

Community Wildfire Defense Grant (CWDG) Dashboard: Methods & Data Sources wildfirerisk.org/cwdg-tool Updated for Round 3: November 2024

Purpose

The *Wildfire Risk to Communities* project team developed a nationally consistent data dashboard to support the [Community Wildfire Defense Grant](#) (CWDG) program. The CWDG Dashboard is provided on an interactive webpage located at <https://wildfirerisk.org/cwdg-tool>.

The CWDG Dashboard supports the goals of the program described in the [Infrastructure Investment and Jobs Act](#) and can be used to help:

- identify eligible “*at-risk communities*”
- prioritize places that:
 - are “*low income*”
 - have “*been impacted by a severe disaster*”
 - have “*high or very high wildfire hazard potential*”
- identify places that qualify as “*underserved*” and that can request a cost-share waiver.

The CWDG Dashboard can help communities complete grant applications, inform review teams that score grant applications, and guide outreach at state levels. It is not intended to be the only source of information to prioritize communities, but it can help fill data gaps and support applicants that do not have the capacity to generate localized data. Communities that wish to use their own wildfire risk or severe disaster data may do so.

The CWDG Dashboard was first published in May 2023 to coincide with the second round of CWDG funding. The data in the Dashboard were updated in November 2024 to coincide with the third round of CWDG funding.

This document summarizes the methods and data sources used to generate the CWDG Dashboard for Round 3. ***Data shown in the Dashboard for Round 3 of CWDG funding does not guarantee eligibility for future funding rounds. Data sources and methodology may change for future funding rounds.***

Geographic Boundaries: Communities, Counties, & Tribal Areas

The CWDG Dashboard opens with a search window. Users can type the name of any community, county, or tribal area and select from the drop-down list. Available locations are those identified by the U.S. Census Bureau’s TIGER/Line files. *Communities* are areas of concentrated population and include incorporated and unincorporated communities. *Tribal areas* are from the U.S. Census Bureau’s American Indian/Alaska Native/Native Hawaiian Areas (AIANNH) dataset, which includes the following legal entities: federally recognized American Indian reservations and off-reservation trust land areas, state-recognized American Indian reservations, and Hawaiian homelands (HHLs). Tribal areas that cross state boundaries are divided by state and listed separately for each state they overlap.

Data Source:

U.S. Census Bureau. (2022). TIGER Cartographic Boundaries. Washington, DC. <https://www.census.gov/programs-surveys/geography/technical-documentation/complete-technical-documentation/tiger-geodatabase-file.html>

Eligibility: “At-Risk Communities”

To be considered “at risk” and eligible for Community Wildfire Defense Grants, a location must have moderate or higher wildfire risk. There are two ways to qualify:

- 1) National data. A location must have ≥ 40 th percentile *Wildfire Risk to Homes* as compared to the state or nation, or ≥ 67 th percentile *Wildfire Hazard Potential* as compared to the state or nation. The CWDG Dashboard provides the national data, as further described below. Or,
- 2) Local data. A location can use local, state, or regional wildfire risk data to demonstrate eligibility. The CWDG Dashboard does not include state and local data, but many state and local risk assessments can be accessed via the Wildfire Hazard Explorer: <https://hazexplorer.com>. The Climate and Economic Justice Screening Tool (<https://screeningtool.geoplatform.gov>) also includes wildfire risk data.

The CWDG Dashboard will provide results for the national data option (#1 above) based on the *Wildfire Risk to Communities* dataset. It returns the highest qualifying variable from the most recent version of *Wildfire Risk to Communities* (i.e., Version 2 published in 2024).

However, if a location was eligible under the previous Version 1 (published in 2020) but does not meet the threshold in Version 2, the Version 1 score will be shown and can be used for the 2024 CWDG funding cycle. The version will be shown in the source notation for each searched location.

Appendix A contains a comparison of *Wildfire Risk to Communities* Version 1 and Version 2. Appendix B compares the Wildfire Risk to Homes and Wildfire Hazard Potential variables.

Data Sources:

Wildfire Risk to Communities, Version 2. (2024). Scott JH, Dillon GK, Jaffe MR, Vogler KC, Olszewski JH, Callahan MN, Karau EC, Lazarz MT, Short KC, Riley KL, Finney MA, Grenfell IC. Wildfire Risk to Communities: Spatial datasets of landscape-wide wildfire risk components for the United States. 2nd Edition. Fort Collins, CO: Forest Service Research Data Archive. <https://doi.org/10.2737/RDS-2020-0016-2>

Wildfire Risk to Communities, Version 1. (2020). Scott JH, Gilbertson-Day JW, Moran C, Dillon GK, Short KC, & Vogler KC. Wildfire Risk to Communities: Spatial datasets of landscape-wide wildfire risk components for the United States. 1st Edition. Fort Collins, CO: Forest Service Research Data Archive. Updated 25 November 2020. <https://doi.org/10.2737/RDS-2020-0016>

Location

The CWDG Dashboard provides the latitude and longitude for the center point of the searched location.

Scoring

The CWDG Dashboard provides data and information to answer three CWDG application questions: low-income, impacted by a severe disaster, and wildfire hazard potential.

