

Bel Aire Sewer Use Framework

November 14, 2023

Agenda

- Lift Station Wastewater Update

Monitoring

- Proposed Sewer Use Ordinance

- Industrial Waste Survey

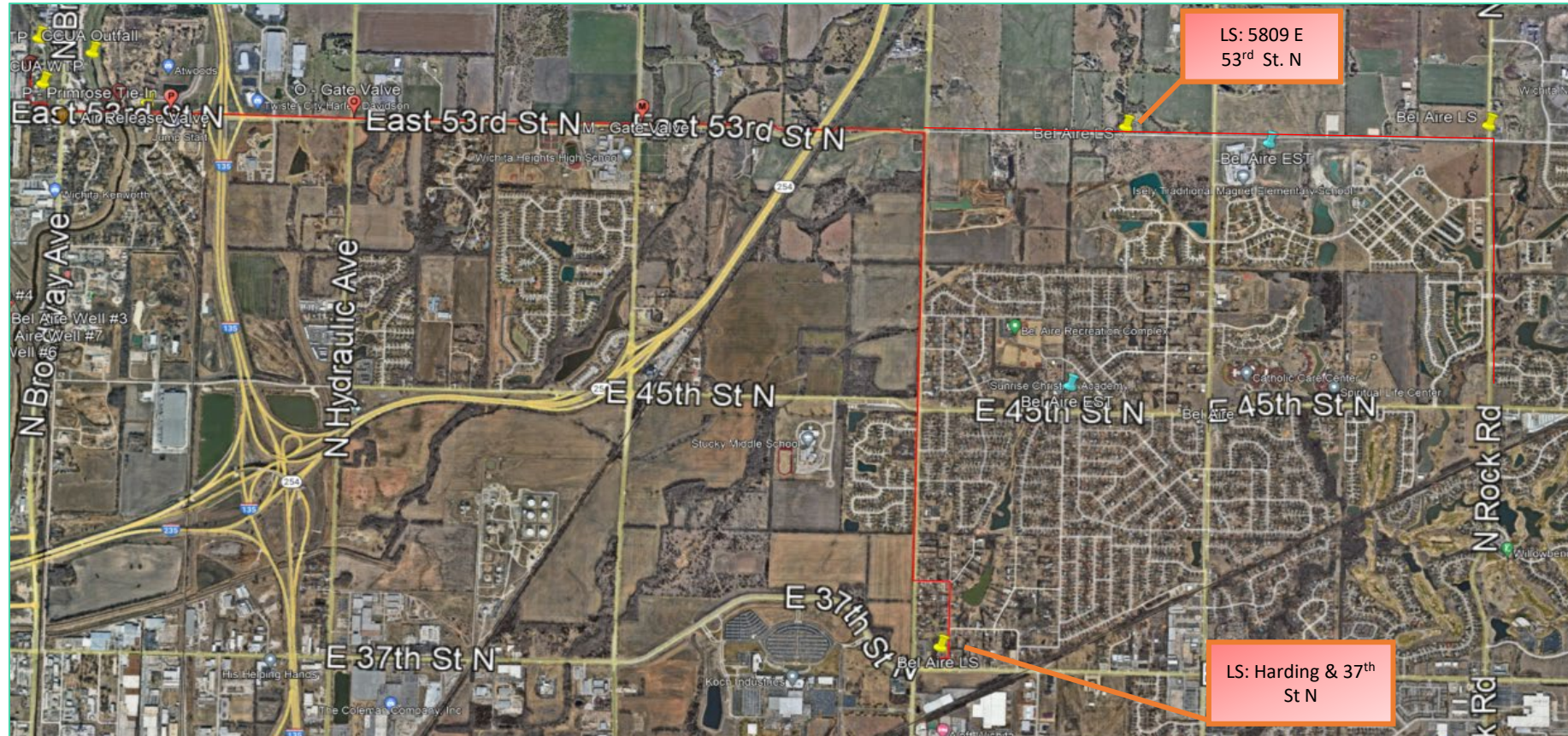
- Next Steps

Wastewater Monitoring



Wastewater Sampling Locations

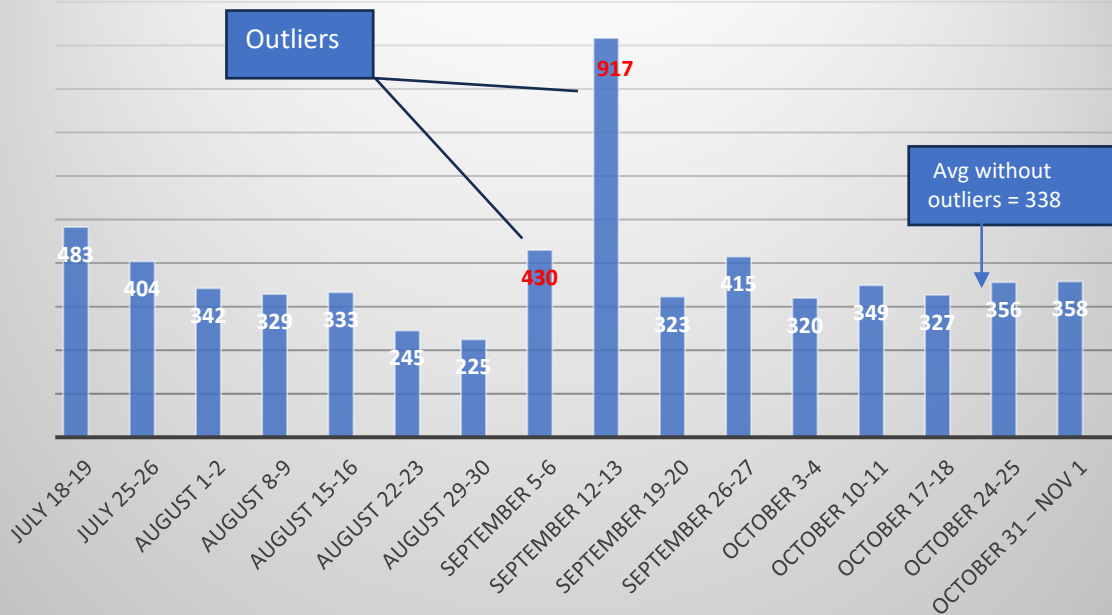
- Since July 18, 2023, samples have been collected weekly at 2 Lift Stations which collect the wastewater generated in Bel Aire



Analytical Results July - October			Harding Lift Station			53 rd St. N Lift Station				
Sample Date	BOD mg/L	TSS mg/L	NH3-N mg/L	TKN mg/L	PO4 mg/L	BOD mg/L	TSS mg/L	NH3-N mg/L	TKN mg/L	PO4 mg/L
July 18-19	483	387	47.4	41.4	10.8	672	381	45.9	47.2	6.4
July 25-26	404	79.3	50.7	61.8	8.4	272	137	41	48.7	6
August 1-2	342	373	22.6	66.2	6.7	312	219	19.4	46.6	5.3
August 8-9	329	326	41.6	43.4	7.2	402	471	39.8	47	5.6
August 15-16	333	333	42.5	78.9	7	484	300	43.7	85.3	5.4
August 22-23	245	237	59.5	59.8	10.5	338	218	0.1	32.3	5.8
August 29-30	225	217	51.2	78.1	8.8	328	204	39.9	57.4	6
September 5-6	430	504	48.8	96.5	11.8	300	232	42	65.3	6.5
September 12-13	917	2290	50.5	115	15.9	308	188	36.6	52.5	6.2
September 19-20	323	238	44.8	71	7.8	367	295	42	63.8	7
September 26-27	415	252	24.2	58.4	9.8	379	278	37.9	48.2	6.7
October 3-4	320	233	47.3	68.4	7.3	368	226	42.9	60.5	6
October 10-11	349	352	43.4		6.7	329	184	36.2		5.6
October 17-18	327					323				
October 24-25	356	199	46.4	61	6.76	369	284	38.3	56	6.2
October 31 – Nov 1	358					393				

