

# **STIPULATED ORDER ON THE CITY AND COUNTY OF HONOLULU'S SEWAGE COLLECTION SYSTEM**

**FACT SHEET, May 8, 2007**

## **ACTION**

An agreement has been reached between the Federal government (U.S. Environmental Protection Agency, U.S. Department of Justice), the State of Hawaii (Hawaii Department of Health, Hawaii Attorney General's Office), and the City and County of Honolulu to address vulnerabilities in Honolulu's sewage collection system. The settlement has been lodged in U.S. District Court for the District of Hawaii and will be available for a 30-day public comment period before the U.S. seeks court approval of the settlement.

## **BACKGROUND**

In 1995, these same parties entered into a Consent Decree under which the City and County of Honolulu (CCH) agreed to improve the operation and maintenance of its sewage collection system. Work required by the consent decree is ongoing and scheduled to continue until 2019. On March 24, 2006, the Beachwalk Force Main burst. Over five days, until this force main could be repaired, CCH pumped approximately 50 million gallons of raw sewage into the Ala Wai canal, which runs directly into the Pacific Ocean. Contamination from this event resulted in high levels of bacteria in coastal waters, and led to the closure of beaches in Waikiki for one week. In response to the Beachwalk spill, EPA and HDOH initiated discussions with CCH culminating in the agreement reached today to expedite measures that will provide safeguards against similar force main failures.

As in other cities, the force mains in Honolulu are a critical link in the network of pipes that convey sewage to the City's wastewater treatment plants. In cities across the nation, this network consists of a combination of force mains and gravity mains. Sewage flows through gravity mains without being pumped, using only the force of gravity to move it through the pipe. Force mains, however, are pressurized pipes which carry sewage from residences, as well as commercial and industrial sources, to waste water treatment plants. Typically, sewage collected from large areas of the City are concentrated into a single force main to transport the sewage across a body of water or to lift the sewage up from a low point in the City's topography. Because force mains operate under pressure, even a small break can result in a large spill and a lengthy repair job. Unlike gravity flow pipes, force mains usually cannot carry sewage flow during the repair process. In the event a break occurs in a large volume force main and no backup is available, there is often no alternative but to release the untreated sewage to nearby waterways.

When the Beachwalk force main failed in March 2006, there was no backup pipe and CCH was forced to pump the raw sewage normally carried by the Beachwalk force main into the Ala Wai Canal. The Beachwalk force main carries sewage between the Beachwalk pump station, located on Kaiolu Street, at Kuhio Avenue in Waikiki, to a

pump station in Ala Moana Beach Park, near the intersection of Atkinson Drive and Ala Moana Boulevard.

CCH's sewage collection system contains 75 force mains. The U.S. Environmental Protection Agency (EPA), Hawaii Department of Health (DOH), and CCH analyzed these force mains and concluded that six were most vulnerable to future failure. The six force mains were selected because they posed the greatest risk of another catastrophic failure, with a potential for risk of harm to human health and/or the environment. EPA, DOH, and CCH considered location, flow, history of spills, and potential for uncontrolled spills in the event of a line break. Each line runs adjacent to or across a major water body. Some are near where public recreation might be expected. The force mains subject to the agreement are listed below:

<b>Force Main</b>	<b>Length (feet)</b>	<b>Diameter (inches)</b>	<b>Flow (million gallons per day)</b>	<b>Proximity to Water</b>
Beachwalk	6,554'	42"	43 MGD	crosses Ala Wai Canal
Ala Moana #2	4,477'	78"	107 MGD	crosses Honolulu Harbor
Hart Street	2,907'	34"	32 MGD	crosses Honolulu Harbor
Kaneohe/Kailua	13,509'	42"	32 MGD	runs along shore of Kaneohe Bay
Waimalu	2,756'	30"	22 MGD	along Pearl Harbor
Kahala	4,560'	24"	14 MGD	near ocean at Diamond Head

### **THE STIPULATED ORDER**

Under the Stipulated Order, CCH is agreeing to implement a range of activities designed to prevent future catastrophic spills from the six identified force mains. These activities fit into five primary areas.

1. **Construction of Replacement Force Mains:** In the case of three of the vulnerable force mains, CCH will construct new, replacement force mains. These are the Beachwalk force main (due 12/31/2012), the Ala Moana force main (due 12/31/2014), and the Kaneohe/Kailua force main (due 12/31/2014). CCH completed construction on a new Hart Street Force Main in May 2001.
2. **Back-up Force Mains:** The settlement will eventually provide for back-up force mains at four of the force mains: Beachwalk, Ala Moana, Kaneohe/Kailua, and Hart Street. Once the replacement force mains are in place, the old force mains could serve as back-up or redundant force mains. Alternatively, CCH may choose to build the replacement force mains as dual barrel pipes.

3. **Force Main Condition Assessments and Repairs:** For all six vulnerable force mains, CCH will assess the ability of the force main to continue to operate without sewage spills. CCH has agreed to schedules for the completion of these condition assessments and for implementation of necessary follow-up actions identified in these assessments. For the Waimalu and Kahala force mains, the condition assessment will identify any defects that could impact the force main's ability to properly function. If it is determined that either of these force mains has defects requiring replacement of the force main, CCH will submit a schedule for construction of a new force main, and a plan for safely operating the force main until such time as the new force main is available. For the Beachwalk, Ala Moana, Kaneohe/Kailua, and Hart Street force mains, condition assessments will be conducted on the existing force main (or the old force main in the case of Hart Street). CCH will make any necessary repairs to these force mains, and maintain them in good working condition for use as back up force mains when the new force mains are constructed and operating.

<b>Force Main</b>	<b>Condition Assessment Completion Date</b>
Beachwalk	7/31/2008
Ala Moana #2	6/30/2008
Hart St.	1/31/2009
Kaneohe-Kailua	12/31/2009
Waimalu	1/31/2009
Kahala	1/31/2009

4. **Beachwalk Pump Station Condition Assessment:** By January 31, 2008, CCH will conduct a condition assessment of the Beachwalk Pump Station to determine whether repairs or replacement of this pump station is necessary. CCH has agreed to a schedule for the completion of any necessary pump station repairs or improvements based on the assessment findings.
5. **Spill Contingency Plans:** By January 31, 2008, CCH will submit site-specific spill contingency plans for each of the six vulnerable force mains. These plans will lay out protocol for minimizing the impacts of any spills from the six force mains.

#### **NEXT STEPS**

The settlement has been lodged in U.S. District Court for the District of Hawaii and will be available for a 30-day public comment period before the U.S. seeks court approval of the settlement.

The current agreement is an interim settlement because it addresses only some of the problems in the city's wastewater collection system. In addition to the force mains addressed in the agreement announced today, the city's wastewater collection and treatment system includes many other features, which are the subject of other regulatory processes and legal proceedings. As a next step, it will be the intention of the Federal

and State governments to attempt to reach a comprehensive resolution to the city's remaining wastewater collection and treatment challenges.