

From: Vandegrift, Jillian C.
Sent: Thu, 9 Jul 2015 16:14:14 +0000
To: daniel.nix@wichitafallstx.gov
Cc: Amador, Janelle C.
Subject: RE: WRF 4508: Historical Data Collection for River Road WWTP and Cypress Water Treatment Plant
Attachments: Utility Characteristics and Historical Data Template_WichitaFalls.xlsx

Correct spreadsheet template

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From: Vandegrift, Jillian C.
Sent: Wednesday, July 01, 2015 1:34 PM
To: daniel.nix@wichitafallstx.gov; russell.schreiber@wichitafallstx.gov
Cc: Hooper, Jennifer (Smith); Bell, Kati; Crawford, Susan; Amador, Janelle C.
Subject: RE: WRF 4508: Historical Data Collection for River Road WWTP and Cypress Water Treatment Plant

Hello Mr. Nix and Mr. Schreiber,

I am emailing in regards to a letter sent on June 23 (below). It would be much appreciated if you could review the email and let us know some available times to discuss your involvement in the WRF 4508 project over a conference call— we would love to set that up for next week to coordinate further!

Thanks very much,

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From: Amador, Janelle C.
Sent: Tuesday, June 23, 2015 11:08 PM
To: daniel.nix@wichitafallstx.gov; russell.schreiber@wichitafallstx.gov
Cc: Hooper, Jennifer (Smith); Bell, Kati; Vandegrift, Jillian C.; Crawford, Susan
Subject: WRF 4508: Historical Data Collection for River Road WWTP and Cypress Water Treatment Plant

Hello Mr. Nix and Mr. Schreiber,

First thank you all for agreeing to participate in the Water Research Foundation Project *Assessment of Techniques to Evaluate and Demonstrate the Safety of Water from Direct Potable Reuse (DPR) Facilities*. We are gearing up to start the first phase of the project, which includes conducting focused case studies with an emphasis on identification of monitoring and control tools applicable to potable reuse. We would appreciate your help in acquiring information needed to critically evaluate their use. We would like to obtain the following information to the extent that it is available for your facility:

- One year's historical data (daily) including:
 - On-line monitoring data and results from sampling and analysis for source water, finished water, and intermediate sampling points (see attached table for example parameters).
 - Operations (such as flow rates, backwash approach and frequency, filter change out schedule, etc.);
 - Maintenance (such as replacement of major equipment, underdrains, etc.); and
- Other feedback on overall design, monitoring, operations, control, and performance.

Jill Vandegrift and Jen Hooper will be assisting me in collecting and analyzing these data. We would like to schedule a phone call with you to go over specific information that is available next week and determine the most efficient way to obtain this information. Please let me know when would be a good time for you, and we will set up a call. We are looking forward to working with you!

Thank you,
Janelle Amador

CDM Smith

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Facility Information

Fill in the blanks as you can. Yellow text boxes such as this one include instructions and hints to help find information we are looking for.

Utility	
Facility	
City	
State	
Lead Contact Name	
Lead Contact Phone	
Lead Contact Email	
Design Flow (MGD)	
Source Water Name	

Source Water Type

Approximate Percent of Water From			
Groundwater	River	Reservoir	Lake

Treatment Plant Process Description

Wastewater Treatment Plant			
Process	Type	Average Dose/ Contact Time	Max
Bar Screen			
Grit Chamber			
Primary Treatment	Clarification		
	Fine Screen		
Coagulation			
Flocculation			
Settling			-
Secondary Treatment	Membrane Bioreactor	-	
	Activated Sludge		
	Trickling Filters		
	Rotating Biological Contactors		
	Other:		
Tertiary Treatment	Depth Filtration		
	Surface Filtration		
Filtration	Dissolved Air Flotation		
	Ultrafiltration		
	Microfiltration		
	Nanofiltration		
	Reverse Osmosis		
Other	Electrodialysis		
	Advanced Oxidation		
	Carbon Adsorption		
	Exchange		
Disinfection	Chlorination		
	UV		
	Ozone		

Background Information

Provide a detailed description of any of the following experienced at your Utility.

Do you currently operate a direct potable reuse (DPR) or indirect potable reuse (IPR) treatment system?

If you operate an IPR scheme, is it a planned reuse or *de facto* reuse operation?

If you operate either DPR or IPR, what planning activities took place prior to, during, and/or after implementation?

List any major events affecting water quality in the past year (i.e. flooding, process upsets, changes in infrastructure)

Were there any process design changes or major maintenance in the last year (date of change)?

fill in the

WWTP Effluent	Sewershed

[illegible]



scheme?

or implementation?

