Neighborhood Definition

Evaluation of the Applicability of the Standard

Determine if structures within the proposed neighborhood are a qualified dwelling type as defined in Section 1.1.1, and have a Class A roof covering.

Are 100% of structures within the proposed neighborhood a qualified dwelling type? Section 1.1.1

No

Yes

Do 100% of structues wthin the proposed neighborhood have a Class A roof covering? Section 4.1

No

Yes

The standard is not applicable

Calculation of the nearest neighbor structure separation distance (SSD) for all the structures

Yes

Does 90% or more of the defined neighborhood have a minimum SSD greater than 100 ft? Section 3.1

No

No

Does 90% or more of the defined neighborhood have a minimum SSD greater than 10 ft Section 3.1

YES

Neighborhood Centroid and External Fuel Sectors: The Centroid of the neighborhood is set to define external fuel section, eight 45° azimuthal fuel sectors are set as shown in Section 3.2, Figures 3.2 and 3.3.

Flame fuel assessment zone (FAZ): The buffer area extending 0.25 miles radially outward from the boundary of the defined neighborhood Section 3.2 and Figure 3.1.

Flame Fuel Assessment per sector

Neighborhood Flame Zone (NFz) Calculation

Identification of the Scott and Burgan (2005) Fire Behavior Fuel Models (FBFM40) from LANDFIRE within the FAZ, Section 3.3

The longest distance for any identified fuel model type shall be used to determine the boundary of the NFz (Table 3.1, Column 1 or 2)

Evaluation of the Existing Vegetation Cover (EVC) from the LANDFIRE

Is more than 10% of the sector's FAZ covered by trees?

Yes

230 ft should be added to the previously calulated FRz width

No

Evaluation of the structural fuel in LANDFIRE data

Is the structural fuel type NB1 present?

No

Yes

The previously calculated NFz width is used

Use the most conservative NFz width either the 71ft from NB1 or the one calculated using vegetative fuels

Is there any Fuel/firebreak in the neighborhood perimeter?

Yes

No

The witdh of the NFz is calculated using Equation 3.1

The previously calculated NFz width is final value

Homes within the Neighborhood Flame zone must be at least WFPH+ and the structures cannot have any connective fuel pathways

Ember assesment in the External Fuel Sector: The buffer area extending 4.25 miles radially outward from the boundary of the defined neighborhood Section 3.2 and Figure 3.2

Ember Fuel Assessment per sector

Ember External Fuel Model

Identification of the Scott and Burgan (2005) Fire Behavior Fuel Models (FBFM40)from LANDFIRE whithin in the ERZ. Section 3.2.1

Reclasification of the FBFM40 into the categories established in Table 3.4

Does a fuel model classification have at least a 10% presence in a sector?

Yes

Use that classification for determining the neighborhood ember zone

No

Disregard that classification for determining the neighborhood ember zone

Draw ember transport vectors

Identify the closest radial distance where each evaluated fuel model classification is found as decribed in Section 3.4.2

Draw ember transport vectors from the apex of an azimuthal arc through the sector, directed radially inward toward the neighborhood centroid

Assign vector lengths based on the transport distance specified in Column 1 of Table 3.4.

Neighborhood Ember Zone (NEz) calculation

Evaluation of the SSD whithin the NFz

Does 90% or more structures within the NFz have a minimum SSD of less than 30 feet

Yes

4.25 mi should be added to the endpoint of the ember transport vector as indicated in Column 2 of Table 3.4

No

Does any vector cross more than one neighborhood boundaries?

No

Connect the endpoints of all eight ember transport vectors to define the neighborhood ember zone. (Figure 3.6 B)

Yes

Does it have a length within the neighborhood boundary of at least 10% of the longest straight-line dimension of the neighborhood boundary polygon?

