



**BOARD OF SUPERVISORS AGENDA ITEM REPORT**

Requested Board Meeting Date: November 7, 2017

**Title:** Commercial Billing Class Rate Increase for Wastewater Service

**Introduction/Background:**

The treatment of high Strength wastewater results in additional operational costs such as increased electricity and chemical usage. "Strength" means a measure of the relative impact of sanitary sewage on county treatment processes. Strength factors include, but are not limited to, measurements of Chemical Oxygen Demand, Suspended Solids, and Total Nitrogen concentrations. Other wastewater constituent concentrations may be monitored and regulated by the Department as required to comply with state and federal permits and regulations, to protect the public sanitary sewerage system, and to use in recovery of associated wastewater conveyance and treatment costs. Therefore, a Strength factor is built into the sewer user fee calculation to account for wastewater with Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), and Total Nitrogen (TN) values higher than normally expected from residential wastewater. This assures the fair and equitable distribution of wastewater treatment operational costs when all users pay their proportionate share.

**Discussion:**

Sampling data from 2013, 2015, and 2017, have confirmed higher Strength wastewater values for Commercial Billing Class customers when compared to the Residential Billing Class. The Commercial Billing Class includes customers primarily engaged in wholesale or retail, communication, finance, insurance, and any other non-residential service not identified as an Industrial Billing Class as outlined in Pima County Code, 13.24, *Sanitary Sewer User Fees*.

**Conclusion:**

Based on this higher Strength wastewater and the corresponding higher cost of service, it is appropriate the Strength factor for the Commercial Billing Class increase 16 percent. This will impact between 15,000 and 20,000 commercial user accounts. Adopting this rate increase, either through a one-time 16 percent increase or a phased implementation over two years at eight percent each, will more than likely negate any future sewer user fee increase for the next few years. This increased rate ensures equitable cost recovery from the Commercial Billing Class.

**Recommendation:**

Approve a 16 percent increase to the strength factor for the Commercial Billing Class.

**Fiscal Impact:**

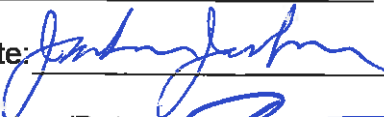
Increase will likely generate \$6.5M additional annual revenue.

**Board of Supervisor District:**

1       2       3       4       5       All

Department: Regional Wastewater Reclamation Department Telephone: 724-6500

Contact: Jennifer C. Coyle Telephone: 724-9788

Department Director Signature/Date:  10/12/17

Deputy County Administrator Signature/Date:  10/10/17

County Administrator Signature/Date:

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10-16-17

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# High Strength User Fee Study - Commercial Plaza (No High Strength Users)

		04016-2000 - MH 8563-12 4th St. and Rook Ave.			04016-2002 - MH 3327-01 Fort Lowell Rd. and Alvernon Wy.			04016-1004 - MH 4534-PV01 La Cholla Corporate Center				
Lab ID	1502022	1502033	1502039	Average	1502022	1502033	1502039	Average	1502163	1502172	1502184	Average
Sample Date	2/3/2015	2/4/2015	2/5/2015		2/3/2015	2/4/2015	2/5/2015		2/24/2015	2/25/2015	2/26/2015	
pH (S.U.)	8.7	8.6	8.5	8.6	8.2	8.4	8.4	8.3	7.3	7.6	7.9	7.6
Ammonia (mg/L)	104.0	66.5	85.5	85.3	27.7	25.4	39.0	30.7	1.3	1.6	2.4	1.8
Total Nitrogen (mg/L)	153.0	131.0	150.0	144.7	45.0	49.2	62.7	52.3	12.5	16.4	28.2	19.0
Total phosphorus (mg/L)	18.4	11.6	10.7	13.6	3.80	4.01	8.16	5.3	0.96	1.58	2.30	1.6
COD (mg/L)	820	1480	1160	1153	319	346	524	396	204	162	199	188
TSS (mg/L)	940	620	566	709	152	96	352	200	24	48	31	34
Category Average					Agua Nueva WRF Influent March 2015 Average				Residential 2013			
pH (S.U.)	8.2				NA				NA			
Ammonia (mg/L)	39.3				35.5				31.9			
Total Nitrogen (mg/L)	72.0				53.4				49.7			
Total phosphorus (mg/L)	6.8				6.7				NA			
COD (mg/L)	579				609				569			
TSS (mg/L)	314				268				177			

