Understanding Bushfire Fuel Levels on Your Property

city of swan

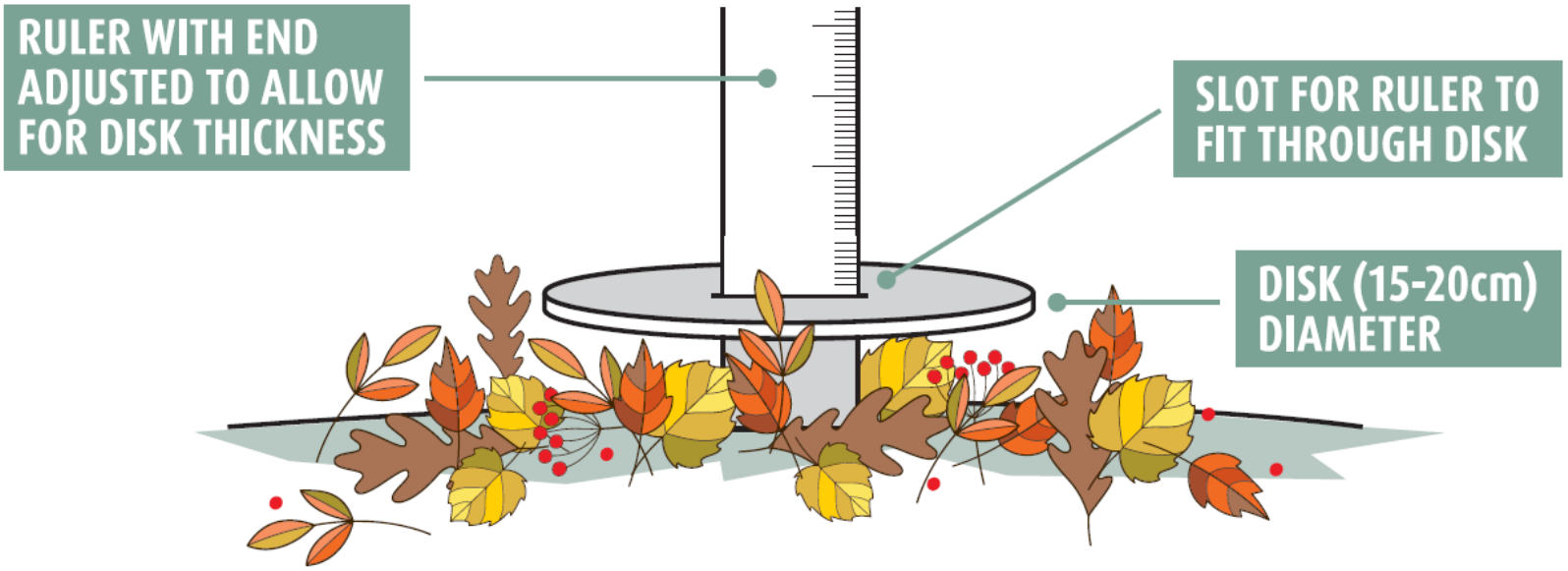
www.swan.wa.gov.au

Forest fuels are found in four different layers:

- Canopy
- Bark
- Elevated fuel (shrubs up to 2m)
- Surface litter (leaf litter, sticks Ø>6mm)

- Fuel load calculations measure the surface litter and elevated fuels fine fuels (scrubs), to determine the amount of fuel that is readily available in a fire.

- **Total Indicative Fuel load** = surface litter weight + scrub weight



Surface Fuels

city of swan

Surface litter weight to depth ratio for Northern Jarrah forest

Litter Depth (mm)	Litter Weight (T/ha)
5	2.7
10	5.3
15	8.0
20	11.0
25	13.0
30	16.0
35	19.0
40	21.0
45	24.0
50	27.0

Remember, scrub weight is added to litter weight, so a litter depth over 10mm could be an issue.

Base scrub weight is determined by its height and density

Scrub Height (m)	Scrub Base Weight (T/ha)		
	Dense	Medium	Sparse
1.5 +	7.0	5.0	4.0
1.2	5.0	4.0	3.0
0.9	3.0	3.0	2.0
0.6	3.0	2.0	1.5

- Sparse (easy to pick any path through)
- Medium (can pick a path through), or
- Dense (difficult to walk through).

Adjust base scrub weight is by it flammability

Scrub Condition	Scrub Flammability Factor
Green/Young	1
20 % Dead	2
50+ % Dead	3

Total Scrub Weight = Scrub Weight x Scrub Flammability Factor

Total Indicative Fuel load (TIFL) = surface litter weight + scrub weight

Example

- 15mm surface litter
- 0.6m high scrub
- 20% dead scrub material
- Medium density

TIFL = 8.0t/ha + (2.0t/ha x 2) = **16t/ha**

Contact your City or Shire for personalised advise in how to manage your property's APZ or bushfire fuels load.