

**“Reading the Landscape”  
Mid Lachlan Landcare  
Field Workshop**

**Agenda**

<b>Field Trip</b>	
<b>8:30</b>	<b>Start from Mandurama or Canowindra or Cowra Meet Mid Lachlan Landcare and/or DPI staff</b>
<b>9:00 – 9:45</b>	<b>Stop One: “Martindale”</b> <ul style="list-style-type: none"> <li>• <b>Mixed farming practises</b></li> <li>• <b>Salinity identification</b></li> <li>• <b>Erosions processes</b></li> </ul>
<b>10:00 – 10:40</b>	<b>Stop Two: Catchment Management Woodsflat Landcare Group</b> <ul style="list-style-type: none"> <li>• <b>Pre European landscapes</b></li> <li>• <b>Bio-physical processes</b></li> <li>• <b>Landscape function analysis</b></li> </ul>
<b>11:00– 12:00</b>	<b>Stop Three: Land Management on Farm: “Westville” property visit</b> <ul style="list-style-type: none"> <li>• <b>On farm landscape management</b></li> <li>• <b>Salinity processes</b></li> <li>• <b>Salinity management</b></li> <li>• <b>Food production systems</b></li> </ul>
<b>12:00</b>	<b>Depart from Westville</b> <b>10 mins bus travel time to Cowra (12kms)</b> <b>25 mins bus travel time to Canowindra (35kms)</b> <b>25 mins bus travel time to Mandurama (30kms)</b> <b>70 mins bus travel time to Bathurst (95kms)</b>

**Field Trip Notes**

**Background**

This field trip travels around the Canowindra/Cowra district and involves three site visits. The aims of this field trip are-

1. To show examples of land degradation issues
2. To demonstrate land assessment techniques for salinity and soil erosion
3. To see examples of land management options
4. To demonstrate geological influences on salinity symptoms

**Preparation before tour**

- Complete **Salinity Review Questions**
- Complete **Lachlan Catchment Review Questions**

**Logistics**

**Weather:** The trip can go ahead in wet weather.

**Clothing: Wear appropriate, rugged outdoor clothes**

- Shoes need to be suitable for climbing fences, muddy areas and walking a couple of kilometres during the day.
- Hats are needed even in winter. Many Sydney visitors go home looking a little “pink” than they arrived.
- Many sites will have long grass, burrs, prickles and grass seeds.



- Students without appropriate footwear must remain on the bus for their own safety
- Coats are needed. Conditions can change and cold winds can arrive on even the most pleasant days.

**Materials**

Each participant to bring clipboard and pencil

**Stop One**  
**“Martindale”**

**Brain Gavin & Family, Islands Landcare Group – Mid Lachlan Landcare**

*How do I Identify Salinity Indicator species?*

This site has been identified and assessed for symptoms. The site would be considered “minor salinity” compared to others in the area.

**TASK – What is going on at this site? – 15 mins**

- Work in groups of 4
- Record all visible salinity symptoms
- Measure surface water EC (dS/m) if present
- Identify any impediments for surface and groundwater flow.
- HINT it may help to draw a diagram or cross section

<b>Salinity Indicators Observed</b>			
Pasture health		Spike Rush	Scalding
Sea Barley Grass		Cumbungi	Puffy Soil
Annual Beard Grass		Tree decline	Visible Salt Crystals
Damp soil		Erosion	Couch Grass

<b>Rehabilitation Practices being Used and/or Tried</b>			
Tree Planting		Perennial Pasture	Fencing out affected area
Earthworks		EM Survey	Piezometers
Soil Sampling		Geology	Salt tolerant pastures
Grazing management		Perennial pastures	Mulching

*How do I identify soil erosion processes?*

This site has a variety of soil erosion processes occurring on it.

**TASK – What is going on at this site? – 15 mins**

- Work in groups of 3

<b>Process</b>	<b>Where is this occurring</b>	<b>Why is this occurring</b>
Sheet erosion		
Gully erosion		
Tunnelling		
Soil surface sealing		

**How does it all come together? What is going on?**

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**Stop Two**  
**Woodstock Cemetery – Remnant vegetation.**

*This site is like a time machine*

This site shows the types of vegetation communities that were present prior to European settlement.

**TASK – What are the similarities or differences between the native vegetation area and the agricultural areas of Woodsflat Creek Catchment**

- Work in groups of 2

	<b>Native vegetation area</b>	<b>Agricultural area</b>
<b>Soil</b>		
<b>Vegetation</b>		
<b>Run off water</b>		
<b>Groundwater</b>		
<b>People</b>		
<b>Bio-diversity</b>		
<b>Landscape Function</b>		

## Stop Four “Westville”

**Ian & Bobby Cooley: Woodsflat Creek Landcare Group- Mid Lachlan Landcare**

*You are standing on a regional discharge site*

This site has been identified, assessed and treated by the landholder and the local landcare group. Our understanding of this site is that it is controlled and caused by a regional groundwater system.

The site cannot be seen on photos from the early 1980s. The site then developed slowly until it made about 1/3 of the original paddock unusable.

The visible tree planting, pasture establishment and fencing work on the discharge area is 5 years old. The other tree planting visible ranges from 1 to 10 years in age. This is part of a large program of work over the whole property.

**Technically:** The area adjacent to the Great Western Highway has the Woodstock Fault. A major structural control to groundwater movement in this area and other discharge areas are occurring along this fault zone.

### **TASK – What is Ian trying to do at this site? – 30 mins**

- Work in groups of 3
- Record all visible salinity symptoms
- Check groundwater heights of the piezos
- Measure surface water if present
- Geology map available
- Site EM survey map available
- Group EM survey map available
- Farmer interview available
- Woodsflat Creek Salinity Report available
- Recharge control tree planting – forestry options

<b>Salinity Indicators Observed</b>					
Pasture health		Spike Rush		Scalding	
Sea Barley Grass		Cumbungi		Puffy Soil	
Annual Beard Grass		Tree decline		Visible Salt Crystals	
Road Damage		Erosion		Couch grass	

<b>Rehabilitation Practices being Used and/or Tried</b>					
Tree Planting		Perennial Pasture		Fencing out affected area	
Earthworks		EM Survey		Piezometers	
Soil Sampling		Geology		Alley farming	
Salt tolerant pastures		Cropping rotations		Forestry	



**How does it all come together? What is going on?**

**FARM CASE STUDY “Westville” – Ian & Bobby Cooley, Mrs Helen Cooley**

<p><b>Geology and Soil Types</b></p>
<p><b>What Does the Farm produce?</b></p>
<p><b>What are the land management issues that effect the farm?</b></p>
<p><b>How are land management issues, environmental issues and production being managed on the farm?</b></p>          <p><b>Draw a diagram of the important land management options</b></p>
<p><b>What does this farm demonstrate well? – What are they good at?</b></p>