



# Atherton Phase III Improvements

Advanced Air Emissions  
\$20 Million Bond Issue

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# Presentation Outline

## \$20 Million Phase III Improvements



# Executive Summary

## Chronology

1

In 2010 a \$118 million bond for Phase II approved

2

During the course of Phase II air pollution standards for incineration changed

3

Advanced Emission Controls needed by 2020

4

Advanced Emissions Controls cost \$20 million

# Executive Summary

## Solution

5

District efforts have driven operating costs below 2010 predictions

6

Efficiencies fully offset the costs of Phase III

7

Phase III bonding and improvements possible with no deviation from 2010 Financial Plan

9

Phase III does not extend service contract term

10

Details of “**no impact**” follow

# District Service Area

Formed in 1968 as Regional Wastewater System

Self-Governed by 14 Customers:

- City of Belton
- City of Blue Springs
- Fort Osage School District
- City of Grandview
- City of Independence
- County of Jackson
- City of Kansas City
- City of Lake Tapawingo
- City of Lee's Summit
- Middle Big Creek Sewer Subdistrict
- City of Raymore
- City of Raytown
- City of Sugar Creek
- Lake City Ammunitions Plant\*



# Little Blue Valley Sewer District

## General Attributes



Treated  
Wastewater

35 Million  
Gallons/Day



# of staff  
positions

59



Budget

\$27.5  
Million



Population  
served

365,000

\*52 Million Gallons/Day  
Capacity



# Phase II Improvements

In 2010 Customers approved a \$118 million bond issue for Phase II (30-year bonding)

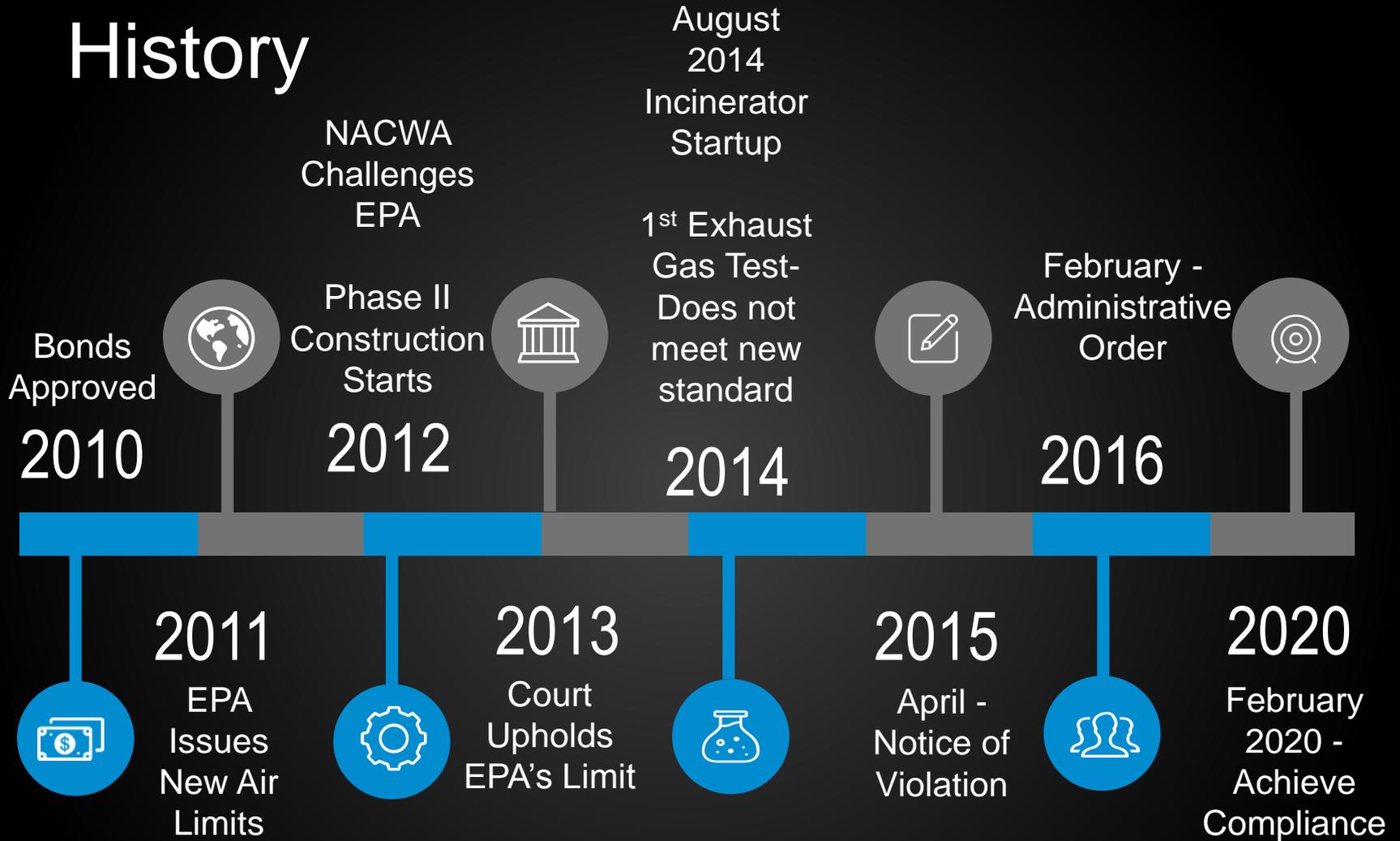
Ultraviolet Disinfection (required by March 2014)

