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Agenda Item: B.1. Goal 2.4 | Mauka to Makai Watershed Management
Date Received: 2/14/2023 via e-mail

Maui Tomorrow Foundation

Comments on Section 2.4 of Draft South Maui Community Plan February 9, 2023

Unfortunately, the amendments that were made at the last meeting will result in much worse flooding in South Maui than has already been experienced. Maui Tomorrow's recommended amendments are primarily concerned with five critical aspects of watershed management:

1. (2.4.1) Wetlands need to be defined and recognize traditional historical knowledge.
2. (2.4.2, 2.4.3) More specific policies are needed to ensure that development and redevelopment address all of the drainage issues for their site, not just the issues that are most economically or aesthetically viable.
3. (2.4.5, 2.4.__) The changes that were voted in by the advisory committee pertaining to the 100-foot open space buffer zone for drainage ways and gulches do not protect potentially developed properties in those areas from potentially devastating flood, earth, and water damage. Furthermore, moving, changing, or developing natural waterways does not respect the overall purpose of this section of the community plan. Named waterways/gulches/drainage ways need to be allowed to swell, move, migrate, and occasionally overflow without restriction in order to mitigate downstream damage to property, life, and ecosystems. 100 feet of buffer on either side of these gulches/drainage ways/waterways is far below what other parts of the world have designated for less storm-prone, less mountain-fed areas than South Maui. We suggest consulting David Dorn's and Lucienne deNaie's submitted testimony and accompanying research. We also recommend adding the other historically noted and named gulches. The map in Figure 3.17 needs to be amended to eliminate gaps and to recognize all of the known drainage ways and gulches. Although they may be dry much of the time, these watercourses are capable of carrying water, sediment, and debris from many miles up mauka.
4. (2.4.__) We absolutely agree that flood inundation limits need to be respected and that a 100 buffer is adequate. However, since these flood inundation limits do not include the gulches/drainage ways that flow through them, there should be a separate policy in addition to 2.4.5 that pertains to flood inundation areas. Furthermore, there should be an action item that requires these inundation limits to be denoted and assessed on a regular basis as their extent will change over time.
5. (2.4.13) In storm-impactable areas like Kihei, the more appropriate drainage and engineering standard is a 100-year, 24-hour storm. Current 50-year and 10-year drainage standards have proven to be ineffective in managing even small storms and light rain events. It is critical that development retains its own storm water. It is critical for our reefs, for our economy, and our safety. We need to protect already existing property, roads, and homes. We should NOT be trying to get the water to the ocean as fast as possible. We need to stop the water before it gathers velocity and costs lives and millions of county dollars annually. We need to allow it to percolate into the soil as much as possible before it goes to the ocean. Current drainage standards are not adequate in an environment in which so-called 100-year storms are occurring much more frequently. For reference, see:

<https://www.sciencedirect.com/science/article/abs/pii/S0022169415000621?via%3Dihub>

PROPOSED AMENDMENTS TO SECTION 2.4 OF THE DRAFT PLAN:

2.4.1

Protect ocean and stream water quality by requiring that wetlands, **as defined by traditional historical knowledge or by Section 404 of the Clean Water Act, be preserved** with buffers adequate to mitigate pollutants and support ecosystem functions, allow for migration, and incorporate future sea level rise scenarios.

2.4.2

Require “nature-based **drainage** solutions” for all projects, including but not limited to **wetland preservation/restoration in its natural state, biological or ecological drainage systems, permaculture**, low-impact design, and green infrastructure strategies rather than “gray” infrastructure to manage flooding and prevent surface water pollutants from flowing into streams and reaching the ocean. **These techniques must be applied with sensitivity to cultural and historical sites in the area.**

2.4.3

Support restoration and conservation efforts to improve and restore degraded wetlands and hydrologically connected systems and their buffers.

2.4.4

Protect coastal water quality and **the** nearshore marine environment by **prohibiting development in areas subject to flood, fire, or coastal hazards and requiring** all redevelopment and new development to include low-impact development techniques such as adequate bioswales and other green infrastructure and **nature-based solutions** to minimize stormwater runoff and coastal nonpoint source pollution.

2.4.5

Named gulches, drainage ways, **their buffers, and channel migration zones**, including specifically Pōhākea, Waikapū, Waiakoa, Kulanihakoi, Waipu‘ilani, Waimahaihai, **Keokea**, Lilioholo, **Niukauila**, Kewakapu, Wailea, Kama‘ole, **Kahamanini Gulch (a.k.a. Kihei Gulch #3), Wailea Point Gulch, Palaue‘a Gulch, Keawanui Gulch, Papakuewa Gulch**, and Kapunakea, as identified in the map in Figure 3.17 (pg. 106) of this Plan, must remain in open space and no new permanent structures, with the exception of roadways and utilities, may be developed in or within 100 feet of the top of the bank of identified gulches.

Unnamed or blue drainage ways, gulches, and streams identified in the map in Figure 3.17 (pg. 106) must remain in open space and no new permanent structures, with the exception of roadways and utilities, may be developed in or within 50 feet of the top of the bank of the gulches or drainage ways.

2.4. __

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No new permanent structures with the exception of roadways and utilities, may be developed in or within 100 feet of the 100-year flood inundation limits.

2.4.13

Require the implementation of low-impact development practices in developments in South Maui to reduce stormwater runoff and protect water quality. Encourage management of flows that are greater than the 100-year storm event to retain, filter, and sink as much stormwater through low-impact design as feasible on site.