

To: Maui County Council Disaster Recovery, International
Affairs, and Planning Committee

From: Mark G. Hyde
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Re: South Maui Community Plan
Committee Hearing Date: September 14, 2026
AGENDA Item: Bill 1081 (2026)

While the meeting is said to be focused on Kihei *Mauka*, the agenda speaks to the entire Plan. For that reason I submit the following testimony on area wildfire risk that is insufficiently addressed in the Plan.

The Current Situation

I. On average Over 50 Thousand People are in South Maui on Any Given Day

"South Maui is home to 29,000 residents, and in 2019, it received an average of 26,500 visitors per day." (Draft Plan at page 21.)

This does not include the considerable number of those who work in the area but live elsewhere. Without calculating the number of commuters on any given day, the Plan acknowledges that "Of the inflow traffic entering South Maui, 57 percent is commuters coming from Central Maui and 31 percent is from those arriving off-island." (Plan, page 25.)

II. South Maui's Roadway Infrastructure is Limited and Inadequate

"South Maui's compact coastal development pattern forces all incoming and local traffic to rely on the same limited roadway infrastructure throughout the Plan area. Between 2014 and 2018, south Maui's traffic volume increased three percent per year. This is above the Maui Travel Demand Model of two percent per year, signifying traffic is getting worse faster than expected. (Draft Plan, Page 25.)

III. Only Two Ways in and Out

"Further adding to the congestion, South Maui has only two roads leading in and out of the Plan area; North Kihei Road, which transitions into South Kihei Road, and Maui Veterans Highway, which transitions into Pi'ilani Highway. North and South Kihei's dense commercial and residential developments in these subareas are the epicenter of the region's congestion issues." (Draft Plan, page 27.)

IV. The Area is at High Risk of Wildfire

"South Maui's coastal-focused development and extensive stretches of ranch lands make it vulnerable to natural hazards and emergencies. The risk for hazard in emergency events will likely increase in frequency and severity due to climate change and sea level rise. These risks are compounded by the fact that there are only two primary roads in and out of the Plan area." (Draft Plan, page 27.)

Note 1: South Kihei Road failed during the recent Kona storm and is subject to routine storm washout in North Kihei. Shortly after inauguration, Mayor Bissen told the south Maui community he expects the northern portion of South Kihei Road to become inoperable due to sea level rise, flooding and increasingly intense storms within the next 10 years.

Note 2: Both roads run in parallel, south to north, converging in "bottleneck" fashion approximately 100 yards from each other at the intersection of Veterans Highway and North Kihei Road, negating some of the utility these routes of escape provide.

Note 3: "Bottlenecks" are especially dangerous in emergency situations; people fleeing fire do so in a panic, finding themselves wedged in and unable to escape. For example, many people who abandoned their cars on local roads during the Lahaina fire demonstrates this cause and effect.

"South Maui's leeward-facing location and low annual rainfall make the region especially prone to drought conditions and extreme heat events. **Drought and extreme heat lead to an increased risk for wildfires, which are a historic and growing problem in south Maui. . . . 96 percent of South Maui's land area is at high risk for wildfires, meaning almost every home, business or community area is at risk.**" (Draft Plan, page 27.)

Note 4: Also, in 2023 the Lahaina/Kula wildfire catastrophes threatened North Kihei. But for a lucky last minute change in wind direction, North Kihei residential and commercial neighborhoods might have been destroyed, likely cutting off Pi'ilani Highway and South Kihei Road from Veterans Highway.

A scientific study of previous wildfires and wildfire fatalities, including Lahaina's August 2023 wildfire, concludes that **the number of roadways out of a community is one of the strongest predictors of wildfire fatalities.** (See <https://www.pnas.org/doi/10.1073/pnas.2535081123>, published June 10, 2026, Proceedings of the National Academy of Sciences.)

"[The study] compiled the most extensive georeferenced wildfire fatality dataset to date, covering 342 deaths across the United States from 2008 to 2024. They found that fatalities drop sharply as communities gain more outward road access" up to six exits. (Exhibit "A".)

It identifies south Maui as at high "wildfire evacuation risk" due to limited exits/roadway infrastructure. (Exhibit "B".)

