Assessing Roadside Conservation Value

Roadside Conservation Committee

Roadside Conservation Committee

The RCC's terms of reference:

'*to coordinate and promote the conservation and effective management of rail and roadside vegetation for the benefit of the environment and the people of WA'.*

Values of Roadsides

- Aesthetic
- Landcare
- Conservation
- Revegetation
- Scientific
- Education
- Tourism
- Cultural
- Historic

What Is Happening to Roadside Vegetation ?

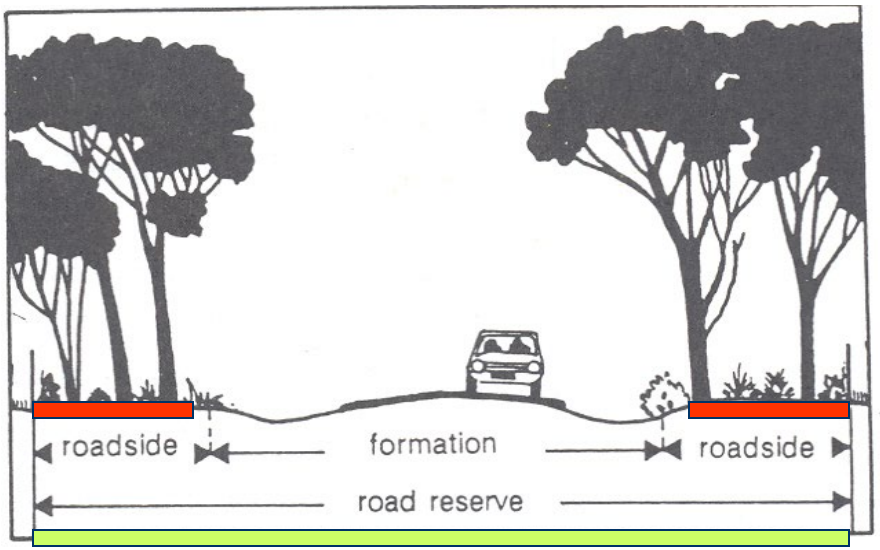
Native vegetation along roadsides in WA is in a general state of decline due to many forms of disturbance.

This is of concern because it is a valuable and irreplaceable resource.

What is a Road Reserve ?

When a public road is created, a corridor of land is dedicated for this purpose and called the road reserve.

The remaining space is called the roadside.



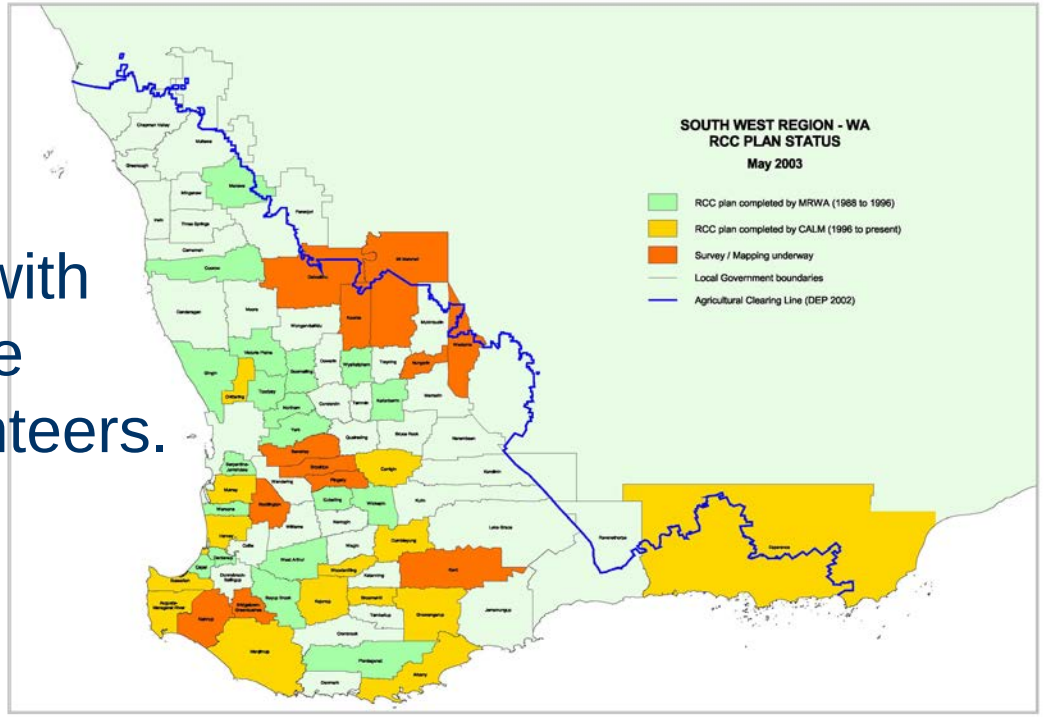
The Task Ahead: Roadside Surveys

- Roadside surveys are a ‘snap shot’ of roadside conservation values.
- Designed to allow people with or without botanical knowledge to participate.