Excess Flow Holding Basin (Control for full disinfection)

Sewage Sludge Incinerator (replaced 25-year old unit)

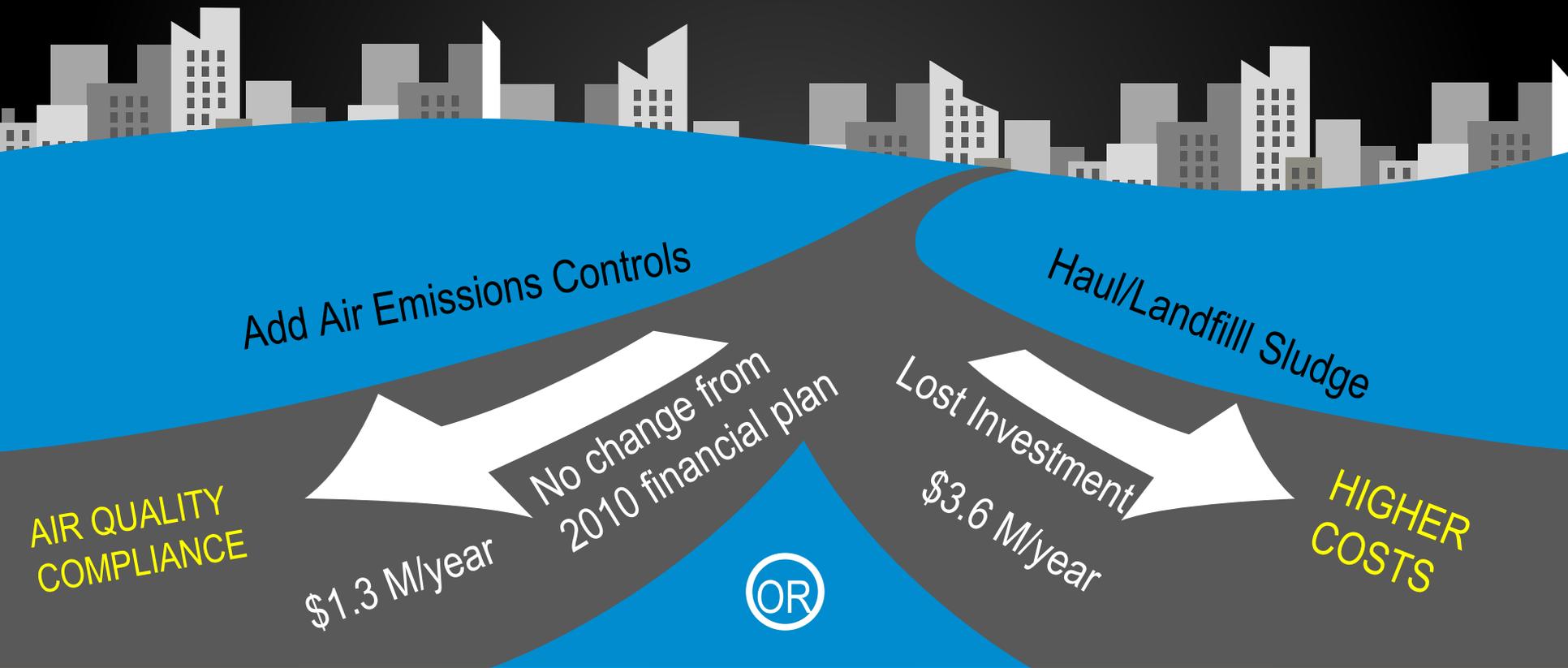


# History



# Two paths to choose from

Add Air Emissions or Cease Operations  
& Landfill Sludge



# Recommend Phase III Improvements

Request Customer authorizations for a \$20 million bond issue for Phase III (20-year bonding)