Exhibit "C" visually associates limited exits with the percentage of fatalities expected in the face of a wildfire. Crudely applying the chart's implications to South Maui's population of over 50,000 residents and visitors, an area-wide conflagration could result in thousands of fatalities.

How Did We Get To This Dangerous State?

The simple answer: (1) By local government ignoring generally accepted (sustainable) community planning and development and Native Hawaiian land management practices and principles and (2) by approving one development after another without regard to the 1998 Kihei-Makena Community Plan (KMCP). For instance:

"Part III, Policy Recommendations, Implementation Actions and Standards for the Kihei-Makena Region, 1. Provision of Needed Public Facilities and Infrastructure. . . . Upon adoption of this plan, **it shall be required that adequate facilities and infrastructure**

will be built concurrent with future development." (Emphasis added, KMCP, page 15.)

"Land Use, Goals, Objectives and Policies, c. Upon adoption of this plan, ***allow no further development unless infrastructure, public facilities, and services needed to service new development are available prior to or concurrent with the impacts of new development.***" (Emphasis added, KMCP, page 17.)

"Transportation, Objectives and Policies, a. Develop and implement a well-planned road and public transportation system *to allow residents and visitors to move safely, effectively and comfortably within the region.* . . . b. ***Undertake transportation system improvements concurrently with planned growth of the Kihei-Makena region.***" (Emphasis added, KMCP, page 31.)

As with any effort to make things better, you have to begin with a clear-eyed view of the situation, including the fact that our community of 50,000 + residents and visitors is not homogeneous. It includes *kupuna*, *keiki*, disabled and others with special needs who along with the rest of the population will need convenient, safe and efficient fire escape routes in the face of a wildfire, and bear in mind that not all residents and visitors have access to motor vehicles for escape.

Does the Draft Plan Address This Life and Death Safety Issue?

No.

First, no new, independent escape route is added but significant new development is, including, but not limited to, R&T Park buildout; Pi'ilani Promenade, now raw land; Ledcor, with more infill projects coming; Makena Mauka and Makena Resort buildout; Honua'ula; Wailea Golf's course conversion proposal; etc.)

Second, a "collector road" parallel to existing north/south roadways, even if constructed, will not create a new escape route. While called for 28 years ago in the 1998 KMCP it has yet to be completed despite the coming and going of multiple county councils and mayors. Even if completed, it's purpose is to facilitate internal traffic flow, not add an additional exit point from south Maui, and its terminus will be additive to the existing north Kihei roadway juggernaut.

Third, other roadway initiatives identified in the Draft Plan are mere reiterations of what was in the unrealized 1998 KMCP. Even if implemented, none will add another escape route.

Things are Different Now

Wildfires are happening with *greater frequency and ferocity* all over the globe - Spain, France, Greece, Canada, Australia, Indonesia, Pacific Palisades and Eaton Canyon in Los Angeles to name a few.

"Bigger, Hotter Fires are Slowly Erasing America's Forests," <https://www.nytimes.com/2026/08/23/climate/wildfire-forest-loss-california-southwest.html>.

"Researchers 'Warn Mega'" Fires Will Become Europes New Normal." <https://www.courthousenews.com/researchers-warn-megafires-will-become-europes-new-normal/>

"'The New Normal:' California's Escalating Wildfire Crisis" <https://research.library.fordham.edu/cgi/viewcontent.cgi?article=1217&context=environ> 2015

The Lahaina wildfire is not a "one-off" situation. It's a wake up call - and a warning to local government to act with due care. Climate change and its effects are here.

What Should Be Done?

We are no longer in a climate steady-state equal to that which existed in previous decades. You can't simply take an older community plan, add more development and a few bells and whistles and expect things to be okay. If this issue is not handled appropriately, be mindful of the extreme risk and liability that will attach to the County, as it did after the Lahaina wildfire, should you choose to ignore the current situation and adopt the Draft Plan as currently written.

The County has a choice to make: (1) Continue on the current path or (2) reject development not presently entitled until at least one additional Makena to Veterans' Highway exit is operable, affording people better odds of surviving an area wildfire. Will that take time and money? Yes, but consider the alternative.

