MINUTES OF THE BOARD OF PUBLIC WORKS Tuesday, July 9, 2019

The Regular Meeting of the Board of Public Works was held on Tuesday, July 9, 2019 at 7:30 a.m. in the City Council Chambers located at 405 Jefferson Street, Washington, Missouri. The following were present/absent:

MEMBERS: Chairman Member Member Member Ex-officio Member Ex-officio Member	John Vietmeier Brad Mitchell Mike Radetic Steve Richardson Steve Strubberg Vacant	Present Present Present Present Present
OTHERS: Council Representative Council Representative Mayor City Administrator Water/Wastewater Superintendent Water/Wastewater Secretary City Engineer Assistant City Engineer Emergency Management Director Fire Chief	Steve Sullentrup Mark Wessels Sandy Lucy Daren Lamb Kevin Quaethem Beverly Hoyt John Nilges Andrea Lueken Mark Skornia Tim Frankenberg	Present Present Absent Present Present Present Absent Absent

Originals and/or copies of agenda items of the meeting, including recorded votes are available on record in the office of the Public Works Department for one year. Video/DVD and audio tapes are kept only until the minutes have been approved for the meeting. DVD copies of this meeting are distributed to Board Members if requested.

Minutes. A motion was made by Mr. Mitchell and seconded by Mr. Radetic to approve the minutes from the regular June 11, 2019 meeting. The motion passed without dissent.

Priority Items – A sewer project on Jefferson Street, south of the bridge area will have traffic a little congested for a few hours.

Wastewater

The treatment plant is doing good, noticed the air scrubber could not come in at a better time. The odors are starting to come out the temporary home made scrubber. We are going to hold off on adding more peat moss, the new air scrubber is being built as we speak.

Water is finally going down enough so it won't affect the left stations. Still leaving things as is in case the river would come back and would have to bypass pump. Until rivers gets into a normal flow.

Air scrubbers – Order has been approved and ordered. The high water is a problem, but DNR is aware of all the water issues and are okay.

Water

Well #9 – needed to get a new flow meter for the piping. It came in yesterday, kind of held off on working on it for a bit due to the construction. Now that the construction has slowed a bit we will install and get it back on line. Maybe another week or so and we will be back on line.

As far as the system goes we are doing good, the wells are all kicking on for a while in the morning and they stabilize out and go back to normal operations.

Enduro Water Tower

Specifications were just sent back to Steve Shottz at SC Consulting, they do a lot of the tanks in Missouri as for monitoring the painters and sending all the reports to DNR. Just sent specifications back to him for review. Once we get the specifications back we will go out for bids. We are hoping to squeeze this in for the summer. Work usually slows down in the summer and painting is a quick and easy wash and a paint job that can be done in about a month which would work okay and hopefully get a good price. Color will be the same as Crestview as this seems to be a good color.

The question was asked about the water pressure in Stone Crest Subdivision. Depends on where you are and whether you have a two story house, or if you are on the high side, and when well kicks off. You will go to a slow trickle flow.

This would improve a little bit just by volume not pressure if we could get a 12" line tied back into Stone Crest from the City, but right now it comes into and goes out in an 8" line coming back to Rabbit Trail so when the well kicks on pressure jumps to about 40 pounds, when the well kicks off it drops about 40 pounds. Depends on where you are at it can fluctuate quite a bit.

The fluctuation can be quite dramatic. The last few days, it has been low because our chlorine system developed a leak and we had to get another pump so we had to shut it off. Right now that is a primary well, we found out if we leave certain wells running more often than others it helps with the circulation of chlorine which keeps the odor issue and all of the stabilization issues worked out and Well 10 happens to be that one. But eventually we want to get another line looped around and relieve that pressure that builds up because of the restrictive flow the pressure will stabilize at a certain pressure just don't know what that pressure will be.

There is one thing that would help. They can purchase a booster pump that can be installed in the home to increase pressure for a couple hundred dollars. As far as the system, there is nothing we can do to improve that problem. We have an elevated system so we work off of elevated towers and not pressure systems.

There's still a plan, but that still will not help the pressure issue, it will help with volume and flow but not pressure.

City code has an ordinance of 3/4" minimum meter on city water service lines. Some houses in Stone Crest are on larger service lines which does help. There are things out there that will help, the boosters in home, which homeowner have the ability to put in if they require additional pressure.

Homes that are on the high end, up by Jasper Farms will maintain about 65 pounds to 70 pounds even when wells are off. This is because of the elevated system. The average for the City of Washington is 72 pounds. Now downtown we have 100 pounds and 36 pounds over on Lilac and 37 over on Bieker. If you stand at your property and look at the water tower, look at the base of it and that the pressure you are generating. So if you lived with that, that is all you will have for pressure. All towers have 25 pounds at the base of the tower. The new one over slatted for the Phoenix center would not be any higher. The base of it would be the same. If you try to increase pressure by the size of the tower being taller this would cause the tank to overflow. Back to the hydraulics again, this tower would overflow.

The new subdivision over by Carmel Lane off Main they are putting in booster pumps in all their new homes because they are in the same situation. It's kind of like an instant on and off pump as soon as you turn on the valve it kicks on and boost the power.

We could look at additional coding that would require a pressure check before occupancy. Just do a pressure check for a minimum of 40 pounds and if it does not meet that be required to put a booster on the house before it's sold.

It is important for us to look at trying to get an additional feed over to Stone Crest. Not sure when it was last discussed with the Board. It has not been brought up much because we do not have easements to get through.

This puts the burden on the builders to provide that information to the building department. We will not go backwards, but we need to move forward.

The state requirement which is what we follow is a 20 PSI at the entrance point of the property. So where the service line comes into the building in the basement it has to be 20 PSI, this is the minimum.

No one like that Stone Crest has low pressure but there is nothing that the City can do to improve that, but there are things out there that the homeowner can do to improve the situation.

When all those homes were built they knew what the situation was out there when the homes were being built. There is one house out there that at the front of the entrance has as an inch and half

service line because the builder knew the pressure out there and the home owner could put in a booster pump of whatever size they wanted and have the volume of water on an inch and a half to feed the pump.

The pressure can be checked with a garden hose and a regular pressure gauge purchased at Orschelns or Lowes. It will give you your pressure.

Downtown you have to have pressure reducing valves also part of an elevated system. Most of our newer faucets also have low flow washers in the heads, these can all be removed for better flow.

This is all good maybe we need to get more information together, not for the next meeting but soon.

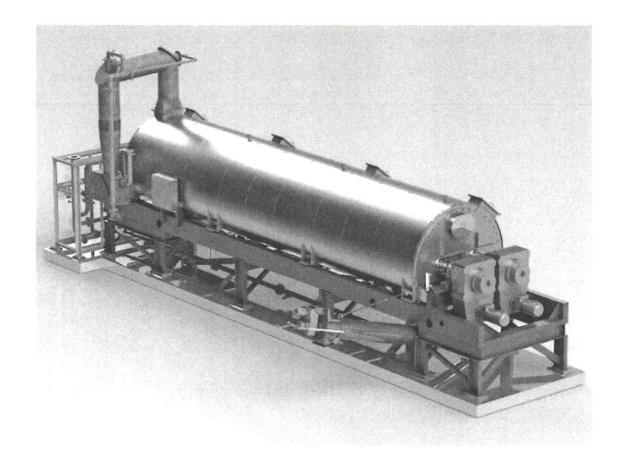
Next Scheduled Meeting Date

The next scheduled meeting date is August 13, 2019.

Adjourn

	further business the meeting ac . Mitchell. All in favor aye, those			and
Prepared by:	Beverly Hoyt	-		
Adopted and A	Water/Wastewater Secretary Approved by the Board of Public V	Vorks:		
Date:		Signature:	Secretary	





BIO-SCRU® Biosolids Drying System

Prepared for:

City of Washington

Project:

Washington WWTP

Washington, MO

Proposal:

Q1921B

Date:

April 25, 2019



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1. INTRODUCTION

BCR appreciates the opportunity to submit this budget proposal #Q1921B to city of Washington for wastewater Treatment Plant biosolids dryer. BCR BIO-SCRU® system, with its inherent simplicity, safety and minimal vent-treatment requirements is an ideal fit for this application. The high heated surface area of the dryer provides a smaller foot print to fit into the existing available plant space.

The BIO-SCRU® IC series dryers are automated, indirectly heated, continuous flow drying systems with an ASME code-stamped thermal fluid heating module and dryer module. The IC series dryers are complete turnkey dryer systems, modularly designed for ease of installation. Programmable logic controller (PLC) automation and control of the IC series system insures meeting discharge dryness level requirements while processing on a continuous basis with minimal operator attention. B BIO-SCRU® IC series dryers accept 13% to 30% TS wet cake and delivers 80% to 95% TS dry product. BIO-SCRU® IC series dryers are simple, environmentally responsible, and economically viable for wastewater treatment plants of almost any size.

The Waste Activated Sludge (WAS) is aerobically digested .The digested WAS is dewatered to 22% to 24% wet cake. The wet cake is hauled off-site for landfill or land application. Currently city of Washington WWTP generates about 354 DT/YR of solids. The desired goal for city of Washington is to produce to Class A biosolids and is evaluating the dryer technology to achieve the Class A biosolids.

