

June 30, 2017

**Frequently Asked Questions (FAQ's) and Answers**  
**REGARDING THE NORTH KONA WATER RESTRICTION AND SITUATION**

➤ **Why does it take so long to repair a well?**

Each well we operate is designed around specific factors such as, but not limited to; elevation of the well, depth to water, total height the water needs to be lifted, pumping capacity (gallons per minute), incoming electrical power requirements, etc. Thus, for the most part the pumps and motors for the wells cannot be easily interchanged or repositioned around the island. The North Kona mauka wells, which are currently under repair, are more than 1,500 feet deep, which make them some of the deepest wells in the state.

Once the scope of well repairs has been determined, procured, and a contract is awarded, the contractor can proceed to order the pump and/or motor. All of the pump and motor manufacturers are located on the mainland and don't stock these custom assembled equipment on-hand. Once the pump and/or motor is ordered it takes approximately six (6) months to acquire the correct parts, build the equipment, and then test it prior to shipment. Below is a photo of a North Kona pump.



➤ **Why did four (4) wells need repair at the same time?**

Please note that the four (4) wells did not fail at the same time, but due to repair times described above, they are in various stages of repair. These four (4) wells failed for a variety of different reasons, however timing of the well repairs was very unfortunate. The four (4) wells and their associated completion dates are listed below:

Wai'aha – July 31, 2017  
Palani – October 30, 2017  
Hualālai – November 26, 2017  
Keōpū – December 20, 2017

In an effort to expedite repairs to the North Kona wells, the Department is working closely with the well contractors and manufacturers for the pump and motors to prioritize these jobs. Our Contractors and their respective manufacturers have provided their best effort to expedite their schedules for these critical projects as much as possible. We have instructed the Contractors to complete as much of the preparation work for installation prior to the delivery of the final pieces of equipment to reduce the time required for installation work. Additionally, the Department is air freighting these materials, to minimize the delivery time of equipment.

➤ **Why did the wells fail?**

These particular pump and motors are mechanical and electrical equipment submerged in fresh water over 1,500 feet down into the earth. Because the equipment has to run up to 24 hours per day, 7 days a week to meet the region's water demand, the equipment and its components have an expected life span of 5-7 years. In this case, a few of the wells did not last as long as anticipated. In addition, there are sometimes fluctuations in the electrical power quality which could adversely affect the equipment.

➤ **Why doesn't DWS have spare pumps and motors? What is DWS doing so this doesn't happen again?**

Currently, DWS possesses a spare pump and motor for the Keahuolū Well. DWS is also currently procuring a spare pump and motor for another key North Kona well, one South Kona well, and one Ka'ū well. DWS also has a limited inventory of spare pumps and motors currently in storage for other locations around the island.

DWS has or will be installing devices that monitor pump runtimes and incoming electrical power in order to proactively anticipate potential equipment failures and then plan for their timely repairs. In addition, variable frequency drives, which adjust the pumpage rates based on demand, and other protective equipment have or will be installed in an effort to extend the pumping equipment's life span.

➤ **What are you doing about people not complying who are using a lot of water?**

Due to the serious nature of this situation, the County Civil Defense Agency will be asked to assist in coordinating with Police, Fire and other Departments to identify any abuse, and issue warnings to customers using too much water. These abuses will be reported to the Department of Water Supply, which may discontinue water service to abusers who disregard the warning.

➤ **Does DWS use County Real Property tax revenue for these well repair projects?**

No. The DWS does not use any of the County's annual budget or funds for its operations. The DWS generates its own fund from its accounts and ratepayers. The DWS uses its own budget to fund these well repair projects.

➤ **If another well source goes down, what will happen? How will I be affected?**

DWS has developed contingency plans for such an event. Although the overall goal is to minimize disruptions to water service, inevitably, this event will require some form of rotating water shut-offs. The DWS will provide water tanker trucks in or as near as feasible to the affected area(s).

➤ **What are some ways that we can conserve water? (Added 6/30/17)**

- Stop lawn sprinkling.
- Stop car and boat washing.
- Stop dust control watering.
- Stop re-filling of swimming pools and decorative water features.
- Wash only full loads of laundry or dishes at a time.
- Check faucets and pipes for leaks.
- Serve drinking water only when requested.
- Keep a container of drinking water in the refrigerator. Use drinking water wisely.
- Do not let water run unnecessarily. Please shut the water off when you wash or brush your teeth. Use a glass to rinse when brushing your teeth.
- When bathing or showering, use water only to wet and rinse off.
- Do not fill up the bathtub.
- Do not flush toilets unnecessarily.

➤ **Does this affect me? I'm not sure if I'm located in North Kona. (Added 6/30/17)**

North Kona is defined as the areas between the Kona International Airport at Keāhole, south to Keauhou, and from the Mākālei Fire Station, south to Honalo. See map below.

➤ **What about the irrigation I use for my agriculture (i.e. coffee, fruit trees, etc)? (Added 6/30/17)**

DWS asks that you use as minimal amount of water as possible. Check your irrigation system for any leaks and do not over water.

➤ **How can I wash my boating and marine equipment in order to protect it from the saltwater environment? (Added 6/30/17)**

Use only the minimum amount of water necessary to flush engines and wash exterior of boats. Always use a nozzle on your hose to prevent wasteful water usage.

➤ **Why are the golf course still watering their grass? (Added 6/30/17)**

The golf courses, in the affected area, are NOT using DWS potable water for irrigation. They are using non-potable irrigation water from a private source.



DWS North Kona Emergency Water Restriction - Affected Area  
June 30, 2017