

WILDFIRES—PROTECTING FACILITIES

Many healthcare facilities are situated in rural areas with considerable growth of grass and trees adjacent to the property. Depending how the structure is situated in relation to these combustible items, a wildland fire can damage buildings, equipment, communication systems and other important facility resources. The damage associated with a wildland fire occurrence may be significantly reduced by developing and implementing a Fire Management Plan.

A Fire Management Plan is a tailored approach to place a facility in the best possible position to withstand a wildland fire. Items to consider when developing a plan include¹:

I. Discuss Facility Fire Exposures With Local Fire Officials

- Tour the facility with fire officials to gain their insight on possible fire exposure hazards.
- Determine if the facility is in accordance with local fire codes.
- Discuss ways personnel can assist fire officials in protecting the facility.
- Join (or initiate) a local wildland fire protection planning group.
- Develop a management plan to monitor ongoing fire conditions.
- Establish a fire alarm system².

II. Identify Vulnerabilities

- Develop an understanding of the facility's vulnerabilities such as power, communications, equipment and other items that may be damaged in a fire.
- Develop diagrams for the fire department to use in the event of an emergency fire response.
- Have an understanding of how a wildland fire could impact the facility's operation and implement contingency solutions into a disaster recovery plan.

III. Create an External Defensible Fire Zone

- Establish a clear space around the perimeter of the facility. This would include removing grass, dead tree limbs, brush and other combustible vegetation and materials. NFPA 1144 – Standard for Reducing Structural Ignition Hazards from Wildland Fires (2008 Edition) – suggests creating a minimum of 30-feet of clear space. Clearing away combustible growth at greater distances can provide additional exposure protection³.

- In forest areas, clearing away low lying combustible materials (up to a six-foot height) is suggested. This includes removing tree branches to this height. Historically, there is a greater exposure to forest fire if the combustible loading at the ground level is significant.
- Gain an understanding of how a fire could approach the facility. Canyons and deep slopes can significantly increase the rate of speed of a fire. Ridges may slow down fire speed. Fire breaks and roads can buffer fire approaches. Local fire officials may be helpful in this area⁴.

IV. Internal Fire Prevention Measures

- Clear trees, brush and other vegetation away from power lines.
- Trim branches that overhang roofs.
- Store fuels a safe distance from buildings and perimeter areas.
- Maintain a minimum of 30-foot clear space between combustible vegetation and buildings and important structures.
- Keep roof gutters free of leaves and debris.
- Reduce structural ignitability for new construction, repairs or remodels by using fire-resistive or non-combustible roofing and building materials.
- Develop fire resistant landscaping techniques (low fire loading) for ground cover, plants, bushes and trees⁵.
- Keep liquefied petroleum gas (LPG) tanks a minimum of 30-feet away from any structure⁶.

REFERENCES

1. Colorado Department of Public Health & Environment, Fire Management Planning for Public Water Systems, February 2009.
2. NFPA 1141 – Standard for Fire Protection Infrastructure for Land Development and in Wildland, Rural, and Suburban Areas (2012 edition) section 7.3.
3. NFPA 1144 – Standard for Reducing Structural Ignition Hazards from Wild Land Fires (2008 Edition).
4. Dennis, F. C. Natural Resources Series, Forestry, Fire Resistant Landscaping, No. 6.303.
5. Dennis, F. C. Natural Resources Series, Creating Wildfire Defensible Zones, No. 6.302.
6. Slack, P. (1999). Firewise Construction, Design and Materials.