The Bio-Scru® IC series dryer produces Class A/EQ biosolids reliably while complying with the 40 CFR 503 regulations. Compliance with both the pathogen reduction and vector attraction reduction requirements for Class A biosolids is met with operating regimen and compliance logging. The Bio-Scru® IC series Sludge Dryer qualifies as a PFRP (Processes to Further Reduce Pathogens) via Heat Drying. Using this alternative, the sludge is dried to less than 10% moisture and the temperature of the exiting material is greater than 176°F. The compliance logging for this alternative record the temperature of the exiting material with a date stamp. This complies with both the pathogen reduction and the vector attraction reduction requirements for class A biosolids. A sludge that is fully digested and does not contain any undigested solids may meet vector attraction reduction requirement under Option 7 by only being dried to greater than 75% solids.

Based on annual biosolids of 354 DT/YR (1475 WT/YR @ 24% TS), BCR selects IC 1800 dryer based on 24 hours/day & 2.5 days/week operating schedule. The added capacity of this IC1800 design also provides the flexibility of running on a 12 hr. per day/ 5 days per week schedule. See below table for the estimated energy cost and the hauling & tipping cost saving at 1475 WT/YR of wet cake.



Conn	1
Case	1
Wet Cake Ton/Year	1475
% Total Solids in Wet Cake	24 %
Total Dry Solids Ton/Year	354
% Total Solids in Dried Product	90%
Number of Days Operation Per Week**	2.50
Number of hours Operation Per day	24
Feed Rate (Lbs/Hr)	1300
Evaporation Rates (Lb/Hr)	954
Solids Feed Rate (Lbs/Hr)	312
Total Energy Cost \$/Year	(\$26,263.00)
Hauling Saving (Ton)	(1,082)
Hauling Cost & Tipping Fee (\$/T)	\$60.00
Total Annual Hauling Cost Saving (\$/YR)	\$64,920.00
Total Annual Expense or Saving	\$29 6E7 00
OPEX -Hauling Saving	\$38,657.00

^{**} The BIO-SCRU® dryer can be started unattended based on time of day. This unattended start-up could save the municipalities 4 -6 hours of operator time or coverage.

Notes:

- 1. Dryer Model is BIO-SCRU IC 1800 with 24 Hours operation
- 2. Energy cost calculation is based on natural gas cost of \$6.00 MMBtu and Electric Power cost of \$0.06/Kw-Hr.
- 3. The hauling cost saving is based on the difference in the wet cake weight and the weight of dried product. We have considered \$40.00 as Hauling cost and tipping fee.
- 4. For 1475 WT/YR the dryer operates only for 2.5 days/week.



2. BCR BIO-SCRU® OVERVIEW

2.1. Description of Operations

The BIO-SCRU's® drying chamber is a sealed, subambient pressure, anaerobic atmosphere. The drying chamber is kept constantly full to minimize head space in the chamber and to maximize the thermal operating efficiency. The BIO-SCRU's® heat energy is provided by the thermal fluid circulating through the hollow rotor flighting, rotor shaft and dryer chamber housing. This method of heating is indirect, meaning the heating medium is not in contact with the product being heated. The BIO-SCRU's® dualrotor design includes proprietary features which make the rotors self-clearing. This feature breaks up any sludge that may bake onto the rotors and form clumps. The rotors slowly rotate, agitating and conveying the sludge through the dryer as water is evaporated, leaving dried residual solids that are greater than 90% by weight. The BIO-SCRU® utilizes a multi-sensing-point method for failsafe operation.

Wet sludge is fed to the dryer by a positive-displacement pump and the dried product is discharged from the dryer to a cooling screw with a subsequent rotary valve to prevent or minimize air intrusion into the system. Water is used in the hollow-shaft, jacketed cooling screw to reduce the hot, dried solids to a safe- handling temperature. Steam generated in the drying process is condensed in a multi-stage, direct-contact spray condenser. Residual non-condensable gases are chemically and/or

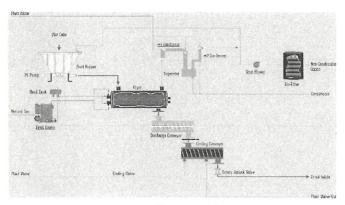


Figure1: BIO-SCRU® Process Flow Diagram

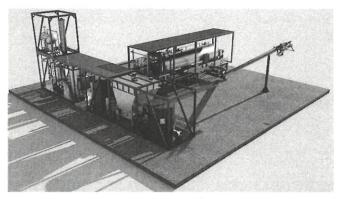


Figure 2: BIO-SCRU® Installation w/ all Ancillary Equipment



Figure 3: BIO-SCRU® Low Speed rotor



Figure 4: Dried Biosolids

biologically scrubbed by odor control unit to reduce emissions and odor. The condensing system operates at a very slight vacuum to minimize air intrusion, either through shaft seal leaks or the discharge rotary valve. This minimizes the volume of non-condensable gas to be treated



2.2. Major Equipment

The standard BIO-SCRU® Series solids drying system includes the following major components.

2.2.1. Feed System

The feed hopper provides the buffer capacity to ensures a smooth and consistent feed rate of biosolids to the dryer. The feed hopper includes live bottom screws for positive sludge transport to the feed pump and eliminating any bridging of material. The progressive cavity feed pump conveys the biosolids from the feed hopper into the dryer.



2.2.2. **Dryer**

The dryer consists of two, intermeshed hollow-flight rotors and a jacketed housing. The heat energy required for the dryer is provided indirectly by heat-transfer fluid that is remotely heated and circulated through both the rotors and the housing. Dewatered sludge is pumped to the dryer from a feed hopper. Water is removed from the wet sludge by indirectly heating it from ambient temperature to greater than 100°C / 212°F, changing the water from liquid to steam. Steam is evacuated from the dryer under a slight vacuum and condensed by direct contact with water in an external condenser system. Steam and particulate are recovered and recycled for further processing at the wastewater treatment plant. The dryer is controlled by a programmable logic controller (PLC). Process condition is maintained for a prescribed retention time and temperature that results in a dried-product classification

2.2.3. Thermal Fluid Heater

Indirect heating of all heat-transfer surfaces in contact with the process material is accomplished by circulation of thermal (heat-transfer) fluid through the dryer's rotors and jacketed housing. The heat-transfer fluid is subsequently reheated by a gas-fired or electric heater. For unattended operation and optimum efficiency, the thermal-fluid heater is controlled by an onboard Burner Management System (BMS). The dryer PLC communicates the required fluid temperature set-points to the heater.

of "Class A PFRP" as listed in the Code of Federal Regulations 40 CFR 503.



2.2.4. Condenser

Through evaporation of water, steam is generated in the dryer. The steam carries some particulate with it when exiting the dryer. Steam is condensed, and particulate is captured in a direct-contact multi-stage spray condenser. Condensed liquid discharged from the condenser will be routed back to the wastewater plant influent. Odorous non-condensable gases are required to be further treated and discharged to atmosphere.





2.2.5. Discharge system

Following the Biosolids Dryer, the dried solids exit the dryer on to the discharge screw and then into the cooling screw. Like the dryer and depending on size, the cooling screw consists of solid- or hollow-rotor and a jacketed housing. Cooling the dried solids and removal of heat is accomplished by circulation of water through the cooler's rotor and jacketed housing.



2.2.6. Odor Control

Following the condenser, odorous non-condensable gases are required to be further treated and discharged to atmosphere to reduce the emissions & odor. A non-biological odor filter utilizes chemisorption to remove odor-causing compounds.



2.2.7. Nitrogen Generator

The dryer chamber operates with a low oxygen atmosphere. The steam vapors induced from evaporated water and supplemental nitrogen purge, minimizes the air intrusion to the dryer chamber. Nitrogen is generated by a dedicated Pressure Swing Adsorption (PSA) package generator.





3. SCOPE OF SUPPLY

The below scope of supply is for a typical BIO-SCRU® IC-1800 Dryer system, which includes the dryer along with all the necessary subsystems:

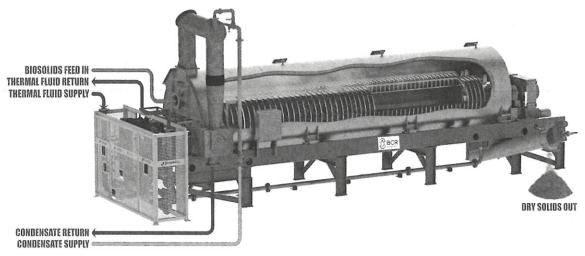
SI No.	QTY.	Description	By BCR	By Client	Comments
Equipr	nent S	upply			
1	1	Dewatered Cake Feed Hopper	✓		CS Coal Tar epoxy coated sludge feed hopper of enough capacity with cover & hatch,
2	1	Feed Pump Assembly	✓		Progressive Cavity Pump.
3	1	Feed Piping w/ Integral Thrust Block		√	Feed Piping from the Feed Pump to the Dryer (<25ft run). CS groove pipe w/ Victaulic clamp fittings.
4	1	Dryer	1		BIO -SCRU® IC 1800 Dryer with integrated HOLO -SCRU® rotors - CS MOC (Discharge Section only shall be 304SS)
5	1	Cooling Screw	1		HOLO-SCRU® Design w/ a Tubular Housing complete w/ Support Stand - 304SS MOC
6	1	Knife Gate Assembly	1		Actuated 304SS Knife Gate.
7	1	Rotary Valve	✓		Motor-driven, 304SS wetted materials
8	1	Condenser System	1		3-stage, spray, direct-contact with separator tank with drain trap, 304SS MOC and with FRP blower
9	1	Oxygen Sensor			Located at vent, 0-21%v/v. Meets NFPA 69 requirements
10	1	Discharge Conveyor	✓		Discharge Screw Conveyor 304SS MOC
11	1	Thermal Fluid Heater	✓		Skid Mounted package by Fulton; natural gas fired heater
12	1	Dryer Thermal Fluid Piping Manifold	1		Thermal Fluid Distribution Manifold w/ . Isolation Valves at the dryer
13		Thermal Fluid Interconnect piping		1	Piping between the dryer & thermal fluid heater skid
14	1	Odor Filter	1		Chemisorption
15	1	Nitrogen Generator	✓		Fully automatic system skid with Air Compressor, air receiver, refrigerant dryer, tank and all necessary pressure instrumentation & control system. Optional Oxygen Analyzer available
16	Lot	Building Ventilation and odor control vent piping		1	



