LOGAN CITY UNITED IN SERVICE

ENVIRONMENTAL DEPARTMENT

February 12, 2020

Logan Municipal Council
290 North 100 West
Logan, UT 84321

Subject: Industrial Pretreatment Surcharge Limits Evaluation

The City of Logan Environmental Department operates an approved Pretreatment program with the intended purpose of protecting the Logan City wastewater collection and treatment system. This program is mandated & sanctioned by the EPA and the state of Utah Division of Water Quality. The program task is to monitor the quality of wastewater discharged from industrial and commercial facilities to prevent the release of harmful materials into our sanitary sewer system. City of Logan Ordinance number 13.12.005 – 13.12.351 is the foundation of this program.

The pretreatment program protection is established in its two-layer water quality limits designed to protect the sewer treatment system infrastructure and penalize violators. The first layer is the surcharge limits and the second layer is the local limits. The surcharge limit has a water quality limit less than the allowable capacity and it is designed to allow us to detect a potential problem from a commercial or industrial entity at an early stage and recover monitory penalties equivalent to the cost of treating stronger than expected sewer discharge. Occasional exceedances of the surcharge limits are expected and the potential harm to the treatment system is also limited to an extent.

The local limit is a limit based on the treatment capacity of the sewer treatment system and any significant violation of this limit could result in a pass through the treatment system thus resulting in a violation of the treatment system water quality limits. Followed by enforcement actions from the State or the EPA to Logan City sewer treatment system and the business entity which caused the violation.

The pretreatment program has served Logan City since 1983, and the pretreatment limits are protecting the Lagoon effluent. However, growth, expansion of industries, and our future plans for a more robust treatment system in two years is making us reconsider the surcharge limit penalty calculations.

Last summer (2019) we asked EEC Environmental to review our surcharge limit penalty calculation after we observed higher than expected monitory recoveries from some of the large significant users connected to the system. EEC Environmental completed its review in December 2019 and recommended that we modify the method used by the Logan City Industrial Pretreatment program to levy surcharges for biochemical oxygen demand (BOD) & total suspended solids (TSS) overages. The formula for overage surcharges was created nearly twenty years ago and was confusing to explain and enforce. Some of the most affected industries are currently planning expansions and

continued more stringent penalties will limit their ability of cost control and by easing these penalties we are asking them to consider putting more capital on the improvement of their pretreatment systems. Our plan is to monitor the effect of this change more closely in the next two to three years, influence the contemplated improvement by the industry, and update the surcharge limits again when the news wastewater treatment plant construction is completed and running.

This past year with the help of EEC Environmental we revised the formula for a surcharge to one that will both ease the financial burden of the businesses but is also more effectively enforceable. EEC also reviewed the City's local limits, and the surcharge limit and found them to be effective in protecting the Lagoons effluent, and recommended no changes. The attached document has been approved by the Environmental Department and will also be submitted to Utah DWQ for their approval and comment.

The proposed changes will not require modification of the pretreatment ordinance (City Code), and/or approval from the state of Utah Division of Water Quality. However, I would like to obtain your consent to implement the proposed change for administrative and budgetary purposes.

The City of Logan Industrial Pretreatment Program started with one inspector with a few industries and the implementation of an oil and grease program. The City currently employs three full-time inspectors and the wastewater treatment manager who serves as the pretreatment coordinator. The pretreatment program service area covers not just Logan City but the cities of Smithfield, Hyde Park, North Logan, Providence, River Heights and Nibley. The program regulates over 500 businesses, with 36 of them meeting Significant Industrial User (SIU) status under EPA designation.

Thank you for your time and consideration in this matter.

Sincerely,

Issa Hamud
Director

2019 Conventional Pollutant Surcharge Rate Recommendations

Regional Wastewater Treatment Plant

Logan, Utah

December 2019

Prepared by:

EEC ENVIRONMENTAL

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Executive Summary

EEC Environmental (EEC) reviewed the surcharges currently levied by the City of Logan (City) for conventional pollutants and prepared recommendations for revising the City's current surcharge calculations. The City's request for EEC to provide recommendations on the City's current surcharge program is part of EEC's on-going review of the City's existing local limits and in anticipation of the local limits determination for the City's mechanical facility currently under construction. The City anticipates that when the new mechanical treatment facility is complete, the treatment capabilities will be significantly greater, allowing for higher loading of the wastewater treatment facility. To show good faith towards existing businesses and encourage continued growth and development throughout its service area, the City is modifying the method currently used in calculating surcharges. In 2022, once the new mechanical treatment facility construction is complete, the local limits and associated surcharge limits will be reviewed again.