BOD Results

Harding Lift Station BOD mg/L



BOD Average = 385 mg/L

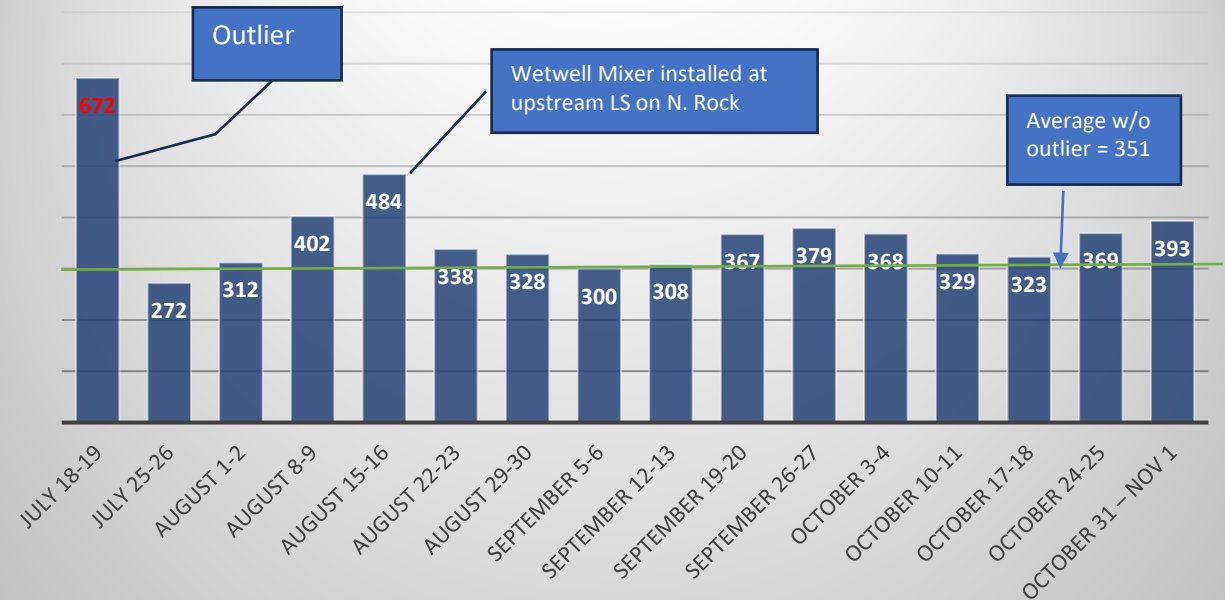
BOD Average w/o outlier = 338 mg/L

Literature Avg Value = 300 mg/L

Current CCUA Design Parameter = 239 mg/L

September CCUA Average = 256 mg/L