# High Strength User Fee Study - Commercial Plaza (No High Strength Users)

<p><b>04016-2000 - MH 8563-12</b>  <b>4th St. and Rook Ave.</b></p> <p>Health Trio (Healthcare software)          Coresource Inc. (Healthcare software)          Arizona Oncology  <b>Radiology Limited</b>          New World Real Estate Settlement</p>	<p><b>04016-2002 - MH 3327-01 Fort Lowell Rd. and Alvernon Wy.</b></p> <p>Surgcenter Tucson          Dehnert Dental          Camp Lowell Surgery Center  <b>Congressman Ron Barber - Vacant</b>          Puente Nuevo Development          Rick Engineering Co.          Make Way for Books          Bancroft Law          Tucson Vein Institute</p>	<p><b>04016-1004 - MH 4534-PV01</b>  <b>La Cholla Corporate Center</b></p> <p>Curriculum Associate          Northwest Children's Dentist          TJ Bednar Homes  <b>Arizona Biomedical Services</b>          Casas Adobes Pediatrics          Northstar Hyperbaric/Neurology          Southwest Investment Advisors          Job Aire Group          Premer Foot &amp; Ankle Surgeons          Associates Medical Mgmt (Software)          Stanford Valerlaus Dentistry          Arizona Hearing Associates          Arizona Gastroenterology          Arizona Digestive Institute          Visiting Angels          Casabona Chiropractic  <b>Arizona Prosthodontics</b>          Desert Internal medicine          Red Seam Bookkeeping          Laser Eye Surgery          Vision Care          Law Office          Weight Loss Clinic          Travel Agency</p>
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## High Strength User Fee Study - Commercial Plaza (With High Strength Users)

	04016-20136 - MH 4190-44-1 Rita Rd. and Houghton Rd.			04016-1005 - MH 6905-03 Linda Vista Blvd. and Thornydale Rd.			04016-1006 - MH 3570-01 N. Oracle Rd.					
Lab ID	1502023	1502030	1502048	Average	1502023	1502041	1502049	Average	1502071	1502083	1502091	Average
Sample Date	2/3/2015	2/4/2015	2/6/2015		2/3/2015	2/5/2015	2/6/2015		2/10/2015	2/11/2015	2/12/2015	
pH (S.U.)	7.8	7.6	7.7	7.7	7.4	7.2	6.8	7.1	7.1	7.1	6.8	7.0
Ammonia (mg/L)	12.3	25	29.0	22.1	15.6	22.7	17.2	18.5	22.1	21.7	16.6	20.1
Total Nitrogen (mg/L)	60.0	73.1	88.7	73.9	40.0	52.4	61.0	51.1	95.8	58.4	155	103.1
Total phosphorus (mg/L)	6.88	9.12	10.00	8.7	5.50	6.30	6.84	6.2	13.4	7.25	7.46	9.4
COD (mg/L)	904	1000	1470	1125	659	1660	1100	1140	2750	1220	5250	3073
TSS (mg/L)	482	478	540	500	181	184	146	170	1620	201	3490	1770
	Category Average				Agua Nueva WRF Influent March 2015 Average				Residential 2013			
pH (S.U.)	7.3				NA				NA			
Ammonia (mg/L)	20.2				35.5				31.9			
Total Nitrogen (mg/L)	76.0				53.4				49.7			
Total phosphorus (mg/L)	8.1				6.7				NA			
COD (mg/L)	1779				609				569			
TSS (mg/L)	814				268				177			