Wastewater surcharges apply to businesses that discharge wastewater exceeding "normal" wastewater standards. Wastewater from businesses can be more concentrated with solids and organic matter than residential wastewater, making it more expensive to treat. The approach of charging only for the "excess" loading presumes the standard sewer charges already provide appropriate payment for concentrations up to domestic strength.

Surcharges are therefore established to recover costs for treating high-strength loadings from non-residential users. The City currently uses calculations developed as part of the 2002 Local Limits evaluation study. These calculations use a load-based surcharge fee based on a per capita contribution.

When the monthly averages of biochemical oxygen demand (BOD) and total suspended solids (TSS) are both over 650 mg/L, the monthly surcharge is currently assessed according to the following formula:

> *Monthly surcharge = [(BOD in mg/L – 650) + (TSS in mg/L - 650)] x 8.34 x sewer discharge flow (MGD) x residential monthly sewer charge/2 x 0.385*

When the monthly average of only one parameter (either BOD or TSS) is over 650 mg/L, the monthly surcharge is currently assessed according to the following formula:

> *Monthly surcharge = [(BOD in mg/L or TSS in mg/L) - 650)] x 8.34 x sewer discharge flow (MGD) x residential monthly sewer charge/2 x 0.385*

The evaluation herein recommends an alternative load-based surcharge rates for BOD and TSS based on offsetting the costs from the current lagoons system operation and maintenance (O&M) and pretreatment staffing as well as payments on the Community Impact Board (CIB) bond and the Utah Department of Environmental Quality (DEQ) bond. The total surcharge to offset the annual costs and payments was based on the year 2018 costs and payments and is shown in Table ES-1, *Cost Basis for Recommended Surcharge*.

Table ES-1: Cost Basis for Recommended Surcharge

2018 O&M Cost	2018 Pretreatment Staffing Cost	CIB Bond Payment	DEQ Bond Payment	Total Annual Costs and Payments
$1,750,000	$435,192	$587,000	$833,000	$3,605,192

The total recommended surcharges are then allocated on a per pound basis for BOD and TSS. For this evaluation, the costs to be offset by the City were evenly divided between BOD and TSS on the basis that both pollutants have analogous removal rates in the current lagoons treatment system. Table ES-2, *BOD and TSS Surcharge Rates*, presents the calculations for determining the surcharge rates for BOD and TSS based on the ratio of the total current annual costs and payments over the BOD and TSS annual loadings.

Table ES-2: BOD and TSS Surcharge Rates

Total Annual Costs and Payments	Surcharge Basis for BOD (50% of Total Annual Costs and Payments)	Annual BOD Loading (lbs/year)	BOD Surcharge Rate ($/Pound of BOD)	Surcharge Basis for TSS (50% of Total Annual Costs and Payments)	Annual TSS Loading (lbs/year)	TSS Surcharge Rate ($/Pound of TSS)
$ 3,605,192	$ 1,802,596	5,271,330	$ 0.35	$ 1,802,596	5,108,905	$ 0.35

The recommended formulas for the calculation of the surcharges for BOD and TSS are presented below:

If (BOD in mg/L) > 650; BOD Surcharge = Monthly Flow in MGD x [(BOD in mg/L) – (200)] x 8.34 x $0.35

If (TSS in mg/L) > 650; TSS Surcharge = Monthly Flow in MGD x [(TSS in mg/L) – (200)] x 8.34 x $0.35

where:

Monthly flow = Average daily flow (in million gallons per day or MGD) x number of operating days in the month
200 = Average Residential Equivalence Factor
8.34 = conversion factor
$0.35 = Surcharge rate per pound for BOD and TSS

EEC's review also included the impact of the recommended surcharge program on the City's businesses with a focus on the two main dischargers of BOD and TSS, namely; Schreiber Foods (Schreiber) and Gossner Foods (Gossner) based on actual wastewater concentrations and monthly flows from 2018 and 2019. For Schreiber, using the recommended surcharge formula, the annual surcharge amount due for BOD and TSS would be $271,872/year which is lower than the surcharge amount of $450,640/year using the current formula. As for Gossner, using the recommended surcharge formula, the annual surcharge amount due for BOD and TSS would be $103,554/year which is lower than the surcharge amount of $154,208/year using the current formula.