The Task Ahead: Roadside Surveys

- The RCC has been coordinating surveys and mapping of all the roadsides within the south west land division and outlying areas.

- Surveys have been completed in 41 shires with > 75,000 km of roadside being surveyed by volunteers.



What Is the RCC's Role?

- ✓ We train community volunteers undertaking Roadside Surveys
- ✓ The RCC process the roadside data collected by the community;
- ✓ We assess the conservation value of the roadsides, and allocate conservation scores between 0-12;
- ✓ The RCC produce the Roadside Conservation Value maps and weed overlays; and
- ✓ We provide a summary report outlining the results of the roadside survey.

What Is Your Role?

Community volunteers can:

- ✓ Attend RCC training session;
- ✓ Share relevant information about common weeds, native plant communities and fauna;
- ✓ Organise to work in teams of 2-3 people per vehicle; and
- ✓ Carry out roadside surveys.

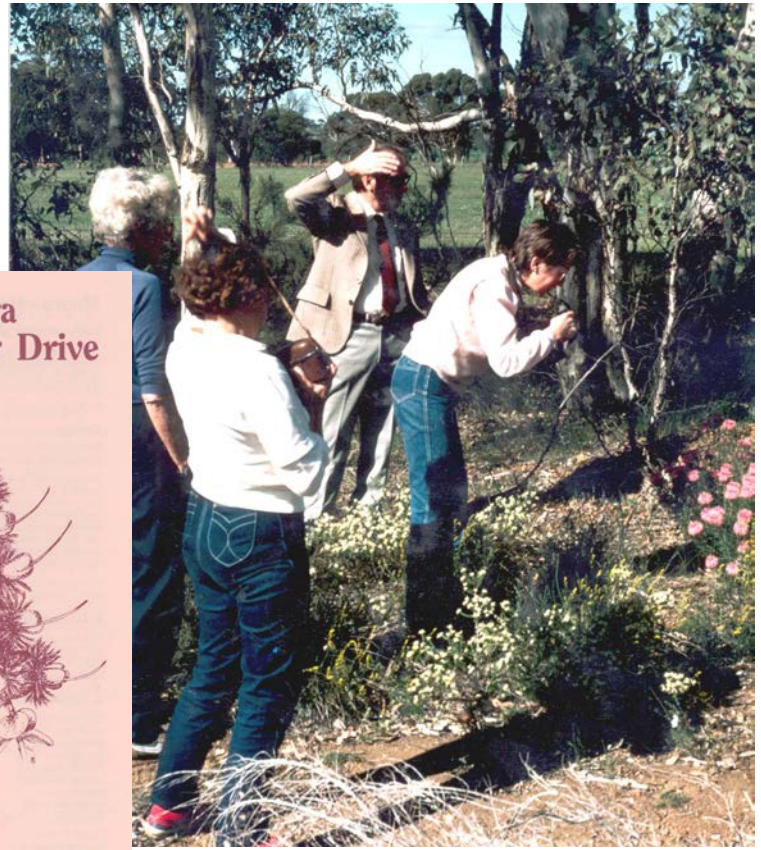
Why Survey Roadsides?

- People who use, live adjacent to or work within the roadside can cause damage to the plants & animals living there.

- Taking part in the roadside survey raises awareness of the threats and impacts.

Why Survey Roadsides ?

- Local communities can also use the information to promote significant historical, cultural or environmental sites for tourism;



- Develop Wildflower Drives and identify Flora Roads for tourism.

Why Survey Roadsides ?

- Protect important fauna habitat;
- Integrate the information into revegetation projects, and other Landcare programs.

Retaining roadside vegetation will minimise soil erosion

Why Survey Roadsides ?

- In order to plan road works so that important areas of roadside vegetation are not disturbed, road managers should know of these areas.

Benefits to the Shire & Community?

- ✓ Increase knowledge about, and awareness of, threats to roadside vegetation, and human impacts;
- ✓ Community ownership of map and survey data;
- ✓ Easy to interpret Management Tool:

  Weed control, Wildlife corridors,
  Fire, Tourism,
  Revegetation, Funding applications - NRM

  - ✓ Builds bridges between community, Landcare, RCC and Shire;
  - ✓ Baseline data, useful for measuring changes over time.