# High Strength User Fee Study - Commercial Plaza (With High Strength Users)

	<p><b>04016-20136 - MH 4190-44-1</b>  <b>Rita Rd. and Houghton Rd.</b></p>	<p><b>04016-1005 - MH 6905-03</b>  <b>Linda Vista Blvd. and Thornydale Rd.</b></p>	<p><b>04016-1006 - MH 3570-01</b>  <b>N. Oracle Rd.</b></p>
<p>Rita Ranch Dental Group                      Pizza Hut/Wing Street                      Bruegger's Bagels                      Optometrist                      Staggs Chiropractic                      Baskin Robbins                      Massage                      Subway                      Luckie's Thai Asian Cuisine                      Supercleaners                      Ms. Tax CPA                      Postnet                      Sally Beauty Supply                      Eva Nails                      Great Clips                      Russel Cellular                      Fry's                      Carl's jr.                      Bank of America                      Frazee Paint                      Rita Ranch Pet Hospital</p>	<p>Safeway                      Mt. View Vet Clinic                      Great Clips                      Super Cleaners                      Leo's Real Mexican Food                      H&amp;R Block                      Subway                      State farm                      Dak's Pizza and Games                      Roadrunner Coffee                      Nico's Mexican Food                      McDonald's                      Chevron (No Carwash)                      Bank of America</p>	<p>Dunkin Donuts                      Scotttrade                      Southern Arizona Urgent Care                      El Charro Café                      Goodwill                      Innovative Nail And Spa                      Cheng's Beijing Chinese Food                      Poochini's Pet Grooming                      Carraba's Italian Restaurant                      Personnal Training Institute                      Framed to Perfection                      Sport Clips                      College Nannies and Tutors                      Sheffield Diamonds                      Saffron</p>	

