Planning around Ecology

Prescribed Burns and Bushfires
DEW Planning Framework

Fire and Emergency Services Act 2005

Bushtire Management Area Plans

National Parks and Wildlife Act 1972

Wilderness Protection Act 1992

Plan of Management

Native Vegetation Act 1991

Fire Management Plan

Vegetation Management Plans

Objectives & Strategies

Response Plans

Annual fire management works program
Planning Approach

• Regional or landscape scale through the development and delivery of strategies in a Fire Management Plan for a landscape or group of reserves

• Operation or Site Specific scale through the development and delivery of a prescribed burn or other on ground works
KI Proposed 5 Year Burn Program
Fire Management Plans

Small Mammal Species

16. Monitor the effect of fire on KI small mammal populations and preferred habitat and use this information to update the DEH vital attributes database for use in future Ecological Fire Management Guidelines (Appendix 4).

17. Consult the Kangaroo Island Conservation Programs Unit when planning burns in known habitat of the KI Dunnart and Southern Brown Bandicoot.


8 SUMMARY OF MANAGEMENT STRATEGIES
Ecological Fire Management Guidelines

• Developed *Ecological Fire Management Guidelines*

• Defines fire regimes for fire-prone veg types (MVS)

• Based on species most vulnerable to changes in fire regime elements (Key Fire Response Species)

• Limit of *Spp.* tolerance called “Thresholds of Potential Concern”
<table>
<thead>
<tr>
<th>MVS No</th>
<th>MVS NAME</th>
<th>TPC1: Lower threshold in years</th>
<th>TPC2: Upper threshold in years</th>
<th>Inter-fire intervals within TPC1 &amp; TPC2 across more than 50% of the extent of the MWS within the planning area</th>
<th>Percentage of the MVS to stay &gt; TPC2</th>
<th>Avoid more than 2 fires within a period of 5 years</th>
<th>Avoid more than 2 successive fires of low intensity (Yes/No)</th>
<th>Some medium to high intensity fires needed for some species (Yes/No)</th>
<th>Avoid more than 1 successive fires in season</th>
<th>Season</th>
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<tbody>
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<td>Eucalyptus forests with a shrubby understorey</td>
<td>20</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>40</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Spring or during &amp; following drought</td>
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<tr>
<td>5</td>
<td>Eucalyptus forests with a grassy understorey</td>
<td>5</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>No</td>
<td>N</td>
<td>No</td>
<td>N</td>
<td>Spring or during &amp; following drought</td>
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<td>8</td>
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<td>50</td>
<td>40</td>
<td>30</td>
<td>40</td>
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<td>No</td>
<td>Y</td>
<td>Spring or during &amp; following drought</td>
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<td>9</td>
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<td>No</td>
<td>Y</td>
<td>Spring or during &amp; following drought</td>
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<td>No</td>
<td>Y</td>
<td>During &amp; following drought</td>
</tr>
</tbody>
</table>

**ECOLOGICAL FIRE REGIME**
Ecological Strategies and Guidelines

• Ecological fire management strategies for several significant threatened or pest species for which fire is a critical threat or management tool

• Objective of strategies is to develop a consistent approach to ecological fire management for significant species

• Developed using the same risk assessment methodology used in DEWs fire management planning
Ecological Fire Management Strategies

- Basic species information
- Risks posed by inappropriate fire regimes
- Fire management objectives and strategies
- Actions to mitigate the assessed risk
Environmental Assessment Pre Burn

• Assesses the ecology of the area within the defined assessment boundary
• BDBSA (Biological Database of South Australia)
• Ramble Survey
• Fuel Hazards
• Prescriptions
Fire Information Management System (FIMS)
Other Works

- Fire Tracks and Trails
- Minor Works
Monitoring

• At a minimum
  • Pre and Post Fuel Hazard Assessments
  • Reporting of specific burn results (outcome, fire behaviour, EA issues, completion of follow-up works)
  • Monitoring of key issues identified in the EA (threatened species, weed regeneration)
  • Mapping of area burnt where possible include burn severity
Integrating Natural Values into Bushfire Suppression

• Natural Values Team Officers are Incident Management Team trained ecologists, deployed as technical specialists
Mount Taylor CP Example

- **During the Fire:**
  - IMT contacted DEW for Natural Values Support
  - Recovery Plan Written

- **Post Fire:**
  - Camera Traps installed
  - Monthly photographic monitoring for 6 months
  - Post Fire Ramble 6 months post fire
  - Post Fire Ramble 1 year after initial Ramble
Challenges

- Outdated Fire Management Plan
- One Age Class of Vegetation
- Threatened Species
- Community Expectations Vs Reality
- Budget Constraints
- Continuity of Knowledge
- Knowledge Gaps and Missing Data