Actions Requested:

Delete all listed "Potentially to be Added to the South Maui Plan District" developments listed in Exhibit "D" attached. (Courtesy, Dick Mayer)

Require planning and construction of a *mauka* roadway extending from Makena to Veterans' Highway as a precondition to any further development of all non-entitled properties.

See Exhibits "A" - "D" below.

Credit: iStock

If your community was threatened by a wildfire, would you be able to quickly evacuate? A new study from UC Santa Barbara reveals that the number of roads out of a community may be one of the strongest predictors of wildfire fatalities, and that a surprisingly specific threshold separates high-risk communities from safer ones.

Publishing in *Proceedings of the National Academy of Sciences*, researchers at UC Santa Barbara's *National Center for Ecological Analysis and Synthesis* (NCEAS) and Ilse School of Environmental Science & Management compiled the most extensive georeferenced wildfire fatality dataset to date, covering 142 deaths across the United States from 2008 to 2024. They found that fatalities drop sharply as communities gain more outward road access, but only up to about six exits. Beyond that point, additional roads offer little further protection.

"The threshold near six exits held remarkably consistent across geographies and communities of different sizes," said lead author and NCEAS researcher Caitlin Fong. "That tells us it's a structural constraint, not a demographic one. Road redundancy is what saves lives."

The pattern is visible in some of the country's most devastating fires. In the 2018 Camp Fire, 66 of 86 total fatalities occurred in Paradise, California—a town with six outward roads that offered limited functional redundancy as fire and gridlock converged. In 2023, 102 people died in Lahaina, Hawaii, a town with just four exit routes. In Berry Creek, California, 12 people were killed during the 2020 North Complex Fire; the community had only two exits.

shot

EXHIBIT "A"

EXHIBIT "B"