53rd St N. Lift Station BOD mg/L



BOD Average = 372 mg/L

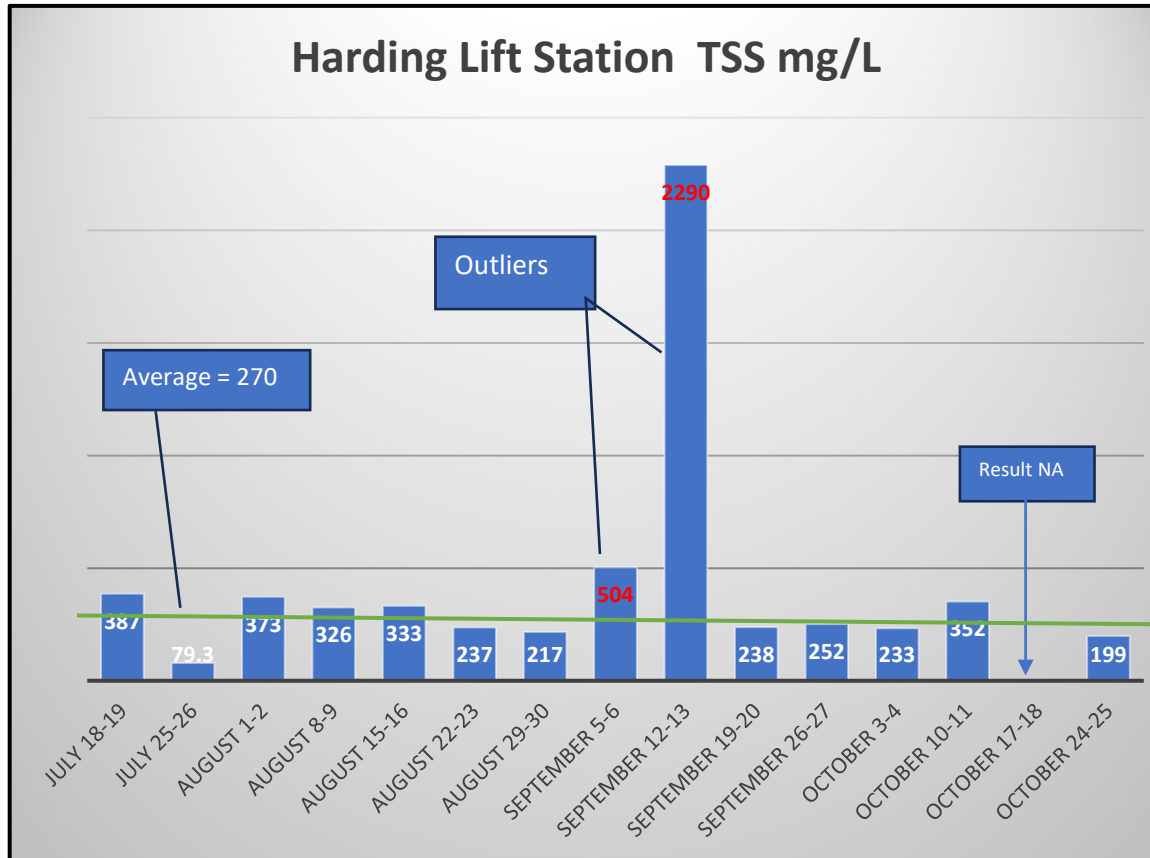
BOD Average w/o outlier = 351mg/L

Literature Avg Value = 300 mg/L

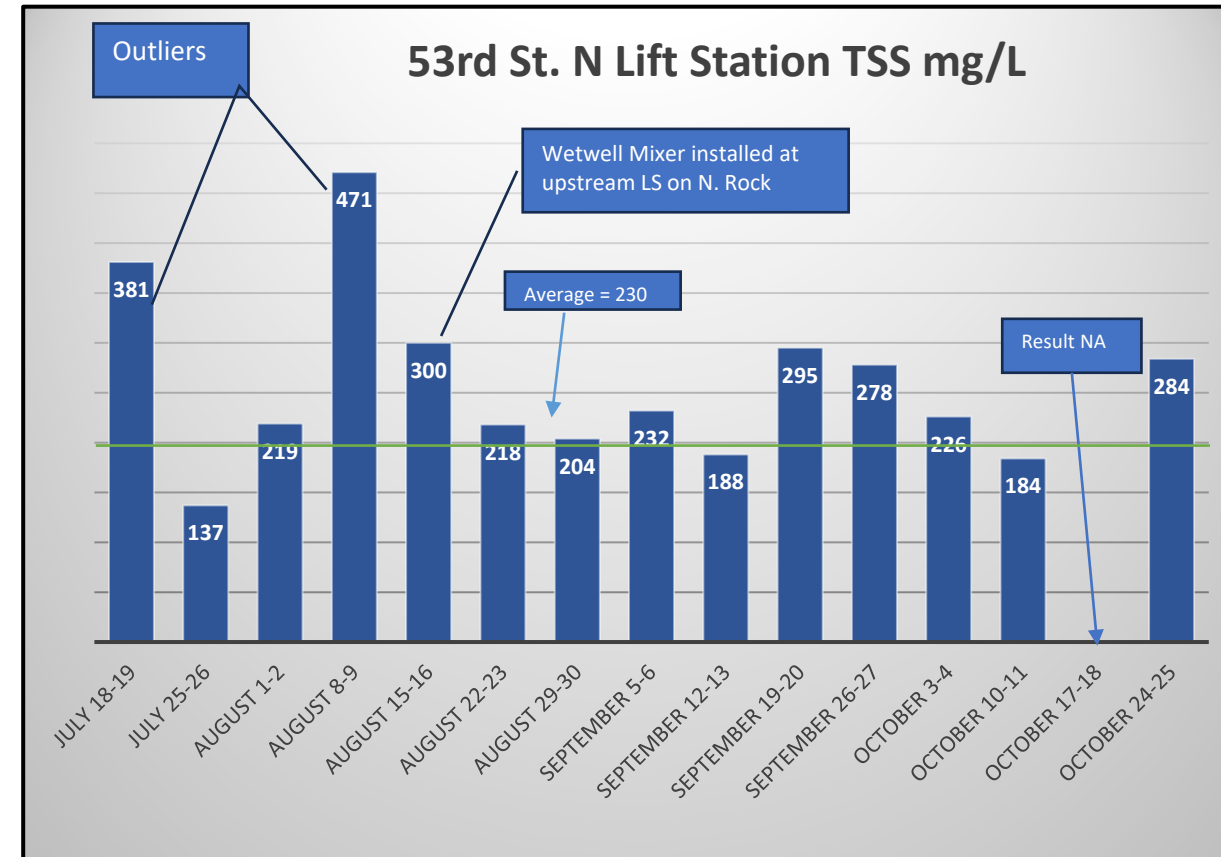
Current CCUA Design Parameter = 239 mg/L