Yes

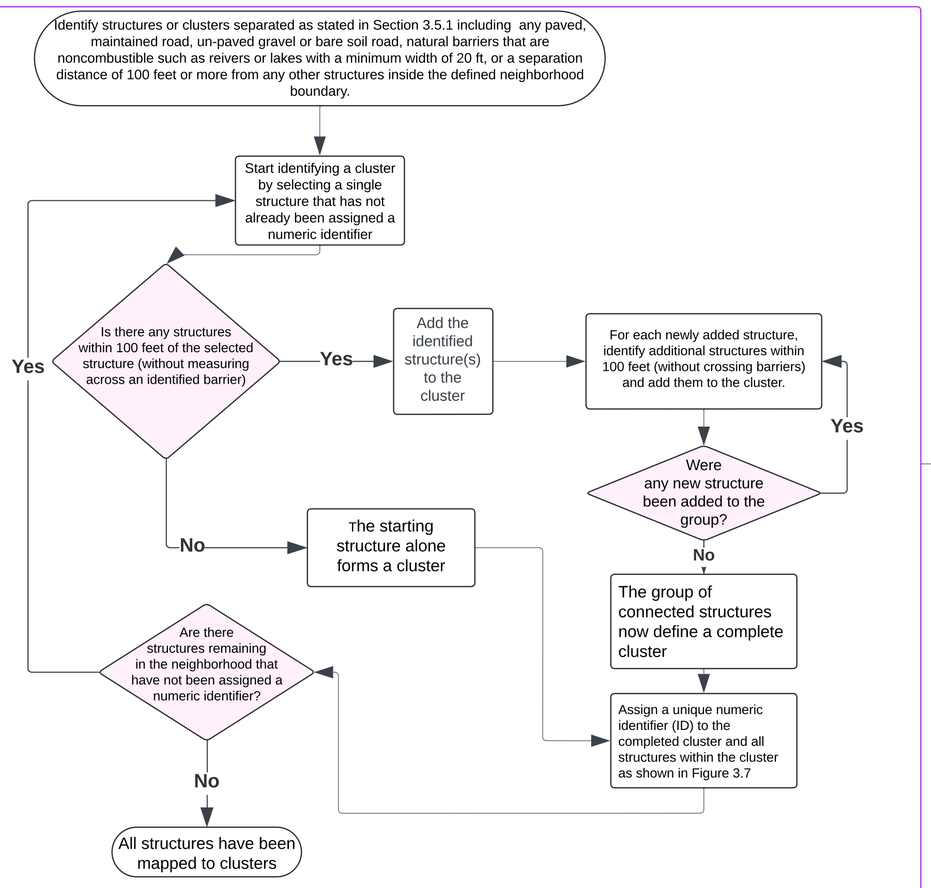
No

The entire neighborhood—excluding the Neightborhood Flame Zone (if present)—shall be considered part of the Neighborhood Ember Zone.