Most Cost-Effective

Advanced Controls were identified as future need in 2010, was not a question of “if” but one of “when”

Administrative Order enables 4-year use of incineration system

# Phase III Improvements

## Advanced Air Emission Control System

Removes  
Metals From  
Exhaust Gas



**Wet Electrostatic  
Precipitator**

Controls  
Nitrogen  
Oxides



**Aqua Ammonia**

Reduces Mercury to  
Required Limit

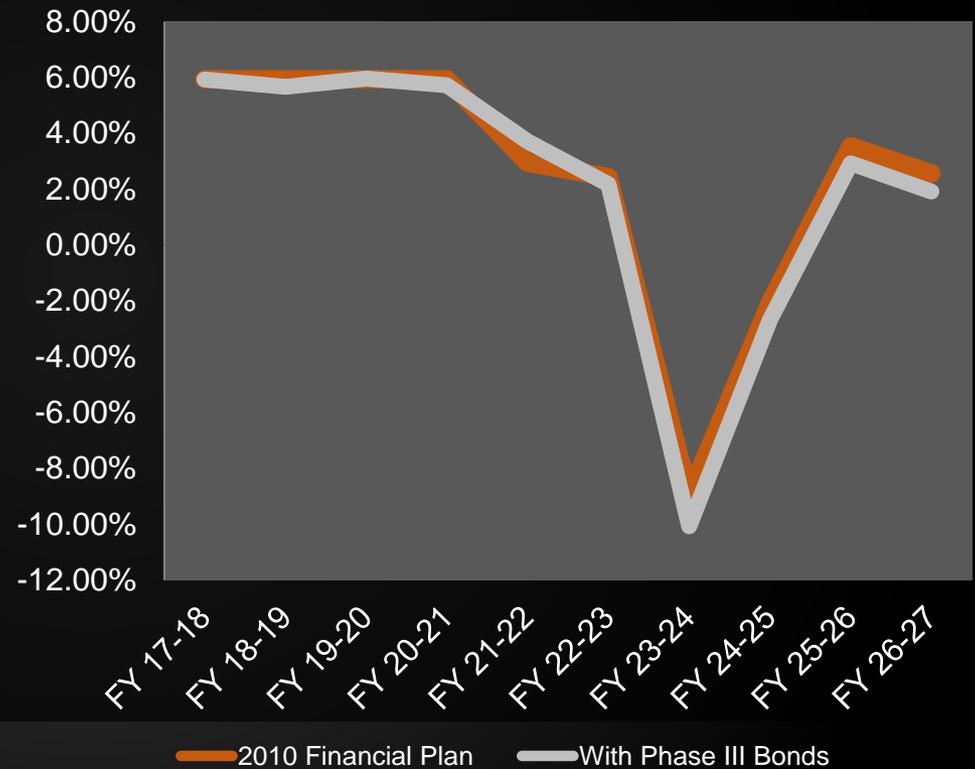


**Carbon-Packed Adsorber**

# Revenue Impacts

Fiscal-Year	2010 Financial Plan	With Phase III Bonds
2017-18	5.95%	5.93%
2018-19	5.95%	5.67%
2019-20	5.95%	5.97%
2020-21	5.95%	5.73%
2021-22	2.96%	3.72%
2022-23	2.43%	2.18%
2023-24	-8.97%	-10.07%
2024-25	-2.07%	-2.967%
2025-26	3.55%	2.93%
2026-27	2.57%	1.92%

## On Track with 2010 Financial Plan



# Phase III Installation Schedule

Schedule meets  
Administrative Order  
on Consent

## PHASE III IMPROVEMENTS SCHEDULE

TIME FRAME	Summer 2016	Fall 2016	Spring 2017	Summer 2017	Summer 2019	Winter 2019
ACTIVITY	Start Final Design	Sell Bonds	Receive Bids	Begin Construction	Commission and Test	Project Closeout

