



Woodlands Wastewater Treatment Facility No. 1 Improvements

“Tin-Man” / Odor Control Update

Lakeside Cove Community

June 1, 2021

TCEQ Received Odor Complaints

Texas Commission on Environmental Quality
Investigation Report

San Jacinto River Authority

The Woodlands Wastewater Treatment Facility No. 1

2436 Sawdust Road, The Woodlands, Texas 77380

TPDES Permit No. WQ0011401001

EPA ID: TX0054186

RN101513273

Complaint Investigation Report No. 1701917

Incident Nos. 343401, 348613, 349413

Conducted on Thursday, February 4, 2021 and Tuesday, March 30, 2021

Table of Complaints (57 complaints to the State since November 20, 2019)

	Tracking Number	Complaint Received	Status	
1	349413	1/17/2021	CLOSED	2 e-mails
2	348613	1/5/2021	CLOSED	2 e-mails
3	343401	9/30/2020	CLOSED	1 e-mail
4	338874	7/12/2020	CLOSED	2 e-mails
5	337684	6/23/2020	CLOSED	10 e-mails
6	336765	5/4/2020	CLOSED	24 e-mails
7	336417	5/31/2020	CLOSED	1 e-mail
8	335051	5/3/2020	CLOSED	1 phone contact
9	334156	4/16/2020	CLOSED	1 phone contact
10	333920	4/12/2020	CLOSED	1 e-mail
11	333919	4/12/2020	CLOSED	2 e-mails
12	333917	4/8/2020	CLOSED	1 e-mail
13	328185	1/13/2020	CLOSED	1 e-mail
14	327986	1/6/2020	CLOSED	1 e-mail
15	327797	1/4/2020	CLOSED	2 e-mails
16	327725	1/7/2020	CLOSED	1 e-mail
17	327579	1/2/2020	CLOSED	1 e-mail and 1 phone
18	327342	12/19/2019	CLOSED	1 e-mail contact
19	326512	12/4/2019	CLOSED	1 e-mail contact
20	325374	11/20/2019	CLOSED	1 e-mail contact

Three Potential Sources of Odor

This project addresses only one



Figure 1: Tin Man Collection System Exhaust Structure (prior to removal)



Preliminary Engineering Report



Pros:

Low maintenance
Long media life
Lower long term costs

Bio-filters

Cons:

Higher capital cost
Tricky to “dial” in
No power = issues



Pros:

Lower capital cost
No effluent odors
No "break-in" period

Carbon Filters

Cons:

High maintenance
Short media lifespan
Higher long-term costs

Expenses

Approved Expenses

Perkins Study	\$ 55,549
Kimley-Horn Study #1	\$159,172
Tin-man Design (PER only)	\$ 87,061
Estimated SJRA staff time (over 3 years)	\$100,000
Tin-Man design (remainder of design)	\$110,112

Total Approved Spend: \$511,894

Total Spent to Date: \$401,782

Potential Capital Improvement and O&M Expenses

Bio-trickling Filter

Air Flow Rate (cfm)	Manufacturer	Total Capital Cost	20 Year O&M Cost	Total PW Cost
13,000	Anua	\$1,249,997	\$289,515	\$1,539,512
	BioAir	\$1,564,546	\$228,058	\$1,792,604
	ECS	\$1,592,847	\$264,029	\$1,856,876
	Evoqua	\$1,955,047	\$316,835	\$2,271,882
	Daniel	\$2,161,747	\$221,043	\$2,382,790

Potential Odor Sources



Figure 1: Tin Man Collection System Exhaust Structure (prior to removal)

- Tin-Man only addresses one of the three identified sources
- Tin-Man originally installed for Grogan's Mill / North Millbend area only
- No odor complaints from Grogan's Mill / North Millbend since Tin-Man removed (April 2020)

Report



Wastewater Treatment
Facility No. 1
Improvements
Preliminary Engineering Report

April 2021

DRAFT

Report can be located:

<https://kimley-horn.securevdr.com/d-se2d31c56f32f43578ed2c2aa997dc2c2>



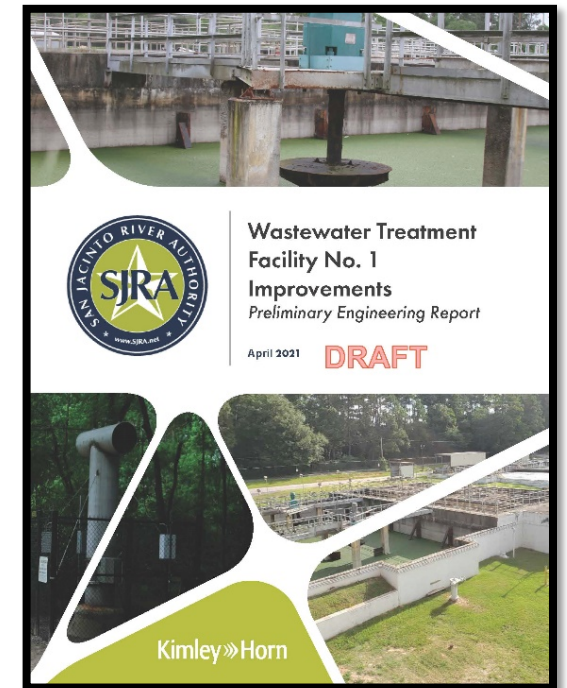
Kimley»Horn

WWA Trustee Direction

On May 12, 2021, the WWA Board of Trustees approved SJRA to proceed on a parallel path.

Parallel Path:

1. Complete Preliminary Engineering Report (PER) and provide recommendations on procuring a recommended Bio-Filter.
2. Acquire, install, and dose SuperAll into the Gravity Sewer System at central locations.



SuperAll #38 Pilot Study

“SuperAll is an environmentally friendly readily biodegradable compound that chemically neutralizes H₂S, which is the most typical offender in waste water odor complaints.”



Pilot Study Duration: 6 – 12 Months



Chemical Feed System

SJRA's Odor Response Protocol

“Contact SJRA-Woodlands Division to report odor concerns so we can check operational processes”

Reporting Odor Concerns:

- Call The SJRA Woodlands Division at 281-367-9511 (24/7)
- SJRA's Homepage:



“Click on this button on the SJRA homepage and send a message to The Woodlands Division”



Questions?

For additional information on the WWTF No. 1 Odor Study, please visit our website at

www.sjra.net/woodlands/construction/wastewater-treatment-facility-odor-study/

You may also call the Woodlands Division office at **281-367-9511**, or contact the following SJRA staff:

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