September CCUA Average = 256 mg/L

TSS Results



TSS Average = 430 mg/L
 TSS Average w/o outliers = 270 mg/L
 TSS Literature Value = 250 mg/L
 Current CCUA Design Parameter = 239 mg/L
 September CCUA Average = 147 mg/L



TSS Average = 262 mg/L
 TSS Average w/o Outliers = 230 mg/L
 TSS Literature Value = 250 mg/L
 Current CCUA Design Parameter = 239 mg/L
 September CCUA Average = 147 mg/L

Additional Parameter Average Results

	NH ₃ -N mg/L	TKN mg/L	PO ₄ mg/L
Harding Lift Station	46 mg/L	55 mg/L	10 mg/L
53 rd Street Lift Station	34 mg/L	54 mg/L	6 mg/l
Literature Value	40 mg/L	60 mg/L	5 – 15 mg/L

Recommendations

- **Continue weekly sample collection program to assess any changes due to seasonal changes, wet weather events, and other events impacting wastewater characteristics**
- **Follow-up on any non-typical sampling results**

SEWER USE ORDINANCE



Background

- August 8, 2023 - Burns & McDonnell introduced components of wastewater pretreatment program to City Council
- City staff and Burns & McDonnell met through the months of August to September to develop proposed Sewer Use Ordinance

Proposed Sewer Use Ordinance Components

- General Provisions
- General Sewer Use Requirements
- Pretreatment of Wastewater
- Notification & Reporting Requirements
- Right of Entry
- Confidential Business Information
- Administrative/Judicial Enforcement Remedies
- Effective Date

Section 1 - General Provisions

- 1.1 Purpose and Policy
 - Ordinance covers all Users of Bel Aire's Sanitary Sewer System
 - Objectives to meet basic pretreatment requirements
- 1.2 Administration
 - City Engineer and delegated City employees
- 1.3 Abbreviations
 - Acronyms typically used by regulatory authorities
- 1.4 Definitions
 - Terms and phrases used in the ordinance

Section 2 Sewer Use Requirements

- 2.1 Prohibited Discharge Standards
 - Includes General Prohibition of wastewater that results in pass-through or interference of treatment of wastewater
 - Includes 24 Specific Prohibited Discharge Types
- 2.2 National Categorical Standards
- 2.3 Site Specific Limits
- 2.4 Best Management Practices
- 2.5 City's Right of Revision
- 2.6 Dilution

Section 3 Pretreatment of Wastewater

- Pretreatment Facilities
- Additional Pretreatment Measures
- Accidental Discharge/Slug Control Plans
- Hauled Wastewater -
 - City does have one RV wastewater disposal site

Section 4 Notification/Reporting Requirements

- Industrial User Questionnaire
- Notification of Change in Discharge
- Notification of Hazardous Waste
- Report of Potential Problems
- Authorized Signature

Section 5 Right of Entry

- Inspection
- Sampling



- Users shall allow the City Engineer ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties, including the use of digital photography to gather information.

Section 6 Confidential Information

- The Business Owner may mark information submitted to the City as confidential, if the User can show that such information would divulge that the information, process or method of production is entitled to “protection of trade secrets”. Wastewater constituents and effluent sampling data is not eligible as confidential.



