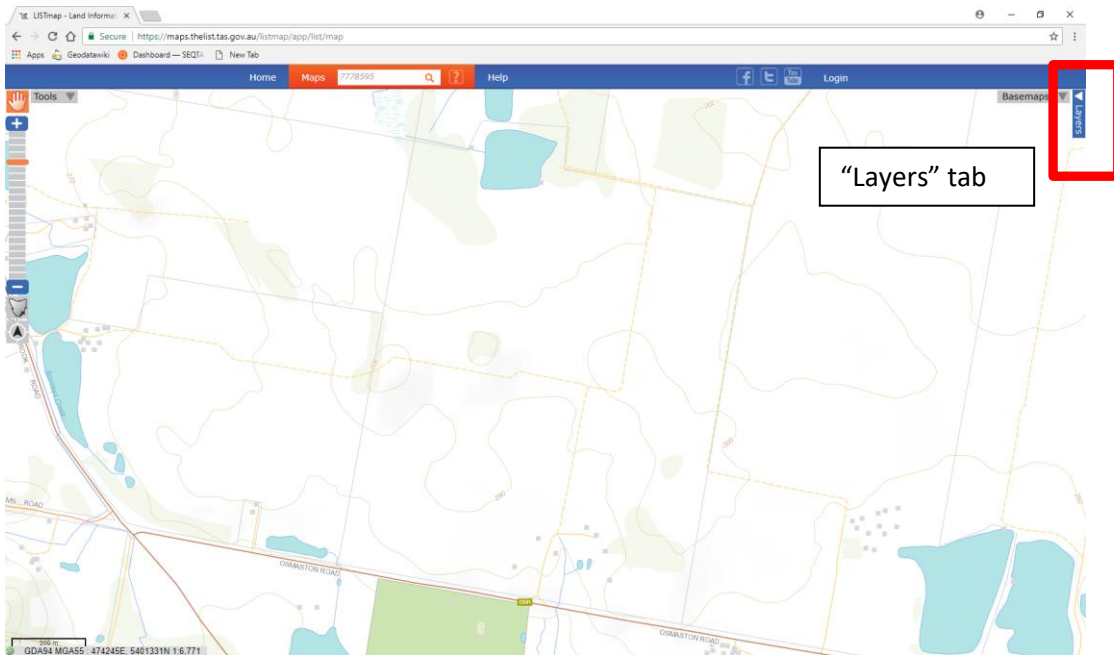
I plan to use some of the existing features on the farm, like vehicular tracks as natural boundaries.

- Open a new session of LISTmap. (www.thelist.tas.gov.au)
- In the “**Search bar**” area (identified below) enter either of the known key identifiers of the parcel - Title reference 52933/1 or PID 7778595 and hit the ‘Enter” key to again locate the property.

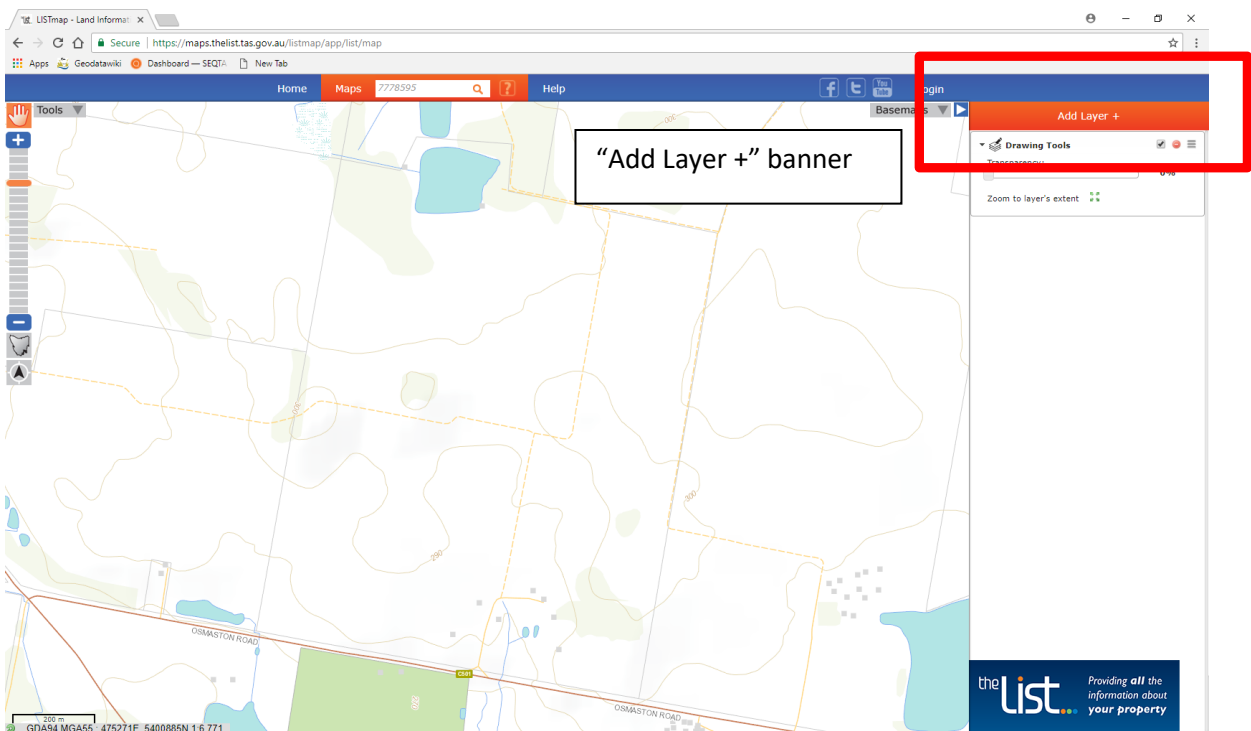



10. From the “Layers” tab top right-hand corner - Add in the “Cadastral Parcels” and “Road Centrelines” layers.

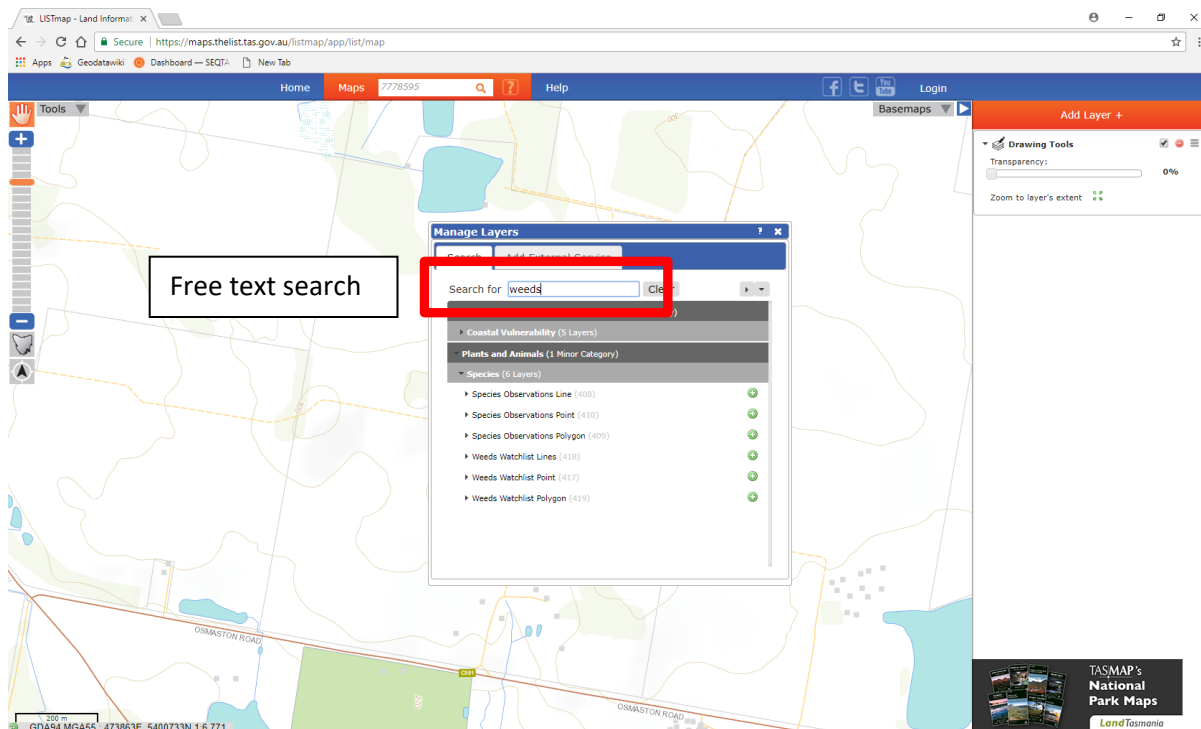
Step 1 - Select the “Layers” tab with a left mouse button.



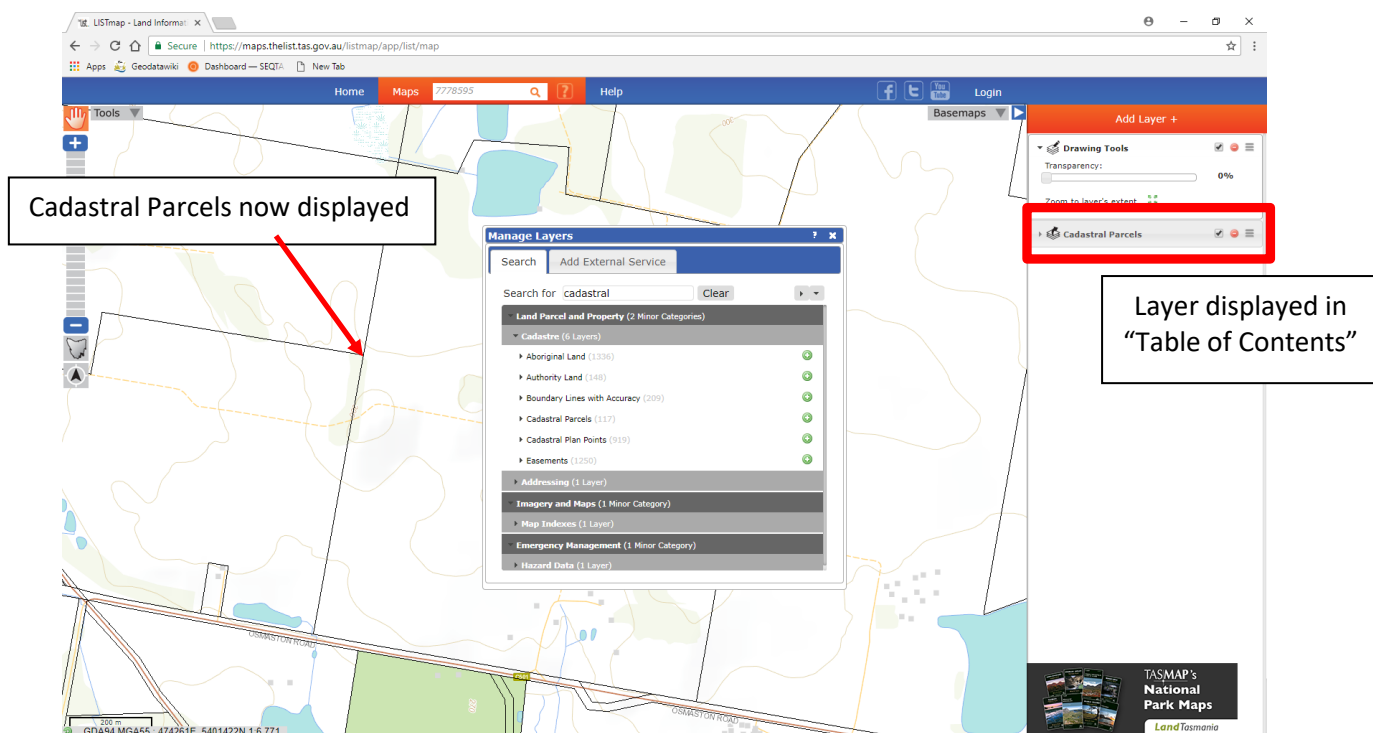
Step 2 - Now select the “Add Layer +” banner (Left mouse button)



Step 3 - Now using the free text search – search and find the layers described. Add the selected layer(s) by clicking a left mouse button on the  located to the right of the desired layer.