Once the new mechanical treatment plant intended to replace the existing lagoons treatment system is online, the recommended surcharge rates would require review and reassessment. It may then be necessary to expand the surcharge program to include surcharges for additional conventional pollutants such as ammonia, fats, oils, and grease, Total Kjeldhal Nitrogen and total phosphorus.

Glossary of Terms

Allowable Headworks Loading (AHL). The estimated maximum loading of a pollutant that can be received at a POTW's headworks that should not cause a POTW to violate a particular treatment plant or environmental criterion. AHLs are developed to prevent interference and pass-through.

Biochemical Oxygen Demand (BOD). The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20 degrees centigrade, usually expressed as a concentration (e.g., mg/l).

Categorical Pretreatment Standards. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Clean Water Act, that apply to specified process wastewaters of industrial categories [40 CFR 403.6 and Parts 405-471].

Conservative Pollutants. Pollutants that are presumed not to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW. Conservative pollutants introduced to a POTW ultimately exit the POTW solely through the POTW's effluent and sludge. Most metals are considered conservative pollutants.

Headworks. The point at which wastewater enters a wastewater treatment plant.

Industrial User (IU). Non-domestic source of pollutants to a POTW regulated under Section 307(b), (c) or (d) of the Clean Water Act.

Inhibition. Inhibition occurs when pollutant levels in a POTW's wastewater or sludge cause operational problems for biological treatment processes involving secondary or tertiary wastewater treatment and alter the POTW's ability to adequately remove BOD, TSS, and other pollutants.

Interference. A discharge that, alone or with discharges from other sources, inhibits or disrupts a POTW, its treatment processes and operations, or its biosolids processes, use, or disposal and, therefore, causes a violation of the POTW's NPDES permit, increases the magnitude or duration of such a violation, or prevents the proper use or disposal of sewage biosolids in compliance with the Clean Water Act, Solid Waste Disposal Act, Toxic Substances Control Act, or the Marine Protection, Research, and Sanctuaries Act.

Maximum Allowable Headworks Loading (MAHL). The estimated maximum loading of a pollutant that can be received at a POTW's headworks without causing pass-through or interference. The most protective (lowest) of the AHLs estimated for a pollutant.

Maximum Allowable Industrial Loading (MAIL). The estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted industrial users and other controlled sources without causing pass through or interference. The MAIL is usually calculated by applying a safety factor to the MAHL and discounting for uncontrolled sources, hauled waste, and growth allowance.

Method Detection Limit (MDL). The minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte concentration is present as determined by a specific laboratory method in 40 CFR Part 136, Appendix B.

Non-conservative Pollutants. Pollutants that are presumed to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW to some degree.

Pass-Through. A discharge that enters the waters of the United States from a POTW in quantities or concentrations that, alone or with discharges from other sources, either causes a violation of any requirement of the POTW's NPDES permit or increases the magnitude or duration of a violation of the POTW's NPDES permit.

Pollutant of Concern (POC). Any pollutant that might reasonably be expected to be discharged to the POTW in sufficient amounts to pass through or interfere with the works, cause problems in its collection system, inhibit its ability to reclaim and/or reuse biosolids and wastewater, cause an exceedance of any limiting environmental criteria, or jeopardize its workers.

Pretreatment. As defined in 40 CFR 403.3, "pretreatment" means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW.

Reasonable Potential Analysis (RPA). The process for determining whether a discharge causes, has reasonable potential to cause, or contributes to an excursion above the water quality criteria for toxic pollutants.

Reporting Limit (RL). The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory analysis. The RL is typically 4 times the MDL.