Section 7 Enforcement Remedies

- Notification of Violation
- Consent/Administrative Order
- Suspension of Service
- Show Cause Hearing
- Compliance Orders
- Cease and Desist Orders
- Administrative Fines
- Injunctive Relief
- Remedies Nonexclusive
- Water Supply Severance
- Prohibited Discharge Standards

Section 8 Effective Date

- Ordinance is Effective upon Approval and Publication



Industrial Waste Survey



Industrial User Waste Survey Procedures

- Compile a list of Industrial Users
 - At the request of KDHE, the City sent out a survey in 2021, and received 4 responses
 - It is estimated that there may be up to 15 potential facilities in Bel Aire that could submit an Industrial Waste Survey
- Survey Industrial Users
- Conduct Follow-up Activities
- Summarize Survey Results

Master List of Industrial Users –Sources

- Water Utility Billing Records
- Business License Records
- Google Search
- GIS Data
- Building Permits
- Commercial Directories (Chamber of Commerce)
- Property Tax Records
- Fire Dept. Emergency Plans

Survey Procedures

- Send out Survey – Easy to Read and Understand
- Requires Authorized Official Signature
- Eliminate
 - Any facility that does not generate wastewater
 - Already Permitted by KDHE
 - Discharges non-domestic wastewater (beauty salons, retail shops)
 - Others that do not contribute problematic discharges (i.e. hotels, service stations, apartments)

Suggested Survey Form Components

- Business Name and Address
- SIC Code (or NAICS)
- Major Products manufactured at facility
- Process Waste flow if known
- Authorized Signature

The City of Bel Aire, Kansas
Industrial Waste Survey Short Form

This form has been sent to your business to determine types and sources of wastewater that are entering the City of Bel Aire sanitary sewer collection system. This form must be completed by December 15, 2023.

If you have any question or concerns while completing the form, please contact:
Anne Stephens at 316-744-2451 ext. 133

Name of Business _____
Address _____
City/State/Zip Code _____
Telephone: _____ Fax: _____
Number of Employees _____
What Standard Industrial Classification (SIC) Code(s) do you report under:

Briefly describe your business include products manufactured or services performed:

Please list all water uses and **approximate** volume used in gallons per day for each use, including facility washdown water.

Water Use	Volume Used (gallons per day)
Process:	
Facility Washdown	
Domestic(bathrooms, cafeteria)	
Total:	

Our Sewer Use Ordinance requires that an Authorized Representative of the User sign all reports to the Sewer Authority. Authorized Representative is defined as a Person responsible for Principle Business decisions or other policy decisions for the facility.

To the Best of my knowledge the information on this form is true and accurate,
Signature _____ Date _____
Title _____

Return this form within 30 days to:

Anne Stephens
City of Bel Aire
7651 E Central Park Ave
Bel Aire, KS 67220

Failure to return this form is enforceable in accordance with the Sewer Use Ordinance.

TWS Short Form
Filename: TWS Short Form
Revision Date: November 1, 2023

Recommended Actions

- Develop an Outreach Strategy – i.e. notify user of upcoming survey
- Include a Stamped, Pre-Addressed Envelope
- Include a Cover Letter
 - Describe Importance of Survey
 - Request User to Confirm Correct Address and Contact information
 - Include City contact information
 - Include a deadline to receive completed survey form

Follow-Up Activities

- Review all returned responses for completeness and accuracy
- Send out reminders to Users who do not submit form after the deadline
- If resources are available, follow-up in person

Summarize Survey Results

- Develop a Database that includes all Users, Locations, SIC Codes and any Permits

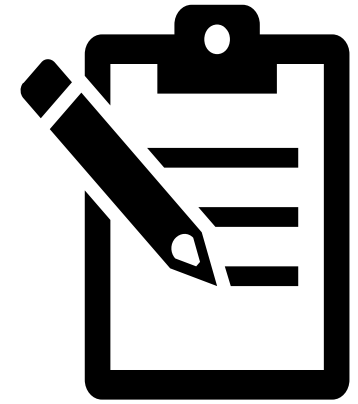
Appendix B. Classification of Industrial Users

Classification of surveyed industrial users:

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Ongoing Survey Efforts

- Drive-By (Windshield Surveys)
- Agency (EPA or KDHE) Notifications
- Routinely Check
 - Utility Billing Records
 - Building Plans



EPA Recommends Formal Survey be performed once every 5 years

NEXT STEPS



Sewer Use
Ordinance
Adoption



Lift Station
Sampling
Program



Execute
Industrial
Waste Survey