BUSHFIRE PROTECTION FOR BUSHWALKERS –

What to do if caught in a bushfire whilst walking in remote areas

By Sue Davies, Regional Officer, Bushfire Services of WA – November 1998

Survival in the open when confronted by an intense fire is not easy. The threats to life come from three sources:- (1) Radiant heat so intense as to induce heat stroke: (2) Smoke and hot gases able to induce asphyxiation: (3) Flames which induce actual burns.

WHAT WILL THE FIRE DO? The fire behaviour is influenced by three main factors:-

The fuel: The weather: The topography.

Fuel: The type of fuel, the amount of fuel its moisture content and the arrangement of the fuel determines the intensity and rate of spread of a fire. For example, in forest land the fire burns with high intensity but moves slowly, whereas in grassland the fire is less intense but moves quickly.

Weather: Fires will be more intense on hot dry days than on cool humid days. Fires move more quickly when it is windy and wind changes affect fire behaviour dramatically.

Topography: The lay of the land has considerable affect on the way the fire travels. A "preheating" effect causes the fire to move more quickly uphill. The key to surviving a bushfire is to understand these factors, predict how they will interact, and take appropriate actions.

PREVENTION: Schedule your walk to remote forest areas to avoid the time of year when bushfires are likely to be most intense and/or occur most often (avoid the hottest summer months and days of very high or extreme fire danger). During summer a walk on the beach may be more pleasant.

PREPARATION: Ensure that full details of your walk, including party size are left with responsible people and make sure that you advise them of your return.

In planning your walk, note features shown on the map that may offer some refuge (bodies of water, rocky outcrops, etc.)

Carry clothes that offer protection from radiant heat. When threatened by a bushfire it is important to remove all synthetic clothing as this can melt and burn skin severely. Cotton long trousers, long sleeved shirts and leather boots should be a part of your walking gear (maybe even a woollen jumper). Carry plenty of water. While walking maintain your navigation so that you know where you are at all times. This makes the emergency decision-making process easier. Keep a lookout for smoke.

RESPONSE: 1. Anticipate the fires behaviour and plan the best course of action.

Move to a low fuel area. Don't try to outrun the fire – move across the front of the fire to the flanks (sides). Move downhill – the most intense fire will be at the tops of hills. Don't try to run through the flames unless you can clearly see behind them. This means flames less than 1 m high and less than 3 m deep. Move towards the flanks or back of the fire, and look for lulls in the fire to find flames of less intensity. Remain calm and avoid exhaustion – plan your actions.

- **2. Find an area that won't burn** the bigger the better. You need to avoid direct flame contact by getting to an area devoid of bushfire fuel. Some examples include:-
- (a) Water bodies such as lakes, dams or creeks. Avoid areas of swampy vegetation such as Melaleuca species which can burn intensely. Avoid elevated water tanks. Water above the ground in elevated tanks heats up very quickly during a fire. A body immersed in lukewarm water cannot sweat or lose heat, and at 44 deg. a state of collapse is reached in about three minutes.
- (b) Rocky outcrops (such as granite monadnocks).
- (c) A road or firebreak.
- (d) A paddock area heavily grazed or trampled by stock.
- (e) An area of previously burnt ground or any other area clear of combustible material
- 3. Protect yourself from radiant heat. This is not easy in the open. Wear your cotton/woollen clothing. Lie down on the ground and cover yourself as far as possible. Anything that will deflect or absorb the radiant heat should be used. Move into a building or a vehicle, or put a tree trunk or large rock between you and the fire. Get into a wheel rut or depression in the ground.
- **4. Protect your airways.** Smoke and hot gasses can cause asphyxiation and even burn the inside of the airway. Keep low, breathing into the ground, to avoid smoke and hot gasses. Cover your mouth and nose with a wet cloth.
- **5. Recovery.** First Aid. Walk Leaders should know how to treat:- (a) Burns, (b) Shock,
- (c) Asphyxiation and smoke inhalation, (d) Smoke and foreign matter in the eyes, (e) Heat induced illness. Arrange evacuation and medical aid. Notify relevant authorities of your situation. Bushfires are a real and immediate threat to life. Your survival when caught in the open depends on sound judgement and in taking the appropriate actions.

(Reproduced from Sydney Bushwalker, November 2000)