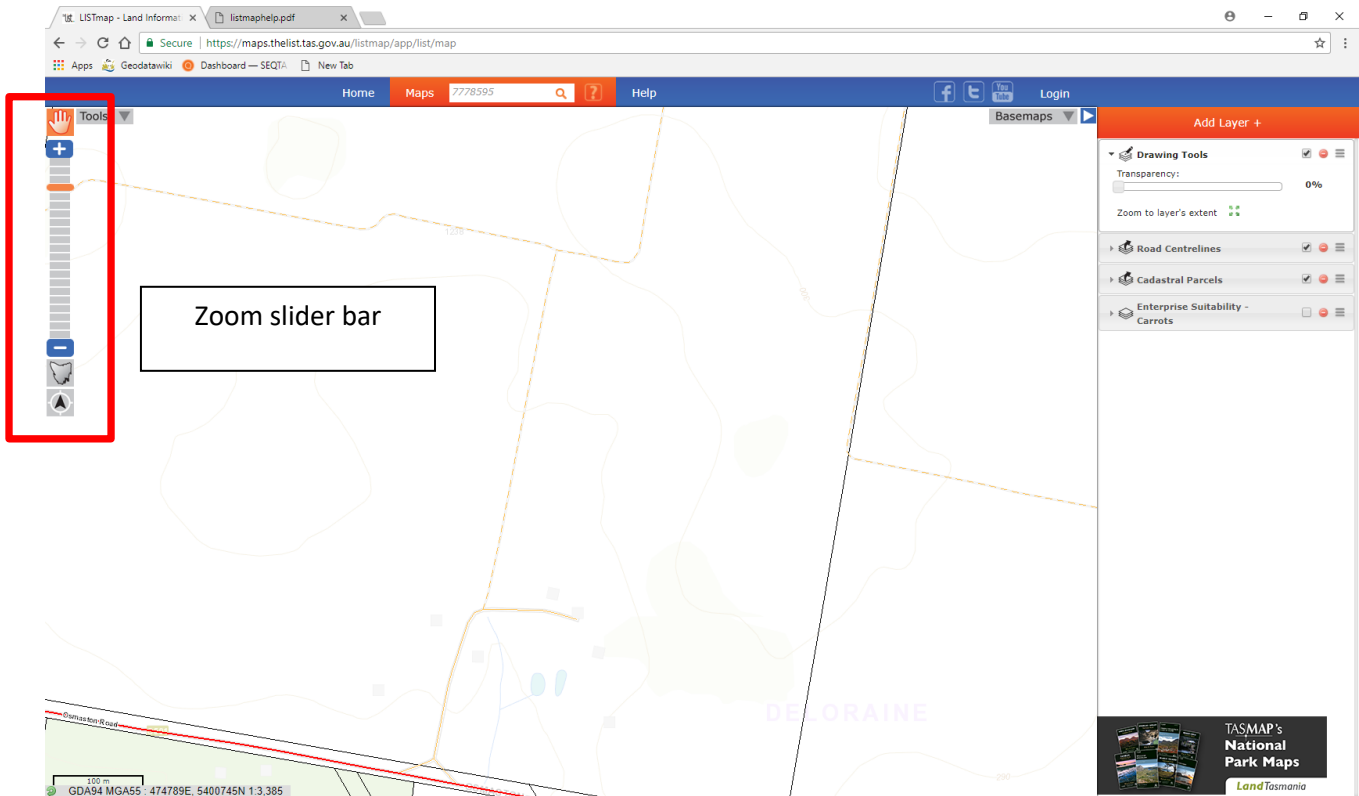


Step 4 - The added layer will now appear in the “Map Viewer” window and be displayed in the table of contents.

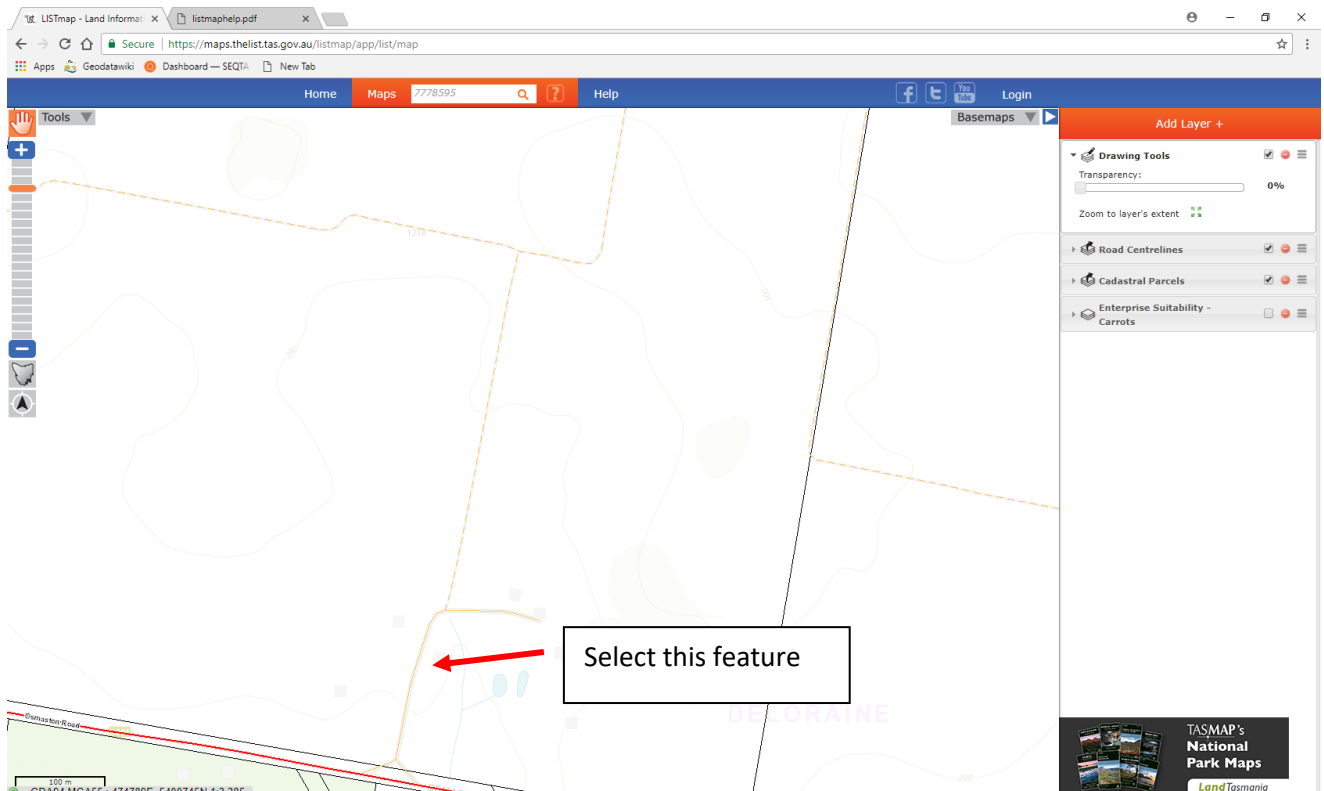


Zoom slider bar

- Using the slider bar down (pictured below) or the mouse wheel zoom into road features at the bottom of the farm just off Osmaston Road. The screen should look like this.

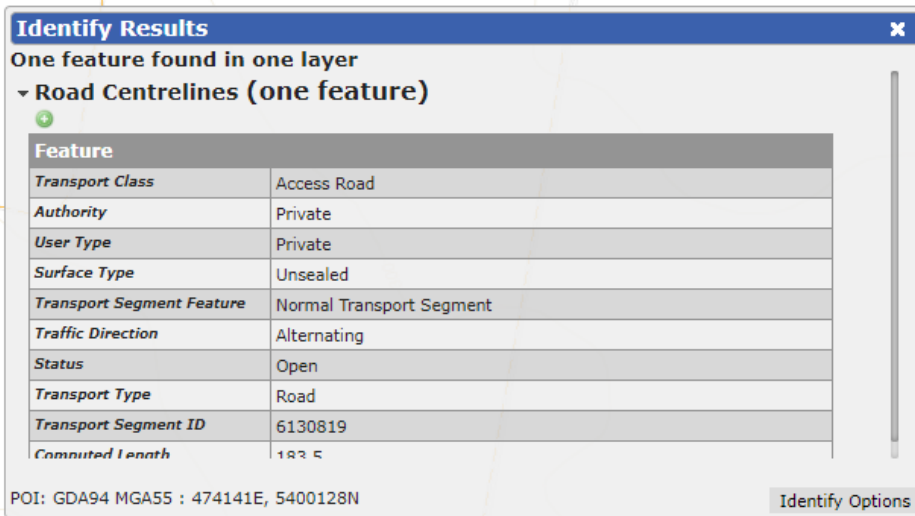


- Select the road feature highlighted above by clicking on the feature with a left mouse button.