Roadside Surveys

The Roadside Survey Is Vehicle Based

- The survey is best done with 2 people per vehicle:
  1. **a driver-observer, and**
  2. **an observer-recorder.**

- In most instances the survey can be done @ approximately 30km/h.

☞ Remember SAFETY FIRST particularly if driving slowly or stopping.

Things That You Will Need...

- ✓ A list and map of the roads you are surveying;
- ✓ RCC survey pack:
  - ✓ **iPAQ & charger;**
  - ✓ **RCC User's Guide;**
  - ✓ **Notes pages; and**
  - ✓ **pens/pencil, highlighter.**
- ✓ A good sense of direction, you MUST indicate direction of travel.

Make sure you know your left from your right!

What Information Is Collected?

- Width of road reserve;
- Width of vegetation on left and right sides;
- Structure of native vegetation;
- Extent of native vegetation;
- Number of native plant species;
- Degree of weed infestation;
- Adjoining land use;
- Utilities;
- Value as a biological corridor; and
- Nominated weeds.

Roadside Conservation Values

High conservation value roadsides:

Roadside Conservation Values

Medium-high conservation value roadsides:

Roadside Conservation Values

Medium-low conservation value roadsides:

Roadside Conservation Values

Low conservation value roadsides:

Quick Refresher...

1. What information is collected?
2. Differences between high conservation value roadside and a low conservation value roadside?
3. Name three things you will need for the survey?

1. In the Beginning

- Always start the survey at an intersection;
- At the start of the road, set your trip meter to 0.0;
- Look at the roadside in front of you. Fill in the general details such as road name, direction, width of road reserve;
- Drive slowly along the road, start filling in the ‘items’ for left and right hand sides (more about these later);
- Continue driving until there is a significant change or until the road ends.

Changing Sections

Some roadsides may be uniform along their length, and so can be surveyed as *one section* from start to finish.

Others may be quite changeable, for example:

- ✓road reserve <u>width</u> change, eg. from 20m to 60m;
- ✓adjoining <u>land use</u> change, eg. from Nature reserve to farmland;
- ✓roadside vegetation changes, eg. from mostly native to mostly weeds.

Ignore small changes, i.e. less than 300m along the roadside.

Changing Sections

- As a general rule, a new section is started when there is a change in the **quality** of the roadside vegetation, over a distance of 300m or more.
- The change may occur on only one side of the road or both sides.
- Don't start a new section if there's only a change in native vegetation **type**.
  - **Many wheatbelt roads cross a range of vegetation types, relating to the underlying soil type.**
  - **Eg; the vegetation may change from Kwongan (scrub) on the sandy lateritic uplands, to woodlands on the fertile red soils, to salt scrub in valleys.**

Changing Sections

For changes such as these (over a distance greater than 300m), start a new section:

- ✓ Width of road reserve;
- ✓ Quality of native vegetation;
- ✓ Extent/continuity of native vegetation;
- ✓ Weeds increase/decrease;
- ✓ Adjoining land use changes; or
- ✓ Presence of a utility.

☞ **If you are unsure, it is better to start a new section than not.**

Changing Sections

- Note the odometer/trip reading at change over point, this will give the length of section 1 of the road.
- Section 2 will continue until another marked change is observed, when section 3 will begin, etc.
- Each subsequent section is numbered accordingly (1,2,3,4 etc).

✓ Occasionally note down the odometer reading for some identifiable point, eg a side road.

(This is very useful as an office check on the accuracy of your odometer!)

Quick Refresher...

1. Would you change sections if the width of the roadside changed from 40m to 20m?
2. Changes under ?? metres should be ignored?
3. Name one thing that may change, but you would not start a new section for?
4. Do you start a new section if the change only happens on one side of the road?

Roadside Surveys

- What characteristics will you be recording?

Width of Road Reserve

Historically, road widths were measured in chains (20.1m). Early roads were usually one chain wide, or a multiple of this. i.e. normally 20, 40, 60 or 100m wide.

