

# Kauai General Plan Draft

## Comments on Infrastructure Section

### **Report Summary**

- Supporting documents:
  - Kauai Infrastructure Analysis (2015)
  - Assessment of Adequacy of Kauai Infrastructure for Current & Future Needs (2015)
- Water Planning
  - Aging infrastructure
  
  - Outdated plan (last update 2001)
  - Limitations on new connections impact new housing and commercial projects
  - Diverting water resources – significant issue currently being litigated
  - Problem is infrastructure; not water supply
  - Additional 6.48 mgd water production needed by 2035
  - 237 miles of pipes out of 399 that need replacement
  - DOW 2020 Plan: \$148m CIP over 3 phases to 2021
  - Revised 2013 Plan identifies 208 projects for total cost of \$663m
  - Water Conservation - reduce average daily demand by 2.2mgd
- Waste Water
  - County Systems: 5.5mgd
  - 35 Private Systems: 3.42mgd
  - 13,688 cesspools = capacity of 4.06mgd
  - Over reliance on septic system & cesspools
  - More Incentives to move cesspools to septic or sewer needed (some exist)
  - Need 2.5mgd expansion of capacity by 2035 (South Kauai & Kilauea)
- Solid Waste Disposal
  - Current Kekaha site nearly at capacity;
  - 665,995cy remaining capacity
  - Kekaha permitted to 2020; will require extension
  - Kekaha site ultimately out of capacity by 2028)
  - Needs:
    - expand Kekaha
    - create new landfill site (Ma'alo)
    - increase diversion efforts
  - Goal: 70% diversion by 2023 (currently 44%); includes green waste
  - New materials recycling facility (MRF) required
  - Ma'alo (near Lihue) – 270 acre Resource Recovery Park – includes landfill and recycling facilities
  - Need curbside recycling including green waste
  - Impact of major storm (Hurricane Iniki generated equivalent of 5 years of solid waste generation)

- Airports / Harbor
  - Airports: Lihue, Port Allen
  - Ports: Nawiliwili & Port Allen
  - Kauai Commercial Harbors 2025 Master Plan (K-CHMP) – updated in 2001
  - Nawiliwili expansion needed after 2025
  - Expansion of Princeville Airport?

### Group Comments

- Need for Community Plans – since critical infrastructure and related Issues differ significantly between Districts
- Evaluation group lacked island-wide expertise to make significant comments for most of the Districts, so comments are mostly from a North Shore perspective
- Impacts of old outdated cesspools and septic systems is noted but not well quantified as a whole or by District
- Need for wastewater & watershed analysis (north shore & probably island wide) to understand these impacts and how best to remediate any environmental impacts including to rivers, bays and the surrounding shoreline
- Both Kilauea and Hanalei need an aggressive plan to replace outdated cesspools, as may several other Districts that are not currently serviced by sewers and wastewater treatment plant
- Appears that Princeville Utilities excess capacity is being applied to regional deficit. This is not an appropriate planning assumption since there is currently no connectivity beyond the Princeville area in the general plan draft
- Expansion of Princeville Airport is unlikely to be supported by local community. Although it could serve as an important site for emergency operations, it is not maintained for that purpose. If it is not going to be effectively used for that role, it should be removed and recommissioned to something else (ie Park & Ride Hub)  
>> This would suggest termination of existing light aircraft and commercial helicopter operations unless the airport is upgraded and maintained for emergency operations – correct?

### Sewage

Only the Princeville resort community is served by a sewage treatment plant. This system is privately owned and operated by the Kauai County Public Improvement Corporation. It is a secondary treatment facility located makai of Kuhio Highway, at the western end of the Princeville Plateau, above Hanalei. The facility presently has a capacity of 1.5 million gallons per day (MGD), and can be expanded if necessary in the future, to a maximum capacity of 4.5 MGD. After total implementation of Phase I and Phase II of the Princeville development, less than .8 MGD is expected to be generated. The facility will be offered to the County of Kauai at no cost, when the bonds which financed its construction are redeemed.

All other communities and improvements in the North Shore area are served by individual cesspools.

#### Recommendations:

1. Construction of cesspools should not be allowed in areas where the potential for surface, coastal, or groundwater degradation exists.
2. Hanalei Town should be sewerred, and a lift station constructed to carry sewage up to the Princeville Treatment Plant.

Do you want to mention that, for the North Shore, Princeville Utilities could play a key role in critical infrastructure improvements for the entire North Shore, i.e. since it has both organizational, operational and technical expertise?

One can argue that this all better suited for the more specific Community Plan, but pointing these out as examples may get across why such a plan is needed.