

## Results: Kaua'i

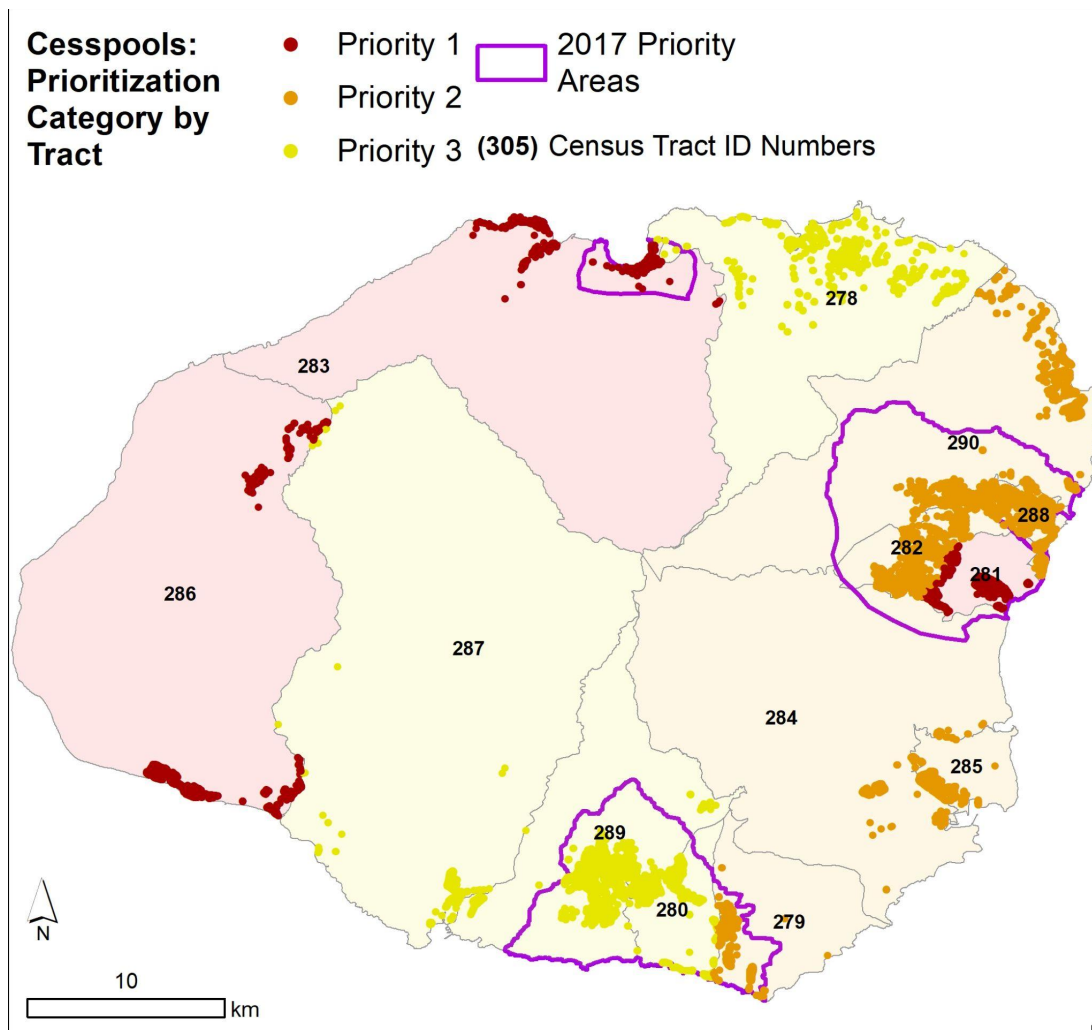
The island of Kaua'i contains an estimated 14,300 cesspools and has a total of 13 census tracts. All 13 tracts contained more than 25 cesspools and were categorized within the HCPT.

### Kaua'i Breakdown:

23% (3 tracts)/2,999 cesspools (20%) = **Priority Level 1**

46% (6 tracts)/6,144 cesspools (45%) = **Priority Level 2**

31% (4 tracts)/5,157 cesspools (33%) = **Priority Level 3** (Updated 2022)



**Figure 24:** Kaua'i cesspools (dots) colored by prioritization category, arranged by census tracts. Tracts are shown as lightly colored areas where the tract contains greater than 25 cesspools, and are shown as white areas where the tract contains less than 25 cesspools. Purple boundary indicates previous 2017 priority upgrade areas. (Updated 2022)

**Table 7:** Prioritization categories and island-specific ranks for Kaua'i tracts. (Updated 2022)

Tract Name	Tract ID	Cesspool Count	Priority Category	Island-Specific Priority Rank
Ha'ena-Hanalei	283	554	Priority 1	1
Kekaha-Waimea	286	1210	Priority 1	2
Wailua Homesteads	281	1235	Priority 1	3
Kapa'a	288	2276	Priority 2	4
Wailua Houselots	282	1616	Priority 2	5
Koloa-Po'ipu	279	671	Priority 2	6
Anahola	290	980	Priority 2	7
Lihu'e	285	601	Priority 2	8
Puhi-Hanama'ulu	284	362	Priority 2	9
Kaumakani-Hanapepe	287	457	Priority 3	10
Omao-Kukui'ula	280	916	Priority 3	11
Princeville-Kilauea	278	1233	Priority 3	12
Eleele-Kalaheo	289	2189	Priority 3	13

### Validation of Results

Hawai'i Act 132 funded a study led by Smith et al. (2021) to detect OSDS pollution in coastal waters. The study titled, the State-Wide Assessment of Wastewater Pollution Intrusion Into Coastal Regions of the Hawaiian Islands, used the  $\delta^{15}\text{N}$  values of algal tissue collected in the nearshore environment to determine where nitrogen from wastewater was chronically present within the coastal water column. The study represents the most comprehensive and geographically widespread assessment of nearshore nitrogen source tracing in the state. The authors determined its value is most appropriately applied to a qualitative validation of the prioritization results. Though Smith et al. (2021) provides the best validation dataset available, it should be remembered that the geographic scale and physical drivers of the dataset have significant differences from the statewide, multi-factor extent of the HCPT.

Smith et al. (2021) were able to sample across approximately 50 km of coastline. However, this is still only a small percentage of the state's 1,600 km of coastline. These algal sampling