# Rita Road & Houghton - Commercial Plaza w/H.S.



**SAMPLE LOCATION**  
Fry's Only

Great Clips  
Chinese Food  
Sally's Beauty Supply  
Russell Cellular  
Post Net

Baskin-Robbins  
Bruegger's  
Subway  
Pizza Hut/Wing Street

Dental Office  
Closed Fitness Gym

FRY'S

Fry's Gas Station

Rita Ranch Pet Hospital

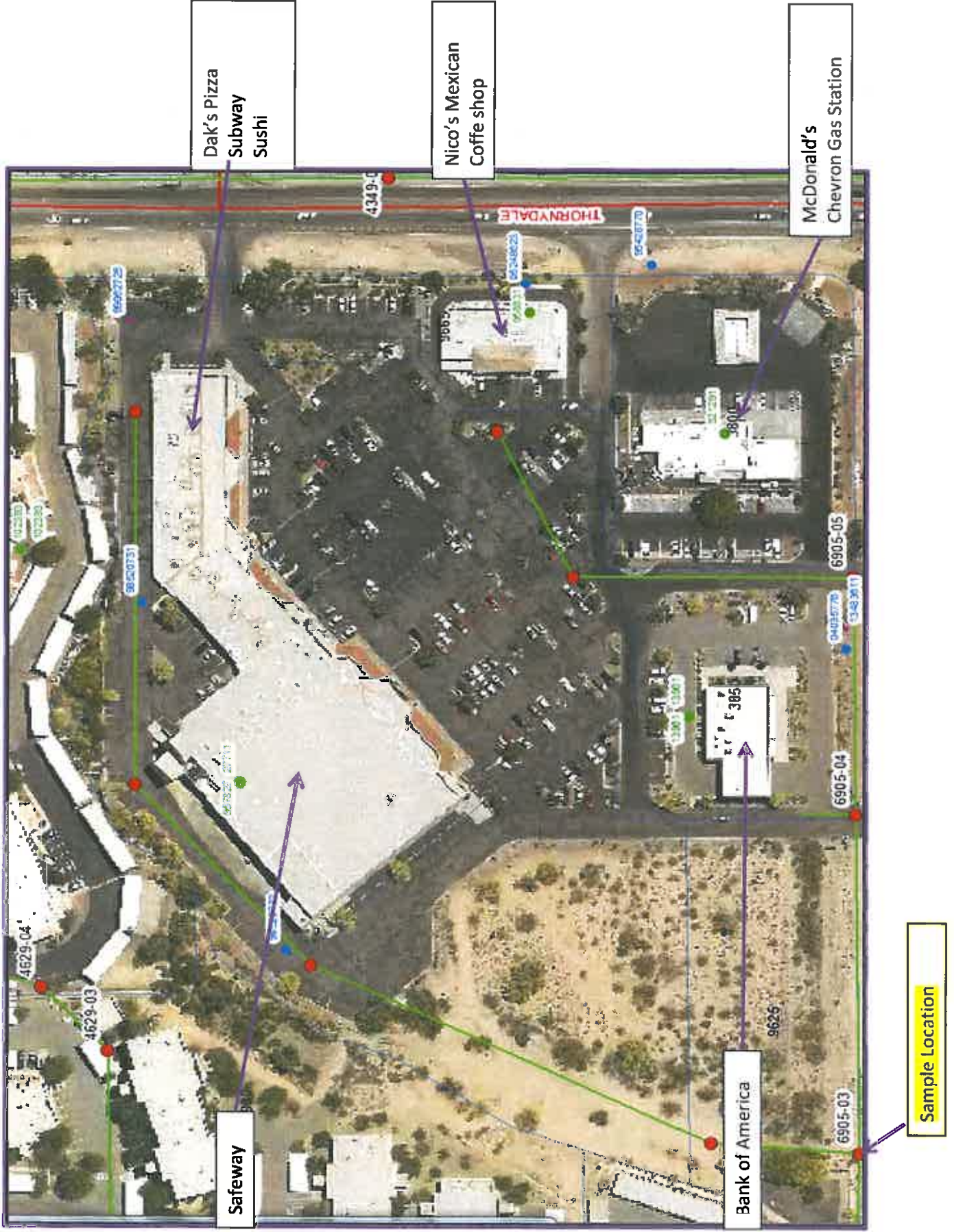
Carl's Jr

Bank of America

**SAMPLE LOCATION**



# Linda Vista & Thornydale





## High Strength User Fee Study - Shopping Malls

	04016-2003 - Tucson Mall				04016-2004 - Park Place Mall				04016-1003 - Foothills Mall			
Lab ID	1502070	1502083	1502135	Average	1502074	1502086	1502093	Average	1502172	1502184	1502192	Average
Sample Date	2/10/2015	2/11/2015	2/19/2015		2/10/2015	2/11/2015	2/12/2015		2/25/2015	2/26/2015	2/27/2015	
pH (S.U.)	7.3	7.0	7.4	7.2	6.7	6.9	6.8	6.8	7.3	7.8	7.4	7.5
Ammonia (mg/L)	15.7	22.7	12.2	16.9	20.3	19.6	20	20.0	24	26.4	25.9	25.4
Total Nitrogen (mg/L)	38.0	41.5	30.5	36.7	46.2	35	35	38.7	79.8	192	74	115.3
Total phosphorus (mg/L)	4.99	5.14	3.26	4.5	4.68	4.34	5.62	4.9	14.9	11.3	7.72	11.3
COD (mg/L)	1100	1370	377	949	1620	1050	979	1216	1170	2690	1240	1700
TSS (mg/L)	186	408	94.5	230	802	326	374	501	169	840	181	397
	Category Average				Agua Nueva WRF Influent March 2015 Average				Residential 2013			
pH (S.U.)	7.2				NA				NA			
Ammonia (mg/L)	20.8				35.5				31.9			
Total Nitrogen (mg/L)	63.6				53.4				49.7			
Total phosphorus (mg/L)	6.9				6.7				NA			
COD (mg/L)	1288				609				569			
TSS (mg/L)	376				268				177			

## High Strength User Fee Study - Grocery Store

		04016-2005 Sprouts 4282 N. 1st Ave.			04016-2006 - MH 9784-04 Fry's 4036 N. 1st Ave.			04016-2012 - MH 9784-04 Fry's 8080 S. Houghton Rd.				
Lab ID	1503019	1503028	1503042	Average	1503019	1503028	1503042	Average	1503133	1503140	1503150	Average
Sample Date	3/3/2015	3/4/2015	3/5/2015		3/3/2015	3/4/2015	3/5/2015		3/17/2015	3/18/2015	3/19/2015	
pH (S.U.)	7.5	7.1	8.0	7.5	7.0	7.1	9.1	7.7	7.4	8.4	8	7.9
Ammonia (mg/L)	1.92	2.82	1.0	1.9	22.5	26.1	29	25.9	28.2	20.4	25.6	24.7
Total Nitrogen (mg/L)	40.5	14.6	4.2	19.8	74.3	75.4	128	92.6	74.4	64.2	66.6	68.4
Total phosphorus (mg/L)	1.39	1.65	0.32	1.1	9.24	9.68	8.80	9.2	8.3	8.68	7.76	8.2
COD (mg/L)	100	294	59	151	1520	1220	1890	1543	1030	1050	1010	1030
TSS (mg/L)	18.2	23.6	4.7	16	456	372	268	365	211	160	300	224
					Agua Nueva WRF Influent March 2015 Average				Residential 2013			
pH (S.U.)	7.7			NA	NA				NA			
Ammonia (mg/L)	17.5			35.5	35.5				31.9			
Total Nitrogen (mg/L)	60.2			53.4	53.4				49.7			
Total phosphorus (mg/L)	6.2			6.7	6.7				NA			
COD (mg/L)	908			609	609				569			
TSS (mg/L)	202			268	268				177			