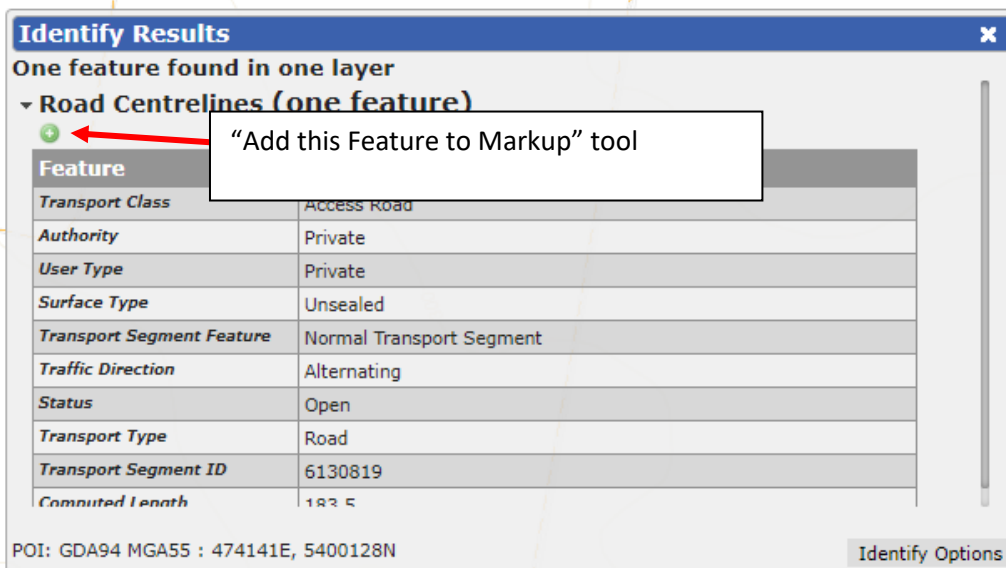


Identify function

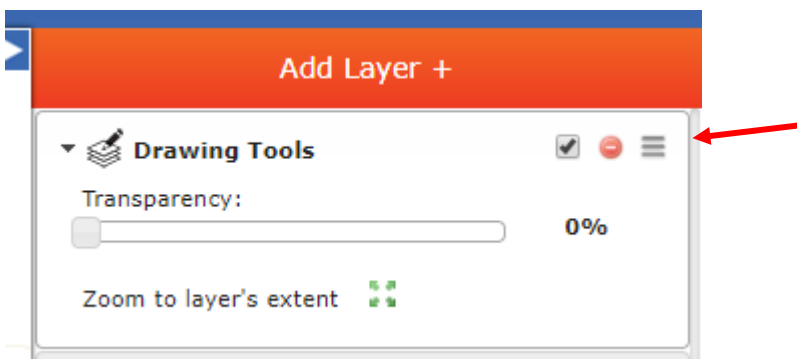
13. An “Identify Results” box appears. See below.



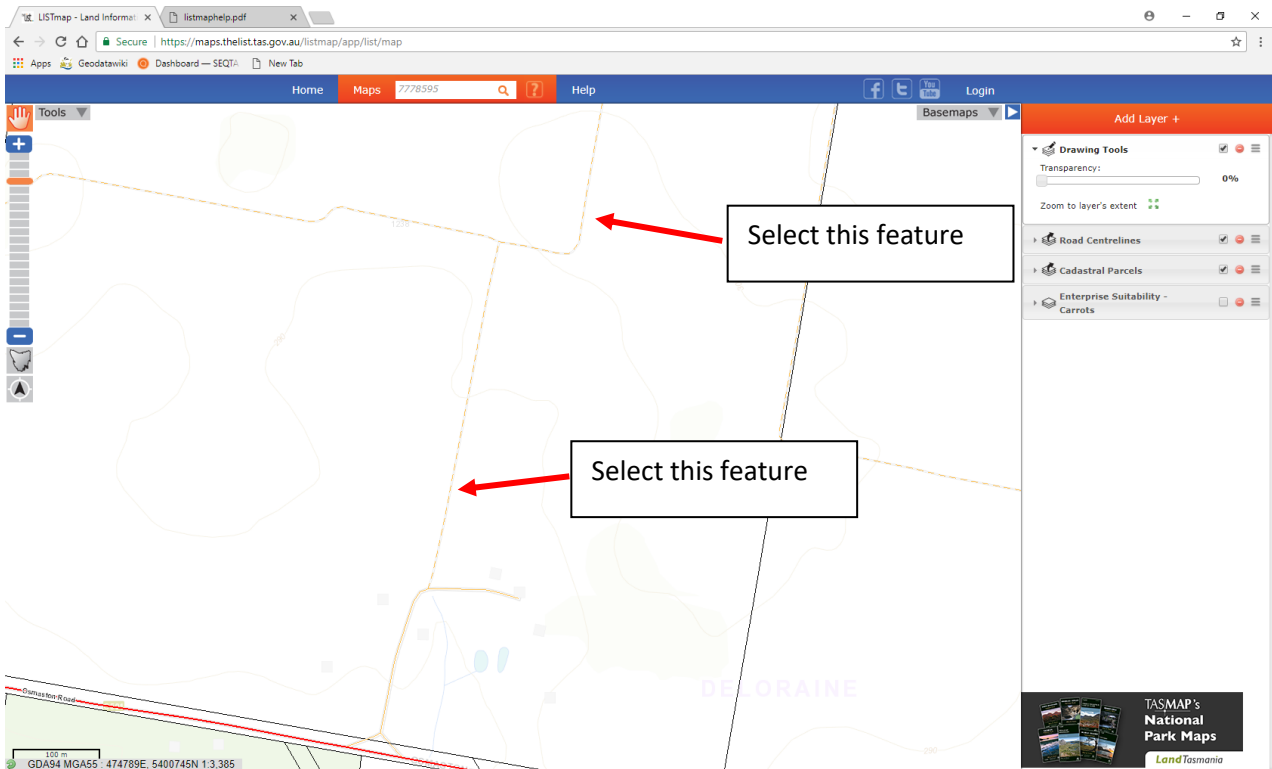
14. From the “Identify Results” window – left-mouse button click on the “Add this feature to markup tool”.



15. This copies the feature from the layer into a markup layer that can be either turned on or off by checking the tick in the table of contents.

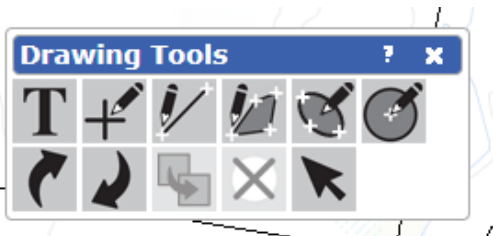



16. Now do the same for the additional road centerline features identified below.



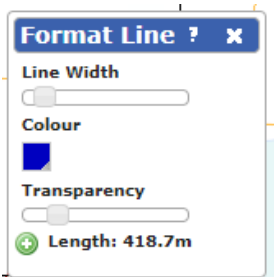
Drawing Tools toolbar

17. Now from the “Tools” tab select the “Drawing Tools” drop down. The following toolbar will appear.



18. Select the “Select features” tool  and identify the road centerline features added to the mark up layer.

19. A “Format Line” dialogue box appears. This shows the current line width, colour, Transparency and length of the selected feature. Change the road centerline features to a brown to better represent the feature.



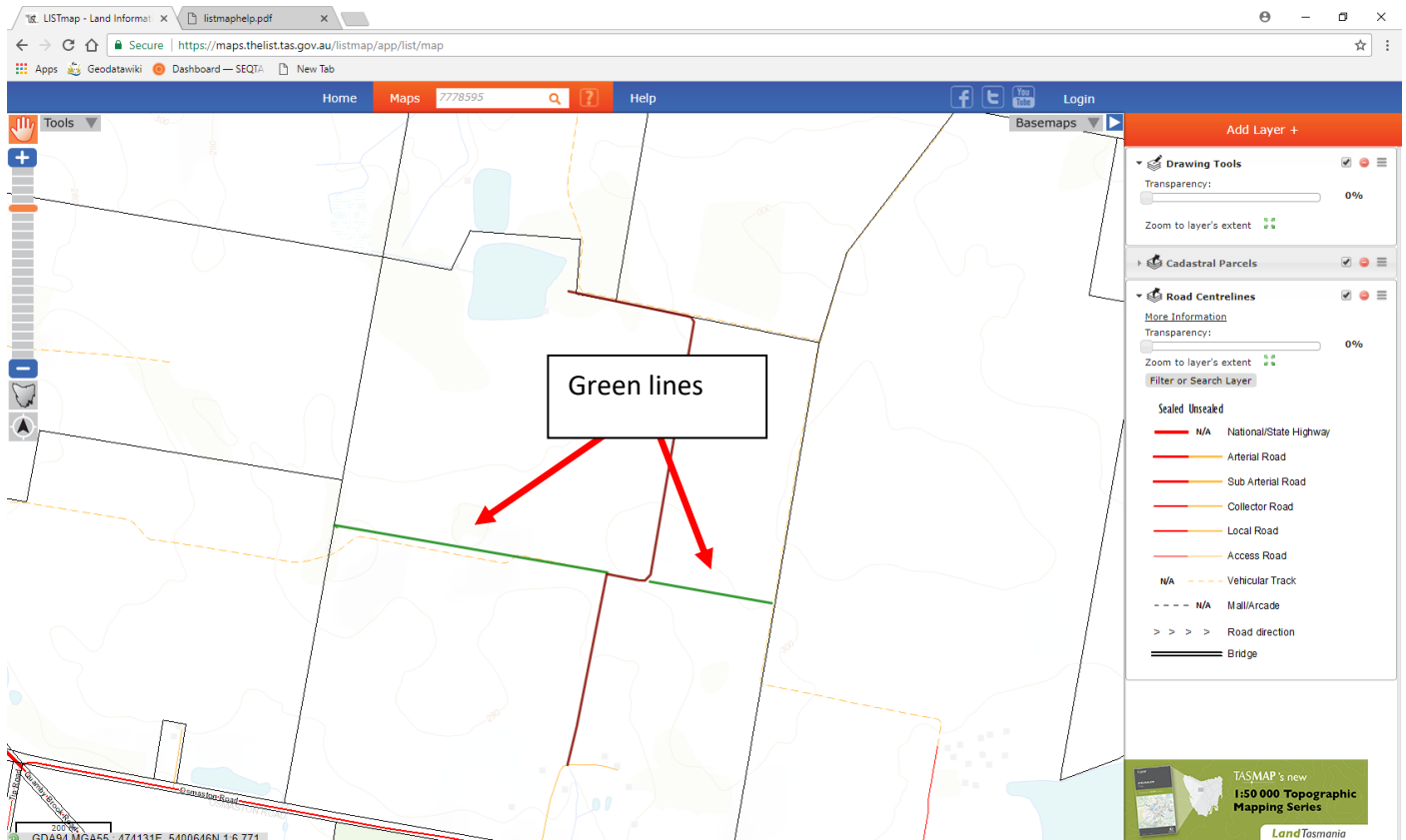


20. From the same **“Drawing Tools”** toolbar now select the **“Add a line”** tool.

21. Now enter the green lines noted below, starting with a left mouse button click to commence the line and a double left mouse button click to finish.



22. From the **“Drawing Tools”** toolbar select the **“Select Features”** tool and identify the new lines. A **“Format line”** dialogue box will appear - change the colour of the freehand lines to green. Your map should now look like the picture below:



Map Tools toolbar

23. Now I have some proposed paddock boundaries I would now like to know their sizes. From the **“Tools”** tab now select the **“Map Tools”** menu.



