

Department of Public Works
Water Production Division

Lime Residual Project
Alternate Material Transfer Method



Finance Committee Meeting
May 28, 2019

Water Treatment Plant By-Product

Current Lime Residual Handling

- Lime Softening process
 - Produces By-Product
- 5 Onsite Dewatering Lagoons
 - Daily Management by staff
- Past 5 Year Averages:
 - 38,400 Wet Tons per Year
 - Disposal: \$1.38 Million per yr



Lime Residual Project

Brief History / Timeline

- 1992 WTP online; Lime-softening process
- 2000± Conceived concept of by-product in mine
- 2006± In-mine disposal method investigation began
- 2012 First use of land application for disposal
- 2015 Receipt of IEPA underground injection permit
- 2016 City aware of alternate transfer method
- 2017 Financial model developed to analyze options
- 2018/2019 Discussions on alternate transfer method

Lime Residual Project

Alternate Transfer Method

- Lime residual dewatered at WTP site
- Material removed from WTP via backhoe & trucks
- Lime residual hauled to LaFarge mine site
- Material placed into mine via large drop shaft
- LaFarge moves material in mine to final placement

Same material, same location, less water

Lime Residual Project Cost Analysis

- Current expected life of existing mine = 15 years
 - Extended 5 years if allowed to mine City parcel to East
- More than 50 years capacity in existing mine

Total Net Present Value of Cumulative Costs

Option	At 10 Years	At 19 Years
Continue As-Is	\$17.1 mill.	\$37.7 mill.
Underground Injection	\$17.7 mill.	\$22.9 mill.
Alt. Transfer Method	\$10.0 mill.	\$22.6 mill.

Lime Residual Project Cost Analysis

- Current recommendations
 - Pursue Alternate Transfer Method option
 - Contact IEPA regarding modified UIC permit
 - Permit future mining of City-owned parcel to East
 - Extend current material removal contract for 6 months
- Keep UIC permit active as contingency



Lime Residual Project Questions?