Sl No.	QTY.	Description	By BCR	By Client	Comments
Electri	cal & C	ontrols			
17	Lot	Transmitter/Field Devices	✓		As per BCR P&ID
18	Lot	Control Panel- PLC/HMI	✓		
19	Lot	Transformers/Switchgear		1	
20	Lot	Variable-Frequency motor drives	✓		Only for BCR Supplied Motors
21	Lot	Supply & termination of power supply to BCR control panels		1	There will be multiple panels that power supply needs to be terminated.
22	Lot	Building lighting		1	
23	Lot	Electrical & Pneumatic works on-site		1	Components supplied loosed or interconnect between the skids
Ocun	nentati	on			
24	Lot	Process & Instrumentation Diagram (PID)	1		
25	Lot	Process Flow Diagram (PFD)	✓		
26	Lot	General Arrangement (GA) Drawing (GA)	✓		Includes Anchor bolts details
27	Lot	Electrical Single Line Drawing	✓		
28	Lot	Operation & Maintenance Manual (O&M)	✓		
estin	g & Ins	pection			
29	Lot	Factory Acceptance Test	1		At BCR fabrication facility
30	Lot	QC Inspections	✓		BCR Internal Quality Assurance
31	Lot	Field Performance Test			Not included. BCR field service rates apply
Consti	ruction				
32	Lot	Temporary Facilities		1	On-site for storage
33	Lot	Site Grading, roads etc.,		✓	
34	Lot	Civil/Foundation Work		1	
35	Lot	Buildings, HVAC, Emission control		✓	
36	Lot	Job Site Unloading & Storage		✓	
37	Lot	Field Installation Labor, Materials, and Equipment		✓	Includes all mechanical piping, duct work & electrical interconnection.
ite Se	ervices				
38	Lot	Packing and Marking for Shipment	✓		
39	Lot	Delivery & freight to job site		✓	
40	Lot	Installation Supervision		V	Not included. BCR field service rates apply
41	Lot	Start-up and Testing Supervision		V	Not included. BCR field service rates apply
42	Lot	Training of O & M Personnel		1	Not included. BCR field service rates apply
43	Lot	Any Local, State or Federal Permits		/	
Consu	mable	S			
44	Lot	First Fill of lubricants & chemicals		1	
45	Lot	Electric Power, Water, and Fuel for Construction, Checkout, Testing, Start-up, Testing, and Operation		✓	



4 FEATURES & BENEFITS of BIO-SCRU®



BIO-SCRU® system is our patented, self-cleaning, hollow-flight auger technology providing optimum heat transfer. PLC-controlled operating parameters (temperature, feed rates, residence time) ensure that Class A requirements as per 40 CFR, part 503 are met at all times.

Wide range of Feed Source: Designed to handle a range of feeds including undigested primary, waste activated, and digested sludges, as well as a mix of types.

Patented Self Cleaning: The two screws rotate in opposite direction and patentend contol system enables the self-cleaning by brushing the screw with each other.

Low abrasion on the screw: The screw speed of 1 -2 rpm results in very low abrasion on the screw surface.

Foot Print: BIO-SCRU's twin-screw design provides the highest surface-area density, allowing the smallest dryer footprint. BIO-SCRU® is an in-direct heat dryer and does not use air dehumidification which eliminates the explosion hazards associated with a Class- A oven processing a combustible solid and air-pollution control equipment. Therefore, overall dryer footprint is very small.

Safety: Inerted processing environment using nitrogen conforms to NFPA 69 requirements for the prevention of fires and explosions and low vapor velocities to minimize dust entrainment. Therefore, Hollow-screw heat exchanger system with inert atmosphere and hermetic drying chamber provides safe operation without the need for explosion doors.

Energy Source Flexibility: The BIO-SCRU® thermal fluid heater can be powered by a variety of energy sources including natural gas, bio-gas, LPG, diesel, fuel oil or electricity.

Odor Control: The BIO-SCRU® dryer and downstream conveyors are fully enclosed and use a rotary air-lock valve and knife-gate valve to minimize air intrusion and provide isolation when not discharging. Less than 100 cubic feet per hour vent stream under negative pressure to contain odors. The 3-stage condensor along with non-biological chemisorption odor control unit, removes dust and odor-causing compounds.



BUDGET PRICING & TERMS

Incoterms: Ex Works

Proposal Validity: 180 days

All Prices are in US Dollars. Budget price does not include any local, state or federal taxes or custom duties or other taxes. BCR Inc. Terms and Conditions will apply to items or equipment purchased under this proposal.

Equipment sold by BCR contains intellectual property; BCR will not transfer title to such intellectual property by way of sale of equipment. Drawings and data provided will remain the property of BCR.

5.1 PAYMENT TERMS

Payments to be secured by Irrevocable Letter of Credit, issued by an agreed upon financial institution, with drawdown provisions per the following Payment Schedule:

20% with order

30% with initial submittals to customer

25% with ordering of materials of components for manufacture

20% upon notice of readiness to ship

5% upon delivery to jobsite

5.2 DELIVERY SCHEDULE

Typical Estimated shipment to ready to ship notice from U.S. factory is 38-42 weeks from receipt of Purchase Agreement with clarification of commercial and technical details AND receipt of deposit. Delivery for shipment assumes the following:

Technical drawings and submittals to Buyer

8-12 weeks

Buyer review and approve drawings & submittals

2-3 weeks

Fabrication and Assembly

28-32 weeks upon approval of submittal(s)

Factory Acceptance Test

2 weeks before shipment



2019 BCR FIELD SERVICE RATES

Purpose: To set standard labor rates for non-contracted work.

Term: Effective 12/21/2018 until further notice.

- 6.1. Parts Rates: Replacement or spare parts shall be provided at cost plus 50%. Freight prepaid and add including expedite charges if required.
- 6.2. Repair & Maintenance Service Rates: Provide repair and maintenance services as requested at the following discounted service agreement rates:

Field Service Normal R	Rates:
------------------------	--------

	Mon-Fri	\$175/HR
	Sat/Sun/Holidays	\$350/HR
Overtim	e Rate	\$262.50/HR
Travel R	ate	\$125/HR
Expense	s – Actual expenses for travel, lodging, & meals.	

Engineering & Project Management Normal Rates:

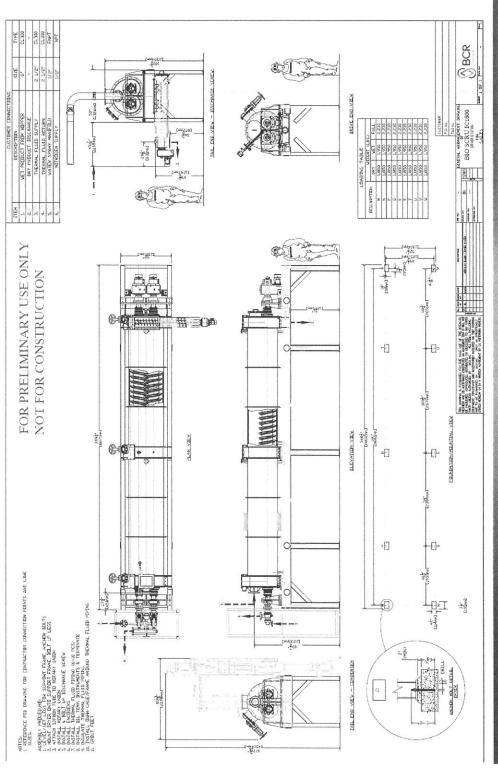
Mon-Fri	\$200/HR
Sat/Sun/Holidays	\$400/HR
Fravel Rate	

Expenses - Actual expenses for travel, lodging, & meals.