Low-Income Community

The CWDG application allocates 10 points to projects that benefit a low-income community.

"Low-income" is defined as having a median household income less than 80% of the state's or nation's median household income, whichever is higher. Median household income is based on the lower bound of the Census Bureau's reported 90% confidence interval, which provides a range to help account for

uncertainty in survey data. Places with low population or low response rates will see a wider range in the median household income estimates.

The CWDG Dashboard uses the most recent household income data available from the U.S. Census Bureau. For most locations, this is 2022 data. Some locations were missing 2022 median household income data, so 2021 data were used. A small number of communities were missing both 2022 and 2021 data and were assigned the 2022 median household income value for their parent counties. The vintage of data will be shown in the source notation for each location.

Data Sources:

U.S. Census Bureau. (2022). American Community Survey. Washington DC. <https://www.census.gov/programs-surveys/acs>

U.S. Census Bureau. (2021). American Community Survey. Washington DC. <https://www.census.gov/programs-surveys/acs>

Severe Disaster Impacts

The CWDG application allocates 10 points to communities that have been impacted by a severe disaster in the previous 10 years. The application must demonstrate how the disaster increased wildfire risk and was of a scale and scope to have had landscape impacts.

The CWDG Dashboard provides a list of federal disaster declarations by the Federal Emergency Management Agency (FEMA) in the county of the searched location over the previous 10 years (November 2015 to November 2024). Users of the CWDG Dashboard will need to confirm whether any of the listed disasters affect wildfire risk and whether they impacted the project area, since some projects are sub-county in scope. Each FEMA disaster included in the CWDG Dashboard includes a link to the disaster's page on FEMA's website. This can be used to find more specific information to support a CWDG application.

Some disasters are not matched to a county because they are state level or at a different geographic scale. These are available in a downloadable spreadsheet from the CWDG Dashboard. Users can search the spreadsheet for relevant disasters.

CWDG applicants can also use local information about disasters to demonstrate impact by a severe disaster.

Data Source:

Federal Emergency Management Agency. (2024). Disaster Declarations Summary. <https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2>

Wildfire Hazard Potential

The CWDG application allocates 20 points to locations with high or very high wildfire hazard potential. There are two ways to qualify as high or very high wildfire hazard potential:

- 1) National data. A location must have ≥ 70 th percentile *Wildfire Risk to Homes* as compared to the state or nation, or ≥ 84 th percentile *Wildfire Hazard Potential* as compared to the state or nation. The CWDG Dashboard provides national data. Or,
- 2) Local data. A location can use local, state, or regional wildfire risk data to demonstrate eligibility. The CWDG Dashboard does not include state and local data, but many state and local risk assessments can be accessed via the Wildfire Hazard Explorer: <https://hazexplorer.com>. The Climate and Economic Justice Screening Tool (<https://screeningtool.geoplatform.gov>) also includes wildfire risk data.

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Wildfire Risk to Communities, Version 1. (2020). Scott JH, Gilbertson-Day JW, Moran C, Dillon GK, Short KC, & Vogler KC. Wildfire Risk to Communities: Spatial datasets of landscape-wide wildfire risk components for the United States. 1st Edition. Fort Collins, CO: Forest Service Research Data Archive. Updated 25 November 2020. <https://doi.org/10.2737/RDS-2020-0016>

Cost Share Waiver for Underserved Communities

Applicants may apply to the Forest Service for a cost-share waiver for a CWDG application that serves an underserved community. “Underserved” is defined as either:

- A community, county, or tribal area that intersects at least one census tract that is identified as “disadvantaged” in the Climate and Economic Justice Screening Tool (CEJST). Census tracts are considered “disadvantaged” in CEJST if they (a) meet the thresholds for at least one of the tool’s environmental, climate, and socioeconomic categories of burden, or (b) are on land within the boundaries of Federally Recognized Tribes. Or,
- A community, county, or tribal area that meets the “low-income” criteria described above.

If a community is listed as “disadvantaged” in this CWDG Dashboard, it is eligible to apply for a cost-share waiver. In addition, nationally recognized Tribes and Pacific Islands are eligible for a match waiver.

Data Sources:

Council on Environmental Quality. (2022). Climate and Economic Justice Screening Tool, version 1.0. <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

U.S. Census Bureau. (2022 and 2021). American Community Survey. Washington DC. <https://www.census.gov/programs-surveys/acs>

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Updated 11/21/2024

Appendix A: Comparison of *Wildfire Risk to Communities* versions used in the CWDG Dashboard

Wildfire Risk to Communities (WRC) was comprehensively updated to Version 2 in May 2024. The new version uses the best available science and includes updated input data for fuels, weather, and housing, as well as new and improved methodologies. Because of the methodological changes, comparisons between version 1 and version 2 do not necessarily reflect changes in risk on the ground.

For the third round of CWDG funding, WRC Version 2 is used as the primary data source in the Dashboard. However, for the third round, if a location lost eligibility or priority status from Version 1 to Version 2, applicants can still use Version 1 data. This is automatically provided in the Dashboard and indicated in the Source notation. Data shown in the Dashboard for Round 3 of CWDG funding does not guarantee eligibility for future funding rounds. Data sources and methodology may change for future funding rounds.