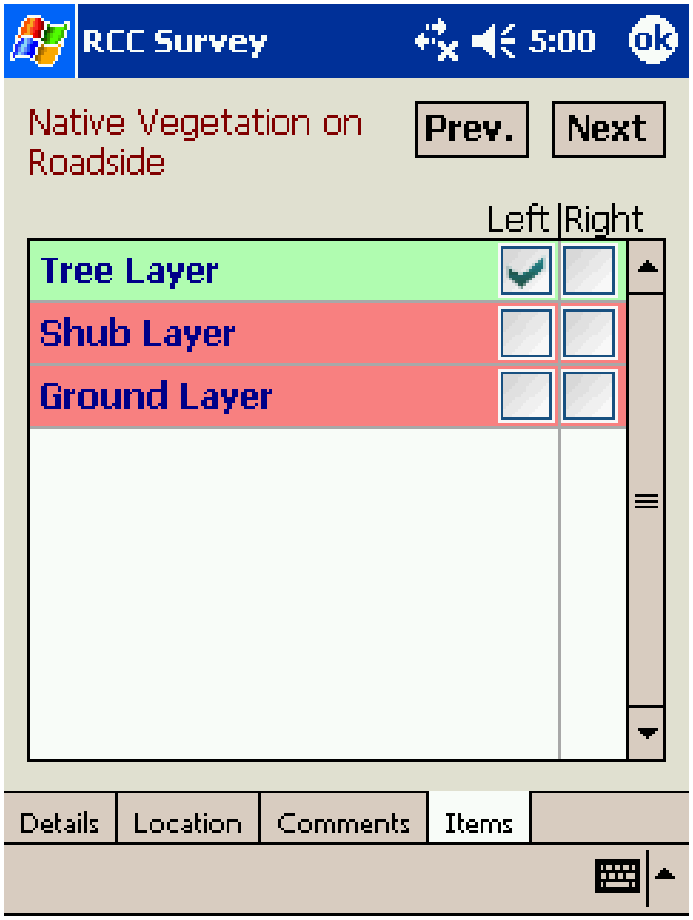
Native Vegetation on Roadsides

Undisturbed native vegetation in WA either forms Forest, Woodland, Mallee, Kwongan (scrub or sand plain) or Grassland.

Most formations have more than one layer. Eg, Woodland has trees, a scrub layer & a ground layer containing reeds, everlastings and orchids.

If one or more of the expected layers is missing, the conservation value of the area is reduced.

Native Vegetation on Roadsides



Extent of Native Vegetation

This is a measure of the <u>continuity</u> of native vegetation along the roadside.

- Note whether the native vegetation is continuous along the road section, or interrupted by weeds or other disturbances (e.g, fire).

EXTENT OF NATIVE VEGETATION ON ROADSIDE

	Left	Right
Less than 20%	☑	☐
20 -80%	☐	☐
over 80%	☐	☑

Number of Native Species

This is a measure of the diversity of the vegetation and so of its conservation value.

- Make an average estimate over a 100m length of roadside. It does not have to be done in detail.

NO. OF NATIVE SPECIES

	Left	Right
0 -5	☐ ✓	☐ ✓
6 -19	☐	☐
0VER 20	☐	☐

Weeds

>80% total plants

Estimate an average of weediness over the section being considered.

It should be estimated as a percentage of total plants along the section.

On some roadsides, there may be good tree and shrub cover but the ground layer is totally weeds. Please note this.

Ground layer totally weeds

WEEDS

	Left	Right
Few weeds (<20% total plants)	☐	☐
Half weeds (20 - 80% total)	☐	☐
Mostly weeds (>80% total)	☐	☐
Ground layer totally weeds	☐	☐

Nominated Weeds

- Roadside populations of these nominated weeds appear as weed-map overlays;
- 5 weeds have been nominated:
  - Wild Radish
  - Paterson’s curse
  - Statice
  - African lovegrass
  - Wild oats

Value As a Biological Corridor

In cleared areas, the road reserve can be very important as a corridor, allowing the movement of fauna – especially birds – enabling them to seek out feeding and nesting areas.

VALUE AS A BIOLOGICAL CORRIDOR

	Left	Right
Connects uncleared areas	☐	☐
Flowering shrubs	☐	☐
Large trees with hollows	☐	☐
Hollow logs	☐	☐

Utilities

- Electricity, telegraph lines and water pipelines are often built on the roadside.
- To construct and maintain them native vegetation may be destroyed and so their presence is often detrimental to the conservation value of the roadside.