Screenshot

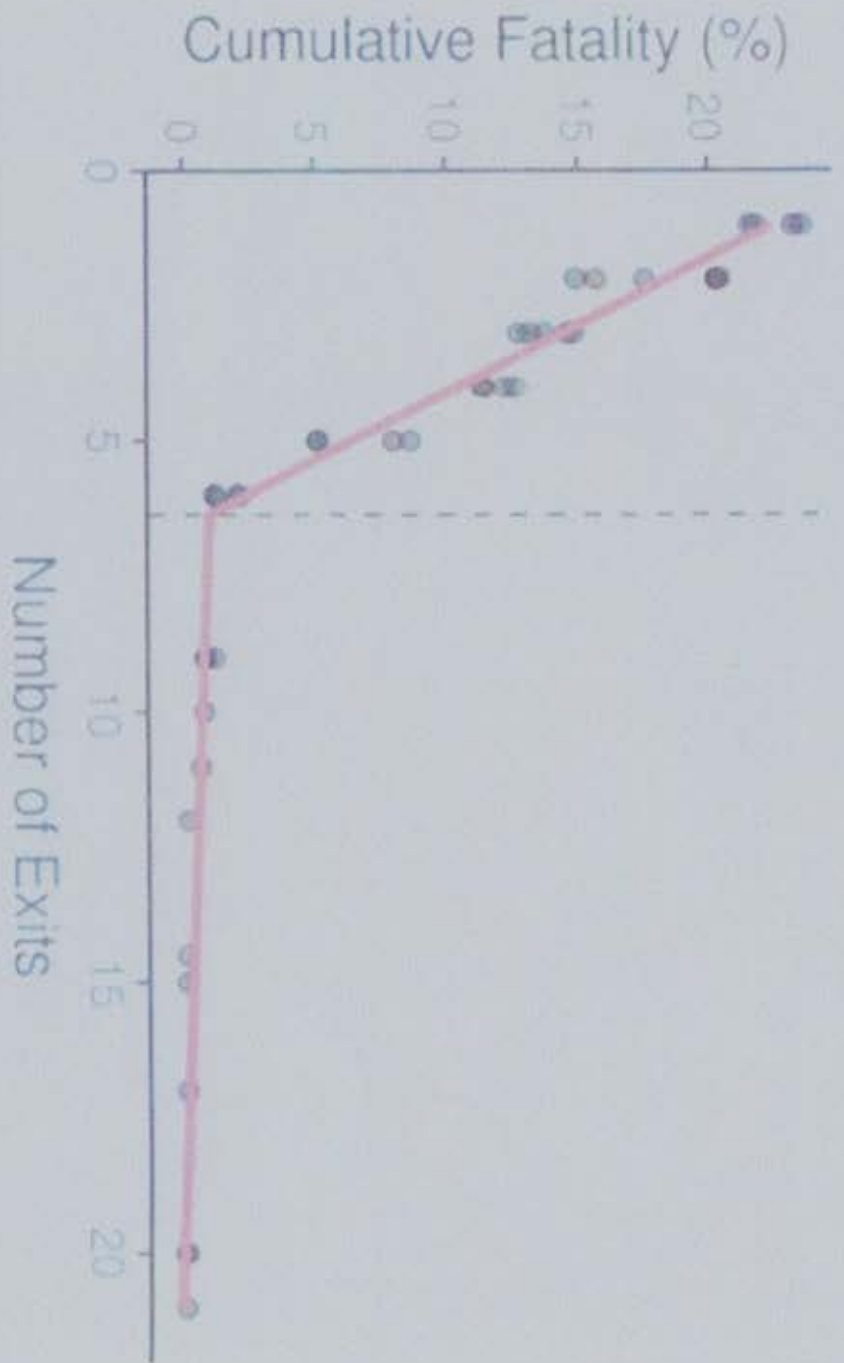


EXHIBIT "C"

EXHIBIT "D"

Approved and Proposed South Maui Projects (Listed from North to South)										
		Project Name	Development Status	Housing Units	Additional Project Elements needing Water	MINIMUM Water Demand (MGD)	Potential Added Cars @ 1:1 ratio	Affordable Units (Workforce Housing) Percent	Number	Potential New Jobs (1:1 ratio)
NORTH KIHAI	1	Kanieleni (Waialea Homesteads)	Already Approved	400		0.24	600 cars	100%	400	0
NORTH KIHAI	2	Lipoa R&T Park	Already Approved	1,250	Contains a hotel and 2 Million Sq. Ft. of commercial and industrial dev't	0.80 + Commercial + Hotel Use	1,875 cars	23%	287	363
WALEA	3	Ledcor Project in Waialea Resort	Seeking SDA approval from the Planning Commission	975		0.57	1,463 cars	8%	75	900
WALEA	4	Honua'ula (Former Waialea 670)	Already Approved	1,150	Contains some Commercial uses	1.00 to 1.30	1,725 cars	25%	288	862
MAKENA	5	Makana Maui (Makana Resort above the highway)	Preparing EIS and seeking final Approval	652	Contains some Commercial uses	0.72 + Commercial Use	978 cars	20%	131	521
MAKENA	6	Makana Estates (Lots above Makana Maui)	Already Approved	72	Agricultural Estates (Gracing) + farm dwellings	0.42	108 cars	0%	0	72
MAKENA	7	H2 Project in Makana	Already Approved	53		0.08	80 cars	0%	0	53
Total Already Approved				4,562			6,829 cars		1,181	3,371
Potentially to be Added to the South Maui Plan District										
NORTH KIHAI	8	North Kihai Maui	Proposed addition in the Draft South Maui Community Plan	2,000	In addition to the 3,500 units, there is much commercial dev't	1.5X + Commercial Uses	3,000 cars	23%	460	1,540
NORTH KIHAI	9	Former Mega-Maui Site		400		1.5X	900 cars	23%	138	462
WALEA	10	Chen's Golf Course Conversion to Housing		800		1.5X	1,350 cars	30%	270	630
Potentially to be added to the South Maui Plan District				3,500			5,250 cars		868	2,272
South Maui Community Plan These are the major projects in the Planning Commission's Draft to be reviewed by the Maui County Council.				8,062 potential units	GRAND TOTALS	6.32 MGd + 1.00 Commercial Use MINIMUM WATER DEMAND	12,379 potential added cars at 1:1 ratio	24.8%	1,640 potential added units	5,643 potential added jobs at 1:1 ratio

DRIP Committee

From: Mark Hyde <markghyde@gmail.com>
Sent: Thursday, September 10, 2026 6:56 AM
To: DRIP Committee
Subject: Hyde Testimony DRIP 9/14/26 Gill 1081
Attachments: Scan2026-09-10_065106.pdf

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Testimony converted to a PDF.

Mark Hyde