Introduction

In undertaking the revitalisation of Adelaide’s rail network, the Department of Planning, Transport and Infrastructure’s (DPTI) highest priority is public safety.

South Australia’s public transport system is undergoing a major overhaul to transform it into a state-of-the-art, environmentally friendly system providing faster, more frequent and efficient services for commuters.

To ensure the safety of passengers, local communities and DPTI staff vegetation needs to be kept clear of the overhead wiring system. DPTI has developed a policy that is consistent with electrified rail systems in other states and is similar to vegetation control activities undertaken by electricity distributors in South Australia.

DPTI will continue to work to minimise the impact of the project on existing vegetation in and around the rail corridor. Refinement of the Electrification design has resulted in a 40% reduction in the number of trees requiring removal and an increase in the number of trees that need to be pruned.

Staff are working with councils to determine suitable locations to plant more vegetation than is removed. Opportunities for screening and understory plantings are being identified to enhance the biodiversity both along the corridor and in nearby reserves.

Vegetation Management Policy

DPTI has developed a policy that defines a vegetation clearance envelope (see Zone 1 in diagram 1) to be established as part of the rail electrification works, in order to:

- minimise the risk of tree limbs falling on the track or overhead wires, thus potentially sparking a fire and/or disrupting services;
- reduce the safety issues that maintenance workers face when working in an electrified environment;
- reduce the extent and frequency of vegetation maintenance and any resultant service disruptions to undertake these activities.

Note: there is also a factsheet entitled “New Planting Guidelines” for planting of new trees and shrubs outside of the rail corridor.
Definitions

The following definitions apply to the vegetation clearance zones outlined in Diagram 1.

**Exclusion Zone:**
The area 3 metres (in any direction) from the ‘live’ electrical infrastructure. This area will be permanently kept clear of vegetation.

**Vegetation Clearance Envelope (Zone 1):**
The area from 3 to 5 metres from the ‘live’ electrical infrastructure. This envelope will be regularly cleared to safely maintain the exclusion zone and provide a buffer/grow back area outside the 3m exclusion zone.

Whilst the exclusion zone must always be kept clear of vegetation, there are limited opportunities to allow the retention of some Significant or high value vegetation within Zone 1 (3 to 5m from the live infrastructure). This can only occur with a strict approval and management regime to ensure the vegetation does not grow back into the 3m exclusion zone.

This concession applies to existing Regulated and Significant vegetation only. **New Planting Guidelines** have been issued to ensure that any new plantings will not grow into the clearance envelope and require ongoing maintenance and management.

See vegetation clearance envelope diagrams on next page.

**Existing Vegetation**
Management of vegetation is an integral part of the safe operation of an electrified rail network.

In establishing the new electrified network DPTI is working to minimise the impact on vegetation (especially Significant trees) adjacent the Seaford line (including the Tonsley line).
Example 1 – Concrete masts

Example 2 – Twin Track Cantilever

Example 3 – Portal
Regulated and Significant Trees
DPTI is required to obtain Development Approval for the removal or pruning of any Regulated/Significant Trees as defined by the Development Act 1993. These are the large diameter trees (greater than 2m circumference) in and adjacent to the corridor.

Vegetation Management
Vegetation management activities have commenced and will continue during the construction phase of the Electrification project and will be ongoing, ensuring the maintenance of the exclusion zone during rail operations.

Vegetation Management Methodology
DPTI's pruning and removal works comply with Australian Standard 4373 (Pruning of Amenity Trees).

Balance pruning to Regulated/Significant trees may be required to ensure the trees are not left in an unsafe condition. The relevant council arborist will be invited to supervise all pruning works on vegetation outside the rail corridor.

Environmental weeds and proclaimed plant species in the rail corridor will also be managed at this time. These include (but are not limited to) olive plants, boxthorn, castor oil plants, prickly pear, pine trees and acacia saligna.

Private Property Vegetation Impacts
DPTI has undertaken surveys of properties that have vegetation overhanging their fence or vegetation that may be within the proposed electrification vegetation clearance envelope.