Publicly Owned Treatment Works (POTW). A treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Surcharges. Additional charges to recover the cost to treat wastewater that are typically assessed when discharge concentrations are above defined values, typically above domestic wastewater.

1.0 Introduction

The City of Logan (City) has requested that EEC Environmental (EEC) conduct a review of the surcharges currently levied by the City for conventional pollutants and to prepare recommendations for keeping or revising the current surcharge limits and amounts. The request by the City is part of EEC's on-going review of the City's existing local limits and in anticipation of the local limits determination for the City's new mechanical facility which is currently under construction. The City anticipates that when the new mechanical treatment facility is completed in 2022, the treatment capabilities will be significantly greater, allowing for higher loading of the wastewater treatment facility.

To show good faith towards existing businesses, and encourage continued growth and development in the City's service area, the City is modifying the method currently used in calculating surcharges. In 2022, once the new mechanical treatment facility construction is complete, the local limits and associated surcharge limits will be reviewed again.

Businesses that discharge wastewater exceeding "normal" wastewater standards are subject to wastewater surcharges. Wastewater from businesses can be more concentrated with solids and organic matter than residential (domestic) wastewater, making it more expensive to treat. The approach of charging only for the "excess" loading presumes the standard sewer charges already provide appropriate payment for concentrations up to domestic strength.

Many municipal industrial waste programs are funded by fees paid by businesses in the form of surcharges to recover the cost of operating the program. Surcharges are different than local limits developed by POTWs to enforce specific prohibitions and limits, and to protect against site-specific pass through, interference and inhibition. Local limits can be more or less stringent than categorical pretreatment standards, however industrial users (IUs) must comply with the most stringent limitation for each pollutant.

Thresholds for surcharges are different than local limits and categorical pretreatment standards. IUs with extra strength wastewater are subject to all applicable federal/local limits and their IU discharge permit conditions. Surcharges are separate from violation fines and are extra fees to cover increased expenses for treating high-strength loadings from non-residential users.

The City currently uses surcharge calculations for biochemical oxygen demand (BOD) and total suspended solids (TSS). The calculations were developed as part of the 2002 Local Limits evaluation study. These calculations use a load-based surcharge fee based on a per capita contribution.

2.0 Facility Description

2.1 Wastewater Treatment Description

The City Environmental Department operates a regional wastewater treatment plant consisting of 460 acres of lagoons, and 240 acres of wetlands to treat and further polish the wastewater. The treatment plant receives approximately 13 million gallons per day as an annual average.

The sources of the wastewater received include wastewater from residences, businesses and industries. The wastewater treatment system services the communities of:

- Logan
- Smithfield
- Hyde Park
- North Logan
- River Heights
- Providence
- Nibley
- Utah State University

2.1.1 Current Lagoons System

The lagoons system consists of seven cells with a mechanical headworks facility, chlorine contact basin, and pontoon-mounted surface aerators *(Figure 1. Logan Wastewater Treatment Plant Overview).* The recommended surcharges are based on the removal rates for BOD and TSS of the lagoons system.

2.1.2 New Mechanical Plant

The City is in the process of updating its treatment system from the lagoons to a mechanical plant in order to meet more stringent ammonia and phosphorus standards as well as a new total nitrogen limit. It is anticipated that the new plant will be operational by the end of the year 2022. Once the mechanical plant is operational, the lagoons will be used for upstream flow equalization. The evaluation herein does not take into account the anticipated change in conditions as a result of the mechanical plant becoming operational. A new evaluation of the surcharges will be required at that time and once removal rates for the pollutants of concern (POCs) are determined.

2.2 Wastewater Outfalls

2.2.1 Outfall 001A

Outfall 001A is the point of discharge from the lagoons system, located approximately 100 yards downstream of the chlorination basin. The discharge is initially conveyed by means of an open ditch to Benson Road. During the irrigation season, it is used as irrigation water on fields to the west of the facility. If not used as irrigation water, the treated wastewater is piped north along the east side of the road until it reaches the wetland polishing system.

