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Sent: Thursday, August 22, 2019 3:20 PM
To: Morrison, Bethany
Cc: General Plan
Subject: Additional comments on resources section of GP 2040

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PLANNING DEPARTMENT
COUNTY OF HAWAII

Bethany, I am providing some more comments below. Please understand that I: 1) think it is really great to expand horizons and think big, especially initially; 2) endorse the vast majority of the objectives, policies and actions; and 3) am trying not to nitpick. For these comments, I am only reproducing the sections that I see an issue with. For the rest (I reviewed the document up to page 75, because I wanted to focus on environmental resources) I either endorse or have no comment on. One overall suggestion: it would be great if the County could have a focus session centered on scientists, especially biologists, hydrologists, and engineers, to discuss some of these ideas.

COASTAL HABITAT

26. Priority shoreline acquisition shall include sites with:

- a) Documented nesting sites for designated endangered or threatened species;
- b) Public recreation uses without adverse impacts on sensitive natural resources.

[Rationale: Based on General Plan 2005 Section 4: Environmental Quality, Goals; Section 8 Natural Resource and Shoreline Goals, Policies 8.3 (a), (c), (i); Standard 8.4(a)]

...without adverse impact....that is a severely high standard. Hapuna, Kua Bay, even Richardson's they would all fail. How about *substantial adverse*.....

29. No new bulkheads, seawalls or other hardened vertical shoreline structures shall be permitted on unaltered shorelines.

In general, I think that is a good policy. How will "unaltered" be defined? Does that mean the shoreline at the property where the wall would go is unaltered? Or does it refer to a larger stretch of shoreline near the property as well?

Wetland Habitat

36. No fill or structures shall be permitted in wetlands. [Rationale: Based on Section 404 Clean Water Act and Army Corps of Engineers guidance.]

You would really back yourself up in a corner with this.

First, the proposed absolute prohibition on utilizing wetlands is draconian. Contrary to the rationale statement, the USACE does allow fill in *jurisdictional wetlands* with a permit that really closely examines the particular environment, the resources, the alternatives, and mitigation. The USACE does not even regulate non-jurisdictional wetlands, which in Hawaii make up probably 90% of wetlands. Under this definition, the County might be unable to replace culverts and would require expensive bridges over even the most modest little drainage – even if the Corps was fine with a culvert. Second, the positive effectiveness or negative impact of this depends on what definition of wetlands is employed and what information you choose to use/require. There are a number of definitions of wetlands used by various agencies, with the primarily biological definition of the U.S. Fish and Wildlife Service and the regulatory definition of U.S. Army Corps of Engineers being most common. It is likely that half a million acres on the Big Island (most muddy forests with hydric soils), and much of Hilo, meets a strict interpretation of the USACE definition. If each application for development required determining whether a given site has wetlands per USACE definition, determining the presence/absence of the boundaries of the wetlands would involve highly trained specialists that would charge thousands or even many tens of thousands of dollars. On the other hand, the U.S. Fish and Wildlife National Wetlands Inventory features web-GIS maps

that provide a reasonable map of wetlands that most would agree should be protected from development unless there are no practicable alternatives.

37. Require minimum wetland setbacks of 50 feet to be maintained as an open space buffer for development occurring adjacent to all types of wetlands.

Same comment. You can't figure out a buffer to a feature unless you know the exact limits of the feature. You might want to restrict protection to a certain class of wetlands, such as those with permanent inundation and native species.

1.12 Develop a Wetlands Evaluation Procedure (HIWEP) to determine the functional capacity of wetlands and a Uniform Mitigation Assessment Method (UMAM) to determine mitigation requirements for impacts to wetlands.

Is this concerning indirect impacts – because above states there can be no dredge or fill. The County is going to start regulating mitigation to wetlands? That is a tall order.

This issue is a hornet's nest. The U.S. Army Corps spent almost 20 years with a team of scientists, regulators and lawyers developing its 1987 policy guidance, and still there have been three major legal cases that went all the way to the U.S. Supreme Court. The language in here suggests much more strict prohibitions using unspecified definitions and methods that would add great expense, uncertainty, and litigation. It would be great if Planning Department officials could meet with a few scientists who know about this issue to come up with some reasonable and practical language.

MANAGING STREAMS AND WATERSHEDS

48. Explore the feasibility of incentive methods such as property tax dedications, conservation easements, or transfer of development rights to protect the defined zone of influence of existing or proposed public and private wells.

The *zone of influence* of any given well is based on the cone of depression in the water table; it is the area over which the depression can be detected. It can be hundreds of meters or even kilometers wide, depending on the characteristics of the aquifer. It is an important concept primarily for assessing effects to springs and gaining streams, as well as for siting multiple wells so that they do not interfere with each other. It is not equivalent to the recharge area of the well, which you might want to protect from development in order to minimize effects to water quality, and which seems to be the actual intended area here. It is important not to mix these concepts up.

52. Support the DOH and DLNR in its effort to have an implemented conservation plan for all agricultural operations and a nutrient management plan for application of all animal and chemical nutrients.

HMMM....all means all. No lower area/crop production limit to this? All commercial farming, i.e., subsistence farming exempt? Or ALL?

1.16 Create incentives for landowners to retain and re-establish forest cover in upland watershed areas with emphasis on native forest species.