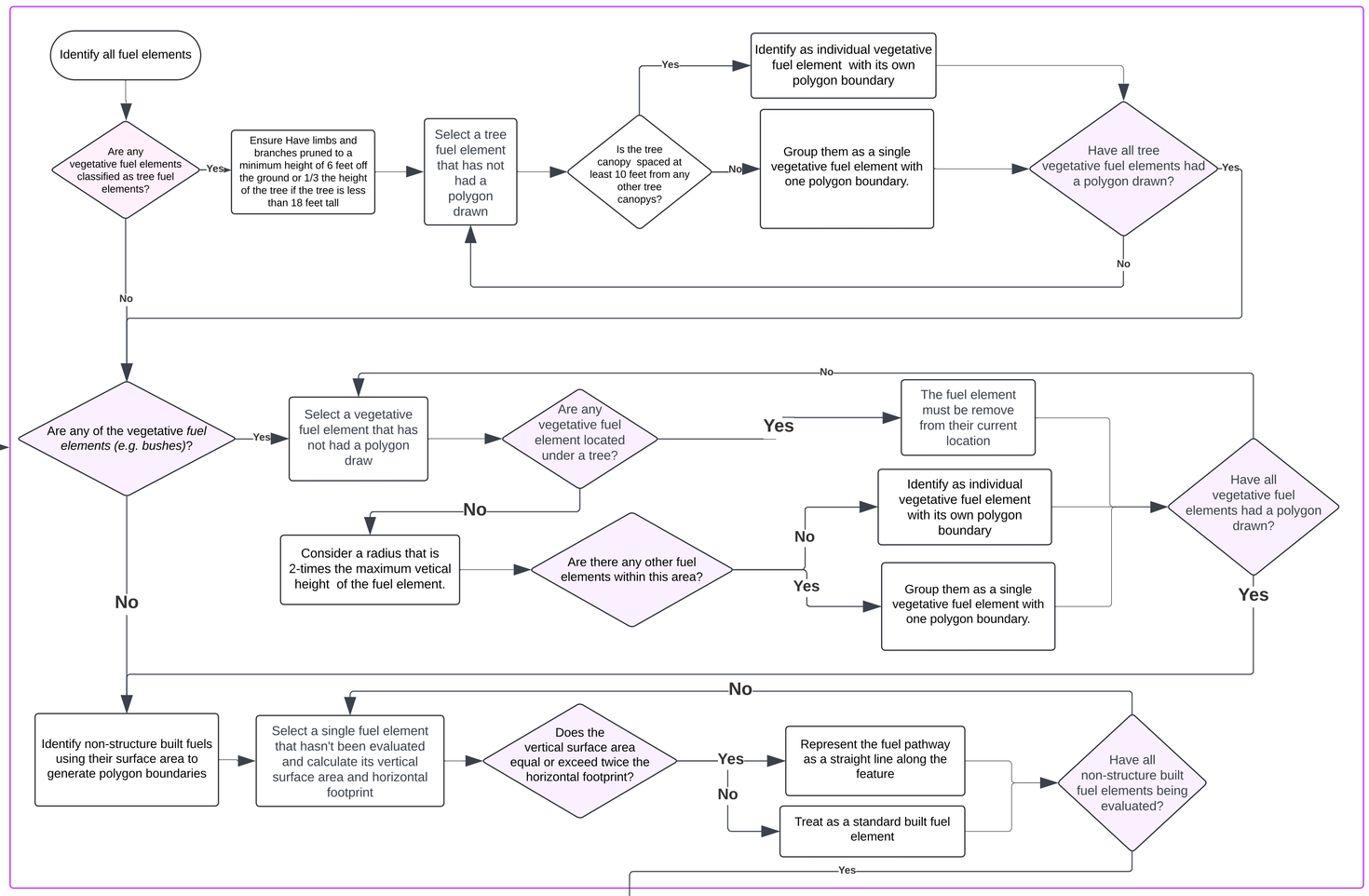
To cluster process

Homes within the Neighborhood Ember Zone must be at least WFPH

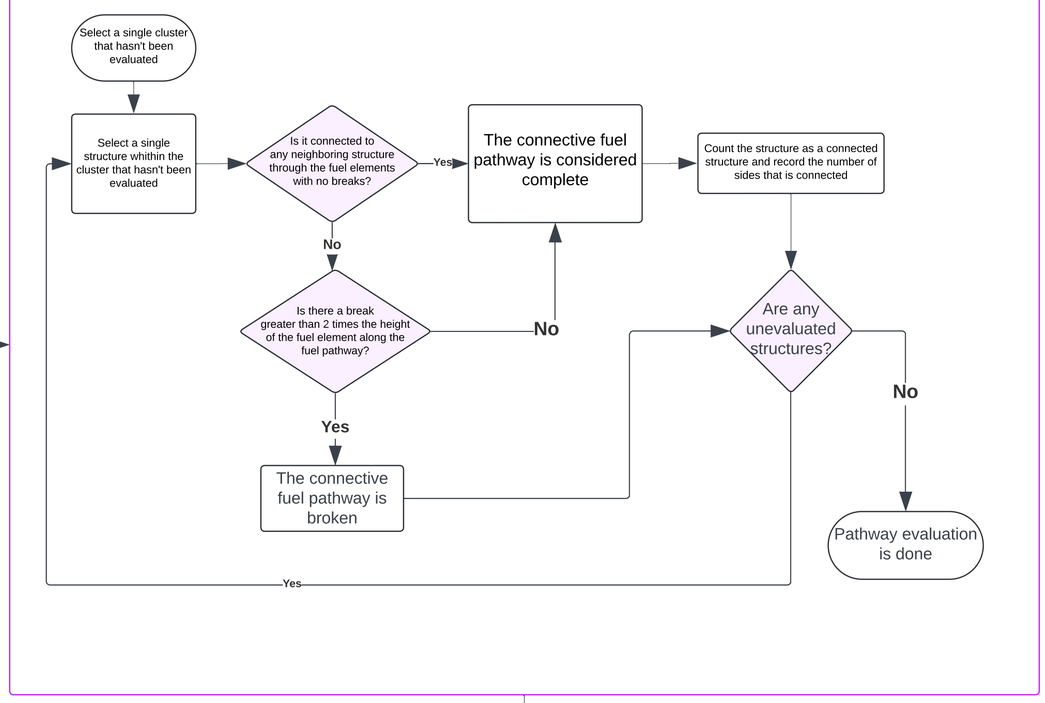