GENERAL ARRANGEMENT DRAWING

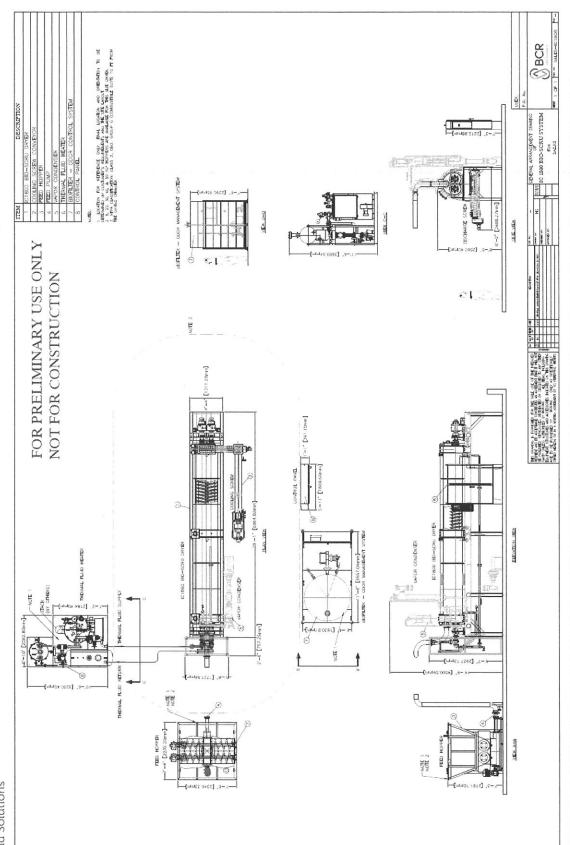
General Arrangement Drawing as well as system drawings for the BIO-SCRU® Series IC-1800 dryer has been attached for your review. A sample layout is shown however, each component of the system can be configured in a variety of ways to fit the unique layout of your facility,



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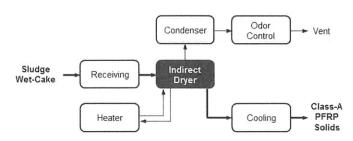
BIO-SCRU® TECHNICAL DATASHEET

BIO-SCRU® DRYER SYSTEM

Specifications

PROCESS DESCRIPTION

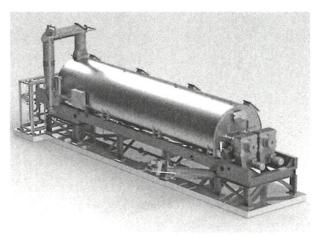
The Bio-Scru® drying system is all equipment necessary to safely and effectively convert sludge wet-cake to Class-A PFRP heat-dried biosolids meeting all the process- and product requirements of 40 CFR 503, Subpart D including >20 minutes retention time at >80 °C and ≤10% moisture content.



SCOPE OF SUPPLY

STANDARD MAJOR EQUIPMENT

Dryer, Indirect, Twin Hollow-Flite Auger Feed Hopper, Live Bottom Feed Pump, Progressive Cavity Thermal-Fluid Heater, Gas Fired Condenser, 3-Stage Spray Odor Filter, Chemisorption Discharge Conveyor Cooling Conveyor, Water-Cooled Air-Lock Valves (Knife-Gate + Rotary) Control Panels (PLC, HMI, VFDs) Nitrogen Generator



TYPICAL SPECIFICATIONS¹

Model Name Model Number	_	IC-1800 HSD18
Heat Exchange Area Auger Diameter	ft ² inches	470 18
Overall Length ² Overall Width ²	ft-in ft-in	30'-7" 4'-5"
Weight (Shipping) Weight (Operating)	klbs klbs	22 24
Dryer Motors ³ (Installed) Electrical Power (Operating) Thermal Fluid Fill	Hp Hp gallons	6 44.3 210

NOTES

- 1. Standard BCR specifications; subject to change without notice, excludes freight, taxes, bond, installation, commissioning, testing
- 2. Dryer only, all dimensions/weights approximate.
- 3. Two motors/dryer: excludes anciullary equipment motors



9 TERMS AND CONDITIONS OF PURCHASE

- 1. TERMS APPLICABLE: The Terms and Conditions of Sale listed below are the exclusive terms and conditions applicable to quotations made and orders acknowledged by BCR Environmental, Corp. ("Seller") for the sales of products, equipment and parts relating thereto ("Products"). This quotation or acknowledgment is expressly made conditional upon Buyer's assent to such terms and conditions. Any of Buyer's terms and conditions which are in addition to or different from those contained herein, which are not separately agreed to by Seller in writing, are hereby objected to and shall be of no effect. Objections to any terms and conditions contained herein shall be deemed waived if Seller does not receive written notice thereof within 20 days of the date of this quotation or acknowledgment. Buyer in any event will be deemed to have assented to the terms and conditions contained herein if delivery of any Product is accepted. The term "this Agreement" as used herein means this quotation or acknowledgment or purchase order, together with BCR's proposal and any attachment hereto, any documents expressly incorporated by reference and these Standard Terms and Conditions of Sale. Terms are cash unless otherwise agreed upon in writing.
- 2. TERMS OF PAYMENT: All invoices are due and payable in Jacksonville, FL. All credit sales are due in full according to the schedule in the proposal Payment Terms. Accounts past due shall accrue interest at 2% per month or the highest lawful rate allowed by applicable law. Prices and design are subject to change without prior notice
- 3. ACCEPTANCE: The terms and conditions of this Offer for Sale shall apply and become a part of the contract between Seller and Buyer unless specifically changed in writing and signed by an executive officer of Seller. The terms and conditions of this Offer for Sale shall in all cases, without exception, control and take precedence over any terms and conditions in Buyer's acceptance. Buyer's acceptance of this Offer for Sale shall be prima facie evidence of acceptance by Buyer of Seller's terms and conditions as controlling. Any conflicting terms and conditions in any document (including our proposal), Buyer's purchase order, acknowledgement or other document utilized by Buyer in this transaction, are expressly rejected by Seller.
- 4. FORCE MAJEURE: (a) Force Majeure Defined. For the purpose of this Agreement "Force Majeure" will mean all unforeseeable events, beyond the reasonable control of either party which affect the performance of this Agreement, including, without limitation, acts of God, acts or advisories of governmental or quasi-governmental authorities, laws or regulations, strikes, lockouts or other industrial disturbances, acts of public enemy, wars, insurrections, riots, epidemics, pandemics, outbreaks of infectious disease or other threats to public health, lightning, earthquakes, fires, storms, severe weather, floods, sabotage, delays in transportation, rejection of main forgings and castings, lack of available shipping by land, sea or air, lack of dock lighterage or loading or unloading facilities, inability to obtain labor or materials from usual sources, serious accidents involving the work of suppliers or sub-suppliers, thefts and explosions.
- (b) Suspension of Obligations. If Seller is unable to carry out its obligations under this Agreement due to Force Majeure, and the Seller promptly notifies the Buyer of such delay, then all obligation that are affected by Force Majeure will be suspended or reduced for the period of Force Majeure and for such additional time as is required to resume the performance of its obligations, and the delivery schedule will be adjusted to account for the delay.
- 5.WARRANTY: (a) Seller warrants to Buyer that the Products manufactured by it will be delivered free from defects

- in material and workmanship. This warranty shall commence upon delivery of the Products and shall expire on the earlier to occur of 12 months from initial operation of the Products or 18 months from delivery thereof (the "Warranty Period"). If during the Warranty Period Buyer discovers a defect in material or workmanship and within 10 days of such discovery gives Seller written notice thereof, Seller will either deliver to Buyer a replacement part, or repair the defect Ex Works (according to Incoterms 2010) Seller's factory. Seller will have no warranty obligations under this paragraph 5(a): (i) if the Products have not been operated and maintained in accordance with generally approved industry practice and with Seller's specific written instructions; (ii) if the Products are used in connection with any mixture or substance or operating condition other than that for which they were designed; (iii) if Buyer fails to give Seller such written notice within 10 day of the discovery; (iv) if the Products are repaired by someone other than Seller or have been intentionally or accidentally damaged; (v) for corrosion, erosion, ordinary wear and tear or in respect of any parts which by their nature are exposed to severe wear and tear or are considered expendable, (vi) if all payments have not been made. If remote monitoring is not enabled, a \$2500.00 deductible applies to all Warranty work. Finished materials and accessories purchased from other manufacturers are only warranted to the extent of the original manufacturer's warranty.
- (b) Seller further warrants to Buyer that at delivery, the Products manufactured by it will be free of any liens or encumbrances. If there are any such liens or encumbrances, Seller will cause them to be discharged promptly after notification from Buyer of their existence.
- (c) THE EXPRESS WARRANTIES SELLER MAKES IN THIS PARAGRAPH 5 ARE THE ONLY WARRANTIES IT WILL MAKE. THERE ARE NO OTHER WARRANTIES, WHETHER STATUTORY, ORAL, EXPRESS OR IMPLIED. IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SELLER'S LIABILITY FOR WARRANTY REPAIR OR REPLACEMENT SHALL NOT EXCEED THE AMOUNT PAID BY BUYER FOR THE ITEMS PURCHASED.
- (d) The remedies provided in paragraphs 5(a) and 5(b) are Buyer's exclusive remedy for breach of warranty.
- (e) With respect to any Product or part thereof not manufactured by Seller, Seller shall pass on to Buyer only those warranties made to Seller by the manufacturer of such Product or part which are capable of being so passed on.
- 6. LIMITATION OF LIABILITY: Notwithstanding any other provision in this Agreement, the following limitations of liability shall apply: (a) In no event, whether based on contract, tort (including negligence), strict liability or otherwise, shall Seller, its officers, directors, employees, subcontractors, suppliers or affiliated companies be liable to Buyer or any third party for loss of profits, revenue or business opportunity, loss by reason of shutdown of facilities or inability to operate any facility at full capacity, or cost of obtaining other means for performing the functions performed by the Products, loss of future contracts, claims of customers, cost of money or loss of use of capital, in each case whether or not foreseeable, or for any indirect, special, punitive, incidental or consequential damages of any nature.
- (b) The aggregate liability of Seller, its officers, directors, employees, subcontractors, suppliers or affiliated companies, for all claims of any kind for any loss, damage, or expense resulting from, arising out of or connected with the Products or this Agreement or from the performance or breach thereof, together with the cost of performing make good obligations to pass performance tests, if



applicable, shall in no event exceed the lesser of the amount paid by Buyer or contract price. The foregoing notwithstanding, if applicable, any claims for (i) delay in delivery shall not exceed 5% of the sum of money received by Seller and (ii) breach of performance guarantees (if any apply) shall not exceed 10% of the order price.