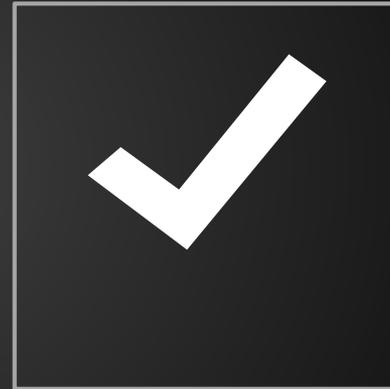


# Approve \$20 Million in Revenue Bonds

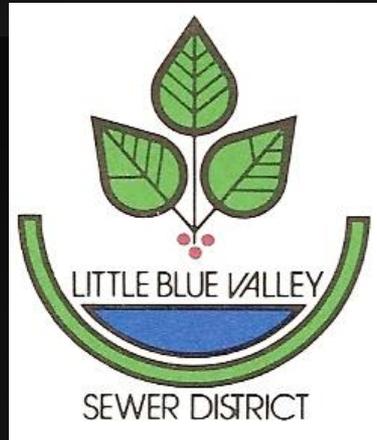
With no change to the  
2010 financial forecast



Adopt  
Authorizing  
Resolution



Bond Issuance, by Statute, Requires  
75% Passage by Customers (10 of 13)



# Atherton Phase III

## Thank You

### CONTACT

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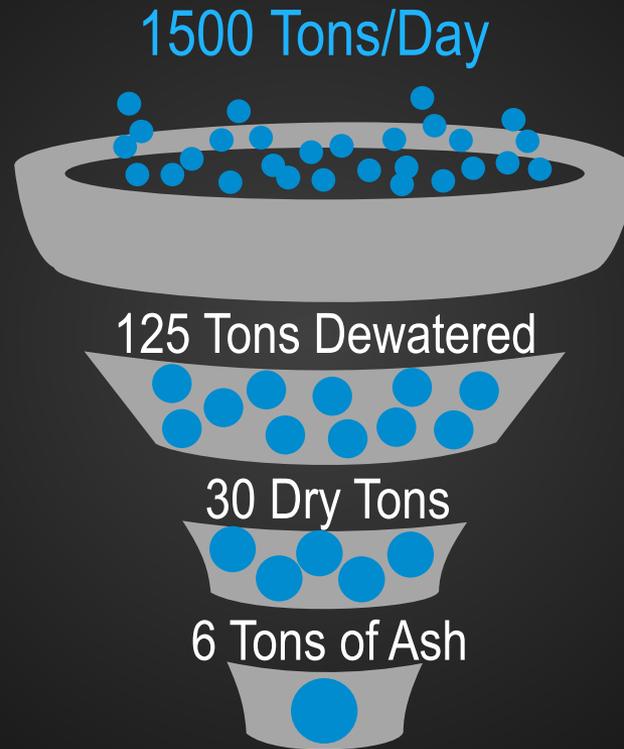
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# Atherton Wastewater Treatment Plant

## Our Mission



# Incinerator Reduces Sludge by 99.6%



# Atherton Wastewater Treatment Plant

52 million gallons per day capacity  
400 million gallons per day maximum



# Atherton Wastewater Treatment Plant

Old Incineration System (1990 Vintage)



# Phase II Improvements

Ultraviolet  
Disinfection



Required  
March 2014

Fluidized Bed  
Sewage Sludge  
Incinerator



Replacing Failing  
25-Year Old Unit

Excess Flow  
Holding Basin



Wet Weather Flows

# Incinerator Testing

Incinerator exhaust gas meets design performance but does not meet the changed air emissions limits:

Performance Testing 2 of 10 pollutants don't meet new limits

Stack Testing – Met contract requirement, not changed permit limit



# Non-Compliance Resolution

Incinerator exhaust gas meets 8 of 10 pollutant limits

Agreed to Administrative Order on Consent

\$6,000 penalty

Operate incinerator thru February 2020

Periodic progress reports



# Reasons for Continuing with Phase II

National Association of Clean Water Agencies appealed stricter air limits in court

Phase II Budget did not include cost of Advanced Air Emissions Controls

Disinfection deadline of March 2014 necessitated old incinerator be offline

Old incineration system failing and inadequate

Actual air pollutant concentrations offer more cost-effective design (actual data)