?

Analytical Methods

Fill in the sampling method, limit of detection, and how frequently the analyte(s) are measured. Add any other relevant information.

Analyte	Type	Limit of Detection	Method	Condu
				On-site
Alkalinity	Grab-sampling			
	Online			
Ammonia	Grab-sampling			
	Online			
ATP	Grab-sampling			
	Online			
Biochemical Oxygen Demand (BOD, 5-day average)	Grab-sampling			
	Online			
Chlorine	Grab-sampling			
	Online			
Chloramines	Grab-sampling			
	Online			
Coliform, Total	Grab-sampling			
	Online			
Coliform, Fecal	Grab-sampling			
	Online			
Color	Grab-sampling			
	Online			
Conductivity	Grab-sampling			
	Online			
Coliphage, male-specific or somatic	Grab-sampling			
	Online			
<i>C. perfringens</i>	Grab-sampling			
	Online			
Cryptosporidium	Grab-sampling			
	Online			
Disinfection Byproducts	Grab-sampling			
	Online			
Dissolved Oxygen	Grab-sampling			
	Online			
<i>E. Coli</i>	Grab-sampling			
	Online			
Enterococci	Grab-sampling			
	Online			
Giardia	Grab-sampling			
	Online			
HAAs	Grab-sampling			
	Online			
Hardness	Grab-sampling			
	Online			
Heterotrophic Plate Count (HPC)	Grab-sampling			
	Online			
Iron/Manganese	Grab-sampling			
	Online			

Analyte	Type	Limit of Detection	Method	Condu
				On-site
Metals	Grab-sampling			
	Online			
Nitrite	Grab-sampling			
	Online			
Nitrate	Grab-sampling			
	Online			
Orthophosphorous	Grab-sampling			
	Online			
pH	Grab-sampling			
	Online			
Phosphate	Grab-sampling			
	Online			
Sulfate	Grab-sampling			
	Online			
Temperature	Grab-sampling			
	Online			
THM	Grab-sampling			
	Online			

[illegible]

levant analyses performed at the bottom of the table

[illegible]

[illegible]

ucted:

Monitoring Frequency: **Wastewater Treatment Plant**[illegible]

[illegible]

[illegible]

[illegible]

Historical Data

Below is a sample of the information we hope to receive and the general format we would like to work with. Please

Date	Plant Influent (MGD)	Raw/Source Water							
		pH (SU)	Temp (deg C)	Conductivity (umhos/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	TOC (mg/L)	DOC (mg/L)
1/1/2014		4.9	7.47						
1/2/2014		5.3	7.46						
1/3/2014		5.6	7.49						

e include data for the parameters from the provided checklist (including data for raw/source water, data at individu:

						Chemical Dosing			
UV254 (abs/cm)	TDS (mg/L)	TSS (mg/L)	MIB (ng/L)	Geosmin (ng/L)	Iron (mg/L)	Preoxidant Dose	Coagulant Dose	Flocculant Dose	Plant Flow Rate (MGD)
			7.3	2.1	7.4				
			7.2	2.1	7.3				
			7.4	1.9	7.4				

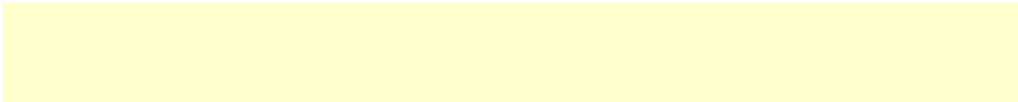
al unit process points, and finished water). It is important to provide Time and Date associated with data, when p

Operational Parameters			Unit Process 1					
Differential Pressure (psi)	Contact Time	Filter Run Time (hours)	Temp (deg C)	Turbidity (NTU)	TOC (mg/L)	UV254 (abs/cm)	SUVA (L/mg-cm)	pH (SU)

possible.

Intermediate Sampling Locations

	Unit Process 2								
TDS (mg/L)	Temp (deg C)	Turbidity (NTU)	TOC (mg/L)	UV254 (abs/cm)	SUVA (L/mg-cm)	pH (SU)	TDS (mg/L)	Temp (deg C)	Turbidity (NTU)



Unit Process 3					Unit Process 4					
TOC (mg/L)	UV254 (abs/cm)	SUVA (L/mg-cm)	pH (SU)	TDS (mg/L)	Temp (deg C)	Turbidity (NTU)	TOC (mg/L)	UV254 (abs/cm)	SUVA (L/mg-cm)	pH (SU)
					1.73759		6	7.2	1.1	
					1.73409		6.5	7.4	1	
					1.7239		6.2	7.2	0.8	