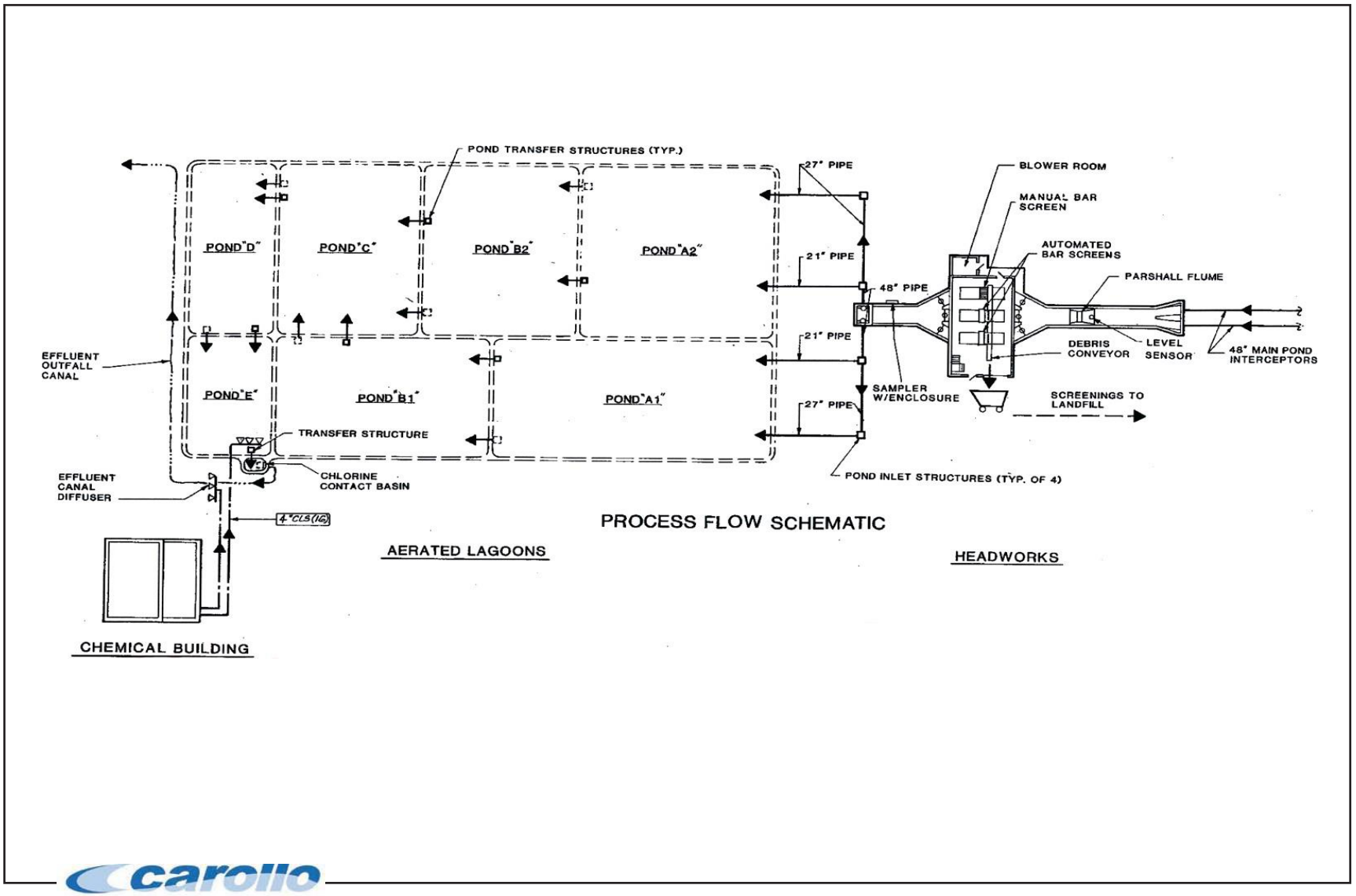
2.2.2 Outfall 001B

Outfall 001B is the point of discharge from the lagoons system, located approximately 20 yards downstream of the chlorination basin. The discharge is initially conveyed by means of an open ditch to another ditch that runs to the west parallel to 200 North. From there, it is used as irrigation water on fields to the west of the facility.

