



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Solid Waste

To: City Council

From: City Manager & Staff

Council Meeting Date: June 5, 2017

Re: Setting a Public Hearing - Bioreactor Landfill Cell #6

## Executive Summary

Staff has prepared for Council consideration a resolution setting a public hearing for July 3, 2017 for the construction of Bioreactor Landfill Cell #6. The Cell #6 project involves constructing an 11.26 acre bioreactor landfill area within the existing permitted airspace at the Columbia Landfill.

## Discussion

This proposed Bioreactor Landfill Cell #6 project involves excavating approximately 200,000 cubic yards of soil, 190,000 cubic yards of rock, installing 11.26 acres of synthetic liner, installing 18,000 cubic yards of drainage media and constructing a new vehicle access road as shown on the attached diagram. This project is being designed by Burns and McDonnell. The estimated construction cost for this project is \$5,500,000.

Landfill operations at the Columbia Landfill property began in 1986. The property contains 720 acres of which 91 acres are currently permitted to receive waste. Trash is currently being placed in Bioreactor Landfill Cell #5, which is anticipated to reach intermediate capacity in the October 2017. Once Cell #5 reaches intermediate capacity, trash will be placed on top of Cells #1-4 until Cell #6 is completed.

The proposed Bioreactor Landfill Cell #6 is the last area to be constructed within the currently permitted airspace. With the current volume of trash received at the Columbia Landfill, it is anticipated Cell #6 will be filled to intermediate capacity in approximately 5 years. Disposal operations will shift to filling above the entire 91 acre active landfill area once Cell #6 is filled to intermediate capacity. Placing trash on top of the 91 acre active landfill area will continue until final permitted elevations are achieved, which is anticipated to take an additional 9 years. Therefore, the existing permitted landfill disposal area has approximately 14 years of capacity remaining.

The Leachate Handling and Storage Project and the Bioreactor Landfill Cell #6 project will be bid and constructed together as a single project.

## Fiscal Impact

Short-Term Impact: The estimated construction cost for this project is \$5,500,000 and will be funded with Special Obligation Bond Funds.



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

Long-Term Impact: The costs to operate the landfill are included in the annual operations budget. The addition of this cell is not anticipated to result in a significant change to the annual landfill operating budget of approximately \$4 million.

## Vision & Strategic Plan Impact

### Vision Impacts:

Primary Impact: Community Facilities & Services, Secondary Impact: Environment, Tertiary Impact: Not Applicable

### Strategic Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Not Applicable, Tertiary Impact: Not Applicable

### Comprehensive Plan Impacts:

Primary Impact: Environmental Management, Secondary Impact: Infrastructure, Tertiary Impact: Livable & Sustainable Communities

## Legislative History

Date	Action
04/03/2017	Ordinance authorizing the issuance of Special Obligation Improvement Bonds (Solid Waste System Project Series 2017)
06/06/2016	(Res. 73-16) Agreement with Burns & McDonnell Engineering Company, Inc. for Bioreactor Landfill Cell #6 Construction Documents and Leachate Study & Design

## Suggested Council Action

Approve the resolution setting a Public Hearing for the construction of Bioreactor Landfill Cell #6 for July 3, 2017.