## High Strength User Fee Study - Hotels

		04016-1007 - MH 5126-06 - Hilton El Conquistador			04016-2007 - MH 3813-03 JW Marriott Star Pass Resort			04016-2008 - Staybridge Suites 2705 E. Executive Dr.					
Lab ID	1502167	1502176	1502186	Average	1503036	1503045	1503056	Average	1503036	1503045	1503056	Average	
Sample Date	2/24/2015	2/25/2015	2/26/2015		3/4/2015	3/5/2015	3/6/2015		3/4/2015	3/5/2015	3/6/2015		
pH (S.U.)	7.7	7.5	7.8	7.7	10.8	7.7	8.0	8.8	7.9	7.8	11.1	8.9	
Ammonia (mg/L)	15.3	16.1	8.0	13.1	23.6	24.1	18.8	22.2	5.13	3.78	4.38	4.4	
Total Nitrogen (mg/L)	28.8	29.8	23.2	27.3	43	48.4	47.3	46.2	94	60.6	59.7	71.4	
Total phosphorus (mg/L)	3.46	3.12	2.51	3.0	4.62	5.26	5.98	5.3	7.54	5.18	5.7	6.1	
COD (mg/L)	774	540	431	582	1120	1180	873	1058	670	498	459	542	
TSS (mg/L)	224	100	210	178	326	400	231	319	210	85	142	146	
				Category Average	Agua Nueva WRF Influent March 2015 Average			Residential 2013					
pH (S.U.)				8.5				NA	NA				
Ammonia (mg/L)				13.2				35.5	31.9				
Total Nitrogen (mg/L)				48.3				53.4	49.7				
Total phosphorus (mg/L)				4.8				6.7	NA				
COD (mg/L)				727				609	569				
TSS (mg/L)				214				268	177				

# High Strength User Fee Study - Brewery

Nimbus 04016-2009 MH 7128-04 E. 44th St.		Nimbus Brewery	
Lab ID	1502023	1502030	1502048
Sample Date	2/3/2015	2/4/2015	2/6/2015
pH (S.U.)	7.3	9.2	7.2
Ammonia (mg/L)	6.65	7.58	1.85
Total Nitrogen (mg/L)	321.0	54.8	12.0
Total phosphorus (mg/L)	33.9	8.52	18.7
COD (mg/L)	16700	1570	595
TSS (mg/L)	2010	1110	164
Category Average			
pH (S.U.)	7.9		
Ammonia (mg/L)	5.4		
Total Nitrogen (mg/L)	129.3		
Total phosphorus (mg/L)	20.4		
COD (mg/L)	6288		
TSS (mg/L)	1095		
Agua Nueva WRF Influent March 2015 Average			
pH (S.U.)	NA		
Ammonia (mg/L)	35.5		
Total Nitrogen (mg/L)	53.4		
Total phosphorus (mg/L)	6.7		
COD (mg/L)	609		
TSS (mg/L)	268		
Residential 2013			
pH (S.U.)	NA		
Ammonia (mg/L)	31.9		
Total Nitrogen (mg/L)	49.7		
Total phosphorus (mg/L)	NA		
COD (mg/L)	569		
TSS (mg/L)	177		
<p style="margin: 0;">1st Sample during Brewing</p> <p style="margin: 0;">2nd Sample during tank cleaning</p> <p style="margin: 0;">3rd Sample during normal operation</p>			