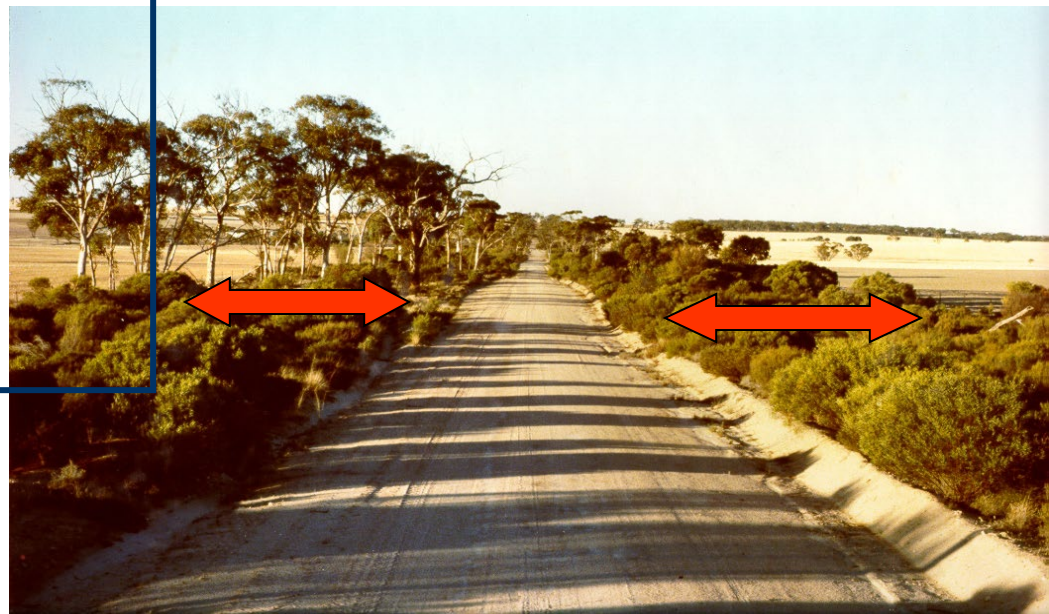
UTILITIES	Left	Right
Utility Absent	☐	☐
Utility Present	☐	☐
Water	☐	☐
Electricity	☐	☐
Gas	☐	☐
Telecomm.	☐	☐

Width of Vegetated Roadside

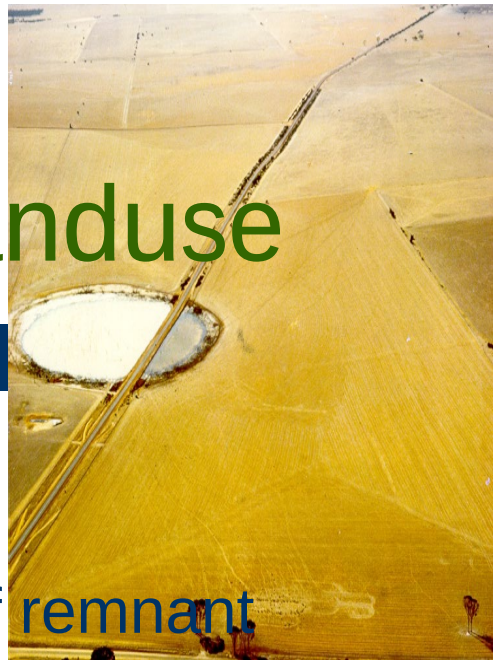
This is a measure of how much vegetation/land is left along the roadside. Again, with practice, it is easy to recognise the width categories.

WIDTH OF VEGETATION ON ROADSIDE

	Left	Right
1-5 m	☐ ✓	☐ ✓
5-20 m	☐	☐
over 20 m	☐	☐



Predominant Adjoining Landuse



The road reserve is most valuable as a conservation area where it is a corridor of remnant vegetation in an otherwise cleared landscape.

- Where a road runs through or alongside a National Park or Nature Reserve, that area represents the main conservation region and the road reserve merely compliments it.

- When considering changing sections, ignore small land use changes (i.e. less than 300m).

Predominant Adjoining Landuse

PREDOMINANT ADJOINING LAND USE	Left	Right
Agricultural crop or pasture		
- completely cleared	☐	☐
- scattered	☐	☐
Uncleared land	☐	☐
Plantation of non-native trees	☐	☐
Urban or industrial	☐	☐
Railway Reserve	☐	☐
Drain Reserve	☐	☐
Other	☐	☐

Predominant Adjoining Landuse

scattered

plantation
non- native

completely cleared

Quick Refresher...

1. What are the 10 roadside attributes?

Getting Acquainted...

- The device you're using is an iPAQ, a pocket computer. Take note of the following components:

1. **Power:** press to turn power on or off. Press and hold to turn backlight on or off.
2. **Power indicator:**

amber flash= battery charging;

amber solid= battery charged.

3. **Display screen:** the display screen.

4-8. Short cut buttons: you won't need to use these.

