



United States Department of Agriculture  
Rural Development  
Committed to the Future of Rural Communities

October 4, 2016

TO: State Directors  
Rural Development

ATTN: Program Directors  
Single Family Housing

From: Tony Hernandez /s/ *Tony Hernandez*  
Administrator  
Housing and Community Facilities Programs

Subject: Single Family Home Sustainability & Resilience Initiative

**PURPOSE/INTENDED OUTCOME:**

In accordance with White House guidance to all Federal agencies, the US Department of Agriculture (USDA) single family housing programs are recommending that homeowners, lenders, and all program participants consider building standards which may exceed the mandatory building codes governing a home's resource efficiency and resilience to weather-related hazards. This unnumbered letter reviews the benefits of "above-code" standards that can make homes more efficient, sustainable, and resilient. It also recognizes the merits of two such standards, FORTIFIED Home™ and WaterSense®. To further reinforce these housing sustainability priorities, this letter also recommends that program partners consider "location efficiency," i.e., a home's proximity to employment, education, health care, and other providers of essential household goods and services. This can significantly impact greenhouse gas emissions and housing affordability.

**BACKGROUND:**

The White House has issued guidance to all Federal departments to increase consumer awareness of the importance of the sustainability of our community housing stock with respect to both the efficient usage of water and energy, and resilience to weather-related hazards. By protecting assets, mitigating risk, and reducing post-disaster recovery spending, sustainability increases the safety and financial stability of America's communities, as well as federal mortgage portfolios.

**EXPIRATION DATE:**  
September 30, 2017

**FILING INSTRUCTIONS:**  
Housing Programs

The President's Climate Action Plan is prompted by recent climate-related phenomena. The increase in the number of extreme weather events, seismic activity in some areas, and flooding in both coastal and inland areas highlights the urgency of planning and building in the most resilient ways that are economically feasible, to protect life and property, and reduce federal disaster resource demands. The plan compels federal agencies to implement strategies that reduce energy and water usage, and strengthen hazard preparedness in properties we touch.

Executive Orders 13690, 13717, and 13728, promote resilience against floods, earthquakes, and wildfires, respectively. The President's Climate Action Plan underscores the critical role of building codes in furthering community resilience, and the importance of incorporating resilience and the future impacts of climate change into the codes and standards development process.

Building codes have been the primary means of ensuring the safety of buildings and occupants, but they have not been uniformly adopted at the city and state levels. This results in single family homes in parts of the country that are less energy-efficient than they could be, and less resilient to natural hazards than they should be. Inadequate building codes can increase the vulnerability of the housing market, which has particularly strong risk implications for the low and moderate income rural homeowners served by the USDA Single Family Housing programs.

The principles articulated in the White House initiative make clear that USDA, Housing and Urban Development (HUD), and the Department of Veterans Affairs (VA) have a responsibility to promote efficiency and resiliency in the housing market through new construction and retrofit-related activities. By promoting stronger building standards and supporting efforts to educate consumers, real estate professionals, and lenders, the agencies with housing programs can encourage conservation of water and power, help reduce home insurance costs, and most importantly, increase the personal and financial security of homeowners.

Location efficiency is also an important consideration in this regard. A home's distance from schools, employment centers, health care facilities, grocers, and other commercial and community activities can play a significant role in homeowner financial security. The location of housing within a community and region is a major determinant of how much its occupants need to drive to reach jobs and services and the resulting greenhouse gas emissions, transportation costs, and the overall affordability of the housing. Transportation costs are the second-biggest budget item for most families, and in rural areas, those costs can be significant. However, by factoring transportation needs and costs into decisions about where to live, homebuyers may be able to locate closer to daily destinations, save time and money on transportation, and reduce greenhouse gas emissions from driving.

## **RECOMMENDATIONS:**

USDA strongly supports organizations in their efforts to increase rural homeowner awareness of the importance of resource efficiency and housing resilience to weather-related hazards. In addition, USDA encourages borrowers, lenders, Realtors, and other program participants to recognize and pursue the most energy efficient, water efficient, and hazard resilient homes feasible. Building or retrofitting to a recognized resilience standard can potentially increase property value and result in hazard insurance premium reductions, tax rebates, and streamlined permitting, among other benefits.

USDA direct and guarantee programs may be used to finance construction adhering to building standards that exceed local building codes so that borrowers purchasing or retrofitting their homes may reap the financial and security benefits of more sustainable housing. **USDA recommends above-code building standards when feasible, though these standards are not Section 502 or Section 504 program requirements.**

Examples of above-code programs recognized for their effectiveness by Federal agencies, include Fortified Home and WaterSense. Both are available to single family home loan borrowers today.