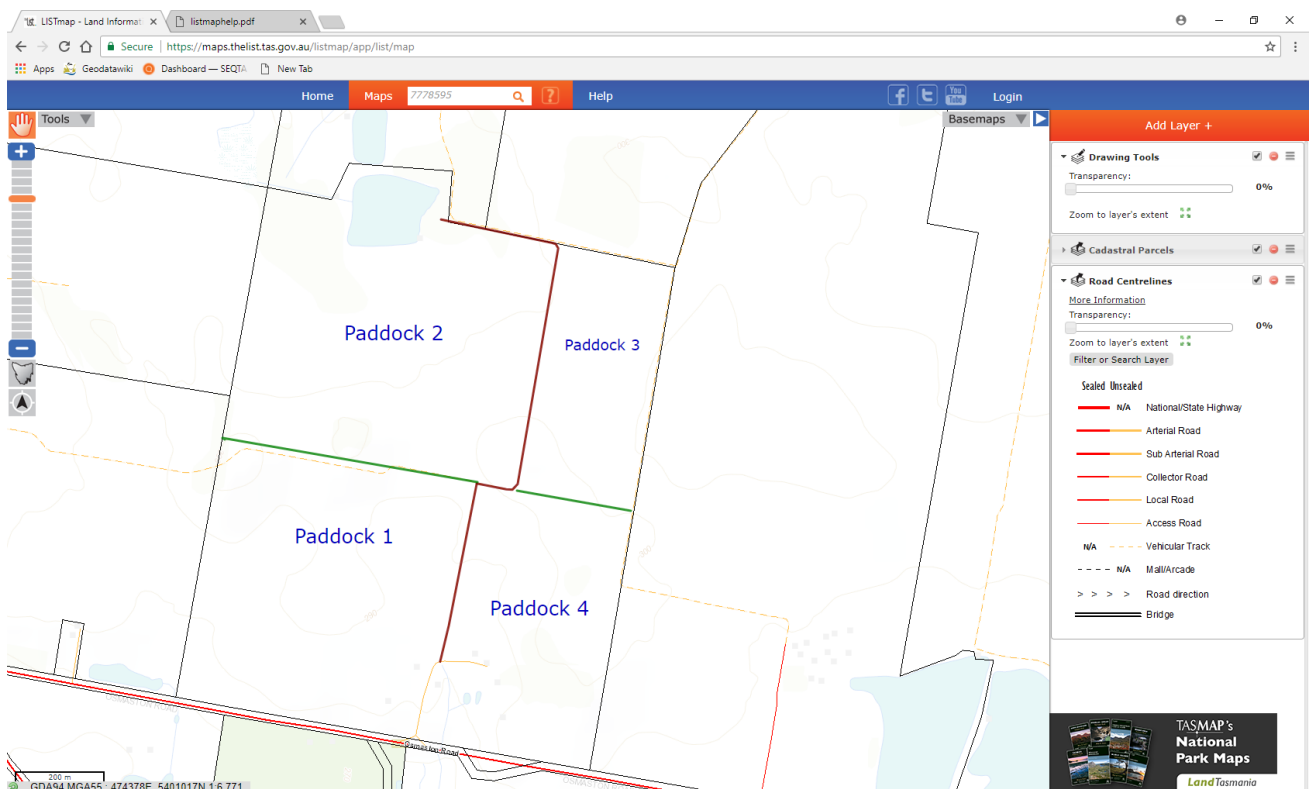
24. From the **“Map Tools”** toolbar now select the **“Measure Area”** tool.

25. Using this tool left click to start, another left click to change direction and double left mouse button click to finish - step you way around the paddocks to ensure minimum area size of 14ha paddock size has been achieved.

26. With the Paddock size set, now select from the “Drawing Tools” toolbar the “Add label” tool.



27. Click roughly in the middle of each paddock and add paddock names to each area (Paddock1, 2, 3 and 4). Your map should look like the picture below.



28. We now also want to add the measure paddock area as text. Select from the “Map Tools” toolbar



the “Measure Area” tool.

29. Using this tool left click to start, another left-click to change direction and double left mouse button click to finish - step you.

Repeat this to record the area value for Paddocks 2, 3 and 4.

30. Select from the “Drawing Tools” toolbar the “Add label” tool.



31. Click roughly in the middle of each paddock and enter the paddock area for Paddock 2, 3 and 4.

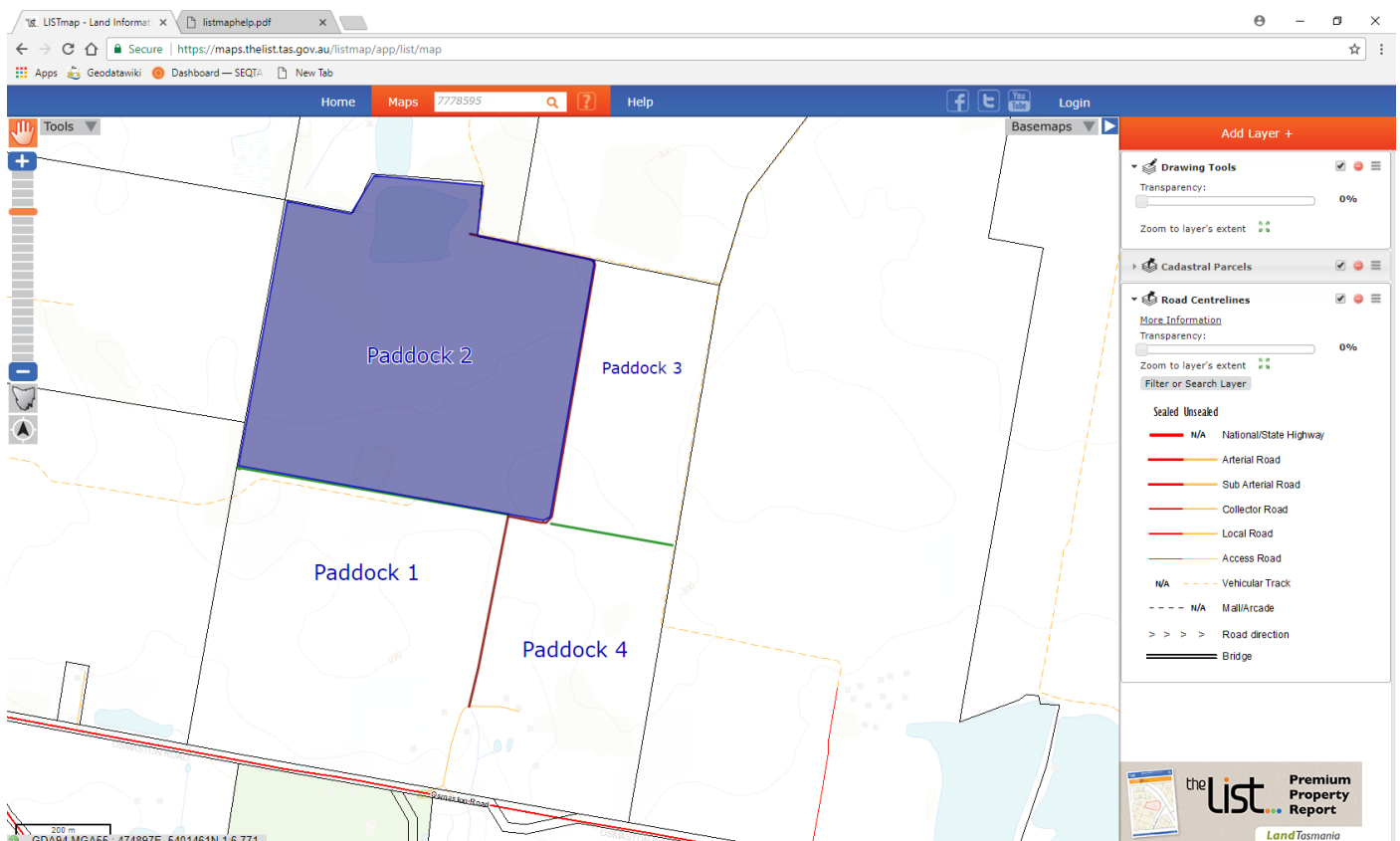


32. From the “**Drawing Tools**” toolbar select the “**Select Features**” tool to select the label text, to correct spelling mistakes, text colour, location or orientation.

33. Now calculate the area of each paddock and place a label showing the area below the paddock label. Use the “**Map Tools**” – “**Measure area**” function to measure area

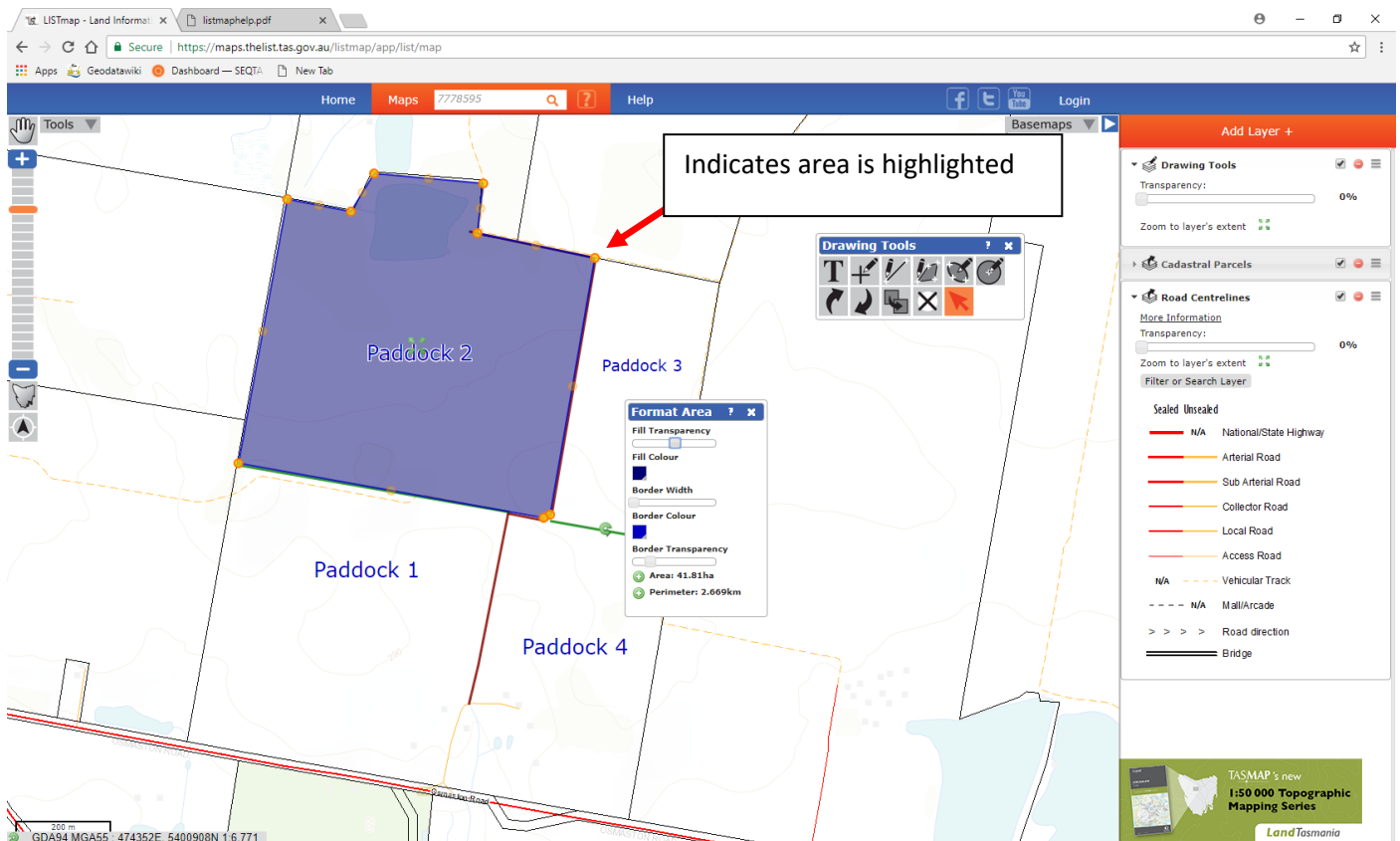


34. As an alternative method, select the add an area tool from the “**Drawing Tools**” toolbar and draw in the rough paddock shape by left clicking a mouse button on the start position, another left click to change direction and double left mouse button click to finish. Your map should now look like the picture below:

