H/O #2

GSFFC Meeting — 2017/06/08

Risk Assessment Update — Steve Bassett (TNC)

- Review risk assessment process (Fig. 1).
- At the last fireshed strategy team meeting I reported on the draft risk assessment products.
    - Based on feedback at that meeting I revisited the fuel model dataset that the whole assessment is based on. Overall the data was acceptable but there were concerns about a band of very low fire intensity (also reflected in the risk output) that didn't match the observed condition of the landscape. This band was an artifact of a seam between ecoregions that were used for the LANDFIRE creation process.
    - With guidance from Abie, Ellis, and Eytan, I've modified the fuels data to match reality.
        - Because fuel model is typically based on vegetation type, I evaluated the level of agreement between 7 veg-type datasets (Figs 2 & 3).
        - Where the LANDFIRE dataset was in the minority (out-voted by other datasets) the fuel model was updated to reflect the majority vegetation type.
        - In places where there was low agreement between datasets (< 50%), rapid visual assessments were made using site visits, photo points, and Google Street View imagery.
            - In a confusion matrix where predicted fuel model is compared with observed fuel model, you can see common misclassifications.

		Modified LANDFIRE							
Human		**GR1**	**GS2**	**NB1**	**SH1**	**SH7**	**TL3**	**TU1**	**TU5**
	SH7	2	7	2	1	9	3	10	11
	TU5		2					2	1

            - When you compare the fire behavior of the commonly confused fuel models (SH7: GS2, TU1, TU5; TU5: GS2, TU1), you can see the difference (Figs 4 & 5).
        - Fire intensity looks much more representative of reality when simulated with the corrected fuels (Fig. 6).
- Current timeline and alternatives (lower resolution or additional processors (fire lab?))
- Public participation
- Future refinement and iterations

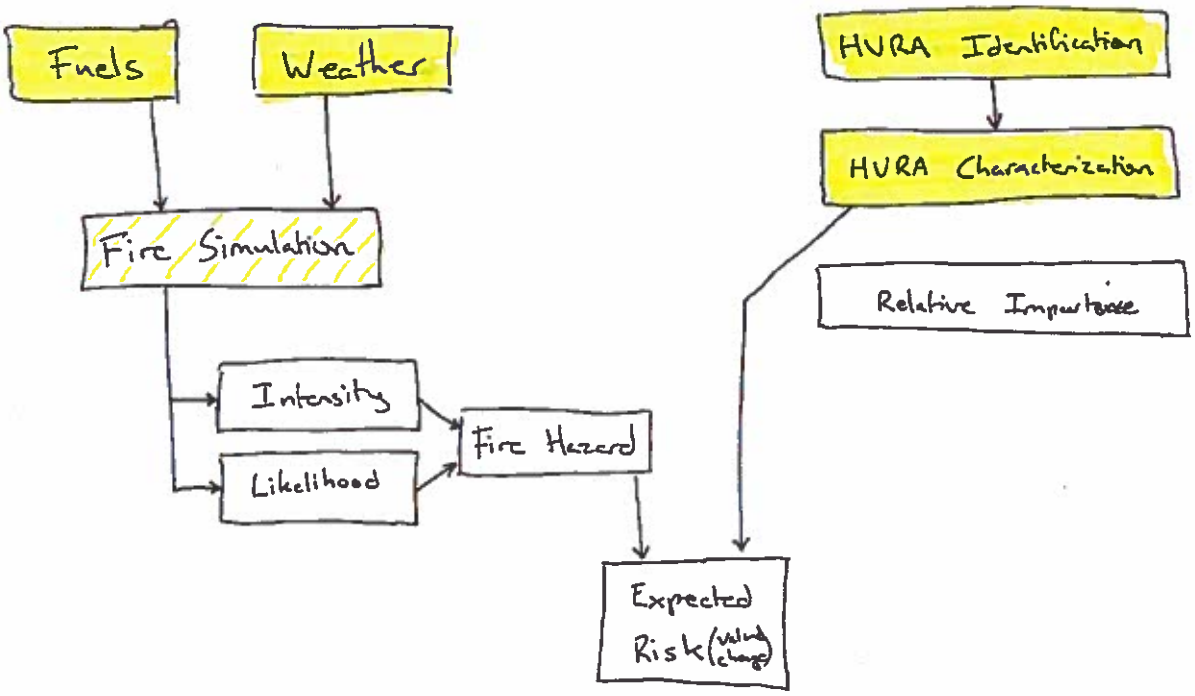

Figure 1. Risk assessment process outline.