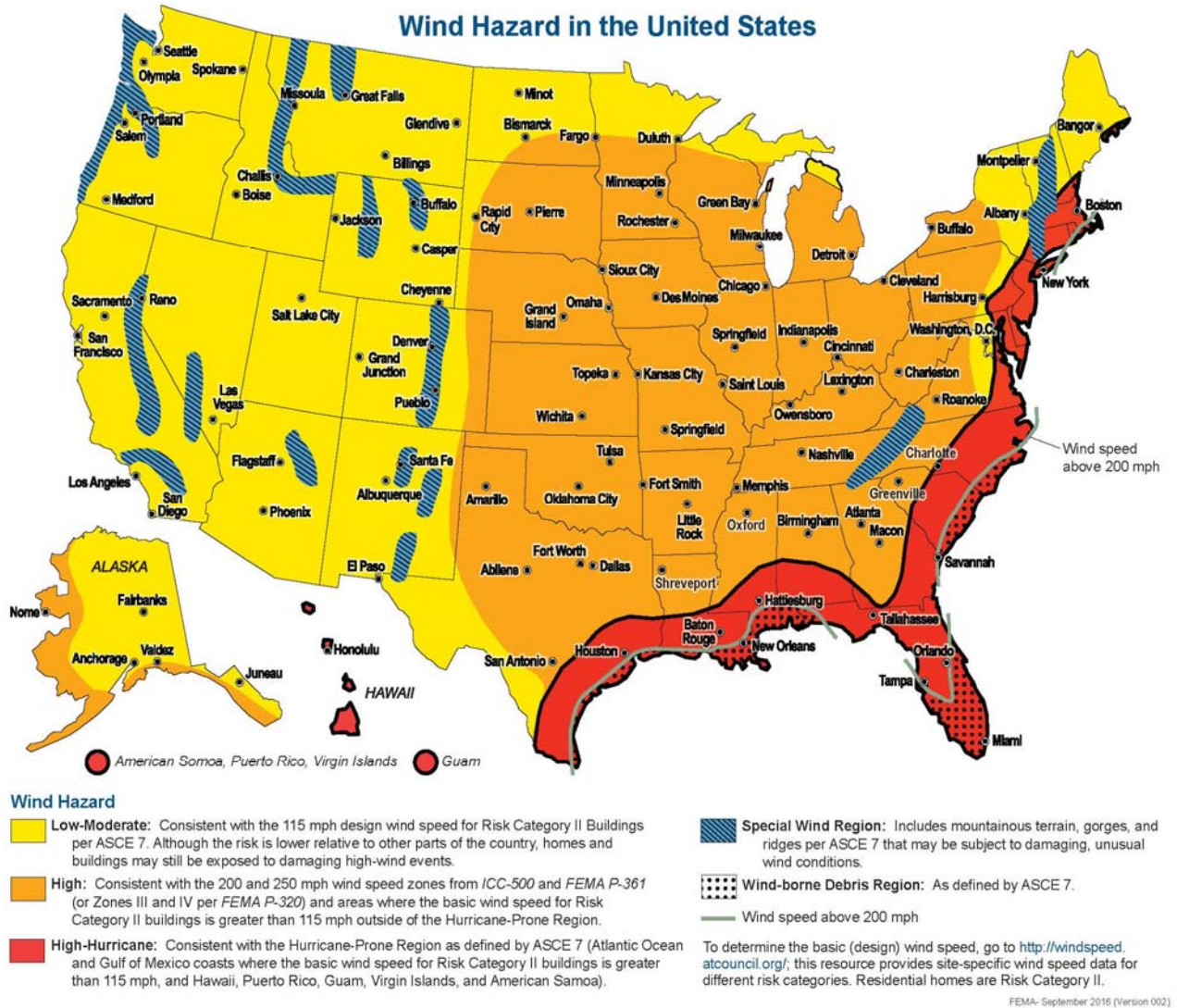
**Wind Hazard Resilience:** Fortified Home is a third-party validated designation created by the Insurance Institute for Business & Home Safety (IBHS) which has been recognized by federal programs for mitigation of risks to single- and two-family homes from hurricane, high wind and hail events. The standard is a set of best practice engineering and building techniques that strengthen new and existing homes (in the case of hurricanes, these are the same standards as outlined in FEMA's P-804), which are above-code for most locations. Fortified Home has three levels of designation, providing options to fit varying resilience goals and budgets.