- (c) The limitations and exclusions of liability set forth in this paragraph 6 shall take precedence over any other provision of this Agreement and shall apply whether the claim of liability is based on contract, warranty, tort (including negligence), strict liability, indemnity, or otherwise. The remedies provided in this Agreement are Buyer's exclusive remedies.
- (d) All liability of Seller, its officers, directors, employees, subcontractors, suppliers or affiliated companies, resulting from, arising out of or connected with the Products or this Agreement or from the performance or breach thereof shall terminate on the second anniversary of the date of this Agreement.
- 7. INDEMNITY: Buyer agrees to indemnify and hold Seller harmless for loss due to any fines, penalties and corrective measures necessary to comply with laws, rules and regulations, as well as injuries, losses or claims in connection with the Buyer's use or operation of the Products. Seller agrees to indemnify and hold Buyer harmless for loss due to any fines, penalties and corrective measures necessary to comply with laws, rules and regulations in connection with the design or manufacture of purchased Products.
- 8. CANCELLATION BY PURCHASER: The proposed system is sold on a final, non-cancelable, non-returnable, non-refundable basis. Buyer agrees to complete the payment commitments as outlined in the Payment Terms captured in the attached Firm Proposal.
- 9. DELIVERY: The price and delivery of all Products, are Ex Works (according to Incoterms 2010) Seller's factory. All shipments are made Ex Works our plant. If the purchase price has been paid in full prior to shipment, then title to the Products shall pass to Buyer when the Products are duly delivered to the carrier (Carrier) selected by Buyer or, at Buyer's request, by Seller, at Seller's factory, except where Buyer requests a delay in shipment, in which case the title shall pass to the Buyer when the Products are ready for shipment. If Buyer requests a delay in shipment, then Buyer shall pay Seller's standard storage charges for the period from the date Products are ready for shipment to the actual date of shipment, Buyer will provide a certificate of insurance for the product while it is being stored. If the purchase price has not been paid in full, title to Products does not pass from Seller to Buyer until Seller receives payment in full. Buyer expressly agrees not to commercially operate the Products until Seller has received payment in full.
- 10. **RISK OF LOSS:** The risk of loss to the Products shall pass to Buyer when the Products are duly delivered to the Carrier at Seller's factory or earlier if title passes to Buyer as listed above. The processing of freight claims or loss claims is the responsibility of Buyer.
- 11. CONFIDENTIALITY: Buyer acknowledges that the information which Seller submits to Buyer in connection with this quotation or acknowledgment includes Seller's confidential and proprietary information, both of a technical and commercial nature and it is subject to the Non-Disclose and Confidentiality Agreement executed by Buyer. Buyer agrees not to disclose such information to third parties without Seller's prior written consent. Seller grants to Buyer a non-exclusive, royalty free, perpetual license to use Seller's confidential and proprietary information for purposes of this specific order and the Products that are the subject hereof only. In addition to any separate obligations under the Non-Disclosure and

Confidentiality Agreement, Buyer further agrees not to permit any third party to fabricate the Products or any parts thereof from Seller's drawings (or other information) or to use the drawings (or other information) other than in connection with this specific order. Buyer will defend and indemnify Seller from any claim, suit or liability based on personal injury (including death) or property damage related to any Product or part thereof which is fabricated by a third party without Seller's prior written consent and from and against related costs, charges and expenses (including attorney's fees). All copies of Seller's drawings shall remain Seller's property and may be reclaimed by Seller at any time.

- 12. INTELLECTUAL PROPERTY: All intellectual property of Seller shall remain the exclusive property of Seller and no license to pre-existing intellectual property will be created by this Agreement. Any new intellectual property developed by Buyer that includes or incorporates the Products shall also be owned by Seller.
- 13. **LAW:** The rights and obligations of the parties shall be governed by the domestic laws of the State and County of Dallas County, Texas without regard to its conflict of law rules or the United Nations Convention for the International Sale of Goods.
- 14. ARBITRATION: Any dispute, controversy or claim arising under this agreement or the breach thereof, shall be settled by arbitration administered by the American Arbitration Association in Dallas, Texas, pursuant to the American Arbitration Association Commercial Arbitration rules. The parties shall jointly select one arbitrator and the decision of the arbitrator shall be final and binding on the parties and enforceable in any court of competent jurisdiction. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. The prevailing party may, at the arbitrator's sole discretion, award reasonable attorney fees. Except as may be required by law, neither party nor an arbitrator may disclose the existence, content, or results of any arbitration hereunder without the prior written consent of both parties.
- 15. ENTIRE AGREEMENT: This Offer, together with the Non-Disclosure and Confidentiality Agreement ("NDA"), contains the entire agreement between Seller and Buyer, and no modification of this Offer or NDA shall be binding upon Seller unless evidenced by an agreement in writing signed by an executive officer of Seller after the date hereof. No oral or written statements by Seller's sales representatives, or other agents, made after the date hereof shall modify or vary the express terms hereof unless evidenced by an agreement in writing signed by an executive officer of Seller after the date hereof. To the extent any advertising or promotional material of Seller contradicts or disagrees with the terms hereof, Seller and Buyer agree that the terms hereof shall control and that such advertising and/or promotional materials are not part of the Agreement between Seller and Buyer.
- 16. **SECURITY INTEREST:** To secure payment for Products, Buyer grants to Seller a security interest in the Products and agrees that Seller shall have the rights and remedies of a secured party under the Uniform Commercial Code. Buyer designates Seller as its attorney-in-fact to execute any financing statements on behalf of Buyer necessary to perfect such security interest.
- 17. **TAXES:** Prices on the products sold buy Seller are exclusive of any city, state, federal or foreign taxes or duties, of any kind. Buyer is responsible for all such taxes and duties and agrees to indemnify Seller for all taxes and duties that may be assessed upon Seller



