



## Legislation Text

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**File #:** 2007-0127, **Version:** 2

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Clerk 3/26/2007

AN ORDINANCE making a supplemental appropriation of \$6,100,000 to cover costs and expenses relating to the procurement of construction, design and other services, materials and equipment on an emergency basis to perform the Mercer Island Pump Station Interceptor Line Replacement Project; and amending the 2007 Budget Ordinance, Ordinance 15652, Section 121, as amended.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

**SECTION 1. Findings.**

A. On December 14, 2006, a powerful rain and windstorm hit the Puget Sound area, causing outages and surges in the conveyance lines throughout the county and prompting the King County executive to issue a Local Proclamation of Emergency on December 15, 2006. On January 8, 2007, the King County council adopted Motion 12430, which recognized the resultant damage and extended to March 1, 2007, the authority of the county to waive standard procurement processes to quickly mobilize to repair the damage.

B. An underground gravity sewer conveyance line located on both SE 24th Street and 84th Avenue SE and Luther Burbank Park on Mercer Island failed, creating a sinkhole that was approximately ten feet long, two feet wide and two feet deep on 84th Avenue SE on Mercer Island. Further investigation and excavation revealed that the underground gravity sewer conveyance line made of a material called Techite failed during the storm.

C. A second sinkhole on the line developed approximately ten feet upstream from the original sinkhole on December 21, 2006. This sinkhole was caused by a loss of backfill and gravel resulting from the original

storm surge on December 14, 2006.

D. Wastewater treatment division ("WTD") personnel inspecting the pipe determined that it would not hold for another significant event and decided to temporarily bypass the line in order to relieve stress on the pipe and initiate a permanent replacement of the pipe. WTD, in conjunction with construction support from Frank Coluccio Construction Company installed an emergency bypass from December 26, 2006, through January 4, 2007, at which time the line became operable. The bypass consists of an 18-inch high-density polyurethane ("HDPE") pipe, which is laid on top of the ground, with the exception of when it is lowered into the pavement and protected by steel sheets to allow driveway access.

E. The county's closed circuit television ("CCTV") crew sent a camera through the system and located numerous fractures in addition to the initial damaged area, within the pipe. The fractures were found in the pipe run of nine hundred fifty feet along 84th Avenue SE. A second run of seven hundred feet pipe made from Techite on SE 24th Street was inspected with CCTV and there was no indication of fractures along that run. However, the pipe entering Luther Burbank Park from SE 26th Street was found to have a twelve-inch longitudinal fracture along the crown approximately eighteen feet from the manhole through the parking lot to the wetland. This additional fracture was problematic as it was not expected to withstand high pressure surges from the newly operating bypass. WTD directed Coluccio Construction to bypass that last section of pipe to eliminate further risk of breakage and sewage spills in the area while a new pipe is installed. An additional bypass of approximately four hundred eighty feet running from just north of the lower entrance to Luther Burbank park through the wetland to a private residence on the edge of the wetland was completed January 18, 2007.

F. In light of the current condition of the pipeline system and the inadvisability of using the above-ground temporary bypass longer the minimum necessary where it may be more easily subject to damage or vandalism, WTD staff has moved to replace the existing pipe system from the pump station to the wetland with a new underground line made from HDPE on an emergency procurement basis pursuant to the authority

granted in Motion 12430.

G. A pipe bursting technique will be used to replace the damaged pipe as it presents the least amount of disruption to the surface streets and allows for the old pipe to simply stay "in place" while the new pipe takes over its new function. This technique is widely used in trenchless pipe replacement. If the soil composition within the wetland does not allow pipe bursting, the pipe will be replaced using traditional trenching methods.

H. The initial work on the replacement project began on January 19, 2007, once the final bypass pipe was installed. Substantial completion of the replacement project, road and parking lot restoration, and demobilization can be accomplished by mid-April 2007. Wetland restoration will remain an open item until the fall when plantings will have the best opportunity to root and survive during the late fall and winter months. Additionally, wetland monitoring will continue for at least another year post construction.

SECTION 2. Ordinance 15652 Section 121, as amended, is hereby amended by adding thereto and inserting therein the following:

The Mercer Island Pump Station Interceptor Line Replacement Project 423XXX, in appropriation project category A20400 Conveyance Pipeline and Storage requires an appropriation of \$7,000,000 to cover all costs and expenses associated with the design, construction and completion of the emergency restoration.

<b>Fund</b>	<b>Fund Name</b>	<b>Amount</b>
4616	Wastewater Treatment Capital	\$6,100,000

SECTION 3. Attachment A to this ordinance hereby amends Attachment D to

Ordinance 15652, as amended, by adding thereto and inserting therein the projects listed in Attachment A to this ordinance.