



Oregon

Tina Kotek, Governor

Oregon of State Fire Marshal
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9/5/2024

NFPA 1142 Structure Survey
Water Supply Calculations

2746 Norwood Drive
Nyssa, Oregon 97913

Sunset Valley Vineyards Tasting Room

Randy Fales, Deputy State Fire Marshal

Attention: Jesse Watson

If there are questions regarding Fire Code issues, please contact Deputy State Fire Marshal Randy Fales at 971-315-3951 or email at randy.fales@osfm.oregon.gov

Findings:

Areas without Fire Hydrants:

- **NFPA 1142 Requirements 2017**

- If the structure is being built in an area without a public water supply system, then the water flow requirements will come from NFPA 1142.
- **Note:** The following information will need to be provided in order to determine accurate water flow requirements.
 - Building height, length, and width
 - Use of the building
 - Type of construction
 - Any exposure hazards that are 100 sq ft or larger and within 50 feet of the structure

- **NFPA 1142 Calculation Formula: Total volume of structure divided by occupancy hazard multiplied by construction classification will determine the minimum gallons of water required to be on site.**
 - Total volume of the building – Length (70 feet) X Width (54 feet) X Height (20 feet) = **75,600** cubic feet
 - Occupancy Hazard (CH5 NFPA 1142) = **6 Low Hazard**
 - Construction Classification (CH6 NFPA 1142) Type VB = **1.5**
 - $75,600/6 \times 1.5 =$ **18,900** gallons of water required at a rate of **750 gallons per minute.**

If you have any questions or require clarification on any of these items, please let me know.

Randy Fales
Deputy State Fire Marshal
Malheur, Grant, and Harney Counties