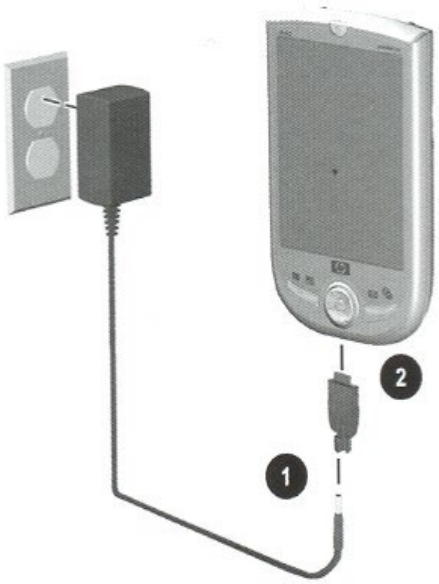
9. **Stylus pen:** slide up to remove, slide down to store.

Getting Acquainted...

CHARGING THE iPAQ:

- Ensure the iPAQ is fully charged before use, and charge again at the end of each day.

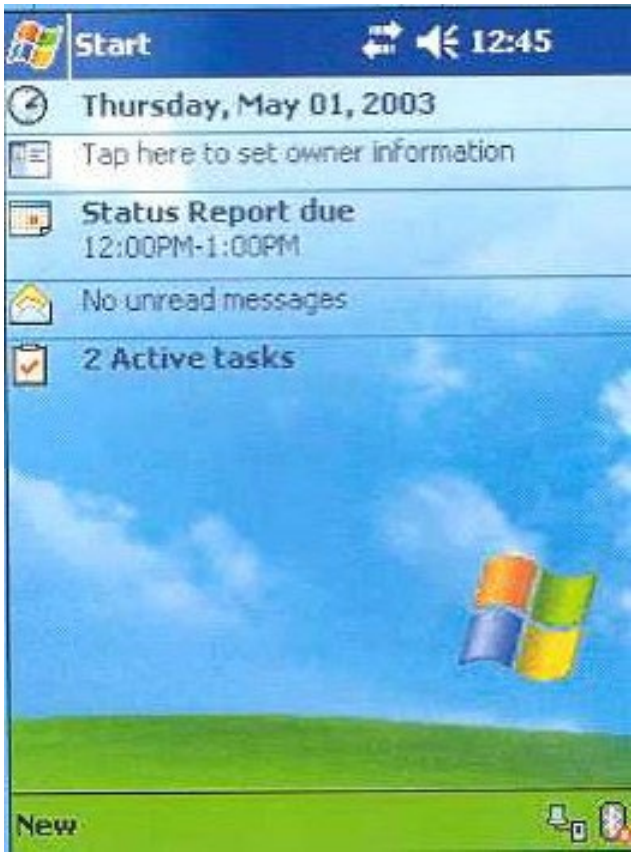
- All your information will be lost if the battery runs flat.



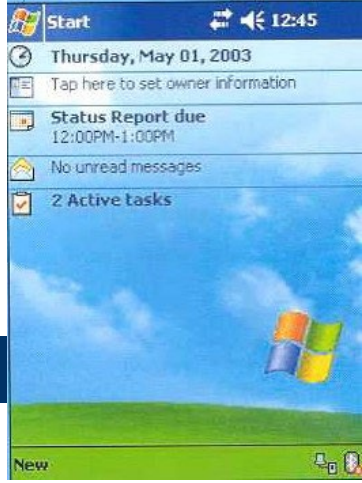
Getting Acquainted...

THE TODAY SCREEN:

- The Today screen is like the desktop of any computer.
- On the Today screen, you can see general information such as the time, date and owner information.



Getting Started…



1. Turn the device on; the ‘My Info’ page will appear.

2. Using the stylus pen, tap once anywhere on the screen to go to the today screen.

3. At the top left corner, select this icon:

(left of the word ‘Start’). The start menu will drop down.