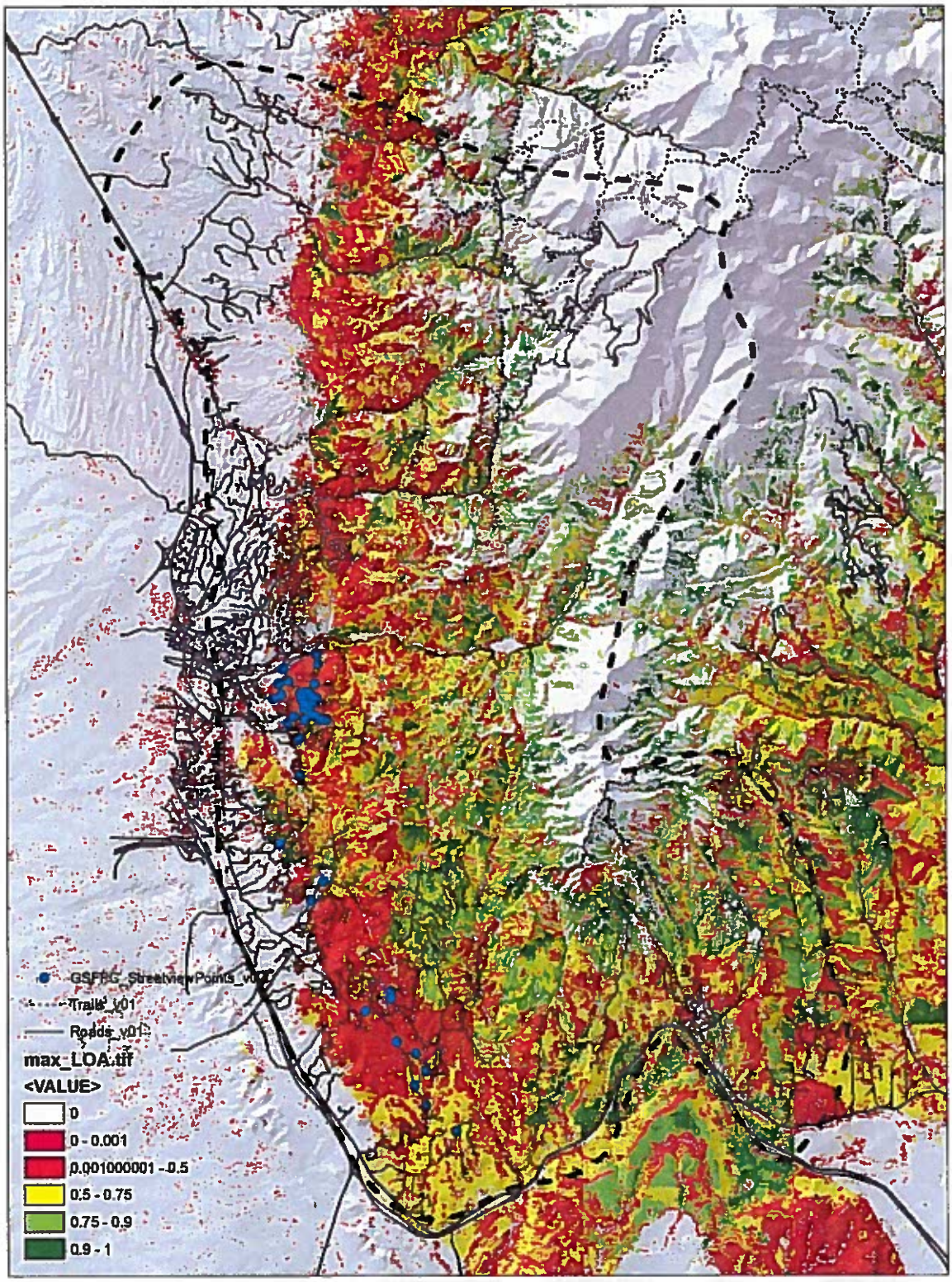

Figure 3. Level of agreement between vegetation layers.