2.2.3 Outfall 002

Outfall 002 is the point of discharge from the wetlands polishing treatment system to Swift Slough, which flows approximately 2.5 miles to wetlands associated with the Cutler Reservoir. The discharge is piped through a 36" HDPE pipe into Swift Slough.

Figure 1: Logan Wastewater Treatment Plant Overview



3.0 Current Surcharge Rates

The current calculations of BOD and TSS surcharges use a load-based surcharge rate that is based on a per capita contribution.

When the monthly averages of BOD and TSS are both over 650 mg/L, the monthly surcharge is currently assessed according to the following formula:

> *Monthly surcharge = [(BOD in mg/L – 650) + (TSS in mg/L - 650)] x 8.34 x sewer discharge flow (MGD) x residential monthly sewer charge/2 x 0.385*

When the monthly average of only one parameter (either BOD or TSS) is over 650 mg/L, the monthly surcharge is currently assessed according to the following formula:

> *Monthly surcharge = [(BOD in mg/L or TSS in mg/L) - 650)] x 8.34 x sewer discharge flow (MGD) x residential monthly sewer charge/2 x 0.385*

4.0 Recommended Surcharge Rates

The evaluation herein recommends an alternative load-based surcharge rate based on offsetting the year 2018 costs from the current lagoons system operation and maintenance (O&M) and pretreatment staffing as well as payments on the Community Impact Board (CIB) bond and the Utah Department of Environmental Quality (DEQ) bond. The total surcharge to offset the annual costs and payments is shown in Table 4-1, *Cost Basis for Recommended Surcharge*.

Table 4-1: Cost Basis for Recommended Surcharge

2018 O&M Cost	2018 Pretreatment Staffing Cost	CIB Bond Payment	DEQ Bond Payment	Total Annual Costs and Payments
$1,750,000	$435,192	$587,000	$833,000	$3,605,192

4.1 Determination of Recommended Surcharge Rates

Table 4-2, *BOD and TSS Surcharge Rates*, presents the calculations for determining the surcharge rate for BOD based on the ratio of half the current annual costs and payments divided by the annual BOD loading. Similarly, the surcharge rate for TSS was based on the ratio of half the current annual costs and payments divided by the annual TSS loading.

The allocation of annual costs and payments (50% offset by BOD surcharges and 50% offset by TSS surcharges) is based on the fact that the removal rates are analogous for BOD and TSS. More specifically, at Outfall 001, the removal rates for BOD and TSS are 84% and 81%, respectively. At Outfall 002, the removal rates for BOD and TSS are 96% and 97%, respectively.

Table 4-2: BOD and TSS Surcharge Rates

Total Annual Costs and Payments	Surcharge Basis for BOD (50% of Total Annual Costs and Payments)	Annual BOD Loading (lbs/year)	BOD Surcharge Rate ($/Pound of BOD)	Surcharge Basis for TSS (50% of Total Annual Costs and Payments)	Annual TSS Loading (lbs/year)	TSS Surcharge Rate ($/Pound of TSS)
$ 3,605,192	$ 1,802,596	5,271,330	$ 0.35	$ 1,802,596	5,108,905	$ 0.35

When BOD and TSS are below 650 mg/L no surcharge is assessed. The recommended formulas for the calculation of the surcharges for BOD and TSS are presented below:

If (BOD in mg/L) > 650; BOD Surcharge = Monthly Flow in MGD x [(BOD in mg/L) – (200)] x 8.34 x $0.35

If (TSS in mg/L) > 650; TSS Surcharge = Monthly Flow in MGD x [(TSS in mg/L) – (200)] x 8.34 x $0.35

where:

Monthly flow = Average daily flow (in million gallons per day or MGD) x number of operating days in the month
200 = Average Residential Equivalence Factor
8.34 = conversion factor
$0.35 = Surcharge rate per pound for BOD and TSS

4.2 Surcharge Limits

A surcharge limit is used to determine the level of discharge that triggers surcharges. The city currently uses 650 mg/L for both; BOD and TSS, as the surcharge limit. Non-domestic users can discharge above the surcharge limit and up to the local limit of 2,750 mg/L for BOD and 2,000 mg/L for TSS.