## High Strength User Fee Study - Hospitals

	Carondelet - St. Joe's Location # 1			Carondelet - St. Joe's Location # 2			Northwest Medical Center #1					
	1503037	1503088	1503097	Average	1503037	1503088	1503097	Average	1503081	1503089	1503098	Average
Lab ID	1503037	1503088	1503097	Average	1503037	1503088	1503097	Average	1503081	1503089	1503098	Average
Sample Date	3/4/2015	3/11/2015	3/12/2015		3/4/2015	3/11/2015	3/12/2015		3/10/2015	3/11/2015	3/12/2015	
pH (S.U.)	7.9	7.9	7.9	7.9	7.2	7.2	7.3	7.2	7.4	7.4	7.2	7.3
Ammonia (mg/L)	11.5	15.9	23.2	16.9	19.3	22.2	32.4	24.6	27.4	21.8	21.2	23.5
Total Nitrogen (mg/L)	14.2	32.9	58.4	35.2	13.5	30	52.6	32.0	18.5	40.8	39.3	32.9
Total phosphorus (mg/L)	3.78	3.34	4.50	3.9	3.86	3	5.14	4.0	5.6	4.2	5	4.9
COD (mg/L)	579	268	375	407	468	259	661	463	579	570	634	594
TSS (mg/L)	270	48	72	130	422	41	314	259	294	214	388	299
	Category Average				Agua Nueva WRF Influent March 2015				Residential 2013			
pH (S.U.)	7.8				NA				NA			
Ammonia (mg/L)	15.9				35.5				31.9			
Total Nitrogen (mg/L)	40.3				53.4				49.7			
Total phosphorus (mg/L)	5.8				6.7				NA			
COD (mg/L)	553				609				569			
TSS (mg/L)	171				268				177			



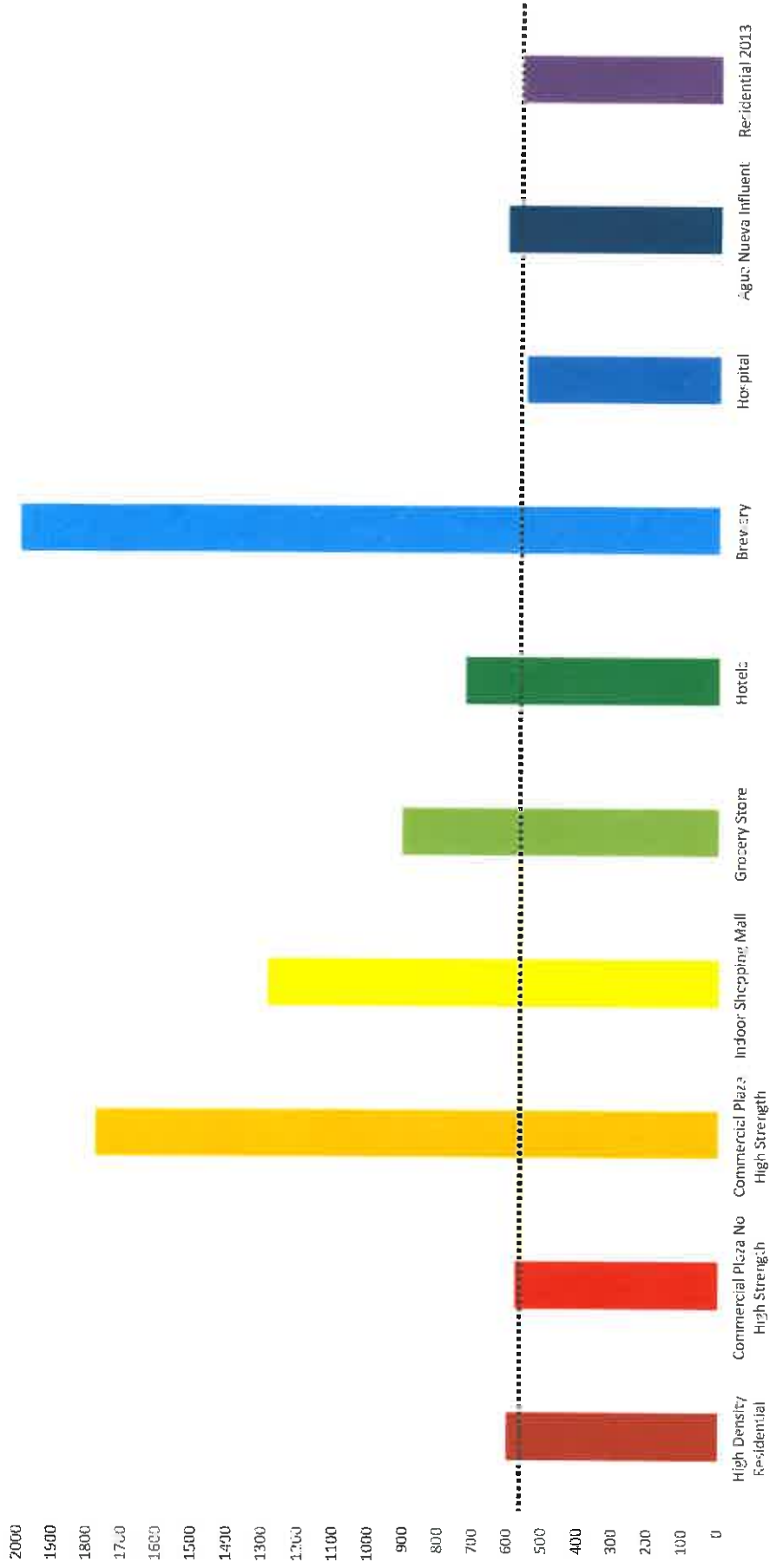
## High Strength User Fee Study - Hospitals

