

Memorandum
City of Lawrence
Utilities Department

TO: David L. Corliss – City Manager
Cynthia Wagner - Assistant City Manager
Diane Stoddard - Assistant City Manager
FROM: Dave Wagner – Director of Utilities
CC: Mike Lawless – Asst. Director of Utilities
Philip Ciesielski - Asst. Director of Utilities
Dave King, Utilities Maintenance Superintendent
Alan Landis – Purchasing Specialist
Date: November 29, 2012
RE: Emergency Replacement to the Belt Conveyor System for
Dewatered Biosolids

Authorize the City Manager to approve the Emergency Replacement of the Biosolids Conveyor System with Serpentix Corporation for an estimate cost of \$270,000.

Background:

The biosolids belt presses produce about 3 dry tons of biosolids each day. The conveyor system transports dewatered biosolids from the belt press building outside and into the storage bunkers. During 2012, the maintenance necessary to keep the conveyor system operational has increased. In the last month maintenance has become a daily necessity to replace the guides that hold the chain and conveyor pans to the track. As the chain and pans come off the track more frequently, the track twists taking it out of alignment. See pictures below. Shims are used to get it back in alignment but not truly straight. Cold temperatures make the problem worse and at temperatures below 20° it must be shut down.

Ideally, the conveyor system needs to operate 24 hours a day and 7 days a week to maintain consistent ammonia loading for the plant process. However, for maintenance purposes, the belt press operations can be suspended for about one week. This is a function of and must be coordinated with digester operation and storage.

The conveyor system went into operation with the completion of the plant improvements in 1998. The conveyor has been identified as a potential WWTP capital improvement project since 2010. This month the manufacturer inspected the conveyor system and confirmed what staff believes that conveyor system is at the end of its useful life and should be replaced.

Status:

Staff has been working on emergency procurement of the replacement of the biosolids conveyor system from the manufacturer, Serpentix. The total estimated cost to replace the conveyor system is \$270,000 with an approximate lead time of 9 weeks for the equipment.

Staff will provide a full report of the work performed at the completion of the project as well as request approval for payment of the services provided.

Project Funding:

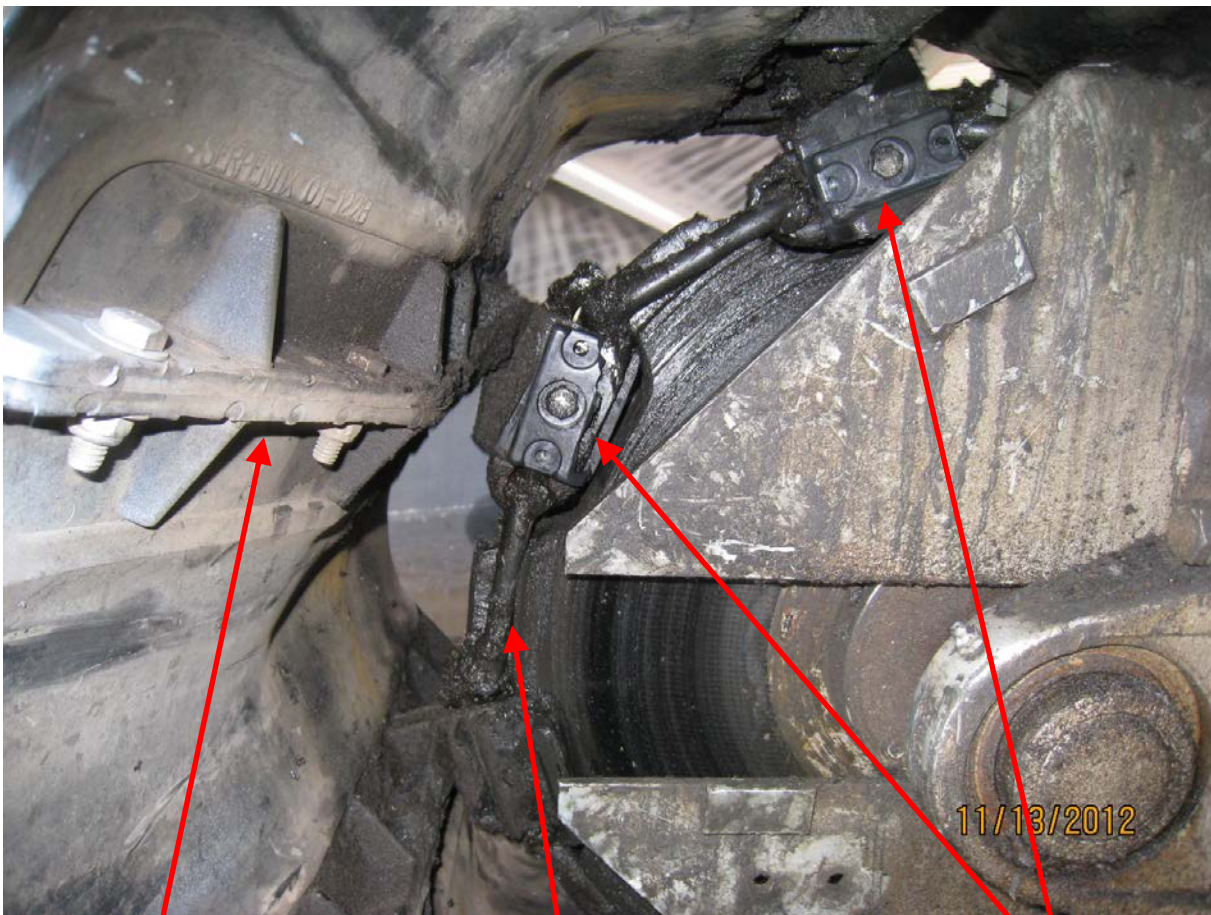
This project will be funded from the Department of Utilities Operations and Maintenance budget for the Wastewater Treatment Plant.

Action Request:

Authorize the City Manager to approve the Emergency Replacement of the Biosolids Conveyor System with Serpentix Corporation for an estimate cost of \$270,000.



Broken Guides



Backside of
Conveyor Pan

Chain

Broken Guides after 16
hours of operation



Metal Track
for Conveyor

Conveyor off the track on the upper level of the storage bunker
because of broken guides.