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Napa County

Board Agenda Letter

Board of Supervisors | **Agenda Date:** 5/4/2021 | **File ID #:** 21-266

TO: Board of Supervisors

FROM: David Morrison - Director of Planning, Building and Environmental Services

REPORT BY: Michael Zimmer, Chief Building Official

SUBJECT: Ordinance Amendments, California Residential Code (Fire Hardening)

RECOMMENDATION

SET MATTER 10:05 AM - 10 Minutes

Director of Planning, Building and Environmental Services (PBES) requests the following:

1. First reading of an ordinance amending various sections of Title 15, Buildings and Construction, of the Napa County Code to provide additional protection for new and rebuilt structures from wildfires; and
2. Adoption of a resolution finding that the local amendments are necessary because of local climatic, geological or topographical conditions within Napa County.

EXECUTIVE SUMMARY

Beginning in 2017, Napa County has experienced four major wildland fire events, the Napa Fire Complex in 2017, the Steele Canyon fire in 2018, the LNU Fire Complex in 2020, and the Glass Fire in 2020. These wildland fires resulted in a cumulative loss of over 1,329 residences and 371 commercial structures.

After consideration by the Board at its meeting on April 6, 2021, the Building Division of PBES prepared code amendments that incorporate the following local modifications into Title 15 of the Napa County Code:

1. Reducing the Length of Eaves
2. Noncombustible Materials for Accessory Structures
3. Prohibiting Vents on the Underside of Eaves
4. Heavy Timber or Enclosed Decks and Balconies

PROCEDURAL REQUIREMENTS

1. Staff reports.
2. Public Comments.
3. Motion, second, discussion and vote on intention to adopt the ordinance.
4. Motion, second, discussion and vote to adopt the resolution.

FISCAL & STRATEGIC PLAN IMPACT

Is there a Fiscal Impact?	No
Is it currently budgeted?	No
Where is it budgeted?	No Fiscal Impact
Is it Mandatory or Discretionary?	Mandatory
Discretionary Justification:	Click or tap here to enter text.
Is the general fund affected?	No
Future fiscal impact:	None
Consequences if not approved:	N/A
County Strategic Plan pillar addressed:	Healthy, Safe, and Welcoming Place to Live, Work, and Visit
Additional Information:	Click or tap here to enter text.

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: The adoption of this ordinance will not have a significant effect on the environment and is exempt from the California Environmental Quality Act pursuant to Categorical Exemption Class 8 ("Actions by Regulatory Agencies for Protection of the Environment") which may be found in the guidelines for the implementation of the CEQA at 14 CCR §15308; Categorical Exemption Class 3 ("New Construction or Conversion of Small Structures") which may be found in the guidelines for the implementation of the CEQA at 14 CCR §15303; and the General Rule in that it can be seen with certainty that there is no possibility the proposed action may have a significant effect on the environment and therefore the CEQA is not applicable. [See Guidelines for the Implementation of the CEQA 14 CCR §15061(b)(3).]

BACKGROUND AND DISCUSSION

On April 6, 2021, in an effort to reduce the impact of future wildfire events, this Board considered several local modifications to the California Residential Code that will reduce the potential for homes and other structures to burn. These measures are intended to work in conjunction with the defensible space guidelines, vegetation management practices, and other forms of fire protection, such that if all reasonable fire protection measures are implemented, property owners will further decrease the flammability of structures in the unincorporated area.

The Ordinance includes the following changes to the California Residential Code.

Reduced Length of Eaves

The Ordinance amends Sections R337.7.4 and R337.7.5 of the CRC, relating to roof eaves by requiring that they be limited to eighteen inches from the exterior wall, measured at a right angle. Eaves are an extension of the roof structure beyond the exterior walls of a building. During a fire, hot air can be trapped underneath the eaves, circulate in a whirlpool pattern, and rapidly heat the materials of the structure until they combust. The longer the eave length, the more hot air can be trapped underneath.

Currently, the CRC proscribes the types of materials that must be used for the underside of roof eaves for the purpose of fire resistivity. The CRC allows for flexibility in those materials, but all of the options reduce the flammability of the structures. However, there is no standard for the length of eaves in the CRC. Many local jurisdictions have different local standards to address local conditions, such as snow accumulation, sun exposure, and building density. Because the length of roof eaves correlates to the length of exposure to extreme heat during a fire event, the Ordinance establishes a limit to the length of roof

eaves such that they extend no further than 18 inches from the exterior wall, measured at a 90 degree angle from that wall.

Accessory Structures

The Ordinance amends Sections R337.10.3.1, R337.10.3.2, and R337.10.3.3 of the CRC, addressing the materials required for accessory structures, such as sheds, gazebos, trellises, and patio covers. These structures often provide additional fuel for wildland fires and are often not built with fire-resistant materials. When those structures are placed near a residence or other building, they act as kindling, allowing the fire to gain in intensity as it approaches a primary structure. Further, the fire can more easily jump from these accessory structures to the main dwelling.

The CRC does not require small accessory structures to be constructed of fire resistive materials unless they are attached to, or installed within three feet of, a building. However, the code does permit local agencies to impose that requirement on all accessory structures within 50 feet of the building. The Ordinance requires all accessory structures within 50 feet of the primary building to be constructed of fire-resistive materials. The amendment also clarifies that “Attached miscellaneous structures” includes patio covers, trellises, and carports.

Attic Ventilation

The Ordinance amends Section R337.6.3 of the CRC to prohibit the installation of vents on the underside of eaves and cornices. This measure will offer additional protection by reducing the drafting of hot air, gases, and embers into the vent and attic space during wildland fire events.

Enclosed Underside of Decks and Balconies

The Ordinance amends Section R337.7.9 of the CRC, relating to the underside of certain building appendages, such as decks, balconies, and other structures that extend beyond the building thermal envelope. These structures are often constructed of wood materials that are more combustible than the main structure. Further, they are frequently exposed underneath the decking. This exposure poses an increased fire hazard, as the decking can trap heat and embers from a wildland fire underneath. A burning deck or balcony increases the potential for direct contact between the main structure and the flames.

The Ordinance requires one of two measures to reduce this threat. The underside of a deck or balcony could be enclosed down to the ground, which would eliminate the convection effect of hot air being trapped underneath the deck. Alternatively, the deck or balcony could be made of fire-resistant materials, including heavy timber construction material, so that direct contact between the flames and the main structure can be slowed or stopped.

Adoption of Resolution

The California Health & Safety Code provides that local agencies are permitted to adopt local amendments to the State Building Standards Codes based on local climatic, topographical, or geographical conditions, provided the local amendments are no less restrictive than State Code. Any local amendments must be submitted to the California Building Standards Commission for review and approval, and must be accompanied by a resolution that explains the need for the amendments and the specific local conditions that justify them. The proposed Resolution identifies the local conditions that give rise to the significant risk of wildfires and the need for more restrictive measures to limit the destruction of residences and accessory structures by wildfires.

Public Outreach

Staff began reaching out to stakeholders to discuss general concepts in December 2020. Early discussions focused on possible amendments without regard to the impact of the changes on the cost of construction. Once specific proposals were identified, staff consulted design professionals, contractors, and estimators to get a sense of the impacts on cost, which are reflected in each proposal, above. Staff conducted additional informational meetings with various trade groups, including the North Bay Builders Exchange. In addition, staff prepared a handout to provide information regarding the proposed recommendations to the Building Code, which have been placed in the Planning, Building, and Environmental Services (PBES) lobby and on the department webpage.

CEO Recommendation: Approve