8.0 FIRE

This section describes aspects of the environment surrounding the Project corridor that are relevant to the generation and spread of uncontrolled fire. Reference has been made to bushfire hazard information prepared by local and State authorities.

This section discusses the likely causes of fire as a consequence of the activities associated with the construction and maintenance of the proposed development, and addresses the potential impact of bushfires on the proposed development. Mitigation measures have been provided to reduce the potential impacts of uncontrolled fires on the Project and the surrounds.

8.1 BACKGROUND & METHODOLOGY

The '*State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide*' (SPP 1/03), contains a bushfire hazard assessment methodology, which uses three characteristics to determine the level of bushfire hazard within an area: vegetation, slope, and aspect. In the SPP 1/03 vegetation is used as the primary determinant of bushfire hazard and is scored out of 10. If an area has a vegetation score of 2 or less, the guidelines states that no further assessment of the bushfire hazard is required as it is not deemed to be hazardous vegetation. However, if the vegetation characteristic is scored greater than 2 then slope and aspect are also scored to provide a rating for each characteristic and these are then added to provide total scores which is used to determine the Severity of Bushfire Hazard. Slope and Aspect are scored out 5.

8.2 EXISTING ENVIRONMENT

Areas of bushfire risk, as determined by the Queensland Rural Fire Service, have been identified on Western Downs Regional Council's Chinchilla Town Planning Scheme Overlay Map 4 *Bushfire Hazard Areas*. The mapping identifies the project corridor as occurring within a Low to Medium Bushfire Hazard classified area. A field verification of the factors affecting bushfire severity were undertaken in order to indentify the potential site based risk. In accordance with the prescribed methodology included in SPP 1/03, observations of the change in vegetation type, gradient and aspect along the project corridor where assessed. Accordingly, bushfire hazard severity has been assessed and included in Table 8.1. Based on the findings, the risk assessment reflects that the corridor based risk is generally consistent with the planning scheme mapping.

TABLE 8.1 SPP 1/03 HAZARD RATING ASSESSMENT

AREA	ELEMENT						Total Hazard Score	Bushfire Hazard Score
	Vegetation		Slope		Aspect			
	Vegetation Type	BHR	Slope (%)	BHR	Direction	BHR		
Section 1	Grassy eucalypt and acacia forest	6	0 - 5	1	North to East	0	7	Medium
Section 2	Grazed grassland	2	0 - 5	1	North to East	0	3	Low
Section 3	Grassy eucalypt and acacia forest	6	0 - 5	1	North to East	0	7	Medium

BHR – Bushfire Hazard Rating BHS – Bushfire Hazard Severity (The State Planning Policy Guideline: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide 2003)

8.3 POTENTIAL IMPACTS

The impacts of bushfires generally depend on the location, the physical characteristics of land and the type of development. Bushfires occur on a variety of vegetation and topography types where there is a flammable fuel path.

The prevailing fire regime is unlikely to be significantly altered due to the Project. Although no noticeable change in the local fire regime is expected, the intensity and occurrence of fires may actually be reduced by the presence of the transmission line, particularly due to vegetation/fuel clearing. The most probable time for a fire to occur is during construction, however the risk of such an event occurring during this phase of the development is considered low.

Fire may potentially arise from construction machinery/equipment as a result of fugitive sparks igniting dry flammable materials along the corridor. Excessive heat generated by machinery/vehicles, sparks, and/or careless disposal of cigarettes and matches pose the highest risk to the Project locale. Flammable matter providing the highest fire risk along the corridor include stockpiles of mulched/chipped vegetation, dead/dry on-site vegetation, and paper. Fuel, oil and flammable chemicals increase the risk of fire.

The line itself is unlikely to be at risk from bushfire due to resilient materials and maintenance regimes to limit vegetation regrowth and associated fuel loads.

In accordance with the SPP 1/03, the proposed development, although located within a natural hazard management area (bushfire), is designed to function effectively during and immediately following bushfire events.

8.4 MITIGATION MEASURES

The following mitigation measures will reduce the risk and impact of a fire on the proposed development and surrounding areas:

- A Bushfire Management Plan would be prepared and adhered to. This plan will be developed in conjunction with the Department of Community Safety (Queensland Fire and Rescue Service).
- Materials used for the construction of the transmission line will be fire resistant in order to reduce the chance of damage the transmission line;
- All mobile construction equipment would be fitted with spark arresters to prevent accidental spark ignition;
- Where naked flames are required (e.g. when oxy-acetylene is used) two full fire extinguishers shall be located within 10m of the work face;
- All construction sites would have fire extinguishers and first aid officer/s;
- In the unlikely event of a fire, emergency exit plans would be utilised;
- Water trucks will be present, when practicable, on construction sites that are in areas identified as a potential fire risk; and
- The relevant emergency services (e.g. Fire Rescue and Ambulance Services) would be notified of the numbers and location of construction personnel and any proposed temporary road closures.

All works are to be undertaken in accordance with the EMP (see Appendix F).