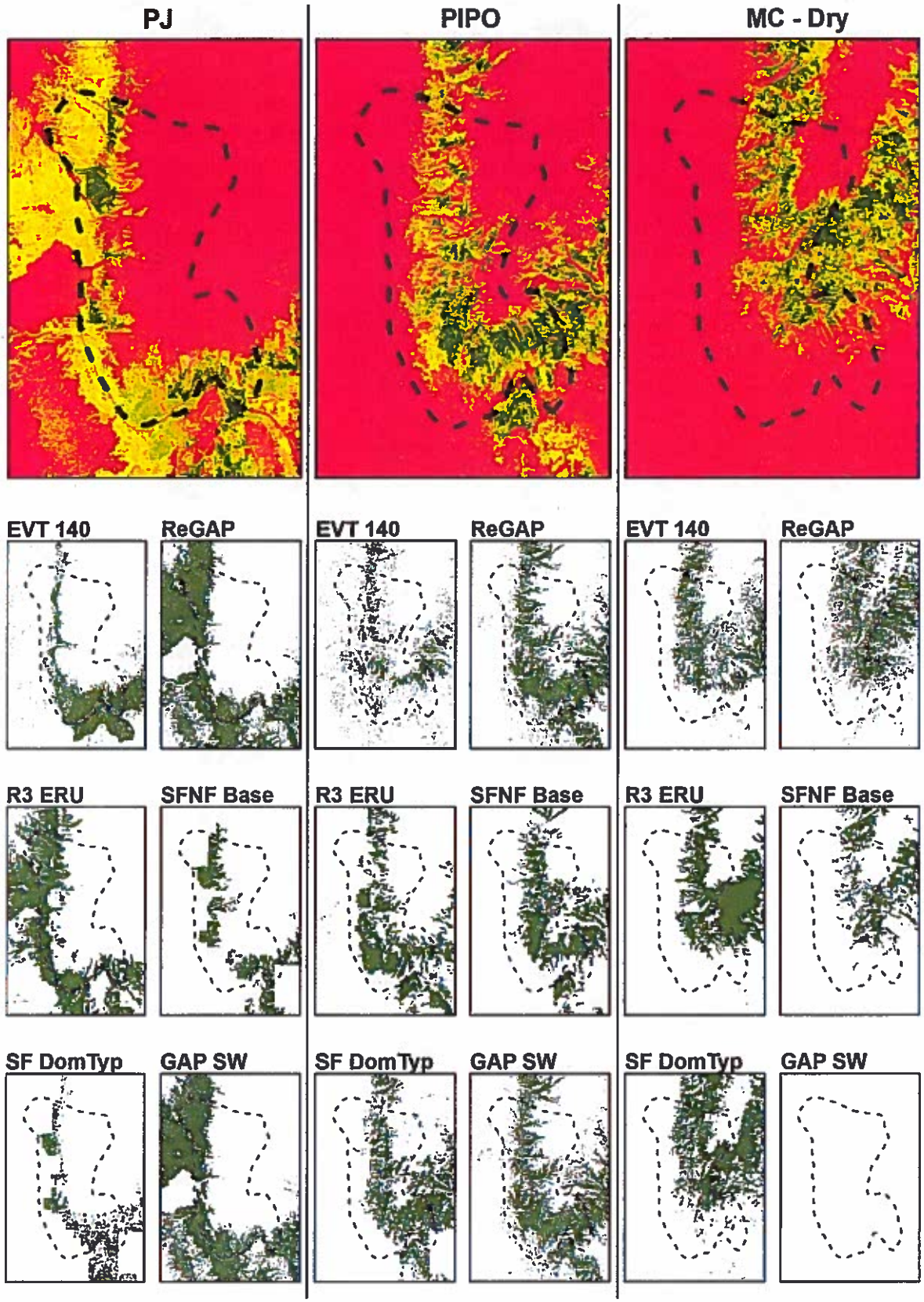

Figure 2. Comparison of vegetation type datasets.