4. Select ‘RCC survey’. The program may take a few seconds to start up.

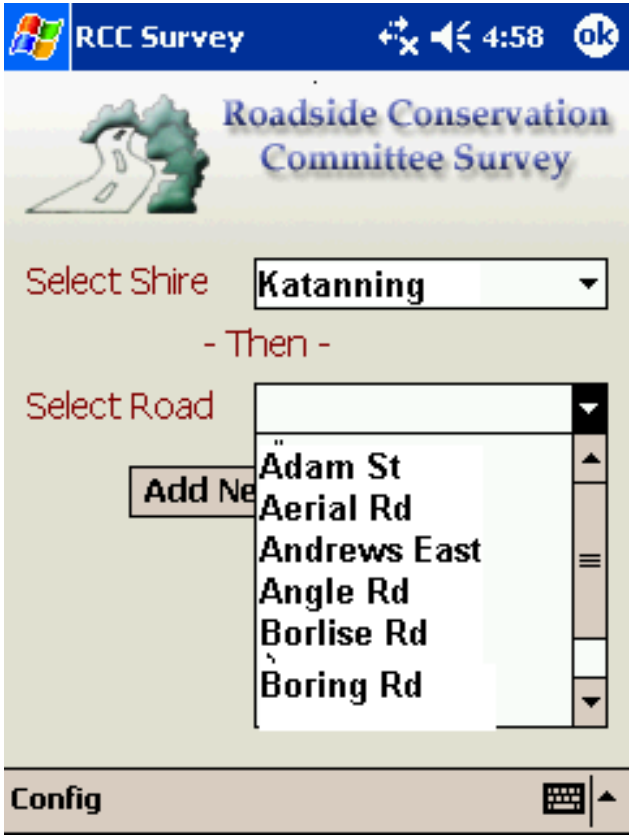
Make sure the device is fully charged before use.

Starting the Survey

1. Select the name of the **Shire** from the drop-down menu. They are listed alphabetically;
2. Select the name of the **road** you are going to be surveying. Press **OK**.

If the road is not listed, select '**Add New Road**'. In the space provided, type the road name. Press **OK**.

3. You are now ready to begin the roadside survey for the selected road.



The Details

This page requires you to enter the following information:

- **Section:** the section number (eg 1, 2, or 3, etc);
- **Observer:** your name;
- **Date:** automatically today's date;
- **Width:** in metres, select from the drop-down menu;
- **Direction:** N, S, E, or W, select from the drop-down menu.

Once completed, go to the next tab, named **Location**.

The Details

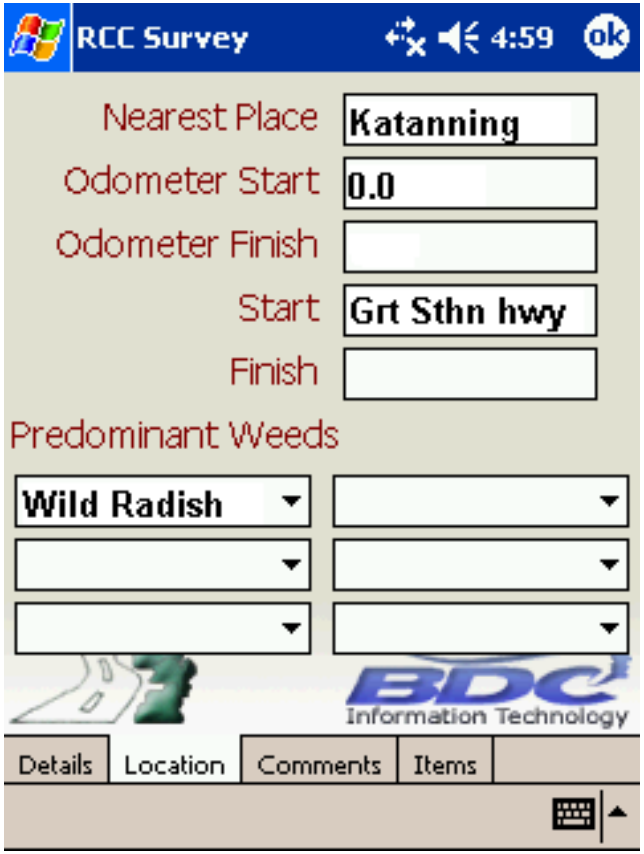
This Location page requires you to enter the following details:

- **Nearest Place**: nearest named locality;
- **Odometer Start**: the number on you trip meter or odometer when you start the section (eg. 0.0);
- **Odometer Finish**: the number on your trip meter or odometer when you finish the section (eg. 5.6);
- **Start:** a written indication of your start point, eg. intersection Jones Rd, a Railway line or named townsite.
- **Finish:** a written indication of your finish point, eg. intersection Boundary Rd, Sutton Reserve.
- **Predominant Weeds:** record the presence of up to 6 pre-determined weed species. Select from drop-down menu. Leave blank if not present.

Fill in the above information and go to the next tab, named

The Details

You will need to come back to this page later to fill in Odometer finish and Finish point.