City of Washington, MO

Budget Report

Account Summary

For Fiscal: 2018-2019 Period Ending: 07/31/2019

						Variance	
		Original	Current	Period	Fiscal	Favorable	Percent
		Total Budget	Total Budget	Activity	Activity	(Unfavorable)	Remaining
Fund: 400 - WATER FUND							
Revenue							
400-35-000-450600	Penalties/Interest Charges	22,000.00	22,000.00	1,481.23	16,026.75	-5,973.25	27.15 %
400-35-000-450900	Revenues-All Other	15,000.00	15,000.00	1,000.00	60,718.10	45,718.10	404.79 %
400-35-000-453100	Water Sales	1,390,000.00	1,390,000.00	120,299.12	1,075,728.63	-314,271.37	22.61 %
400-35-000-453200	Water Meter Sales	10,000.00	10,000.00	3,764.52	16,915.27	6,915.27	169.15 %
400-35-000-453500	Connection Charges	25,000.00	25,000.00	7,000.00	41,650.00	16,650.00	166.60 %
400-35-000-453550	Tap Charges	500.00	500.00	0.00	2,950.00	2,450.00	590.00 %
400-35-000-453600	Labor & Equipment Charges	1,000.00	1,000.00	1,683.93	2,492.81	1,492.81	249.28 %
400-35-000-453700	Miscellaneous Materials Sold	3,000.00	3,000.00	2,252.22	5,593.15	2,593.15	186.44 %
400-35-000-461200	Rent/Lease-Municipal Property/Bui	32,425.00	32,425.00	21,750.92	52,779.79	20,354.79	162.77 %
400-35-000-480000	Investment Income	8,000.00	8,000.00	0.00	18,570.09	10,570.09	232.13 %
	Revenue Total:	1,506,925.00	1,506,925.00	159,231.94	1,293,424.59	-213,500.41	14.17 %
Expense							
400-35-000-510100	Salaries/Wages-Regular	404,700.00	404,700.00	24,307.75	269,953.37	134,746.63	33.30 %
400-35-000-510150	Elected Board Officials Compensati	200.00	200.00	0.00	200.00	0.00	0.00 %
400-35-000-510200	Wages-Parttime/Permanent	5,310.00	5,310.00	0.00	0.00	5,310.00	100.00 %
400-35-000-510300	Salaries/Wages-Overtime	8,760.00	8,760.00	1,418.29	12,605.08	-3,845.08	-43.89 %
400-35-000-511100	FICA Taxes	32,050.00	32,050.00	1,886.63	20,837.31	11,212.69	34.98 %
400-35-000-511300	Health Insurance	86,520.00	86,520.00	5,524.10	55,796.81	30,723.19	35.51 %
400-35-000-511400	Dental Insurance	5,030.00	5,030.00	374.85	3,756.66	1,273.34	25.31 %
400-35-000-511600	Life Insurance	620.00	620.00	43.94	440.91	179.09	28.89 %
400-35-000-511700	LAGERS Retirement Plan	26,460.00	26,460.00	1,646.48	17,661.95	8,798.05	33.25 %
400-35-000-512605	Employee Incentive Program	600.00	600.00	0.00	240.00	360.00	60.00 %
400-35-000-512700	HRA Deductible	13,650.00	13,650.00	0.00	6,457.00	7,193.00	52.70 %
400-35-000-520250	Administration, Finance & IT Depar	151,340.00	151,340.00	0.00	113,504.94	37,835.06	25.00 %
400-35-000-520300	Technical Services	45,950.00	45,950.00	4,600.00	38,742.27	7,207.73	15.69 %
400-35-000-520400	Other Contracted Services	38,000.00	38,000.00	1,663.08	71,973.18	-33,973.18	-89.40 %
400-35-000-521300	Tipping Fee- City of Washington	0.00	0.00	0.00	176.00	-176.00	0.00 %
400-35-000-521530	Lawn & Grounds Care Services	19,425.00	19,425.00	2,947.50	13,106.25	6,318.75	32.53 %
400-35-000-521540	Uniform Cleaning Service	2,000.00	2,000.00	116.16	1,211.65	788.35	39.42 %
400-35-000-521560	Building Repair & Maintenance	1,000.00	1,000.00	0.00	1,056.17	-56.17	-5.62 %
400-35-000-521620	Equipment Repair & Maintenance	12,200.00	12,200.00	140.15	8,808.74	3,391.26	27.80 %
400-35-000-521630	Vehicle Repair & Maintenance	15,000.00	15,000.00	0.00	84.20	14,915.80	99.44 %
400-35-000-521635	Water System Repair & Maintenanc	10,000.00	10,000.00	0.00	0.00	10,000.00	100.00 %
400-35-000-521636	Well Pump Repair & Maintenance	22,250.00	22,250.00	0.00	361.49	21,888.51	98.38 %
400-35-000-521640	Equipment Rental	1,000.00	1,000.00	51.63	611.90	388.10	38.81 %
400-35-000-522100 400-35-000-522200	Advertising	200.00	200.00	0.00	652.75	-452.75	-226.38 %
400-35-000-522210	Property, Liability & Casualty Insura	36,380.00	36,380.00	0.00	31,045.15	5,334.85	14.66 %
400-35-000-522300	Self-Insurance Deductible Printing/Duplicating	500.00	500.00	0.00	108.00	392.00	78.40 %
400-35-000-522400	Telephone	1,600.00	1,600.00	0.00	509.30	1,090.70	68.17 %
400-35-000-522410	Telephone-Alarm Control	8,300.00	8,300.00	501.96	4,259.01	4,040.99	48.69 %
400-35-000-522500	Training/Seminars	4,000.00 1,500.00	4,000.00 1,500.00	0.00	0.00	4,000.00	100.00 %
400-35-000-522600	Travel	1,200.00		0.00	1,420.00	80.00	5.33 %
400-35-000-522700	Professional Dues & Memberships	2,150.00	1,200.00 2,150.00	0.00	2,224.91 2,983.00	-1,024.91	-85.41 % -38.74 %
400-35-000-522900	Postage	13,000.00	13,000.00	828.94	10,145.30	-833.00 2.854.70	
400-35-000-522950	Credit Card Fees	7,000.00	7,000.00	636.19	7,618.76	2,854.70	21.96 %
400-35-000-530410	Parts-Vehicle	2,000.00	2,000.00	148.13	1,454.70	-618.76 545.30	-8.84 % 27.27 %
400-35-000-530415	Parts-Equipment	4,000.00	4,000.00	214.33	2,945.43	1,054.57	26.36 %
400-35-000-530420	Office Supplies	1,000.00	1,000.00	370.96	812.50	1,034.57	26.36 % 18.75 %
400-35-000-530500	Asphalt/Rock/Cement	20,000.00	20,000.00	108.83	13,031.70	6,968.30	34.84 %
	printy really activative	20,000.00	20,000.00	100.03	13,031.70	5,500.50	J+.04 /0

		Original	Current	Period	Fiscal	Variance Favorable	Percent
		Total Budget	Total Budget	Activity	Activity	(Unfavorable)	
					(4)		
400-35-000-530600	Straw/Seeding/Plants	500.00	500.00	0.00	298.42	201.58	40.32 %
400-35-000-530700	Uniforms & Clothing	600.00	600.00	0.00	400.00	200.00	33.33 %
400-35-000-530800	General Supplies	7,000.00	7,000.00	58.95	2,021.54	4,978.46	71.12 %
400-35-000-531110	Electricity	165,000.00	165,000.00	18,972.15	117,376.79	47,623.21	28.86 %
400-35-000-531120	Heating Fuel	1,500.00	1,500.00	12.64	2,188.71	-688.71	-45.91 %
400-35-000-531300	Gasoline & Oil	12,500.00	12,500.00	, 0.00	7,705.43	4,794.57	38.36 % 43.72 %
400-35-000-532100	Meters & Hydrants	46,300.00	46,300.00	0.00	26,055.97	20,244.03	
400-35-000-532200	Pipe & Fittings	33,000.00	33,000.00	88.71	14,467.19	18,532.81	56.16 %
400-35-000-533100	Chemicals	15,000.00	15,000.00	1,461.50	9,965.73	5,034.27	33.56 %
400-35-000-533300	Janitorial Supplies	0.00	0.00	0.00	145.59	-145.59	0.00 %
400-35-000-534100	Depreciation Expense	395,000.00	395,000.00	0.00	0.00	395,000.00	100.00 %
400-35-000-534200	SmallTools/Equipment/Furnishings	12,195.00	12,195.00	59.97	6,239.57	5,955.43	48.84 %
400-35-000-540200	Buildings	0.00	0.00	6,869.00	30,449.95	-30,449.95	0.00 %
400-35-000-541100	Improvements Other Than Building	273,000.00	239,900.00	7,900.00	43,805.00	196,095.00	81.74 %
400-35-000-541110	Water System Improvements	25,000.00	25,000.00	0.00	0.00 25,740.88	25,000.00 19,259.12	100.00 % 42.80 %
400-35-000-542100 400-35-000-542200	Vehicles	45,000.00 87,500.00	45,000.00 120,600.00	767.82	106,654.83	13,945.17	11.56 %
400-35-000-542200	Machinery & Equipment	233,300.00	233,300.00	0.00	0.00	233,300.00	100.00 %
400-35-090-559110	Bond/Note Principal Interest Expense	120,400.00	120,400.00	0.00	0.00	120,400.00	100.00 %
400-33-030-333110	Expense Total:	2,477,690.00	2,477,690.00	83,720.64	1,110,311.99	1,367,378.01	55.19 %
	•						
Fund	d: 400 - WATER FUND Surplus (Deficit):	-970,765.00	-970,765.00	75,511.30	183,112.60	1,153,877.60	118.86 %
Fund: 410 - SEWAGE TREATM	ENT FUND						
Revenue							
410-36-000-418500	Sanitary Sewer District	20,000.00	20,000.00	4,634.71	23,434.89	3,434.89	117.17 %
410-36-000-450600	Penalties/Interest Charges	45,000.00	45,000.00	2,700.90	28,713.71	-16,286.29	36.19 %
410-36-000-450900	Revenues-All Other	5,000.00	5,000.00	0.00	5,199.13	199.13	103.98 %
410-36-000-453600	Labor & Equipment Charges	100.00	100.00	0.00	0.00	-100.00	100.00 %
410-36-000-453700	Miscellaneous Materials Sold	200.00	200.00	252.58	252.58	52.58	126.29 %
410-36-000-454100	Sewer Service Charges	2,500,000.00	2,500,000.00	209,453.04	2,036,463.15	-463,536.85	18.54 %
410-36-000-454125	Surcharge Fees	25,000.00	25,000.00	0.00	16,070.96	-8,929.04	35.72 %
410-36-000-454150	Leachate Disposal Charge	35,000.00	35,000.00	4,080.00	53,210.00	18,210.00	152.03 %
410-36-000-454200	Sewer Connection Charges	35,000.00	35,000.00	7,197.00	53,321.00	18,321.00	152.35 %
410-36-000-480000	Investment Income	5,000.00	5,000.00	0.00	12,188.65	7,188.65	243.77 %
410-36-000-480200	Investment IncomeBond Acct.	390,000.00	390,000.00	0.00	182,642.46	-207,357.54	53.17 %
410-99-000-499350	Transfer In - Stormwater	0.00	160,000.00	0.00	160,000.00	0.00	0.00 %
	Revenue Total:	3,060,300.00	3,220,300.00	228,318.23	2,571,496.53	-648,803.47	20.15 %
Expense							
410-36-000-510100	Salaries/Wages-Regular	163,310.00	163,310.00	9,739.00	108,796.22	54,513.78	33.38 %
410-36-000-510200	Wages-PartTime/Permanent	5,310.00	5,310.00	0.00	0.00	5,310.00	100.00 %
410-36-000-510300	Salaries/Wages-Overtime	3,980.00	3,980.00	401.08	4,687.44	-707.44	-17.77 %
410-36-000-511100	FICA Taxes	13,300.00	13,300.00	710.67	8,053.50	5,246.50	39.45 %
410-36-000-511300	Health Insurance	39,720.00	39,720.00	2,820.88	28,543.91	11,176.09	28.14 %
410-36-000-511400	Dental Insurance	2,310.00	2,310.00	171.72	1,721.44	588.56	25.48 %
410-36-000-511600	Life Insurance	310.00	310.00	17.11	172.02	137.98	44.51 %
410-36-000-511700	LAGERS Retirement Plan	10,970.00	10,970.00	648.98	7,233.36	3,736.64	34.06 %
410-36-000-512605	Employee Incentive Program	200.00	200.00	0.00	90.00	110.00	55.00 %
410-36-000-512700	HRA Deductible	4,200.00	4,200.00	0.00	331.14	3,868.86	92.12 %
410-36-000-520250	Administration, Finance & IT Depar	78,120.00	78,120.00	0.00	58,590.00	19,530.00	25.00 %
410-36-000-520300	Technical Services	1,500.00	1,500.00	0.00	257.22	1,242.78	82.85 %
410-36-000-520400	Other Contracted Services	10,800.00	10,800.00	226.25	12,875.41	-2,075.41	-19.22 %
410-36-000-521300	Tipping Fee - City of Washington	300.00	300.00	0.00	0.00	300.00	100.00 %
410-36-000-521530	Lawn & Grounds Care Services	1,200.00	1,200.00	0.00	0.00	1,200.00	100.00 %
410-36-000-521540	Uniform Cleaning Service	600.00	600.00	38.72	392.62	207.38	
410-36-000-521560	Building Repair & Maintenance	500.00	500.00	0.00	1,056.15	-556.15	-111.23 %
410-36-000-521620	Equipment Repair & Maintenance	23,285.00	23,285.00	345.42	15,329.22	7,955.78	34.17 %
410-36-000-521630	Vehicle Repair & Maintenance	5,450.00	5,450.00	0.00	2,156.00	3,294.00	60.44 %
410-36-000-521640	Equipment Rental	1,500.00	1,500.00	51.63	619.26	880.74	58.72 %