Instead of national data, applicants can choose to use state or local risk assessments to demonstrate eligibility and scoring prioritization.

The table below compares some of the details in the two versions of *Wildfire Risk to Communities*.

Component		WRC Version 1 (2020)	WRC Version 2 (2024)
CWDG Dashboard Versions		<ul style="list-style-type: none"> Round 2 in 2023 Round 3 in 2024—only if a location lost eligibility/prioritization with WRC Version 2 	<ul style="list-style-type: none"> Round 3 in 2024
Summary Areas	Buffer around housing for CWDG Dashboard	1.5km buffer around political boundaries	2.4km buffer around political boundaries
	Political boundaries (i.e., communities, counties, and Tribal Areas)	U.S. Census Bureau, 2020	U.S. Census Bureau, 2022
Input Data	Fuels	Through the end of 2014	Through the end of 2022
	Weather	Conditions from 1979-2012	Conditions from 2004-2018
	Population and housing	Conditions in 2018 based on American Community Survey 2018; U.S. Census Bureau Population Estimates 2018; Microsoft Building Footprints 2018.	Conditions in 2021 based on American Community Survey 2021; U.S. Census Bureau Population Estimates 2021; custom building footprint dataset reflecting 2022 conditions.

Appendix B. Comparison of wildfire risk variables

The national data provided in the CWDG Dashboard come from the Wildfire Risk to Communities dataset. The Dashboard automatically returns the higher of two variables: Risk to Homes or Wildfire Hazard Potential. Each is explained further below.

	Risk to Homes	Wildfire Hazard Potential																																																
Definition	A measure of wildfire hazard potential in the context of communities. Risk to Homes integrates wildfire likelihood and intensity with generalized consequences to a hypothetical home everywhere on the landscape.	A measure of wildfire hazard potential in the context of landscapes. Wildfire Hazard Potential quantifies the relative potential for wildfires that may be difficult to control.																																																
Best uses	Prioritizing community-level activities to reduce wildfire risk to structures, including: creation of defensible space; home hardening; development of ingress/egress; supporting infrastructure; and land use planning strategies.	Prioritizing landscape activities to reduce wildfire spread into communities, including fuel treatments.																																																
CWDG criteria	<p>Communities with $\geq 40^{\text{th}}$ percentile Risk to Homes, as compared to either the state or the nation, could be considered “at-risk” and eligible for CWDG grants.</p> <p>Communities with $\geq 70^{\text{th}}$ percentile Risk to Homes, as compared to either the state or the nation, could be considered having “high or very high wildfire hazard potential” and prioritized in the CWDG program.</p> <p>Categories for Risk to Homes are as follows:</p> <table border="1"> <thead> <tr> <th>Class</th> <th>Percentile Range</th> <th>Eligible (“at-risk”)</th> <th>Scoring Priority (“high or very high wildfire hazard potential”)</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>0 – 40th</td> <td>No</td> <td>No</td> </tr> <tr> <td>Moderate</td> <td>40th – 70th</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>High</td> <td>70th – 90th</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Very High</td> <td>90th – 95th</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Extreme</td> <td>95th – 100th</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table>	Class	Percentile Range	Eligible (“at-risk”)	Scoring Priority (“high or very high wildfire hazard potential”)	Low	0 – 40 th	No	No	Moderate	40 th – 70 th	Yes	No	High	70 th – 90 th	Yes	Yes	Very High	90 th – 95 th	Yes	Yes	Extreme	95 th – 100 th	Yes	Yes	<p>Communities with $\geq 67^{\text{th}}$ percentile Wildfire Hazard Potential, as compared to either the state or the nation, could be considered “at-risk” and eligible for CWDG grants.</p> <p>Communities with $\geq 84^{\text{th}}$ percentile Wildfire Hazard Potential, as compared to either the state or the nation, could be considered having “high or very high wildfire hazard potential” and prioritized in the CWDG program.</p> <p>Categories for Wildfire Hazard Potential are as follows:</p> <table border="1"> <thead> <tr> <th>Class</th> <th>Percentile Range</th> <th>Eligible (“at-risk”)</th> <th>Scoring Priority (“high or very high wildfire hazard potential”)</th> </tr> </thead> <tbody> <tr> <td>Very Low</td> <td>0 – 44th</td> <td>No</td> <td>No</td> </tr> <tr> <td>Low</td> <td>44th – 67th</td> <td>No</td> <td>No</td> </tr> <tr> <td>Moderate</td> <td>67th – 84th</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>High</td> <td>84th – 95th</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>Very High</td> <td>95th – 100th</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table>	Class	Percentile Range	Eligible (“at-risk”)	Scoring Priority (“high or very high wildfire hazard potential”)	Very Low	0 – 44 th	No	No	Low	44 th – 67 th	No	No	Moderate	67 th – 84 th	Yes	No	High	84 th – 95 th	Yes	Yes	Very High	95 th – 100 th	Yes	Yes
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