

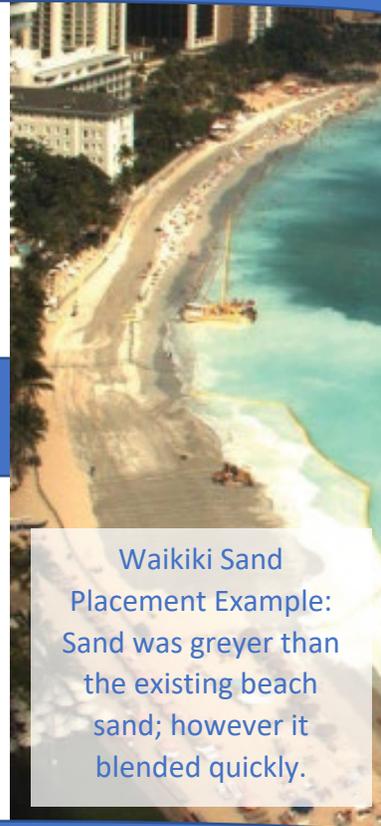
Sand Quality

The Kā'anapali Beach project is co-sponsored by the State of Hawaii and the Kā'anapali Operators Association. The proposed project includes beach restoration activities along nearly 7,500 feet of beach. Approximately 50,000 c.y. of sand would build the beach wider between Hanaka'ō'ō Beach Park and Hanaka'ō'ō Point, and nearly 25,000 c.y. of sand would be placed on the dry beach between Hanaka'ō'ō Point and Pu'u Keka'a.

Grain Size

The Pu'u Keka'a sand source is **the best local match to the existing beach**. Grain sizes are slightly smaller than the existing sand between Hanaka'ō'ō Point and Pu'u Keka'a. Here the smallest grains will gradually move offshore over time, as waves and currents pull them from the beach. Between Hanaka'ō'ō Point and Hanaka'ō'ō Beach Park, the recovered sand is a close match to the beach, except there are less of the largest sand grains.

Stable grain size depends on the environmental conditions, such as wave exposure. Mixing of compatible offshore sand and beach sand typically results in grain sizes and colors that are close to that of the existing beach.



Sand Color



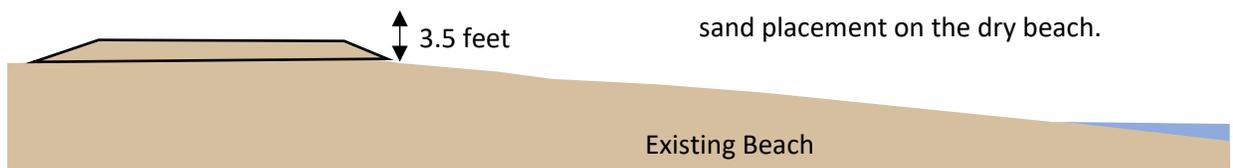
While natural calcareous beaches can range in color, depending on the mixture of carbonate and other grains, sand in offshore deposits usually has a gray tinge or color. This color results from anoxic conditions typically produced by a lack of mixing and aeration of the sand, or with depth within the deposit.

Top Row: Kā'anapali Beach Sand
2nd and 3rd Row: Offshore Sand Source

Waikiki Sand Placement Example: Sand was greyer than the existing beach sand; however it blended quickly.

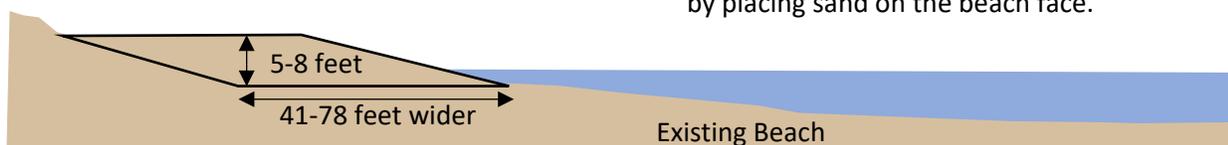
Beach Elevations

In the **Kā'anapali Littoral Cell**, a berm enhancement is planned



The elevation of the berm would be increased with sand placement on the dry beach.

In the **Hanaka'ō'ō Littoral Cell**, a beach restoration is planned



The beach width would be increased by 41-78 feet by placing sand on the beach face.