

 <p style="text-align: center;">Council Communication Office of the City Manager</p>	Date:	May 7, 2012
	Agenda Item No.	43I
	Roll Call No.	[_____]
	Communication No.	<u>12-202</u>
	Submitted by:	William G. Stowe, Assistant City Manager – Public Works Director

AGENDA HEADING:

Purchase of Chemical Root Control Machine

SYNOPSIS:

The Sewer Maintenance Division of the Department of Public Works is responsible for the cleaning of 935 miles of sanitary sewers throughout the City. Over 50 miles of these sewer lines require treatment to remove tree roots to reduce blockages and potential damage claims. As an alternative to the time-consuming process of cutting the roots annually, the Department of Public Works let a contract in 2006 to pilot-test chemical root control that lasts up to four years with good results. Rather than contract at a rate of \$1.00 per foot, staff recommends purchase of a truck-mounted Chemical Root Control Machine, manufactured exclusively by Vaporooter (1550 E. Old 210 Hwy., Liberty, Missouri), at a cost of \$36,000. In-house application of chemical root control material with this machine is estimated to cost \$.65 per foot for materials, personnel and equipment.

FISCAL IMPACT:

Amount: \$36,000, which includes purchase and installation

Funding Source: Sanitary Sewer Operations Fund, EN101 PWK071000. Page 232, Operating Budget for Fiscal Year Ending June 30, 2013.

ADDITIONAL INFORMATION:

The Chemical Root Control Machine is the only one of its kind in production. It is sold by Trans Iowa Equipment, which is the regional dealer for the City’s Vactor sewer cleaning trucks. If approved, this machine will be mounted on one of the new Vactor sewer cleaning trucks recently purchased by the Sewer Maintenance Division. This machine has been tested and approved by Vactor for use on its trucks. It will not affect the warranty provided by Vactor or by the chassis provider.

The Sewer Maintenance Division annually clears 50 miles of sewer lines that are obstructed by tree roots to keep them open and free flowing. This work has previously been accomplished using mechanical root-cutting equipment at a cost of approximately \$.41 per foot per year. The chemical root control system will provide root control for up to four years per treatment, at an estimated cost of \$0.65 per foot. This corresponds to an annual cleaning cost of approximately \$0.16 per foot (\$0.65 per

foot/four-year treatment interval), compared to the annual mechanical root-cutting cost of \$0.41 per foot.

Chemical Treatment Pilot Program

In 2006, a pilot program designed to evaluate the effectiveness of chemical root control was implemented. Chemical root control, involving injection of sewer lines with a foam containing a DNR-approved herbicide (which treats only the hair-like roots that have entered the sewer at joints or fractures and does not injure the actual tree) was used on a specific pilot area. Follow-up televising of the pilot area, has shown that the chemical root control resulted in sewers that are root-free for up to four years after initial application.

Recommendation

Staff recommends purchase of a Chemical Root Control Machine, manufactured exclusively by Vaporooter (1550 E. Old 210 Hwy., Liberty, Missouri), at a cost of \$36,000. The purchase price of this chemical root control machine does not include the root control chemicals. These chemicals will be purchased separately at a later date, once the equipment has been received and installed. The cost for chemicals in 2012 to treat 100,000 feet of sewer will be \$32,000. These chemicals are currently only produced by the same company that manufactures the root control machine. However, additional manufacturers are expected to provide this product in the near future, enabling competitive bidding for future material needs.

PREVIOUS COUNCIL ACTION(S): NONE

BOARD/COMMISSION ACTION(S): NONE

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS: NONE

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