



## FCO Sunrise Fuel Model Codes

The Scotts Burgan Fuel Model categories were customized using FCO Vegetation Stratification Coding, climate, presence or absence of forest canopy, height class, and percent live and dead flammable shrub cover.

- **Grass (GR):** Less than 10% flammable shrub cover
  - **GR1:** Less than 10% shrub cover, short grass
- **Grass-Shrub (GS):** Less than 50% flammable shrub cover
  - Arid to semiarid climate (rainfall deficient in summer)
    - **GS1:** Less than 30% shrub cover, all species < 6.1 ft. tall (height class 1-2) or if only 1 species is >1.6ft. Spread rate moderate; flame length low. Includes conditions where all species <1.6 ft. (height class 1) but cover 30-50%.
    - **GS2:** Shrub cover 30-50% and 2+ species >1.6ft. Spread rate high; flame length moderate.
  - Sub-humid to humid climate (**PFS 1 coastal fire shed only**)
    - **GS3:** Less than 30% shrub cover, all species < 6.1 ft. tall (height class 1-2) or if only 1 species is >1.6ft. Spread rate high; flame length moderate. Includes conditions where all species <1.6 ft. (height class 1) but cover 30-50%.
    - **GS4:** Shrub cover 30-50% and 2+ species >1.6ft. Spread rate high; flame length very high.
- **Shrub (SH):** Greater than 50% flammable shrub and small tree cover
  - Arid to semiarid climate (rainfall deficient in summer)
    - **SH1:** Shrub cover 50-65% with all species <1.6ft. tall (height class1) or if only 1 species is >1.6ft. Spread rate very low; flame length very low.
    - **SH2:** Shrub cover 50-65% with all species <6.1ft tall (height class 1-2) Spread rate low; flame length low.
    - **SH7:** Shrub cover 65-90% with all species >1.6ft. tall (height class2-3). Spread rate high; flame length very high. Includes conditions where cover of dead shrubs >50%.
    - **SH5:** Shrub cover >90% with all species >1.6ft. tall (height class2-3). Spread rate very high; flame length very high. Includes conditions where cover of dead shrubs >50%.
  - Sub-humid to humid climate (**FS 1 coastal fire shed only**)
    - **SH4:** Shrub cover 50-65%. Spread rate high; flame length low.
    - **SH8:** Shrub cover 65-90% with all species >1.6ft. tall (height class2-3). Spread rate high; flame length high. Includes conditions where cover of dead shrubs >50%.
    - **SH9:** Shrub cover >90% with all species >1.6ft. tall (height class2-3). Spread rate high; flame length very high. Includes conditions where cover of dead shrubs >50%.



- **Timber-Understory (TU):** Forest canopy (2 or more live trees) with grass-shrub understory
  - Semi-arid to sub-humid climate
    - **TU1:** Less than 30% shrub cover, all species < 6.1 ft. tall (height class 1-2) or if only 1 species is >1.6ft. Spread rate low; flame length low. Includes conditions where all species <1.6 ft. (height class 1) but cover 30-65%.
    - **TU4:** Shrub cover 30-65% and 2+ species >1.6ft. Spread rate moderate; flame length moderate.
    - **TU5:** Shrub cover >65% and 2+ species >1.6ft. Spread rate high; flame length high. Includes conditions where cover of dead shrubs >50%.
  - Humid climate (**FS 1 coastal fire shed only**)
    - **TU2:** Less than 30% shrub cover, all species < 6.1 ft. tall (height class 1-2) or if only 1 species is >1.6ft. Spread rate low; flame length low. Includes conditions where all species <1.6 ft. (height class 1) but cover 30-65%.
    - **TU3:** Shrub cover >30% and 2+ species >1.6ft. Spread rate high; flame length moderate. Includes conditions where cover of dead shrubs >50%.

The following table shows each fire shed on the Sunrise Proposed Route and the percentage of sampled vegetation polygons covered by each Sunrise Fuel Model code (SFM). Vegetative polygons not inventoried by FCO were compared to similar vegetative polygons sampled and assigned SFM codes or the original Scotts Burgan Fuel Model codes. Similarity between vegetative polygons was assessed according to plant species, density, size class etc. Vegetative polygons have been stratified using the San Diego County GIS vegetation layer which corresponds to the Remote Sensing Fuel Model layer. The Scotts Burgan Fuel Model codes were obtained from the USFS Remote Sensing Lab.

FIRESHED	SFM_CODE	PERCENTAGE OF INVENTORIED FIRESHED
<b>PFS_1</b>	GR1	2
	GS3	2
	GS4	2
	SH4	7
	SH8	28
	SH9	43
	TU2	11
<b>PFS_2</b>	TU3	6
	GR1	7
	GS1	22
	GS2	24
	SH1	0
	SH2	16



	SH5	27
	SH7	4
	TU1	0
	TU4	0
	TU5	0
<b>PFS_3</b>	GR1	15
	GS1	12
	GS2	23
	SH1	0
	SH2	21
	SH5	12
	SH7	12
	TU1	2
	TU4	2
	TU5	2
<b>PFS_4</b>	GR1	7
	GS1	1
	GS2	10
	SH1	0
	SH2	11
	SH5	51
	SH7	13
	TU1	4
	TU4	0
	TU5	1
<b>PFS_5</b>	GR1	8
	GS1	6
	GS2	15
	SH1	0
	SH2	7
	SH5	22
	SH7	14
	TU1	13
	TU4	5
	TU5	9
<b>PFS_6</b>	GR1	3
	GS1	30
	GS2	33
	SH1	0
	SH2	13
	SH5	6
	SH7	13
	TU1	2
	TU4	0
	TU5	0