Budget Report				101113	L010 L013 1 (ariou ziluligi oz	701/2015
		Original Total Budget	Current Total Budget	Period Activity	Fiscal Activity	Variance Favorable (Unfavorable)	Percent Remaining
410-36-000-522100	Advertising	500.00	500.00	0.00	0.00	500.00	100.00 %
410-36-000-522200	Property, Liability & Casualty Insura	16,170.00	16,170.00	0.00	13,751.76	2,418.24	14.96 %
410-36-000-522210	Self-Insurance Deductible	300.00	300.00	0.00	0.00	300.00	100.00 %
410-36-000-522300	Printing/Duplicating	800.00	800.00	0.00	254.65	545.35	68.17 %
410-36-000-522400	Telephone	3,300.00	3,300.00	347.87	3,168.41	131.59	3.99 %
410-36-000-522410	Telephone-Alarm Control	3,000.00	3,000.00	612.00	5,861.19	-2,861.19	-95.37 %
410-36-000-522500	Training/Seminars	1,000.00	1,000.00	0.00	813.75	186.25	18.63 %
410-36-000-522600	Travel	700.00	700.00	0.00	13.00	687.00	98.14 %
410-36-000-522700	Professional Dues & Memberships	1,500.00	1,500.00	0.00	120.00	1,380.00	92.00 %
410-36-000-522900	Postage	6,000.00	6,000.00	414.47	4,234.61	1,765.39	29.42 %
410-36-000-522950	Credit Card Fees	7,000.00	7,000.00	636.15	7,618.59	-618.59	-8.84 %
410-36-000-530200	Lab Supplies	50.00	50.00	0.00	0.00	50.00	100.00 %
410-36-000-530410	Parts-Vehicle	700.00	700.00	0.00	743.22	-43.22	-6.17 %
410-36-000-530415	Parts-Equipment	12,000.00	12,000.00	1,223.90	8,265.40	3,734.60	31.12 %
410-36-000-530420	Office Supplies	500.00	500.00	72.50	298.07	201.93	40.39 %
410-36-000-530500	Asphalt/Rock/Cement	25,000.00	25,000.00	410.84	2,110.67	22,889.33	91.56 %
410-36-000-530600	Straw/Seeding/Plants	250.00	250.00	0.00	0.00	250.00	100.00 %
410-36-000-530700	Uniforms & Clothing	300.00	300.00	0.00	0.00	300.00	100.00 %
410-36-000-530800	General Supplies	2,300.00	2,300.00	0.00	493.79	1,806.21	78.53 %
410-36-000-530900	Employee Appreciation Cost	200.00	200.00	0.00	0.00	200.00	100.00 %
410-36-000-531110	Electricity	45,000.00	45,000.00	5,171.71	28,751.83	16,248.17	36.11 %
410-36-000-531120	Heating Fuel	2,000.00	2,000.00	12.64	2,188.71	-188.71	-9.44 %
410-36-000-531300	Gasoline & Oil	6,500.00	6,500.00	42.68	5,834.65	665.35	10.24 %
410-36-000-532200	Pipe & Fittings	2,200.00	2,200.00	446.58	6,394.29	-4,194.29	
410-36-000-532270	Manhole Replacement Program	10,000.00	10,000.00	415.00	5,405.45	4,594.55	45.95 %
410-36-000-533100	Chemicals	2,200.00	2,200.00	19.95	51.30	2,148.70	97.67 %
410-36-000-533300	Janitorial Supplies	0.00	0.00	0.00	145.59	-145.59	0.00 %
410-36-000-534100	Depreciation Expense	250,000.00	250,000.00	0.00	0.00	250,000.00	100.00 %
410-36-000-534200	SmallTools/Equipment/Furnishings	11,275.00	11,275.00	378.16	2,212.93	9,062.07	80.37 %
410-36-000-541100	Improvements Other Than Building	230,000.00	80,000.00	0.00	19,002.00	60,998.00	76.25 %
410-36-000-541120	Sanitary Sewer System Improveme	165,000.00	315,000.00	0.00	0.00	315,000.00	100.00 %
410-36-000-542100	Vehicles	45,000.00	45,000.00	0.00	364.13	44,635.87	99.19 %
410-36-000-542200	Machinery & Equipment	0.00	400,000.00	0.00	381,589.00	18,411.00	
410-36-090-559110	Interest Expense	539,500.00	539,500.00	0.00	274,634.38	264,865.62	49.09 %
410-36-090-559120	Agent Fees	68,000.00	68,000.00	0.00	63,487.79	4,512.21	6.64 %
410-36-090-559130	Amortization of Bond Discount/Pre	-21,340.00	-21,340.00	0.00	0.00	-21,340.00	100.00 %
410-36-090-559200	Bond/Note Principal	975,000.00	975,000.00	0.00	975,000.00	0.00	10. 1000.000.000
410-36-361-510100	Salaries/Wages-Regular	202,300.00	202,300.00	15,547.43	185,988.62	16,311.38	8.06 %
410-36-361-510300	Salaries/Wages-Overtime	3,750.00	3,750.00	19.44	3,018.12	731.88	
410-36-361-511100 410-36-361-511300	FICA Taxes	15,670.00	15,670.00	1,104.43	13,600.22	2,069.78	
	Health Insurance	46,800.00	46,800.00	3,818.70 235.64	38,511.06	8,288.94	
410-36-361-511400	Dental Insurance	2,720.00	2,720.00	32.39	2,360.30 324.77	359.70	
410-36-361-511600 410-36-361-511700	Life Insurance	370.00 12,920.00	370.00 12,920.00	996.25	12,068.51	45.23 851.49	
410-36-361-512605	LAGERS Retirement Plan Employee Incentive Program	400.00	400.00	0.00	90.00	310.00	
410-36-361-512700	HRA Deductible	5,250.00	5,250.00	0.00	4,511.90	738.10	
410-36-361-520250	Administration, Finance & IT Depar	78,120.00	78,120.00	0.00	58,590.00	19,530.00	
410-36-361-520300	Technical Services	10,000.00	10,000.00	1,043.05	12,569.10	-2,569.10	
410-36-361-520400	Other Contracted Services	22,565.00	22,565.00	85.69	8,015.26	14,549.74	
410-36-361-521300	Tipping Fee - City of Washington	1,200.00	1,200.00	0.00	0.00	1,200.00	
410-36-361-521540	Uniform Cleaning Service	1,500.00	1,500.00	77.44	824.08	675.92	
410-36-361-521560	Building Repair & Maintenance	1,500.00	1,500.00	0.00	138.51	1,361.49	
410-36-361-521620	Equipment Repair & Maintenance	37,700.00	37,700.00	1,267.17	23,771.04	13,928.96	
410-36-361-521630	Vehicle Repair & Maintenance	6,000.00	6,000.00	0.00	3,507.29	2,492.71	
410-36-361-521640	Equipment Rental	500.00	500.00	33.15	456.70	43.30	
410-36-361-522200	Property, Liability & Casualty Insura	24,250.00	24,250.00	0.00	19,070.71	5,179.29	
410-36-361-522210	Self-Insurance Deductible	500.00	500.00	0.00	0.00	500.00	
410-36-361-522300	Printing/Duplicating	1,050.00	1,050.00	0.00	254.65	795.35	
	_						