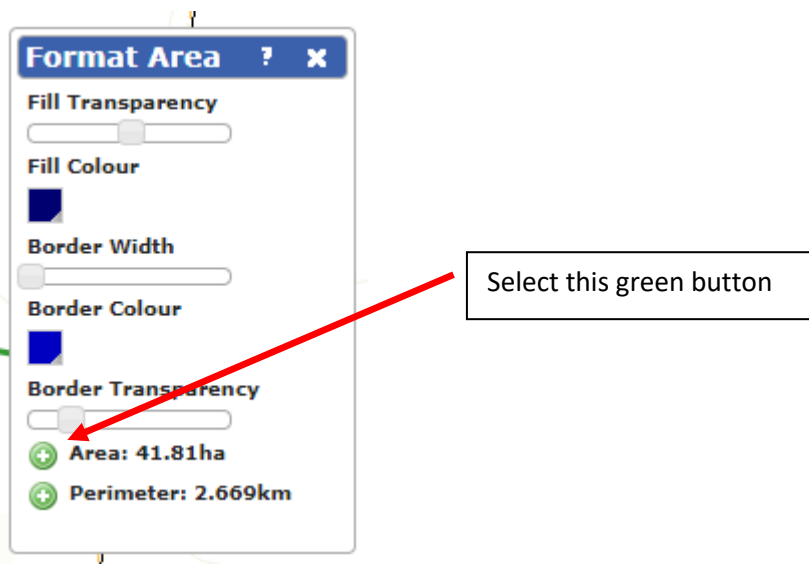


35. Select the “**Select feature**” tool from the “**Drawing Tools**” toolbar and select the newly placed polygon feature.

36. The polygon feature will highlight, and a format area box will also appear.



37. With the “**Select Feature**” tool still selected left mouse button click on the “**Add Polygon Area**” button identified below. This will add the measured area into the centre of the polygon.



38. Close the “**Format Area**” box by clicking on the ‘X’ is the top right corner.

39. With the polygon still highlighted “Orange circles” on each respective corner - select the “Delete

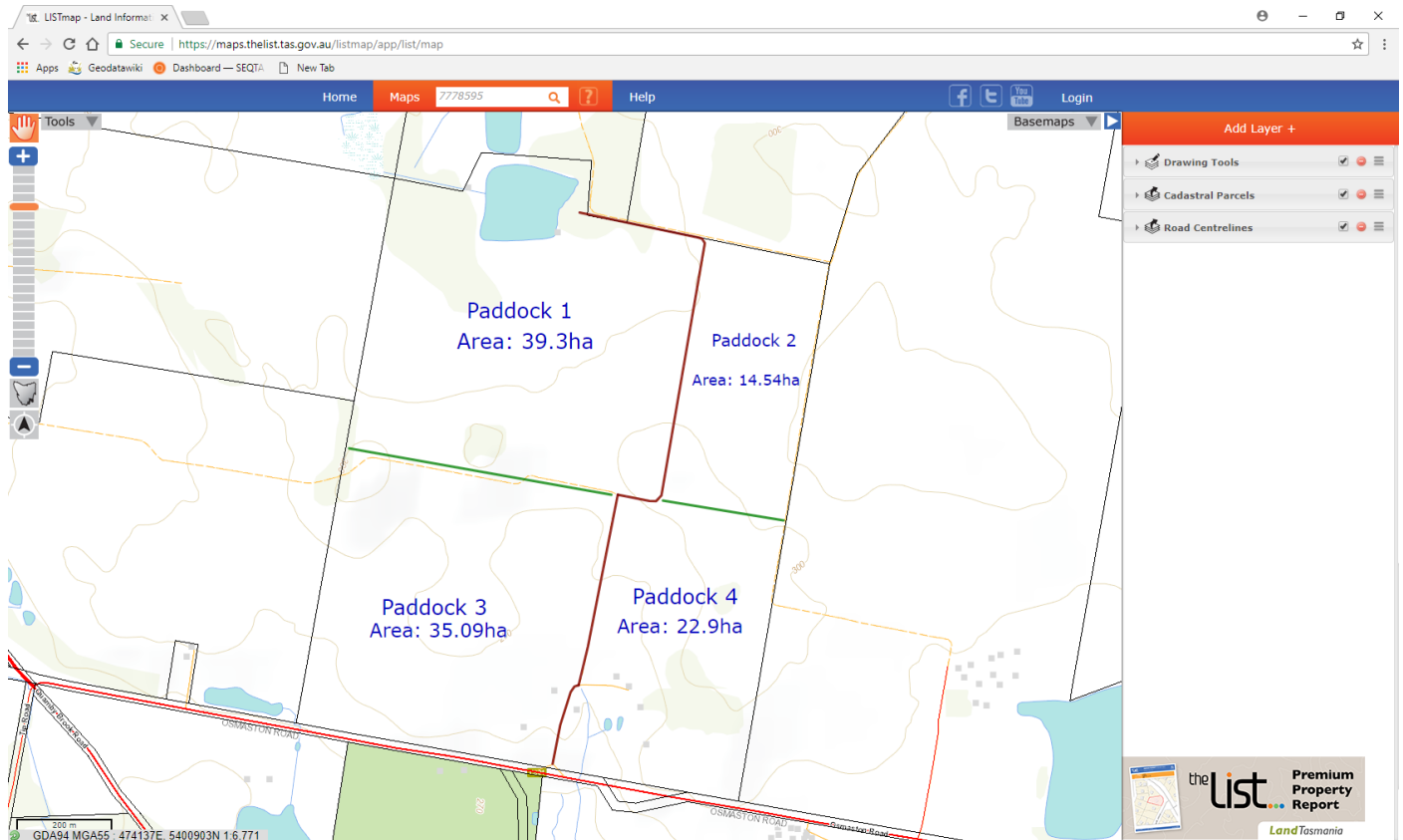


selected feature” tool from the “Drawing Tools” toolbar . This will delete the polygon feature we added earlier.



40. Use the “Select feature” tool from the “Drawing Tools” toolbar to move the location of the label text if required.

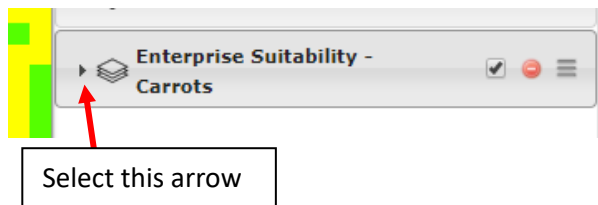
Your map should now look like picture below:



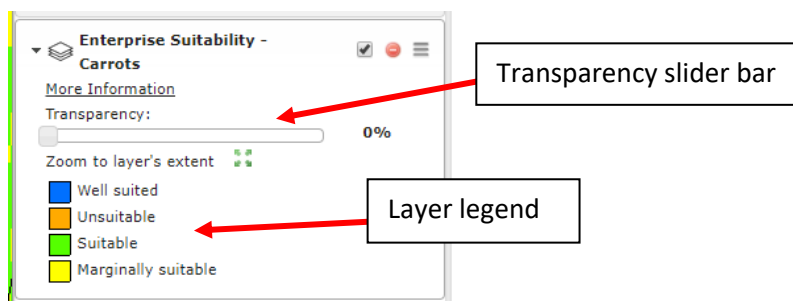
Scenario info: Enterprise Suitability

As the farmer I am thinking about growing carrots as an enterprise crop on the property. Add the Enterprise Suitability – Carrots layer in your table of contents (See point 5 to add a layer). When you add this layer to your map, it has a solid symbology and blanks out the basemap information previously available.

41. Select the Arrow to the left of the layer name –



42. The following layer information becomes visible:



43. Move with the “**Transparency**” slider bar to the right, until the background Topographic map or aerial image is again viewable.

You will also note this is also the location where the layer legend is found, which clearly shows the colours used and provides a description of their classification.