The local limits will remain the same but could change based on the outcome of future local limits reviews. An Average Residential Equivalent Factor is applied to the Surcharge Limit as an allowance for the normal residential discharge strength of BOD and TSS. Average residential wastewater typically has concentrations of 200 mg/L for both BOD and TSS..

5.0 Impact on Major Industries

The evaluation included also the impact of the recommended surcharge program on the businesses within the City's service area with a focus on two main dischargers of BOD and TSS, namely; Schreiber Foods (Schreiber) and Gossner Foods (Gossner). In calculating the anticipated impact, costs and monitoring data from 2018/2019 were used.

The monitoring data for Schreiber and Gossner used in calculating the surcharges is representative of the current and future wastewater BOD and TSS concentrations and reflects the historical and anticipated data fluctuations.

5.1 Surcharge Amounts

For Schreiber, using the recommended surcharge formula, the annual surcharge amount levied by the City for BOD and TSS would be $271,872/year which is lower than the surcharge amount of $450,640/year using the current formula.

As for Gossner, using the recommended surcharge formula, the annual surcharge amount levied by the City for BOD and TSS would be $103,554/year which is lower than the surcharge amount of $154,208/year using the current formula. The annual combined total for Scheiber and Gossner based on the recommended surcharge rates is $375,426, which is lower than the current total of $604,848.

Table 5-1, *Impact of Recommended Surcharges on Schreiber Foods*, presents the surcharges that would apply to Schreiber using the recommended surcharge rates for BOD and TSS. Table 5-2, *Impact of Recommended Surcharges on Gossner Foods,* presents the surcharges that would apply to Gossner using the recommended surcharge rates for BOD and TSS. Table 5-3, *Impact of Recommended Surcharges on Other Businesses that were Assessed Surcharges in FY 2019,* shows how recommended surcharges when applied for BOD and TSS combined would impact the rest of the businesses.

5.2 Future Surcharge Assessment

Once the new mechanical treatment plant intended to replace the existing lagoons treatment system is online, the recommended surcharge rates herein would require a review and reassessment. It may then be necessary to expand the surcharge program to include surcharges for additional conventional pollutants such as ammonia, fats, oils, and grease, Total Kjeldhal Nitrogen and total phosphorus.

Table 5-1: Impact of Recommended Surcharges on Schreiber Foods

Month	BOD (mg/L)	BOD Surcharge Rate	TSS (mg/L)	TSS Surcharge Rate	Process Flow (GPD)	Recommended BOD Surcharge	Recommended TSS Surcharge	Current BOD Surcharge	Current TSS Surcharge
Jan-18	235	$ 0.35	577	$ 0.35	292,903	No Surcharge	No Surcharge	No surcharge	No surcharge
Feb-18	638	$ 0.35	1119	$ 0.35	229,179	No Surcharge	$ 17,353.42	No surcharge	$ 31,793.96
Mar-18	760	$ 0.35	1318	$ 0.35	236,125	$ 11,965.36	$ 24,081.42	$ 7,683.02	$ 46,656.85
Apr-18	852	$ 0.35	1412	$ 0.35	258,093	$ 14,735.99	$ 27,614.47	$15,421.43	$ 58,173.91
May-18	749	$ 0.35	1302	$ 0.35	241,232	$ 11,984.03	$ 24,250.17	$ 7,064.27	$ 46,524.27
Jun-18	267	$ 0.35	976	$ 0.35	224,977	No Surcharge	$ 15,411.95	No surcharge	$ 21,694.65
Jul-18	38	$ 0.35	650	$ 0.35	228,810	No Surcharge	No Surcharge	No surcharge	No surcharge
Aug-18	570	$ 0.35	946	$ 0.35	225,403	No Surcharge	$ 15,330.77	No surcharge	$ 19,708.84
Sep-18	276	$ 0.35	1121	$ 0.35	249,140	No Surcharge	$ 20,265.14	No surcharge	$ 34,740.02
Oct-18	918	$ 0.35	1874	$ 0.35	264,174	$ 16,610.01	$ 39,039.42	$ 20,942.18	$ 95,646.38
Nov-18	355	$ 0.35	960	$ 0.35	256,937	No Surcharge	$ 17,238.45	No surcharge	$ 23,560.55
Dec-18	541	$ 0.35	957	$ 0.35	231,578	No Surcharge	$ 15,991.58	No surcharge	$ 21,029.68
					Annual Surcharge	$ 55,295.39	$ 216,576.80	$ 51,110.89	$ 399,529.11
					Total Annual Surcharge	**Proposed**	**$ 271,872.18**	**Current**	**$ 450,640.01**