	Northwest Medical Center #2				Northwest Medical Center #3				Northwest Medical Center #4			
	1503081	1503089	1503098	Average	1503131	1503141	1503149	Average	1503130	1503141	1503149	Average
Sample Date	3/10/2015	3/11/2015	3/12/2015		3/17/2015	3/18/2015	3/19/2015		3/17/2015	3/18/2015	3/19/2015	
pH (S.U.)	7.8	7.6	7.5	7.6	8.2	8	8.2	8.1	7.8	8.2	8	8.0
Ammonia (mg/L)	10.6	14.4	20.0	15.0	18.5	4.62	13.7	12.3	3.51	5.64	4.56	4.6
Total Nitrogen (mg/L)	19.4	41.3	38.0	32.9	53.2	31.8	45.2	43.4	23.8	46.9	44.6	38.4
Total phosphorus (mg/L)	4.74	6.46	4.06	5.1	5.50	3.77	4.38	4.6	2.74	2.9	5.04	3.6
COD (mg/L)	1090	953	612	885	698	379	502	526	254	1330	324	636
TSS (mg/L)	210	110	184	168	86	156	69	104	235	120	36	130
	Category Average				Agua Nueva WRF Influent March 2015 Average				Residential 2013			
pH (S.U.)	7.8				NA				NA			
Ammonia (mg/L)	15.9				35.5				31.9			
Total Nitrogen (mg/L)	40.3				53.4				49.7			
Total phosphorus (mg/L)	5.8				6.7				NA			
COD (mg/L)	553				609				569			
TSS (mg/L)	171				268				177			