This is very progressive. I understand that there are efforts underway to establish some reasonable benchmarks for folks who want to try this and get assessment/tax rate reductions from Real Property. That is critical.

55. Protect caves, including lava tubes, and the unique cultural and natural resources inside them.

This is a beefing up of the current GP requirement: 8.3 policy: "(t) Preserve and protect significant lava tube caves", ostensibly related to Chapter 6, HRS, but it is important to note the limits of protection in the State law:

"[§6D-2] Prohibitions. (a) It shall be unlawful for any person to intentionally, knowingly, or recklessly break, break off, crack, carve upon, write, burn, or otherwise mark upon, remove, or in any manner destroy, disturb, deface, mar, or harm the surfaces of any cave, or the cave resources within the cave, whether attached or broken, including speleothems, speleogens, and sedimentary deposits, without the owner's written permission being first obtained.

(b) It shall be unlawful for any person to break, force, tamper with, or otherwise disturb a gate to any cave, even though entrance thereto may not be gained, without the owner's permission being first obtained.

(c) It shall be unlawful for any person to remove, deface, or tamper with a sign stating that a cave is posted or citing provisions of this chapter.

(d) It shall be unlawful for any person to take, appropriate, excavate, injure, destroy, or alter any paleontological deposit, which may be found in a cave without the owner's written permission being first obtained.

(e) This section shall not apply to caves inadvertently encountered within the normal course of a construction context; provided that any cave protection measures imposed through the environmental review process under chapter 343 or any land use permit conditions shall be followed.”

I would imagine that these limitations were carefully negotiated after hearing testimony from various interested parties. If included in the GP, this section should incorporate explicitly or by reference the limitations of Chapter 6, HRS. It might be easier to just keep the phrasing “significant” caves. Because the HRS definition includes in its definition of caves voids that lack any kind of entrance, there are literally tens (if not hundreds) of thousand of caves on the Big Island, and it is infeasible and irrational to protect all of them

Climate Change

SUSTAINABILITY OBJECTIVE

Partner with community stewardship groups, local stakeholders and intergovernmental agencies to reduce island-wide greenhouse gas emissions (GHGs) by at least 80 percent from 2005 levels by 2050.

POLICY

94. Prioritize energy efficient designs, energy efficient systems, and waste reduction/reuse at County facilities.
[Rationale: Based on identified need for the County as an entity, and as a major employer and energy consumer to lead by example in reducing waste and conserving energy. Also see General Plan 3.3 (a & k); Hāmākua CDP Policy 110.]
95. Include the useful life of the infrastructure and the cost savings related to reduced energy needs in Capital Improvement Projects.
96. Partner with County, State, and private entities to develop comprehensive and coordinated strategies promoting energy and water conservation to strive for climate change resilience.
97. Consider values of natural areas for sequestering carbon and providing climate adaptation and mitigation strategies in evaluating public investments, including acquisition, siting, and design.
98. Evaluate the need and opportunities to reduce vehicle miles traveled (VMT), such as offering a range of transportation choices in new development or redevelopment projects; incentivizing connectivity between differing modes of transportation to increase modal split and linking residential and employment center land uses to reduce the need for single vehicle trips.
99. Support the development of carbon-emission standards and an incentive program aimed at achieving County carbon-emission goals.

Just wanted to endorse these.

Drinking Water Conservation

SUSTAINABILITY OBJECTIVE

Reduce water use by 130 gallons per day per person.

109. New large developments with private water systems shall be required to follow the domestic use guidelines including appropriate limits on average daily demand.[Rationale: According to the Department of Water Supply, domestic water use above 400GPD is considered excessive.]

While keeping water use derived from aquifers low will assist in avoiding over-pumping of aquifers, and most likely reduce greenhouse gases (unless pumps rely mostly on renewable energy), how will this be enforced? Does the County intend to restrict pump size, well number of storage tank size? And to be legal, if this is enforced for private developments, does it not also need to be enforced for all users of public systems? Is the County truly capable of this police effort?

2.2 Initiate regional studies that examine aquifer system area sustainable yields and water transfers in greater depth and on a broader scale.

2.3 In collaboration with National Oceanic and Atmospheric Administration (NOAA), conduct further research on localized rainfall modeling to accurately assess future precipitation trends.

Laudable goals, but how much will these cost? Will the County really pay for this? Who in the County is qualified to provide critical, expert review? Aren't these better to have the State and feds do?

Storm Water Management

SUSTAINABILITY OBJECTIVE

Increase use of Low Impact Development Practices.

POLICY

130. The County shall ensure sites are planned, designed, and developed to:

- a) Mitigate direct impacts of the land development process through the use of green infrastructure or low impact site planning techniques;
- b) Protect areas that provide important water quality benefits and/or are particularly susceptible to erosion and sediment loss;
- c) Limit land disturbance activities such as clearing and grading, and cut and fill to reduce erosion and sediment loss; and
- d) Manage post-construction stormwater runoff rates, through the use of green infrastructure or low impact development stormwater management practices.

I am assuming that if private developers will now be required to incorporate Low Impact Design guideline practices in all their plans – which can really help with erosion and sedimentation, not to mention views and general site disturbance, but also considerably raise development costs – **that the County will require it in all its projects as well.** This must be made explicit, and DPW, DWS, DEM and other County agencies that do a lot of site work must be onboard with that. To not require it in County projects would be unconscionable and unethical.

