



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8657

May 17, 2004

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Tests show elevated levels of chloride and sodium

In order to protect the public against the consumption of drinking water with contaminants at levels adverse to peoples' health, the U.S. Environmental Protection Agency (EPA) has established National Primary Drinking Water Regulations that set mandatory water quality standards for drinking water contaminants. These enforceable standards are called "maximum contaminant levels" or "MCLs". An MCL is the maximum allowable amount of a contaminant in drinking water, which is delivered to the consumer.

In addition, EPA has established National Secondary Drinking Water Regulations that set non-mandatory water quality standards. These "secondary maximum contaminant levels" or "SMCLs" are only established as guidelines to assist public water systems in managing their drinking water for the aesthetic quality of water such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.

Test results of the water from the Hōlualoa Well, Kahalu'u Wells A, B, C, D and Kahalu'u Shaft, of the North Kona Water System show elevated levels of chloride and sodium. The SMCL for chloride is 250 parts per million (ppm). At 250 ppm or higher, chloride, because of its association with sodium, gives rise to a detectable taste (salty) in drinking water. There is no health-based guideline value for chloride in drinking water.

For sodium, there is no established MCL or SMCL. However, some of the sodium levels in the wells and shaft mentioned above exceed the recommended range of 30 to 60 parts per million established by a Drinking Water Advisory. This recommendation is intended as a benchmark.

Drinking water containing between 30 and 60 parts per million of sodium is unlikely to be perceived as salty by most individuals, and would contribute to only 2.5% to 5% of the dietary goal if tap water consumption is 2 liters (approximately 8 cups) per day.

Sodium is a normal component of the body, and adequate levels of sodium are required for good health. Food is the main source of daily human exposure to sodium, primarily in the form of sodium chloride. Most of the sodium in our diet is added to food during processing and preparation. The Food and Drug Administration has found most American adults consume 4,000 to 6,000 milligram sodium per day. Therapeutic sodium-restricted diets range from below 1,000 to 3,000 milligrams per day.

Drinking water does not play a significant role in sodium exposure for most individuals. For persons on sodium-restricted diets, sodium concentrations greater than 120 ppm could be problematic (i.e., could cause an increase in blood pressure) if sodium levels in the water remain elevated for a significant period of time. Those that are undergoing treatment for sodium-sensitive hypertension (high blood pressure) are

1

Source: United States Environmental Protection Agency, Drinking Water Advisory: Consumer Acceptability Advice and Health Effects Analysis on Sodium

... *Water brings progress...*

encouraged to consult their health care provider regarding the sodium levels in the drinking water. For individuals on a very low sodium diet, EPA recommends that sodium in drinking water not exceed 20 ppm.

The ranges of sodium and chloride levels from the various water sources are as follows:

	<u>Sodium</u>	<u>Chlorides</u>
Hōlualoa Well	80 to 113 ppm	210 to 260 ppm
Kahalu‘u Wells A, B, C, D	49 to 116 ppm	109 to 250 ppm
Kahalu‘u Shaft	159 to 166 ppm	340 to 400 ppm

The areas provided with water from Hōlualoa Well include:

1. Hualālai Road from Māmalahoa Highway (Hawai‘i Belt Road) to Kuakini Highway, including the Hillcrest Subdivision, Hualālai Colony, Kula Kai Estates, Nani Ohai, Kona Orchards, ‘Iolani, and Halewili Subdivisions.
2. Māmalahoa Highway from Hualālai Road to the Department of Water Supply’s Pua‘a Booster Pump Station, approximately 1/10 of a mile south of the Kona Memorial Park.

The areas provided with water from Kahalu‘u Wells A, B, C, D and Kahalu‘u Shaft include:

1. Ali‘i Drive, from Keauhou to Kailua and all of its connecting streets, including Keauhou Bay Houselots, Keauhou Subdivision, Keauhou Estates, BayView Estates, White Sands, Keauhou View, Ali‘i Heights, Ho‘omalua on Ali‘i, Ali‘i Kai, and Kona Lani Subdivisions.
2. Kuakini Highway from Kamehameha III Road to Makalapua Drive Road, by the Old Airport Park, including Kona Bay Estates, Lono Kona, and Kuakini Makai Subdivisions, and Kahakai Estates.
3. Queen Ka‘ahumanu Highway from Kuakini Highway to Kealakehe Parkway
4. Palani Road from Kealaka‘a Street. to Kuakini Highway, this includes Henry Street from Palani Road to Queen Ka‘ahumanu Highway, and Malulani Subdivision
5. Māmalahoa Highway from Kuakini Highway to Hualālai Road, including Pu‘uloa, and Kalamauka Subdivisions, and Hōlualoa Estates.
6. Nani Kailua Drive from Queen Ka‘ahumanu Highway to Melelina Street, this includes a portion of the Kailua View Subdivision.
7. Aloha Kona Drive from Hualālai Road to Melelina Street this includes a portion of Kona Heights, and Kealoha Subdivisions.
8. The Old Kona Industrial Area, including Kaiwi Street, Luhia Street, Pāwai Place, and Ehlo Street.
9. Kuakini Highway, from Kamehameha III Road to the Queen Ka‘ahumanu, Kuakini Highway Junction, this includes the Seaview, Kom‘ohana, Kilohana, Sunset View, Kalani Sunset, Kona Vistas, and Pualani Subdivisions.
10. Wālua Road, from Akoni Drive south to ‘Ihilani Street, this includes ‘Ihilani, Kuakini Heights, and Keauhou Uka Subdivisions, Kahalu‘u Houselots, and Kahalu‘u Farmlots.

The water from Hōlualoa Well, Kahalu‘u Wells A, B, C, & D, and Kahalu‘u Shaft meets all primary enforceable standards, and is therefore safe to drink. If you reside in the areas defined above and are concerned about the elevated levels of sodium and chloride, you should consult your personal physician. The department is developing additional water sources and transmission mains to reduce the pumping of the mentioned wells to reduce the present chloride and sodium levels.