44. Zoom to ‘Paddock 1’ (Roll mouse wheel) and note the area that is suitable to grow carrots.



45. Select the “**Add an Area**” tool from the “**Drawing Tools**” toolbar.

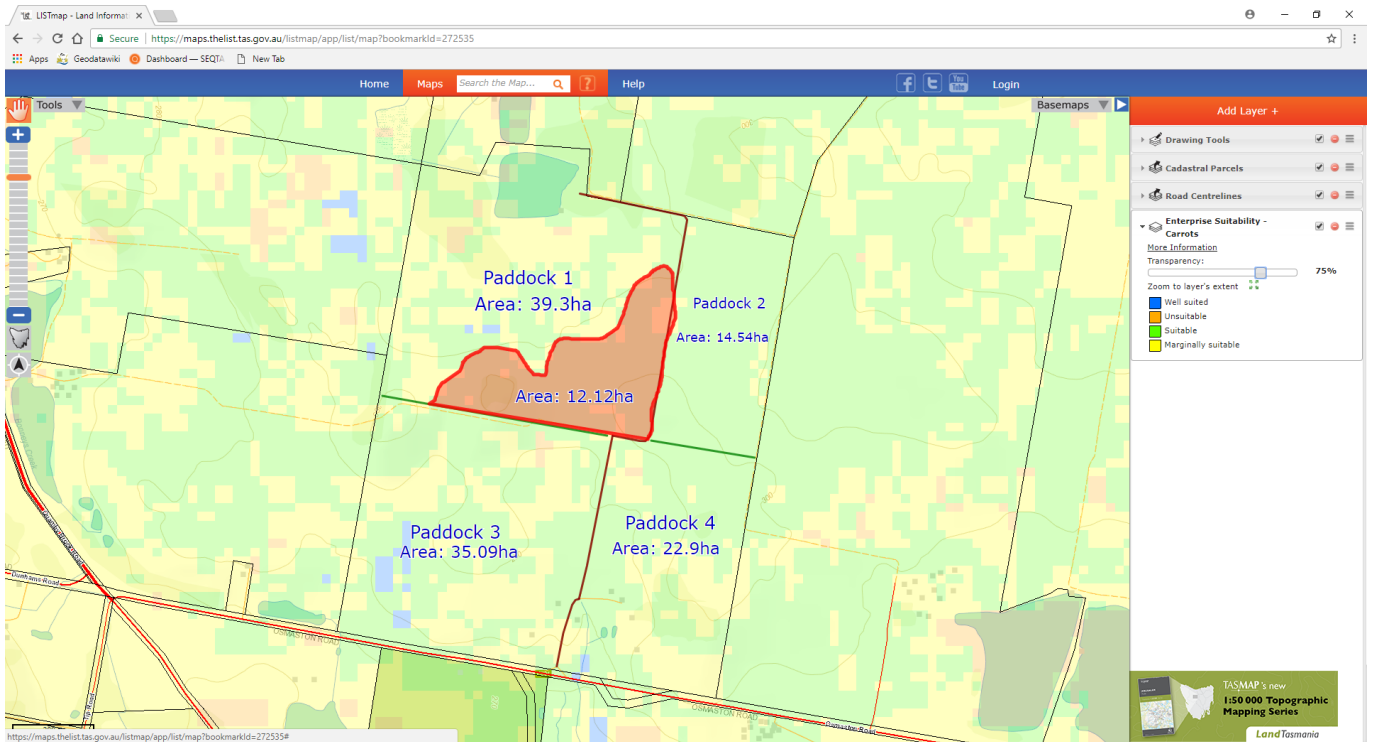
Click the Left mouse button to start, and then hold the shift button down at the same time and trace to freehand the polygon of the suitable area.

Release the shift button when you have finished drawing the shape and double-click to finish the shape.



46. From the “**Drawing Tools**” toolbar select the “**Select Features**” button
- Click on the newly added polygon to see the “**Format Area**” table.
 - Change the colour of the Border line and fill colour.
 - Adjust the transparency so it is semi-transparent.
 - Also add the measured area to the shape.

Your map should now look like picture below:



Scenario info: Soil sample data

An Agronomist has been on site and undertake some soil samples. The Agronomist has sent you three preliminary files that show the different soils sample types. He has sent the samples in three different file formats (CSV, Shapefile and KML).

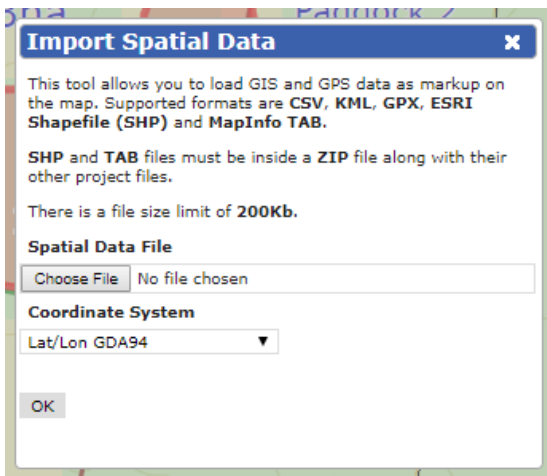
Import spatial data function

LISTmap also has the capacity to import spatial data from other sources.



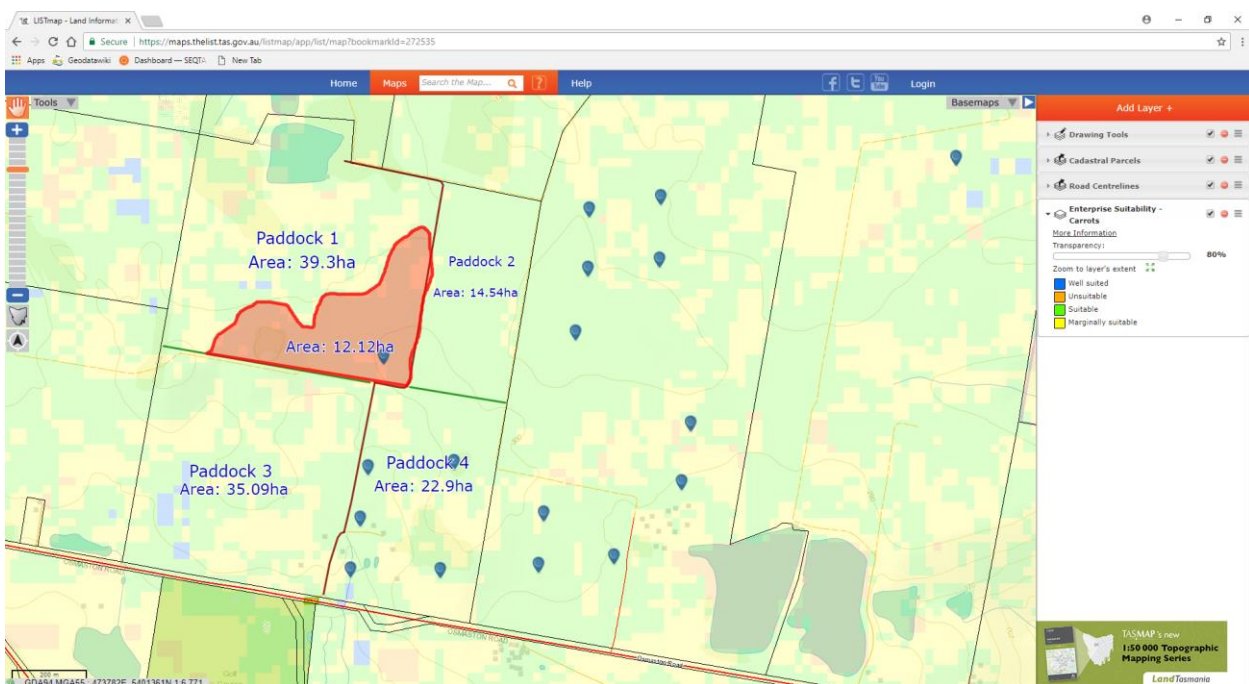
47. From the “**Drawing Tools**” toolbar (under the ‘Tools’) select the “**Import spatial data**” tool.

48. The following dialogue box appears:



- i) Select "Choose File" and
- ii) Navigate to the thumb drive or download location and
- iii) Select the CSV file ([Clay Soils stripped down mga94z55.csv](#))
- iv) Now select the "Coordinate System" drop down and
- v) Change it to "MGA Zone 55 GDA94"
- vi) Then select "OK"

Point features should now appear on our map. (Depending on the size of the import file, there may be a small delay importing your features into the map view).



Scenario info: Changing data display format

I also would like to display the other point supplied and be able to distinguish between the points.



49. To do this, select “Add a Point” tools from the “Drawing Tools” toolbar, and place a point in the top right-hand corner, slightly away from our farm.



50. From the “Drawing Tools” toolbar, choose the “Select Features” button, click on the newly added point to see the “Format Point” table. Select a new point style.

51. Now do the same procedure as above (from point 37), but this time
- select the KML file ([Soil Sample Dermosol LLgda94.kml](#)) and
 - Set the coordinate system for this file to “Lat/Lon GDA94”

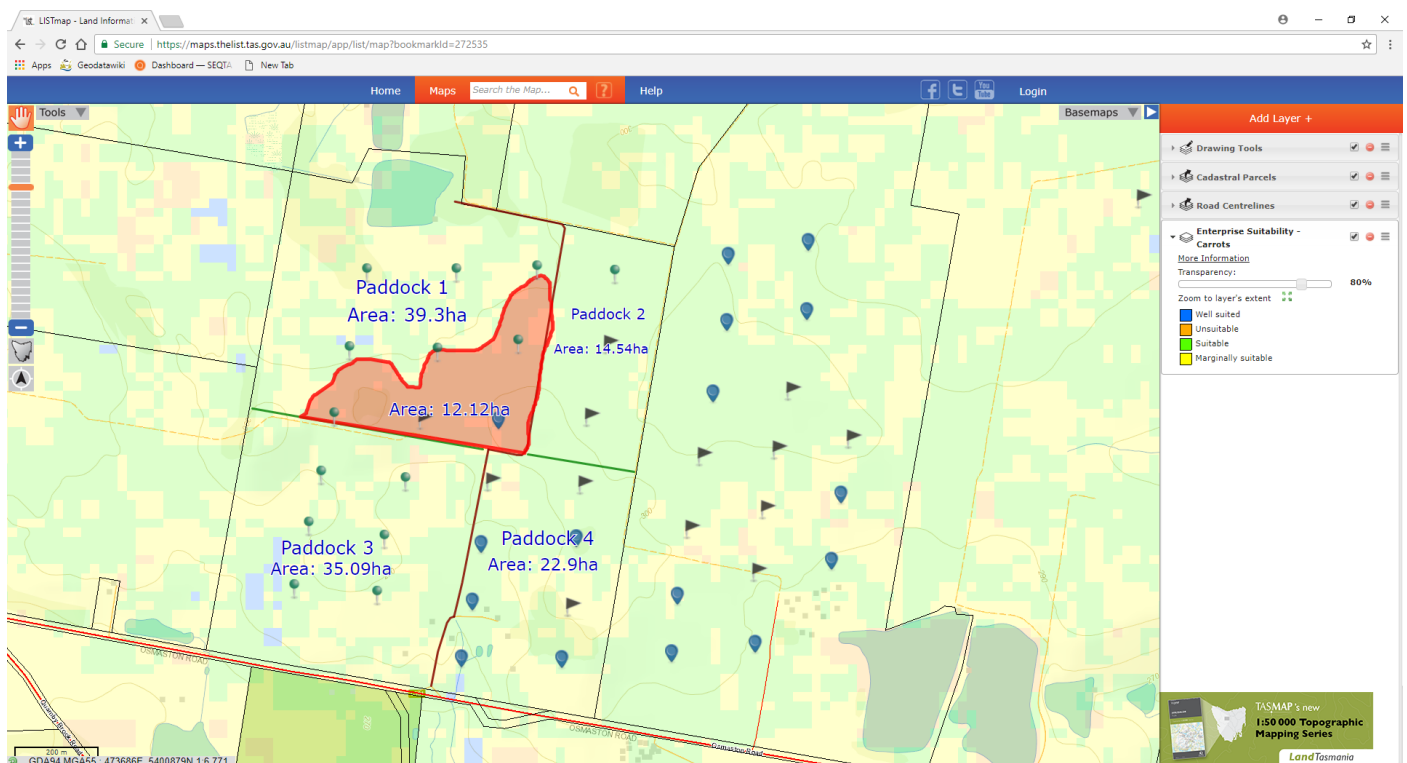
52. Your additional soil sample points will be displayed.