DPTI staff have visited these properties to provide information on the vegetation impacts and the approach DPTI will take with respect to pruning/removal of these trees. Staff will return to these properties to discuss the approach prior to undertaking any works.

If you believe that you fall into this category and have not been contacted by the department please call 1800 644 735 (this call is free).

Vegetation and Biodiversity Offsets
DPTI will replant to offset vegetation impacts along the rail corridor in line with the department’s Vegetation Removal Policy - available at www.dpti.sa.gov.au/standards/environment

Where Regulated/Significant trees are impacted, a higher offset ratio value is determined by the Development Assessment Commission.

All trees are inspected for the presence of wildlife and if any is found DPTI will arrange suitable relocation of wildlife to an alternative location.

DPTI have been actively working with local councils and community groups to investigate options for the reuse of hollow logs as they provide valuable habitats for local fauna. In addition to the hollows all other materials that can be used for habitat creation (mulch, large logs etc) will also be made available for future works within council biodiversity reserves.

Timeframes
Generally vegetation removal/pruning activities will occur after the installation of masts in the rail corridor and prior to overhead wiring and fencing being installed. The community will be advised of the program for these activities as soon as it is confirmed.

for further information visit www.infrastructure.sa.gov.au/RR
Community Wildlife Projects

The department is excited to be working with community in areas along the rail corridor to launch a Community Wildlife Project. This project is aimed at minimising impacts caused by loss of habitat as a result of vegetation management activities. It includes a community education session explaining the use of nesting boxes and how they can replace lost habitat.

The project has successfully been launched with the City of Unley with nesting box building workshops occurring with local schools. Council is using these boxes in reserves to help attract native wildlife back to the local area. Local school students will monitor the boxes and take photos of the results.

DPTI is also working closely with council staff to identify project opportunities in the City of Marion.

Fencing

As part of the vegetation management program there will be upgrades to fencing along the corridor to reduce trespass. Many sections of the corridor are already fenced. Any existing fence that meets height requirements and is in good condition will not be removed or impacted.

Generally, spear fencing will be used 50m either side of train stations and in high risk trespass areas while chain mesh fence will be used in other areas. Repairs will be made to existing chain mesh fencing and additional mesh fencing will be installed where required.

New mesh fencing will be 1.8m high and use black wire in residential areas to reduce the visual impact.

In some areas, trees and bushes need to be trimmed or removed to allow the installation of new fencing. Whilst boundary lines for private / residential properties will be replaced on the existing legal boundary there is some opportunity where the boundary is shared with council to fence on a line that provides the best outcome for future landscaping opportunities or the construction of dedicated pedestrian and cycle ways.

Unauthorised Access Points

To ensure public safety all unauthorised access points from residential properties into the rail corridor will be sealed.

for further information visit
Benefits of electrification

Along with the purchase of new trains, timetable changes and track upgrade works, electrification of these lines will deliver modern and efficient train service. Train services will be quieter, faster and more frequent.

**Environmental**

Environmental benefits include:
- reduced noise
- reduced vibration
- reduced local air pollution at Adelaide Railway Station and other stations
- less fuel reloading and potential spillages.

**Energy efficiency**

An electrified rail network:
- is not affected by increases in world oil prices
- is much less reliant on imported fuels.

**Road Users**

More people are expected to use the electrified rail network, which may lead to:
- fewer cars on the road, with reduced travel times
- reduced pressure on some of Adelaide’s roads
- cost savings due to more efficient traffic flows.

Electric Train Services

The electric trains began arriving in July 2013, with extensive testing and driver training now underway. The first electric services are scheduled to run on the Adelaide to Seaford line in early 2014.

Community Consultation


DPTI aims to ensure that residents living in close proximity to the railway corridor are actively engaged before construction begins on site and have an opportunity to discuss any concerns.

Residents along the corridor will be engaged at the following key milestones:
- Installation of masts and overhead wires adjacent to properties;
- Changes to hours of work, if varying from ‘normal working hours’; and
- When vegetation removal is planned adjacent to their property.

Further Information

If you have any questions about the electrification project please:
- Phone: 1800 644 735
- Email: dpti.electrification@sa.gov.au