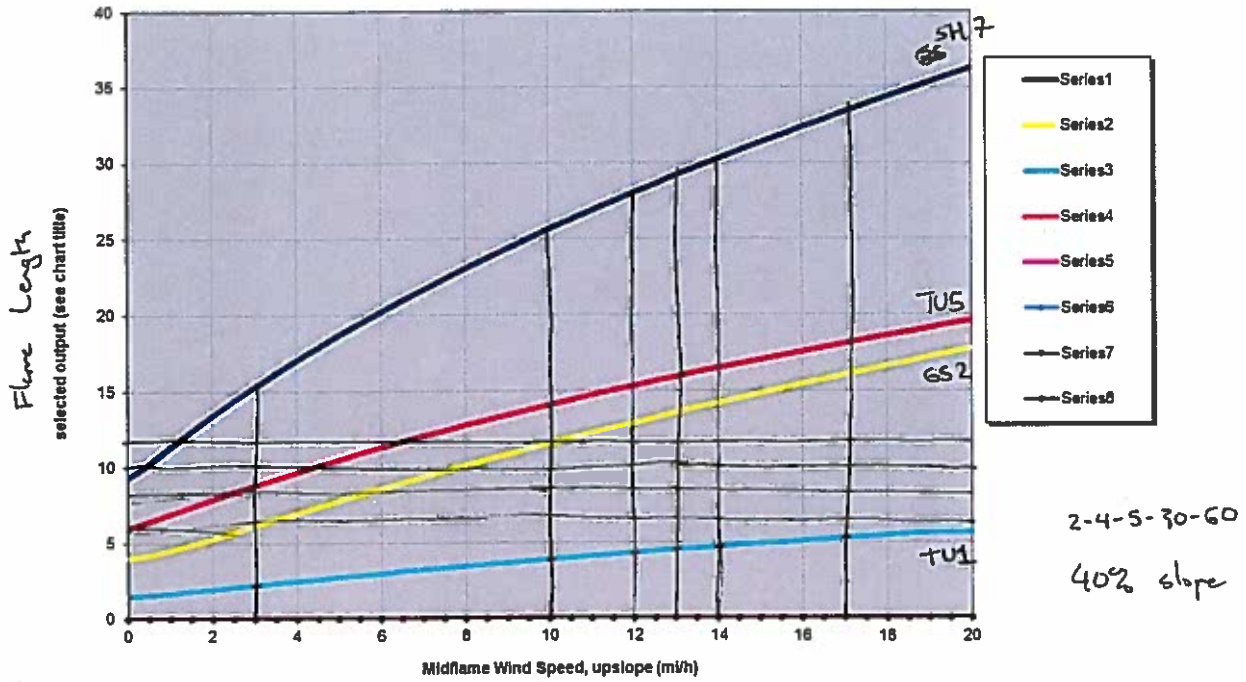

Figure 4. Common misclassifications for SH7.

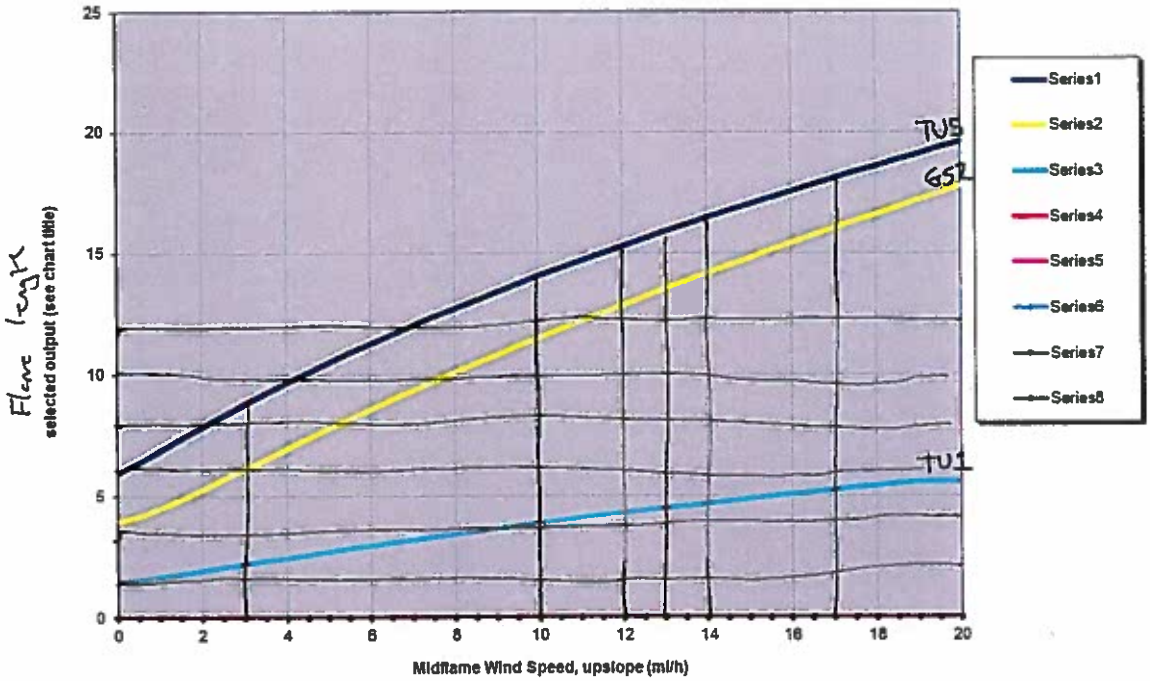

Figure 5. Common misclassifications for TU5.