53. Select from the “Drawing Tools” toolbar the “Select Features” button, click on the spare point (added at Point 49) to again change the symbol. Again, select the non-used point style.

54. Finally, repeat the “Import spatial data” procedure as above (from point 37), for the last soil sample points data using the zipped-up Shapefile
- select the ZIP file ([Soil Sample Ferrosol Shape mga94z55.zip](#)) and
 - Set the coordinate system for this file to “MGA Zone 55 GDA94”


55. Your map should now look like picture below:

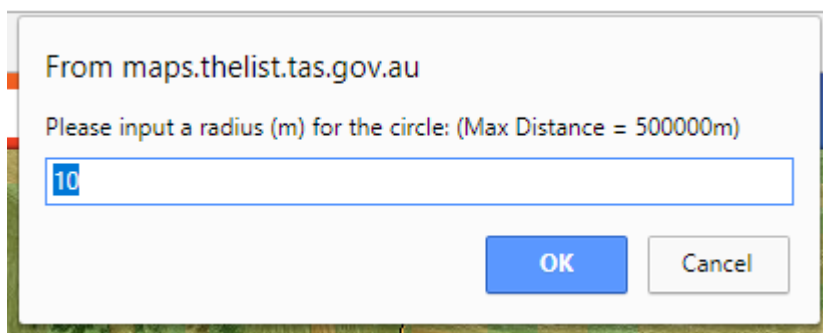


Scenario info: Pivot irrigation

As the farmer I would also like the paddocks to be irrigated. Measure paddocks and determine best size and location of pivot centres.

56. From the “Map Tools” toolbar select the “**Measure lengths**” button  to work out the best radius for paddock one.

57. From the “**Drawing Tools**” toolbar select the “**Add a defined circle**” button . Now left mouse button the centre of the circle (or centre of your proposed pivot irrigator). The following dialogue box appears.




From maps.thelist.tas.gov.au

Please input a radius (m) for the circle: (Max Distance = 500000m)


58. Enter the following radius for paddock one: 295m.

59. Repeat steps 56 to 58 – for paddocks 2 and 4 (radii - paddock 2 – 130m, paddock 4 – 185m)

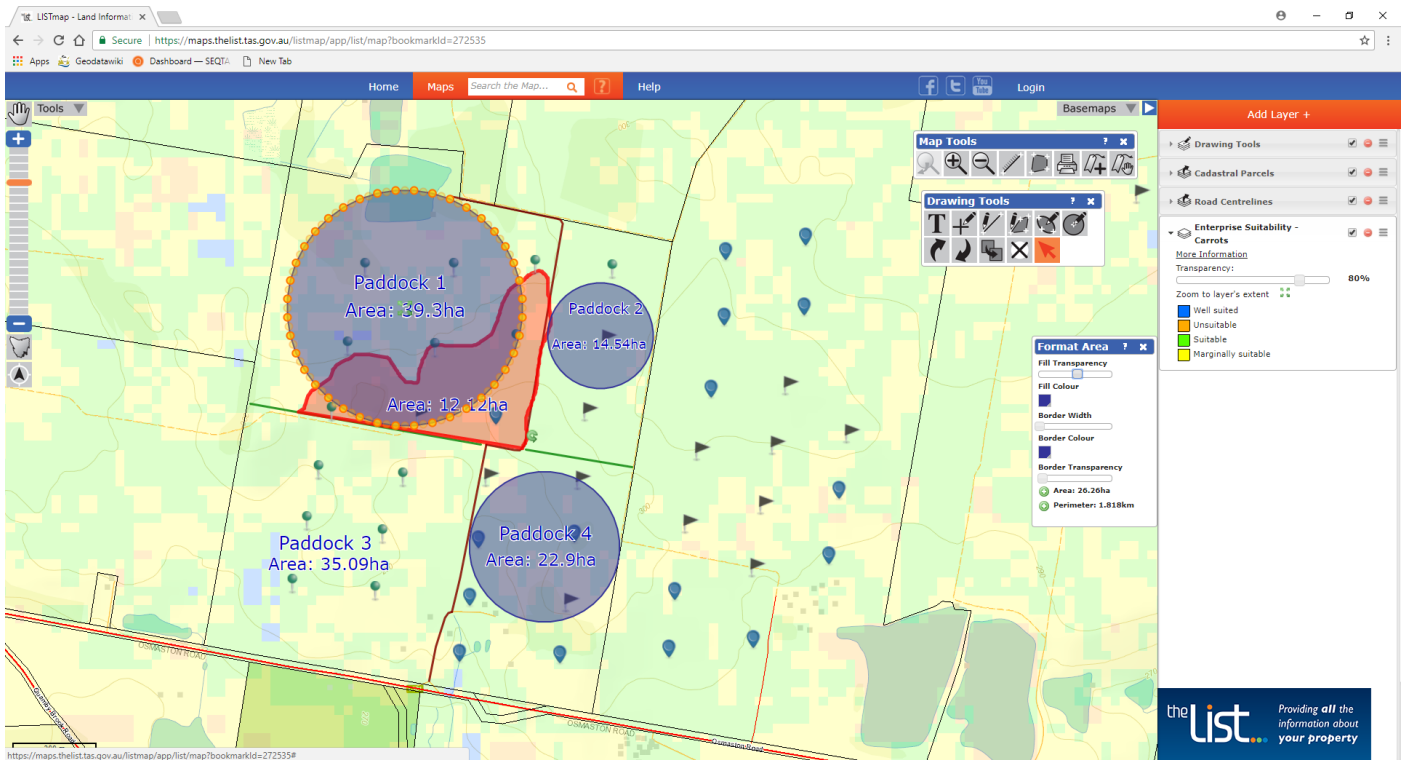
60. Select from the “**Drawing Tools**” toolbar the “**Select Features**” button , to reposition the proposed pivot circle for Paddocks 1, 2 and 4.


Duplicate features function


LISTmap also has a duplicate feature that can be used to duplicate text, lines, points, and polygons.

61. To do this select from the “**Drawing Tools**” toolbar the “**Select Features**” button , click on the pivot irrigator circle for paddock 1.

Your map should now look like picture below:



62. From the **“Drawing Tools”** toolbar now select the **“Duplicate selected”** button . The highlighted feature is duplicated.

63. Now select from the **“Drawing Tools”** toolbar the **“Select Features”** button , to reposition the duplicated pivot circle into Paddock 3.

Basemaps

64. Finally select the **“Basemaps”** tab (Top right-hand corner) and change the Basemap to an aerial image (State Aerial Photo or ESRI Imagery) to view any existing vegetation that may need to be cleared or to check to see if any of the pivot circles interfere with existing infrastructure. Note that Paddock 1 has a Dam and Paddocks 3 and 4 has built infrastructure (close to the road frontage). You don't want to waste water by irrigating your house!

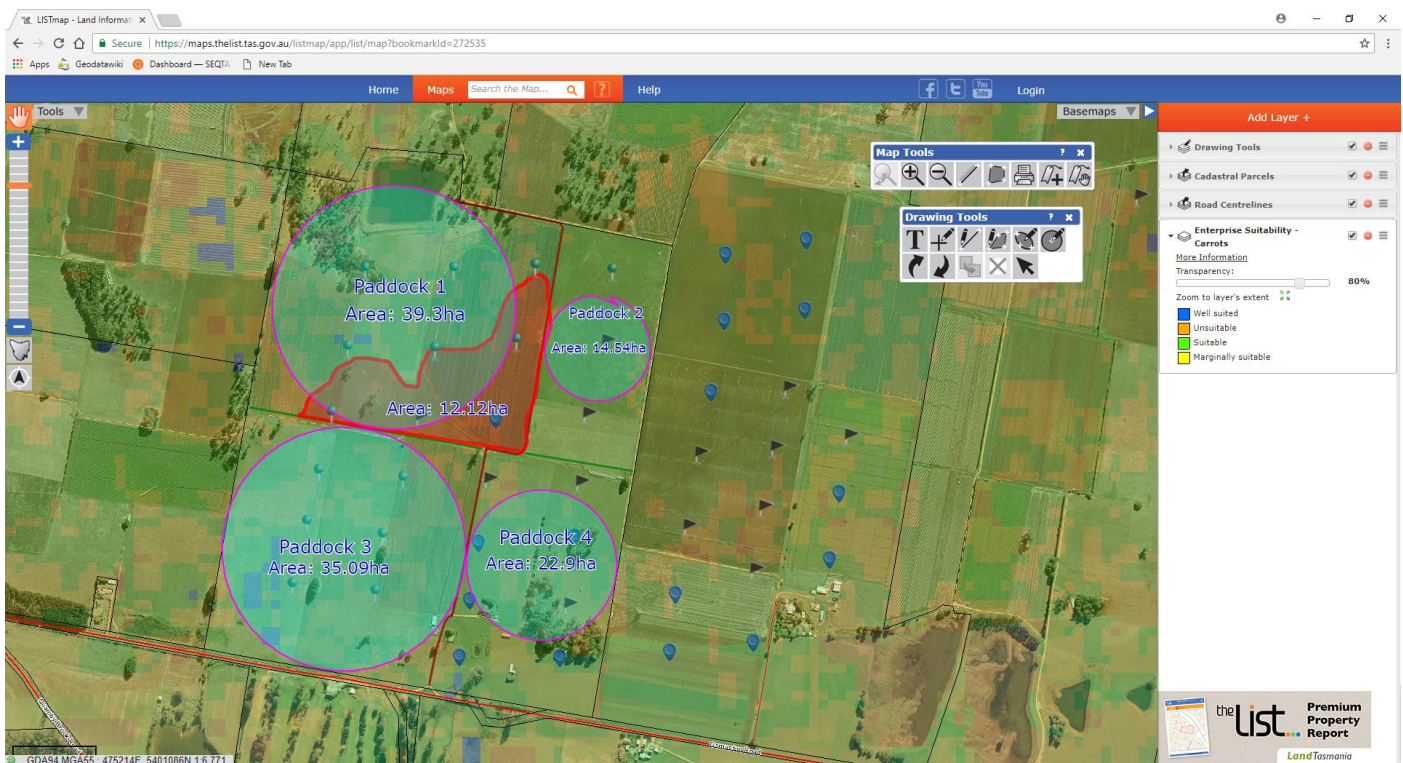
65. Adjust pivot locations using the **“Select features”** button  if necessary.

66. Use the **“Select features”** tool  to change the appearance of all the proposed pivot circles.

- i) Set Transparency to 75%
- ii) Set the Fill colour as Cyan
- iii) Set the Border colour as Pink and

iv) Set the Border Transparency to 0%

Your map should now look like picture below:



67. From the “Layers” tab – top right-hand corner – now find and add into the Table of Contents the “Road Centrelines” layer (see Point 5 to add a layer).