Table 5-2: Impact of Recommended Surcharges on Gossner Foods

Month	BOD (mg/L)	BOD Surcharge Rate	TSS (mg/L)	TSS Surcharge Rate	Process Flow (GPD)	Recommended BOD Surcharge	Recommended TSS Surcharge	Current BOD Surcharge	Current TSS Surcharge
Jan-18	357	$ 0.35	176	$ 0.35	224,710	No surcharge	No surcharge	No surcharge	No surcharge
Feb-18	433	$ 0.35	100	$ 0.35	261,852	No surcharge	No surcharge	No surcharge	No surcharge
Mar-18	427	$ 0.35	72	$ 0.35	306,114	No surcharge	No surcharge	No surcharge	No surcharge
Apr-18	283	$ 0.35	140	$ 0.35	313,920	No surcharge	No surcharge	No surcharge	No surcharge
May-18	286	$ 0.35	104	$ 0.35	269,422	No surcharge	No surcharge	No surcharge	No surcharge
Dec-18	1440	$ 0.35	84	$ 0.35	292,292	$ 32,797.02	No surcharge	$68,303.20	No surcharge
Jan-19	1160	$ 0.35	82	$ 0.35	426,226	$ 37,026.03	No surcharge	$64,299.46	No surcharge
Feb-19	808	$ 0.35	148	$ 0.35	435,964	$ 21,664.38	No surcharge	$20,375.33	No surcharge
Mar-19	583	$ 0.35	70	$ 0.35	433,133	No surcharge	No surcharge	No surcharge	No surcharge
Apr-19	664	$ 0.35	88	$ 0.35	296,967	$ 12,066.52	No surcharge	$1,229.80	No surcharge
May-19	282	$ 0.35	156	$ 0.35	22,114	No surcharge	No surcharge	No surcharge	No surcharge
					Annual Surcharge	$ 103,553.95	No surcharge	$154,207.79	No surcharge
					Total Annual Surcharge	**Proposed**	**$103,553.95**	**Current**	**$154,207.79**

Table 5-3: Impact of Recommended Surcharges on Other Businesses Assessed Surcharges in FY 2019

Business Name	Actual BOD Surcharge FY2019	Actual TSS Surcharge FY2019	Proposed BOD Surcharge FY2019	Proposed TSS Surcharge FY2019	Percent Change
Angie's	$ 759.32		$ 354.21		-53 %
Arby's-South	$ 126.96		$ 72.21		-43 %
Buffalo Wild Wings	$ 258.82		$ 175.14		-34 %
Café Rio	$ 1,060.44		$ 501.08		-53 %
Campbell Scientific	$ 12.58		$ 23.00		83 %
Carl's Jr – South	$ 213.06		$ 92.04		-57 %
Chick Fil-A	$ 272.14		$ 123.97		-54 %
Heart to Heart	$ 21.27		$ 25.28		19 %
IHOP	$189.31		$ 95.45		-50 %
KFC	$ 250.72		$ 197.80		-21 %
Lee's Smithfield	$ 120.69		$ 61.35		-49 %
Logan Golf & CC	$383.36		$ 190.57		-50 %
Macey's Logan	$ 1,066.36		$ 460.61		-57 %
Mo Bettah Steak	$ 119.93		$ 76.01		-34 %
Morty's	$ 115.36		$ 73.84		-36 %
Mundo's	$ 376.85		$ 141.75		-62 %
Sam's Club	$ 972.11		$ 385.04		-60 %
Takara Sushi	$ 846.44	$ 607.63	$ 412.33	$ 259.70	-54 %
Tandoori Oven	$ 565.72		$ 185.21		-67 %
Walmart – South	$ 1,823.60		$ 863.27		-53 %
Wash Rack	$ 2,610.85	$ 347.10	$ 3,268.83	$ 1,331.37	56 %