The advantages of increased resilience are often particularly evident in high wind hazard areas (see FEMA map below). Approximately 10 million homes, or 7.5% of the country's single family homes along our southern and eastern shores are subject to hurricane risk. According to IBHS, almost 40 million additional homes, representing more than 1/3 of American housing stock, are at risk of tornados, hail or high wind events.

Many Section 502 Single Family Housing program homes are in wind-prone areas where resilience to wind can offer significant benefit to families in terms of both personal security and cost savings. USDA recommends that borrowers build or retrofit to the Fortified Home standard if seeking or living in homes that fall within wind hazard areas designated on the FEMA map as High (orange), High-Hurricane (red), or Special Wind Region (blue w/ stripes).<sup>1</sup>

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<sup>1</sup> For additional information on wind resilience, see FEMA [P-804, Wind Retrofit Guide for Residential Buildings](#).



**Water Efficiency:** WaterSense is a water-saving program designed by the Environmental Protection Agency. Like the EnergyStar program for electronic products, WaterSense helps consumers make choices that save water and money. Products with the WaterSense label have been third-party certified to be at least 20 percent more efficient than average, without sacrificing performance.

Fortified Home, WaterSense, and other above-code standards can decrease property vulnerability to natural disasters and exposure to energy and water pricing volatility. However, applying these building standards to newly constructed or existing homes often entails installation or upgrade costs that could impact affordability for some USDA direct and guarantee program borrowers.

USDA Single Family Housing program loan structures may mitigate at least a portion of the increased cost and can help many borrowers absorb this expense and take advantage

of the energy efficiency and housing resilience benefits. The absence of a Section 502 down-payment requirement and the very low Section 504 loan interest rates can enable borrowers to more quickly accrue the savings needed to offset improvement costs. Organizations that support housing sustainability and resilience measures may help further reduce the initial investment costs through financing assistance or rebates. Some of these organizations are repaid from future savings. These groups will often complete needs assessments, arrange and oversee the retrofits, and finance the improvements at no up-front cost to the homeowner. In addition, some states, localities, and water utilities offer rebates for the installation of water-saving fixtures. All of these are important considerations when weighing the advantages of purchasing or retrofitting a home in accordance with above-code standards.

Rural homebuyers seeking a newly constructed house that adheres to above-code standards such as Fortified Home or WaterSense may seek mortgage financing through the Section 502 program. Eligible homeowners wishing to improve an existing home by upgrading to either of these standards should consider a Section 504 repair loan to finance the cost of the retrofit. As noted, homeowners contemplating either of these possibilities may have options available to defray construction or retrofit-related costs.

**Location Efficiency:** Additionally, USDA recommends that homeowners, lenders, Realtors, and other program participants consider the location efficiency of single family homes a key aspect of the sustainability of our housing stock and the economic well-being of rural residents. Minimizing the cost burden associated with transportation to and from employment centers, education and health care facilities, and other essential goods and services providers, promotes housing affordability and reduces greenhouse gas emissions. USDA encourages program participants to use HUD's Location Affordability Portal, which features two tools, the Location Affordability Index and My Transportation Cost Calculator. These tools provide the public with reliable, user-friendly data on the combined housing and transportation costs they may face, with the ultimate aim of reducing them and strengthening the sustainability of our communities. The Location Affordability Portal is available at [www.locationaffordability.info](http://www.locationaffordability.info).

## **CONCLUSION:**

USDA fully supports strong building standards that promote conservation of water and power, reduce home insurance costs, and increase the personal and financial security of homeowners. The Department also supports efforts to educate consumers, real estate professionals, and lenders, about these measures. The Department's support does not entail changes to current processes, reporting, and policy. It is consistent with current Agency regulation, policy, and reinforces other Federal government standards. Above-code resilience and efficiency standards, such as those represented by Fortified Home or WaterSense that provide meaningful cost savings for homeowners over the long term, are recommended.

If you have any questions, please contact Rhonda Dorsey-Prude of the Guaranteed Loan Division at (202) 205-9755, or via email: [Rhonda.Dorsey-Prude@wdc.usda.gov](mailto:Rhonda.Dorsey-Prude@wdc.usda.gov) or Teresa Sumpter of the Direct Loan Division at (202) 720-1485, or via email: [Teresa.Sumpter@wdc.usda.gov](mailto:Teresa.Sumpter@wdc.usda.gov).