

From: David Sloan
Sent: Thu, 30 Oct 2014 20:36:44 +0000
To: Mark Southard
Subject: Cypress WTP Capacity Summary.xlsx
Attachments: Cypress WTP Capacity Summary.xlsx

Mark: I am trying to put together a simple table to help me keep track of the different treatment units at Cypress and where critical limitations may exist. I am realizing there are several pieces I am still missing, and I wanted to see if you might have some of the information readily available.

I have attached my table in progress, with several items highlighted yellow that I have not yet found. In particular, I am interested in the allowable membrane flux for the MF/RO plant and the surface area of the 2010 media filters. I'd appreciate any of this information that you can provide.

Thanks,

DAVID W. SLOAN, P.E., BCEE
SENIOR PROCESS ENGINEER
BOARD CERTIFIED ENVIRONMENTAL ENGINEER



WATER / WASTEWATER TREATMENT & REUSE
4055 INTERNATIONAL PLAZA, SUITE 200 | FORT WORTH, TX, 76109
817 735 7277 VOICE | 817 528 4442 CELL
EMAIL: dws@freese.com

Please consider the environment before printing this message.

This electronic mail message is intended exclusively for the individual or entity to which it is addressed. This message, together with any attachment, may contain the sender's organization's confidential and privileged information. The recipient is hereby notified to treat the information as confidential and privileged and to not disclose or use the information except as authorized by sender's organization. Any unauthorized review, printing, retention, copying, disclosure, distribution, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this message in error, please immediately contact the sender by reply email and delete all copies of the material from any computer. Thank you for your cooperation.

Process	No. Units	Provided per Unit	units	Allowable	Cap. Basis	Unit Capacity MGD	Total Capacity MGD
2008 Membrane Plant							
Pretreatment Clarifier	1		SF		gpm/SF	15	15
Microfiltration Cells	5		SF		gfd	2.788	13.94
Reverse Osmosis Racks	6		SF		gfd	2	12
UV Reactors	2					10	20
2010 Conventional Plant							
Rapid Mix	1		CF	30 secs (DT)		10	10
Solids Contact Clarifier	1	6362	SF		gpm/SF	10	10
Granular Media Filters	5		SF	5 gpm/SF		2	10
1961 Conventional Plant							
Rapid Mix	1		CF	30 secs (DT)			
Flocculator Basins	2		CF	30 mins (DT)			
Sedimentation Basins	2		SF		gpm/SF		
Granular Media Filters	8		SF	5 gpm/SF			
1987 Conventional Plant							
Rapid Mix	1		CF	30 secs (DT)			
Solids Contact Clarifier	2		SF		gpm/SF		
Granular Media Filters			SF	5 gpm/SF			

Firm

Capacity

MGD

N/A

11.152

10

10

N/A

N/A

8