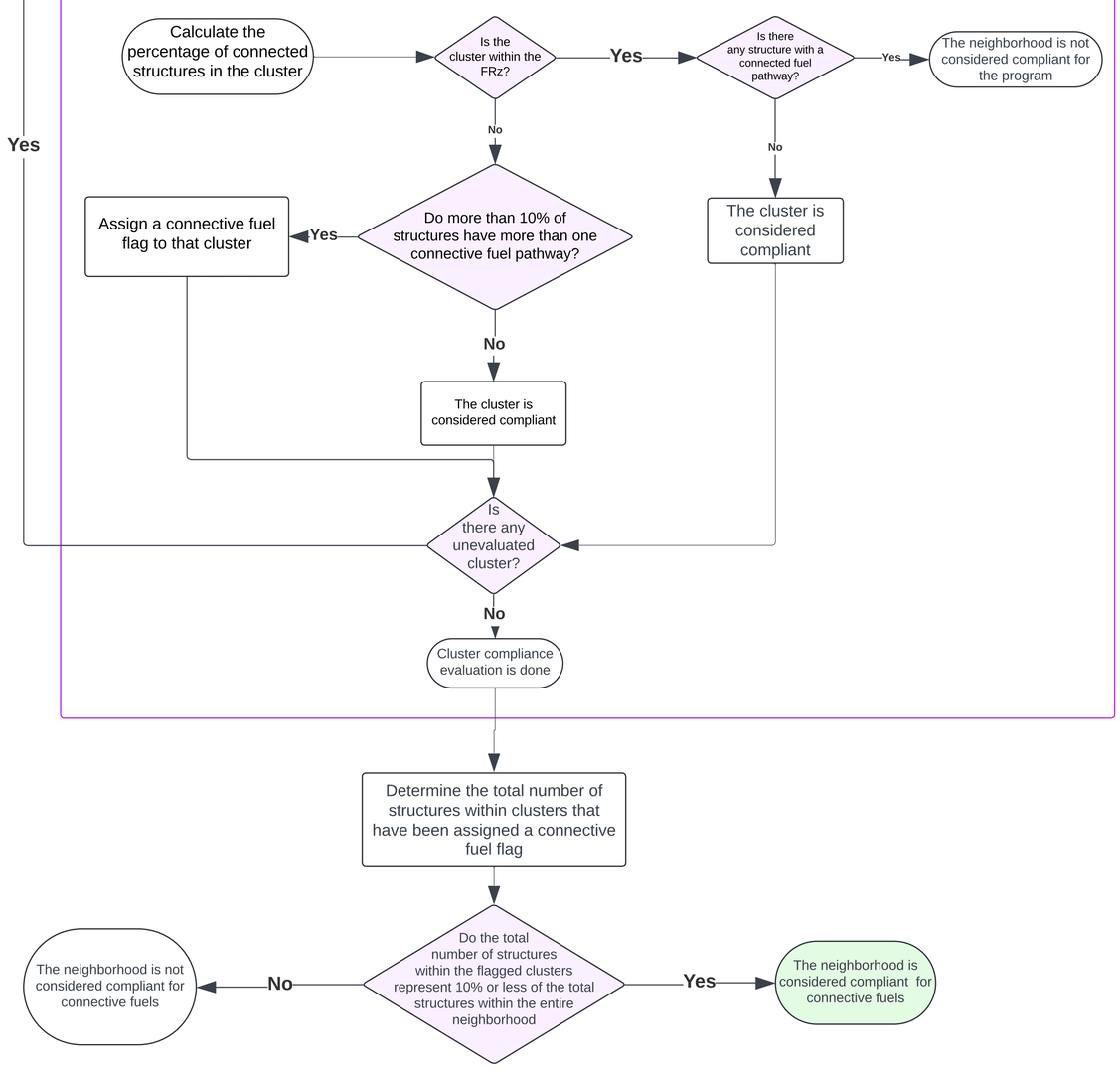
Cluster identification process



Fuel nodes identification in all the clusters



Connective Fuel Pathways evaluation



Cluster compliance