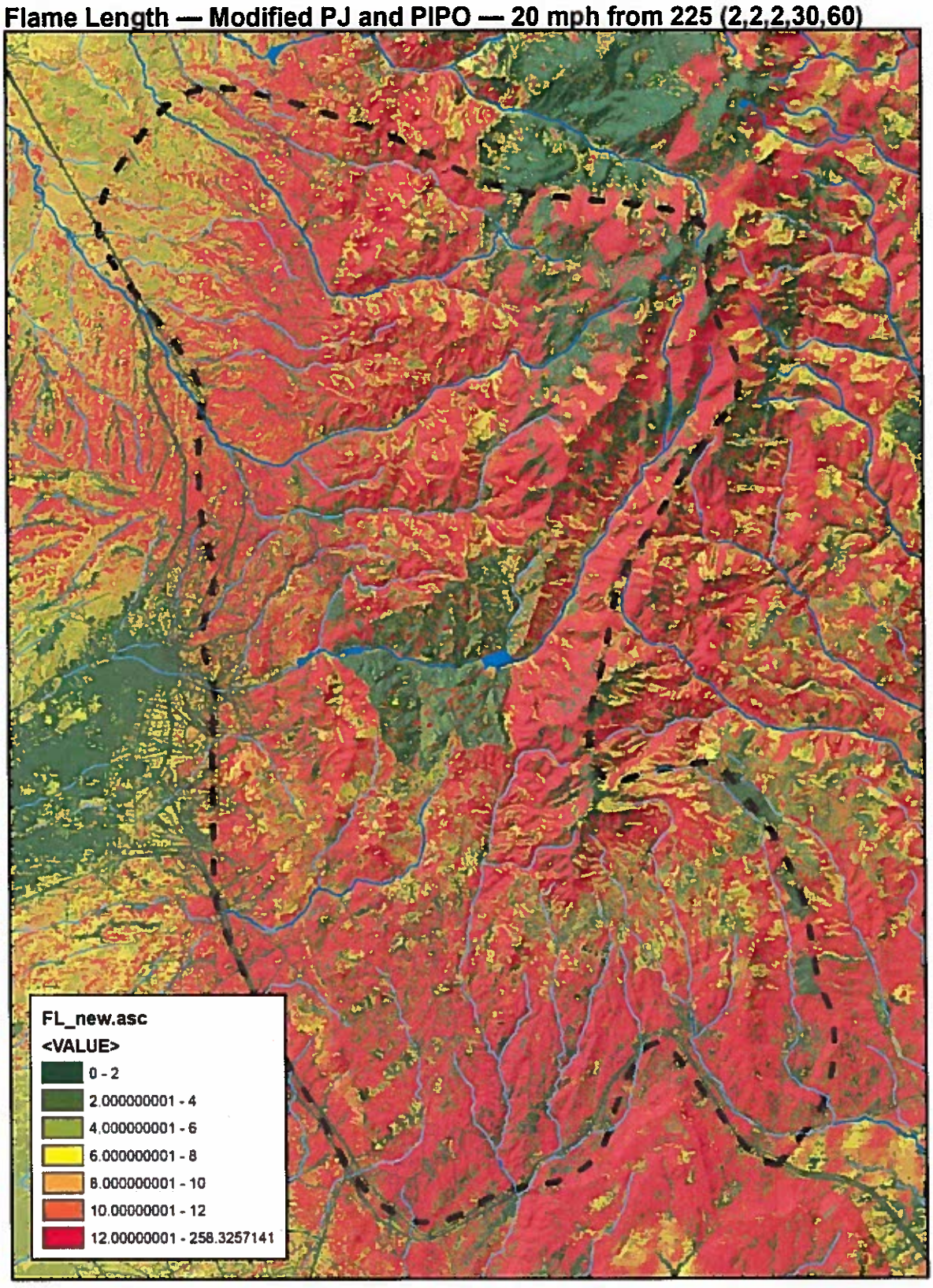

Figure 6. Fire intensity simulated on updated fuelscape.