						Variance	
		Original	Current	Period	Fiscal	Favorable	Percent
		Total Budget	Total Budget	Activity	Activity	(Unfavorable)	Remaining
410-36-361-522400	Telephone	8,000.00	8,000.00	941.43	8,073.83	-73.83	-0.92 %
410-36-361-522410	Telephone-Alarm Control	500.00	500.00	0.00	0.00	500.00	100.00 %
410-36-361-522500	Training/Seminars	800.00	800.00	0.00	0.00	800.00	100.00 %
410-36-361-522600	Travel	500.00	500.00	0.00	0.00	500.00	100.00 %
410-36-361-522700	Professional Dues & Memberships	500.00	500.00	0.00	35.00	465.00	93.00 %
410-36-361-522900	Postage	5,000.00	5,000.00	414.47	4,420.62	579.38	11.59 %
410-36-361-530200	Lab Supplies	8,600.00	8,600.00	81.63	625.79	7,974.21	92.72 %
410-36-361-530410	Parts-Vehicle	800.00	800.00	0.00	694.09	105.91	13.24 %
410-36-361-530415	Parts-Equipment	37,000.00	37,000.00	431.96	16,835.90	20,164.10	54.50 %
410-36-361-530420	Office Supplies	300.00	300.00	0.00	38.50	261.50	87.17 %
410-36-361-530500	Asphalt/Rock/Cement	1,500.00	1,500.00	0.00	19.56	1,480.44	98.70 %
410-36-361-530600	Straw/Seeding/Plants	300.00	300.00	0.00	350.98	-50.98	-16.99 %
410-36-361-530700	Uniforms & Clothing	400.00	400.00	0.00	275.96	124.04	31.01 %
410-36-361-530800	General Supplies	4,000.00	4,000.00	745.92	1,505.78	2,494.22	62.36 %
410-36-361-531110	Electricity	175,000.00	175,000.00	23,713.66	132,647.23	42,352.77	24.20 %
410-36-361-531120	Heating Fuel	14,000.00	14,000.00	150.53	16,097.68	-2,097.68	-14.98 %
410-36-361-531300	Gasoline & Oil	3,000.00	3,000.00	13.99	2,809.21	190.79	6.36 %
410-36-361-532200	Pipe & Fittings	2,500.00	2,500.00	0.00	28.55	2,471.45	98.86 %
410-36-361-533100	Chemicals	16,700.00	16,700.00	21.63	13,893.36	2,806.64	16.81 %
410-36-361-534100	Depreciation Expense	900,000.00	900,000.00	0.00	0.00	900,000.00	100.00 %
410-36-361-534200	Small Tools/Equipment/Furnishings	11,425.00	11,425.00	205.76	11,949.08	-524.08	-4.59 %
410-36-361-541100	Improvements other than Buildings	36,000.00	36,000.00	0.00	0.00	36,000.00	100.00 %
410-36-361-542200	Machinery & Equipment	216,250.00	216,250.00	0.00	0.00	216,250.00	100.00 %
410-36-361-542300	Furniture & Fixtures	30,000.00	30,000.00	0.00	0.00	30,000.00	100.00 %
	Expense Total:	4,726,910.00	5,126,910.00	76,357.67	2,661,686.03	2,465,223.97	48.08 %
Fund: 410 - SEWAG	E TREATMENT FUND Surplus (Deficit):	-1,666,610.00	-1,906,610.00	151,960.56	-90,189.50	1,816,420.50	95.27 %
	Report Surplus (Deficit):	-2,637,375.00	-2,877,375.00	227,471.86	92,923.10	2,970,298.10	103.23 %

Group Summary

Account Type	Original Total Budget	Current Total Budget	Period Activity	Fiscal Activity	Variance Favorable (Unfavorable)	Percent Remaining
Fund: 400 - WATER FUND						
Revenue	1,506,925.00	1,506,925.00	159,231.94	1,293,424.59	-213,500.41	14.17 %
Expense	2,477,690.00	2,477,690.00	83,720.64	1,110,311.99	1,367,378.01	55.19 %
Fund: 400 - WATER FUND Surplus (Deficit):	-970,765.00	-970,765.00	75,511.30	183,112.60	1,153,877.60	118.86 %
Fund: 410 - SEWAGE TREATMENT FUND						
Revenue	3,060,300.00	3,220,300.00	228,318.23	2,571,496.53	-648,803.47	20.15 %
Expense	4,726,910.00	5,126,910.00	76,357.67	2,661,686.03	2,465,223.97	48.08 %
Fund: 410 - SEWAGE TREATMENT FUND Surplus (Deficit):	-1,666,610.00	-1,906,610.00	151,960.56	-90,189.50	1,816,420.50	95.27 %
Report Surplus (Deficit):	-2,637,375.00	-2,877,375.00	227,471.86	92,923.10	2,970,298.10	103.23 %

For Fiscal: 2018-2019 Period Ending: 07/31/2019

Fund Summary

Fund	Original Total Budget	Current Total Budget	Period Activity	Fiscal Activity	Variance Favorable (Unfavorable)
400 - WATER FUND	-970,765.00	-970,765.00	75,511.30	183,112.60	1,153,877.60
410 - SEWAGE TREATMENT FUND	-1,666,610.00	-1,906,610.00	151,960.56	-90,189.50	1,816,420.50
Report Surplus (Deficit):	-2,637,375.00	-2,877,375.00	227,471.86	92,923.10	2,970,298.10

Memorandum

TO: Darren Lamb, City Administrator

Board of Public Works

FROM: Kevin Quaethem, Water and Wastewater Superintendent

DATE: August 5, 2019

RE: Work Performed by the Water and Wastewater Departments

STATUS OF MAJOR CONTRACTS – JULY 2019

PROJECT	VENDOR	CONTRACT AMOUNT	PREVIOUSLY APPROVED	CURRENTLY APPROVED	BALANCE
N/A					

JUNE 2019

Water Pumped July 2019	71,993,000	2.32 mgd
Wastewater Effluent Flow July 2019.	.85,270,000	2.75 mgd
Missouri One Call Locate messages received for locates		
Meters Issued as new.	•••••	8
Meters Issued as replacements		0
Meters Issued as new for irrigation systems	•••••	0
Meters Re-reads		134
Service Requests/Work Orders Completed July 2019		
Sewer Routines		
Delinquent Accounts actually shut off in July 2019		

WATER DEPARTMENT FIELD WORK PERFORMED – JULY 2019

- 1. Shop Maintenance
- 2. Meter/Swapping/Repair
- 3. Repair/Replace/Number Hydrants
- 4. Check Wells/Lift Stations/Heaters
- 5. Missouri One Call Locates
- 6. Hydrant Flushing/Painting
- 7. Water Break @ Wainwright
- 8. Water Break @ 2 Kingsland

- 9. Water Break @ 6th Hooker
- 10. Water Break @ Fairgrounds
- 11. Well 9 Marlite Ceiling Install
- 12. Antenna Work
- 13. Painting Hydrants

WASTEWATER DEPARTMENT FIELD WORK PERFORMED – JULY 2019

- 1. Sewer Routines
- 2. Daily lab work and routines.
- 3. Cleaned belt press.
- 4. Clean Process Filters
- 5. Run belt press.
- 6. Hauled Sludge Across River
- 7. Repair Sewer 500 W. 5th St.
- 8. Repair Sewer @ Boone St.
- 9. Sewer Call @ 502 W. 5th

- 10. Sewer Call @ 604 Washington
- 11. Sewer Call @ 2755 Steutermann
- 12. Sewer Call @ 7 Hillcrest
- 13. Sewer Call @ Hooker St.
- 14. Sewer Repair @ 259 State St.
- 15. Camera Sewer @ 428 Michelle Dr.

ROUTINE FIELD WORK

- 1. Performed rereads as necessary.
- 2. Performed read-outs on meters (persons moving in and out)
- 3. Installed reading device receptacles on houses where new/replacement meters were installed.
- 4. Issued meters and materials to contractors, owners, etc.
- 5. Took necessary water samples of the distribution system.
- 6. Flushed hydrants scheduled routine flushing.
- 7. Wastewater lab work.
- 8. Root-sawed and/or cleaned sewer lines where necessary.
- 9. Hauled sludge.
- 10. Televised sewer lines.
- 11. Performed river gauge measurement.
- 12. Performed sewer and water service main inspections.
- 13. Located water and sewer lines.
- 14. Monitored construction of water and sewer mains in new developments.
- 15. Responded to service call requests.
- 16. Invoiced for meters, materials and other charges as necessary.
- 17. Performed maintenance and repairs on buildings, vehicles, and equipment.

Missouri Department of Natural Resources Division of Environmental Quality **Microbiological Analysis Report**

P.O. Box 176 Jefferson City, MO 65102 314--751-5331

wy 47 Sto Number	O7OO Chlorine Re- Total 0.25 0.45 0.67 0.24	nion, MC
sults E-coli A A A A	O7OO Chlorine Recorded Chlorine Recorded	sidual Free
Sults E-coli A A A A	0.25 0.45 0.67	Free 0.35
A A A A	0.25 0.45 0.67	Free 0.35
A A A	0.45 0.67	
A A A	0.45 0.67	
A A	0.67	0.12
Α		0.72
		0.33
	0.42	0.37
Α	0.28	0.47
A	0.32	0.39
A	0.65	0.61
A	0.61	0.57
A	0.21	0.26
A	0.26	0.34
A	0.20	0.34
A	0.22	0.32
A	0.31	0.38
A	0.35	0.42
	Date:6/19	/2019
	stant	Date:6/19