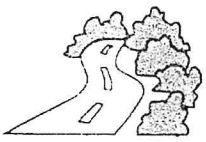

ROADSIDE CONSERVATION COMMITTEE

PREPARATION OF A ROADSIDE VEGETATION FIRE MANAGEMENT POLICY FOR LOCAL GOVERNMENT

SCOPING PAPER PREPARED FOR THE ROADSIDE CONSERVATION COMMITTEE

DECEMBER 2003

BACKGROUND

- The vegetation and climate across Western Australia makes it highly prone to bushfire and ecosystems have adapted to these conditions over millions of years.
- Signficiant areas of Australia have also been subject to millennia of management through fire-stick management by indigenous people.
- Some species are dependant upon fire for survival, however frequent burning can cause major changes to the landscape as it will favour those species most adapted to fire.
- There is no single fire regime that is suited to all flora, fauna and ecosystems, even within a single local government area.
- Uncontrolled wildfires have the potential to negatively impact on human life and property, particularly when fires start in areas with high fuel loads and under dry, windy conditions.
- Landowners and land managers are responsible for managing their land to reduce fire risk for themselves and neighbouring properties.
- Prescribed burning involves intentionally burning areas (usually native forests and bushland) under controlled conditions to reduce fuel loads and the risk of wildfire.
- Typical intervals for prescribed burning for fuel reduction undertaken in Western Australia by the Department of Conservation and Land Management (DCLM) generally ranges from 5 – 15 years, depending upon vegetation types and rate of fuel accumulation.
- Prescribed burning undertaken by Local Government adopts a similar approach, although more frequent burning is common in regional centers and populated areas within, or adjacent to, forested areas.
- A considerable proportion of private landowners prefer to burn more frequently, with intervals based on historical precedent (in most cases unfounded from scientific or fuel load perspectives) and perceived fire risk.
- The majority of prescribed burns used by State and Local Governments and landowners are based on objectives for fuel load management.

- Scientific evidence and the monitoring of areas following fire has demonstrated that frequent burning of fragmented vegetation, such as in small reserves and road reserves, has a negative impact on the health of vegetation through increased weed populations and loss of species diversity (flora and fauna).
- Increased weed densities in bushland areas has a direct relationship with changes in fuel characteristics and increased fuel loads and fire risks.

FIRE AND ROADSIDE VEGETATION

- Roadside vegetation, particularly in rural areas and peri-urban areas of the Perth Metropolitan Region, contributes significantly towards biodiversity, landscape amenity, "sense of place' and tourism.
- Roadside vegetation can contain Declared Rare Flora (DRF), which are protected by law from removal or disturbance, including damage from fire.
- Roadside vegetation has many other conservation values including threatened plant communities, priority listed flora and fauna habitat (including habitat for rare & endangered fauna species protected by law).
- Roadside vegetation provides a critical linkage in many areas between otherwise isolated areas of bushland, and forms wildlife corridors for the movement of animals. It can also provide a genetic linkage increasing the viability of flora species.
- In some Shires, the majority of remnant vegetation remaining in the Shire is located in roadside reserves.
- Roadside vegetation also reduces the impact of land degradation processes (erosion, topsoil loss and salinity) and provides a physical (and functional) buffer between transport corridors and adjacent land uses.
- Some types of roadside vegetation in good condition (ie minimal weeds) increases in fuel load in the first few years after a fire but then remains steady without significant further increase.
- Roadside vegetation in good condition has minimal management costs.
- Roadside vegetation in poor condition, particularly where grassy annual or perennial weeds have replaced the natural shrubby understorey, changes the fuel characteristics creating a fine, continuous layer of fuel.
- Grassy fuels can reach peak fuel loads within 1-2 years of a fire, whereas native shrub vegetation can take five years or more to return to maximum fuel loads, depending on vegetation type.
- Poorer condition roadside vegetation requires higher and ongoing management costs (fire control, weed control, erosion etc).
- Frequent burning creates an ongoing weed cycle that encourages the spread of weeds, many of which are well adapted to colonizing post fire areas and out-competing native plants.

FIRE MANAGEMENT FOR ROADSIDE VEGETATION

- Reducing the density and spread of weeds is an effective method of reducing fuel loads (and long-term management costs) and provides the opportunity to increase biodiversity through the re-establishment of locally native plants.
- Alternatives to prescribed burning in reducing fuel loads include weed control (herbicides, physical removal, biological control) and manual removal of fuel loads (raking).
- Community groups and landowners living adjacent to roadsides are taking an increasing role in the active management of roadside vegetation.
- Main Roads and many Local Governments provide support to volunteers actively managing roadside vegetation for conservation purposes (weed control, re-planting, litter collection, community education).
- Support for volunteers working on roadsides creates a positive working relationship with the community and saves maintenance costs for the road managers.
- Local Governments can actively manage roadside vegetation through a range of simple practices and, in the process, save longer-term maintenance costs.
- The Roadside Conservation committee (RCC) has expertise and is a valuable resource available to assist Local Governments in managing roadside vegetation and developing positive working relationships with volunteers involved in roadside vegetation management activities.

KEY ISSUES FOR LOCAL GOVERNMENT AS ROADSIDE FIRE MANAGERS

- Effective fire management that recognizes the conservation value of roadside vegetation will result in improved biodiversity protection and landscape amenity outcomes, without compromising protection of life and infrastructure.
- Many rural Local Governments have insufficient resources, expertise and funding to actively manage roadside vegetation.
- A resource sharing approach involving the community and other potential partners, with assistance from the RCC, is required to effectively manage and protect roadside vegetation.
- Alternative methods of reducing fuel loads, such as weed control and manual removal of dry leaf litter, should be encouraged before considering prescribed burning where burning would adversely affect conservation and catchment management values.
- Decision-making in managing roadside vegetation can be improved by taking a strategic approach: defining objectives, and using mapping to assist in planning actions.

- Mapping of bushland condition, fuel loads and fire history can assist in identifying strategic fuel reduction zones to protect life, infrastructure and conservation values at risk. Note, mapping methodology should match the technology and expertise available in the Local Government and should require minimal resources.
- A Fire Management Policy prepared by the RCC and promoted through the Western Australian Local Government Association (WALGA) would assist Local Governments improve decision making in relation to fire management for roadside reserves.
- The preparation of roadside management plans, incorporating fire management measures aimed at conserving biodiversity values, should be encouraged.
- The RCC and WALGA should ensure that roadside vegetation conservation is a high priority action included in all Regional NRM Strategies.
- Funding for Local Governments to prepare and implement roadside management plans is required through the Natural Heritage Trust (NHT) as part of the implementation of Regional Natural Resource Management (NRM) Strategies Regions.

RECOMMENDATIONS

1. ***The RCC prepare a Model Roadside Vegetation Fire Management Policy for Local Government in Western Australia based on this scoping paper.***

2. ***WALGA promote the Model Roadside Vegetation Fire Management Policy for Local Government in Western Australia across the State.***

3. ***The RCC and WALGA contact all Regional NRM bodies in Western Australia and request -***
   (a) that the protection of roadside vegetation be a priority action in their NRM Strategies; and
   (b) that funding be made available through the NHT to assist Local Governments prepare and implement roadside vegetation management plans.