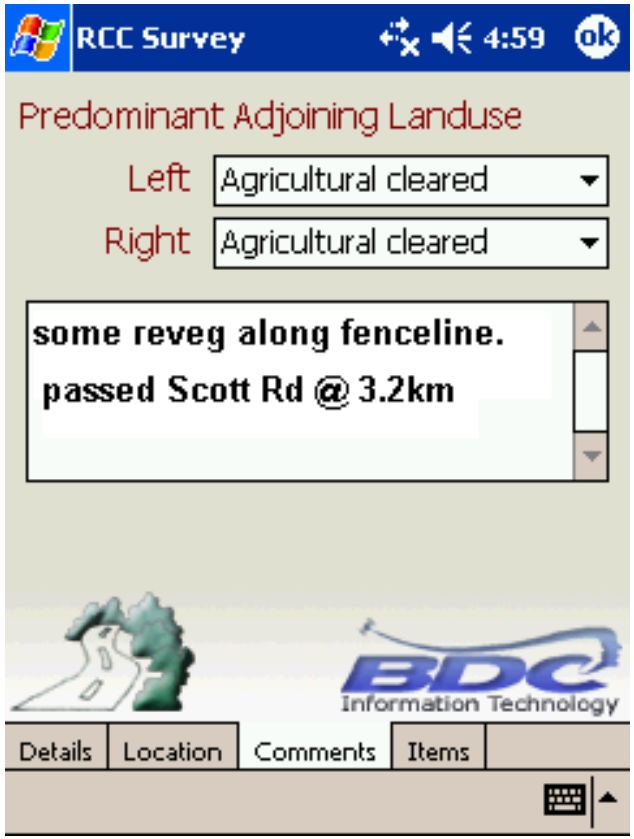


The Details

The comments page asks you to record:

- **Predominant adjoining landuse:** select the dominant land use from the drop-down menu (make sure you record both the left and right sides), and
- **Comments:** you may like to enter further details, for example, occasionally note down an identifiable point, such as a side road and the odometer reading. This helps in the GIS map production.

Go to the next tab, named **Items.**

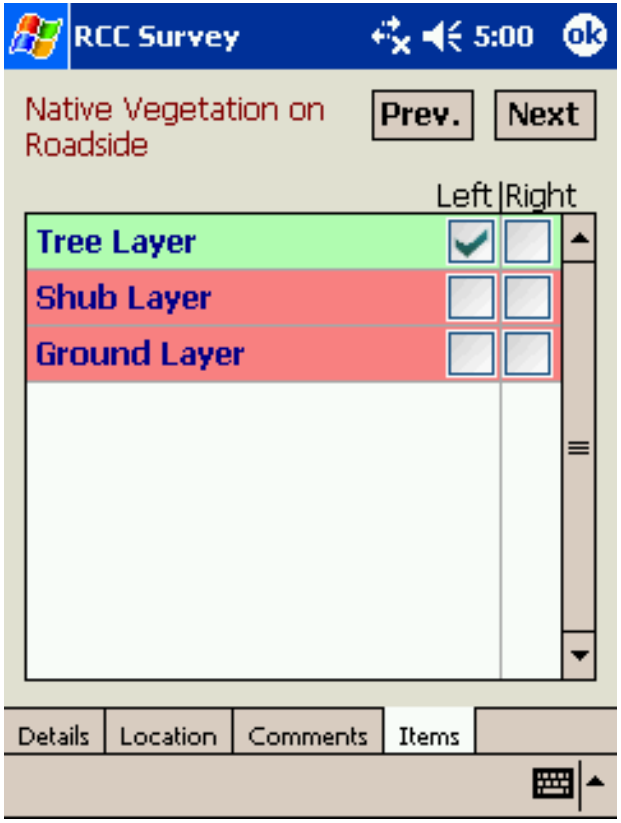


The Details

The items page requires you to record the presence or absence of **eight (8) roadside characteristics** that, when combined, make up the roadside conservation value.

Record the left and right sides independently.

The options will change from red to green, indicating that you have made a selection. Press **Next**.



Finishing the Section

The next page will be blank, and is titled **‘Finished’**, indicating that you have recorded information for all 8 **Items** for this section of roadside. Press **Next**.

The **Details** page will appear. Continue driving along the road until there is a significant change, or until the road ends (refer to pages 9-10).

When this happens, pull over or slow down, ensure you enter the **Odometer Finish** and **Finish** point on the **‘Location’** page.

Finishing the Section

On the **Details** page select either:

- **Change Road:** to begin surveying a new road, or
- **Next Section:** if you are still on the same road, and want to start surveying a new section.

If you select '**Change Road**', repeat the steps outlined from page 11 onwards. If you select '**Next Section**' it's important to read page 10.

Thank-you…

For further information please contact

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