68. Left mouse button on the red Road Centreline feature that runs along the bottom of the property.

69. An “Identify Results” dialogue button (pictured below) appears.

Find the Road centerlines results and note the “Primary name” of the road – Osmaston Road.

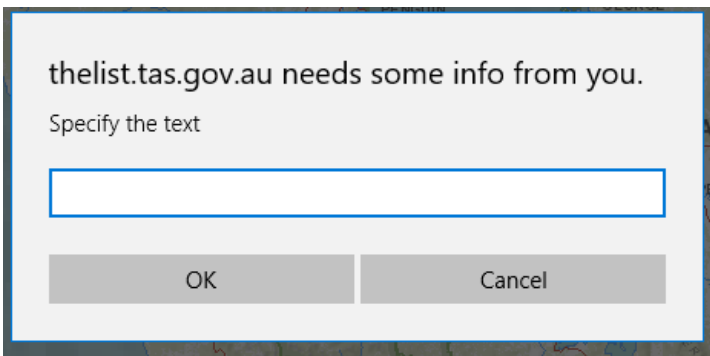



70. From the “Drawing Tools” toolbar, now select the “Add label” tool.



71. Click in the map area, just off the road centre line, somewhere near the middle of the farm.


72. A “Specify the Text” box appears – Osmaston Road into the text area.



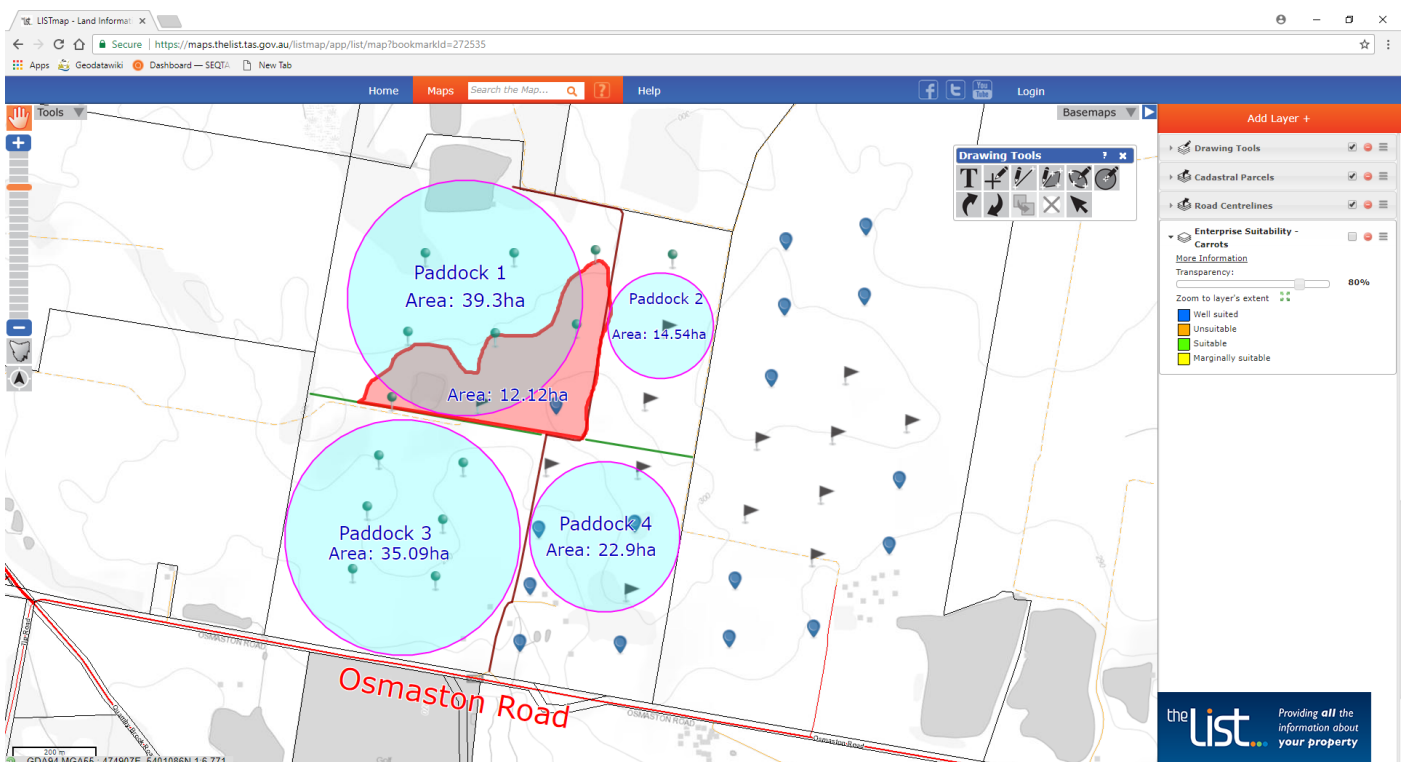
73. From the “Drawing Tools” toolbar, choose the “Select Features” button  , and

- i) Change the Text colour to Red and
- ii) Change the Text size to 75%

74. Using the same “Select Features” button  , rotate the text so it runs parallel to the road.

Note: Click on the green semi-circle  in the lower left-hand corner to rotate the text.

Your map should now look like the picture below



Scenario Info: Sharing your map

Now that we have spent some time creating our map, we may wish to print or save it so we can come back to it later or share it with others.

LISTmap has the capacity to print or save a bookmark.

Print function



75. Select the “**Print to Adobe**” tool , and


- i) Give your map a Title,
- ii) Set the Page Size
- iii) Choose the preferred page Orientation for your map,
- iv) Decide if you want to Show Graticules (tick-marks along the map border),
- v) Select Include Legend if you need one,
- vi) Choose if you want to Show Identify Results, and
- vii) Click “OK” to finalise your georeferenced PDF.

Note: A georeferenced PDF can be added into many GPS apps (e.g. Orux or Avenza Maps) as a background for future field-data capture on the farm (e.g. to record farm irrigation pipelines using a GPS).

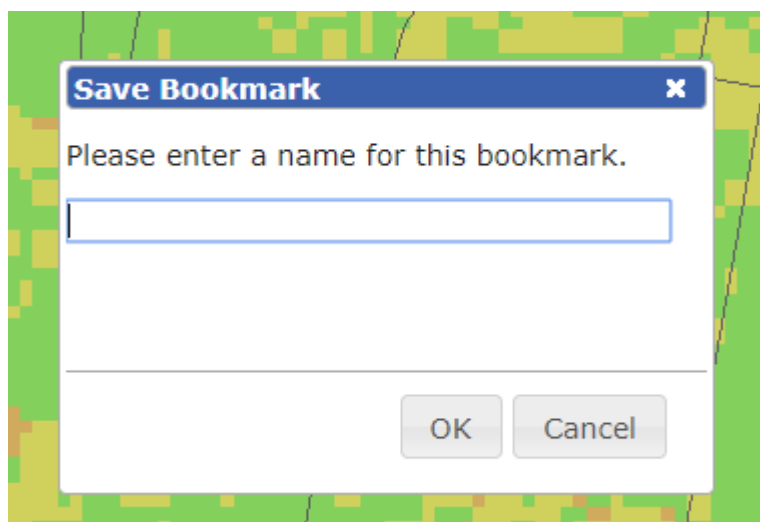
Bookmark function

LISTmap has the ability to save “bookmarks” so you can save any map(s) you create to update at a later date or share with others.



76. From the “**Map Tools**” menu select the “**Create a sharable bookmark**” tool .

77. Enter the name of the bookmark you wish to save.



This bookmark is now saved either:

- i) saved to your LIST account if you have logged in, or
- ii) to the hard drive of your computer (i.e. stored in your browser cache), if you have not logged in.

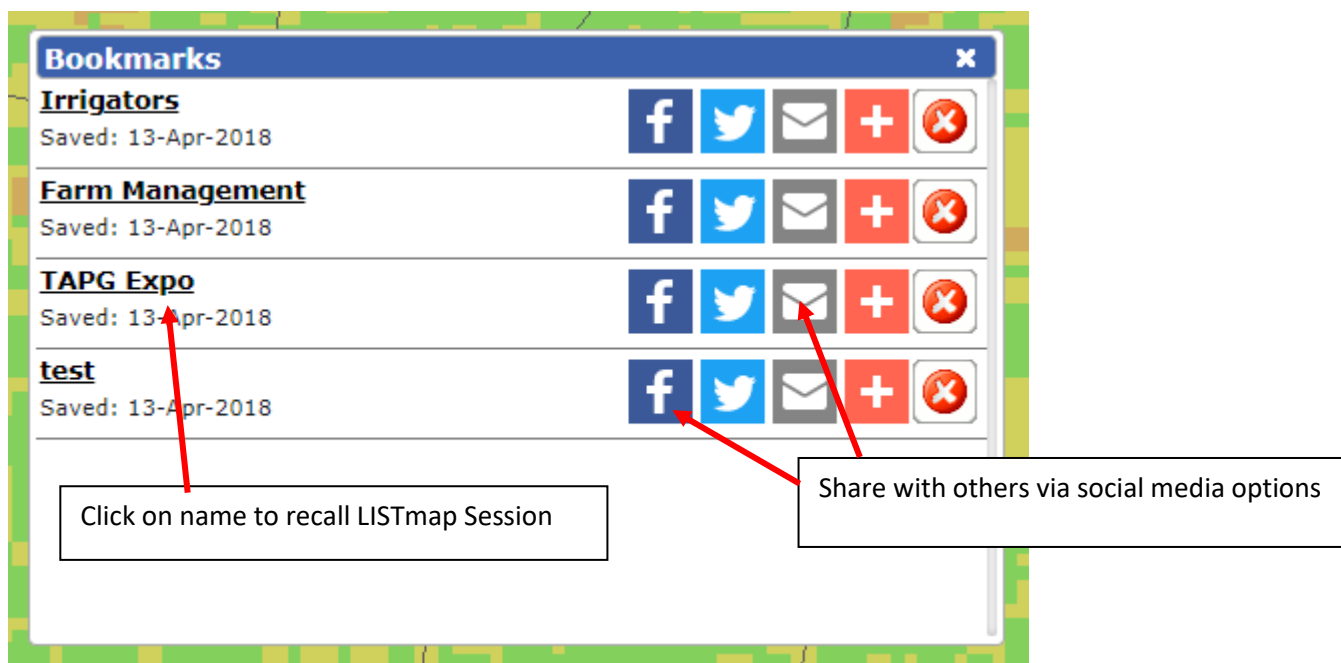
NOTE: All bookmarks that are saved are private until shared with others via selected media options.

To retrieve a your bookmarks:



78. From the “Map Tools” menu select the “Open bookmarks” tool , then, either:

- i) click on the name of the bookmark to recall the LISTmap session. This will open the saved session in a new LISTmap window, or
- ii) to share with another person (eg Agronomist or stock agent), select one of the social media options



Thanks for your attention and participation!

Questions? Contact the LIST services helpdesk!

E: LISThelp@dpiw.tas.gov.au

P: 03 6165 4444