## High Strength User Fee Study - Hospitals

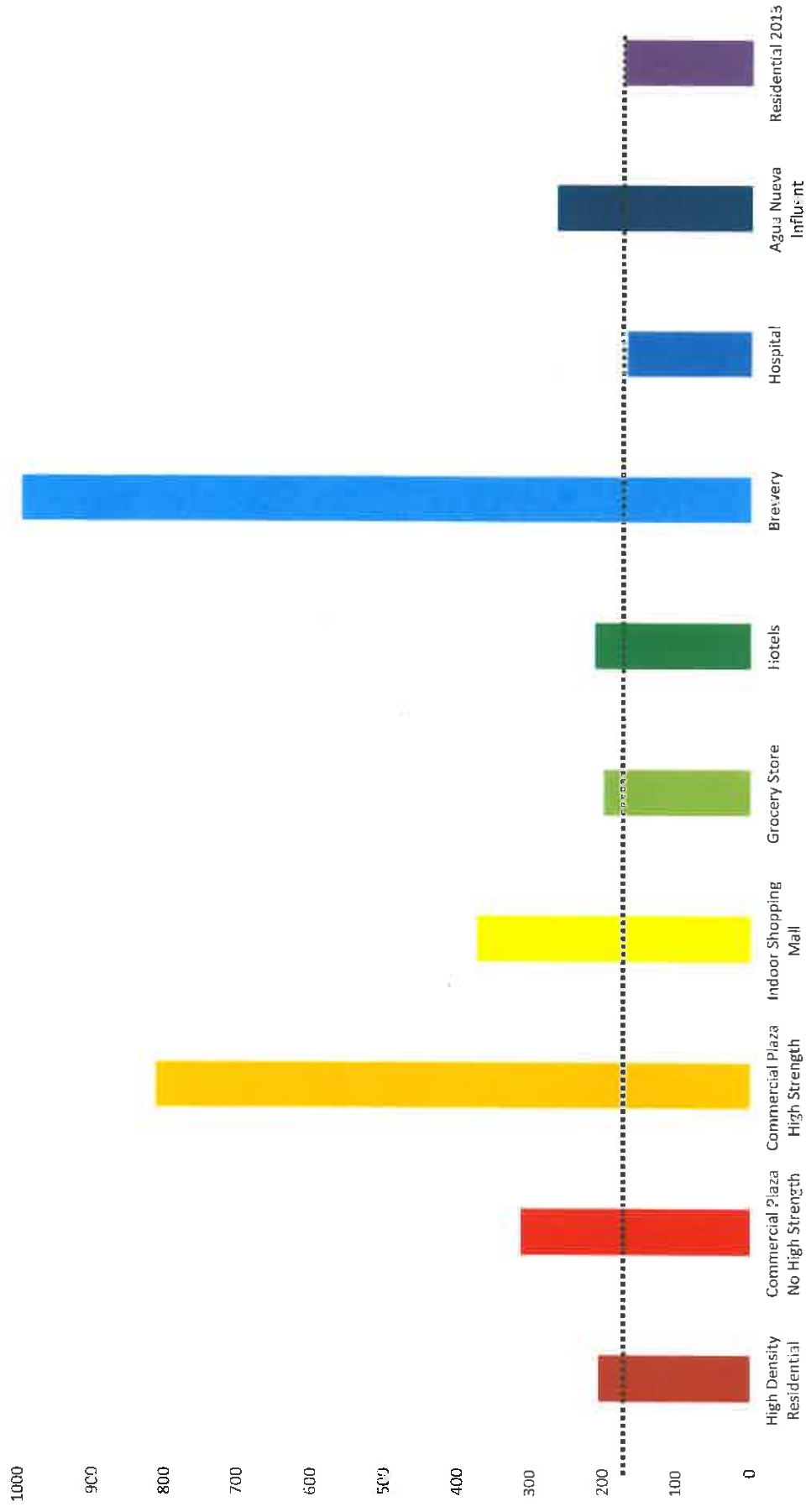
	Tucson Medical Center #1A				Tucson Medical Center #2				Tucson Medical Center #3					
	1503180	1503201	1503208	Average	1503189	1503201	1503208	Average	1503190	1503201	1503208	Average		
Sample Date	3/24/2015	3/26/2015	3/27/2015		3/24/2015	3/26/2015	3/27/2015		3/24/2015	3/26/2015	3/27/2015			
pH (S.U.)	7.9	6.6	7.8	7.4	10.3	9	8.4	9.2	7.7	7.8	7	7.5		
Ammonia (mg/L)	29.2	28.3	28.6	28.7	8.3	10.9	6.42	8.5	7.14	7.8	11	8.6		
Total Nitrogen (mg/L)	74.8	77.0	74.8	75.5	24.7	26.8	26.2	25.9	44.2	48.1	47.8	46.7		
Total phosphorus (mg/L)	6.02	7.20	6.78	6.7	11.40	7.05	9.92	9.5	4.85	7.94	18.2	10.3		
COD (mg/L)	372	541	400	438	500	653	898	684	253	457	311	340		
TSS (mg/L)	38	224	125	129	169	262	252	228	12	220	34	89		
	Agua Nueva WRF Influent March 2015													
	Category Average						Average						Residential 2013	
pH (S.U.)	7.8						NA						NA	
Ammonia (mg/L)	15.9						35.5						31.9	
Total Nitrogen (mg/L)	40.3						53.4						49.7	
Total phosphorus (mg/L)	5.8						6.7						NA	
COD (mg/L)	553						609						569	
TSS (mg/L)	171						268						177	

COD mg/L



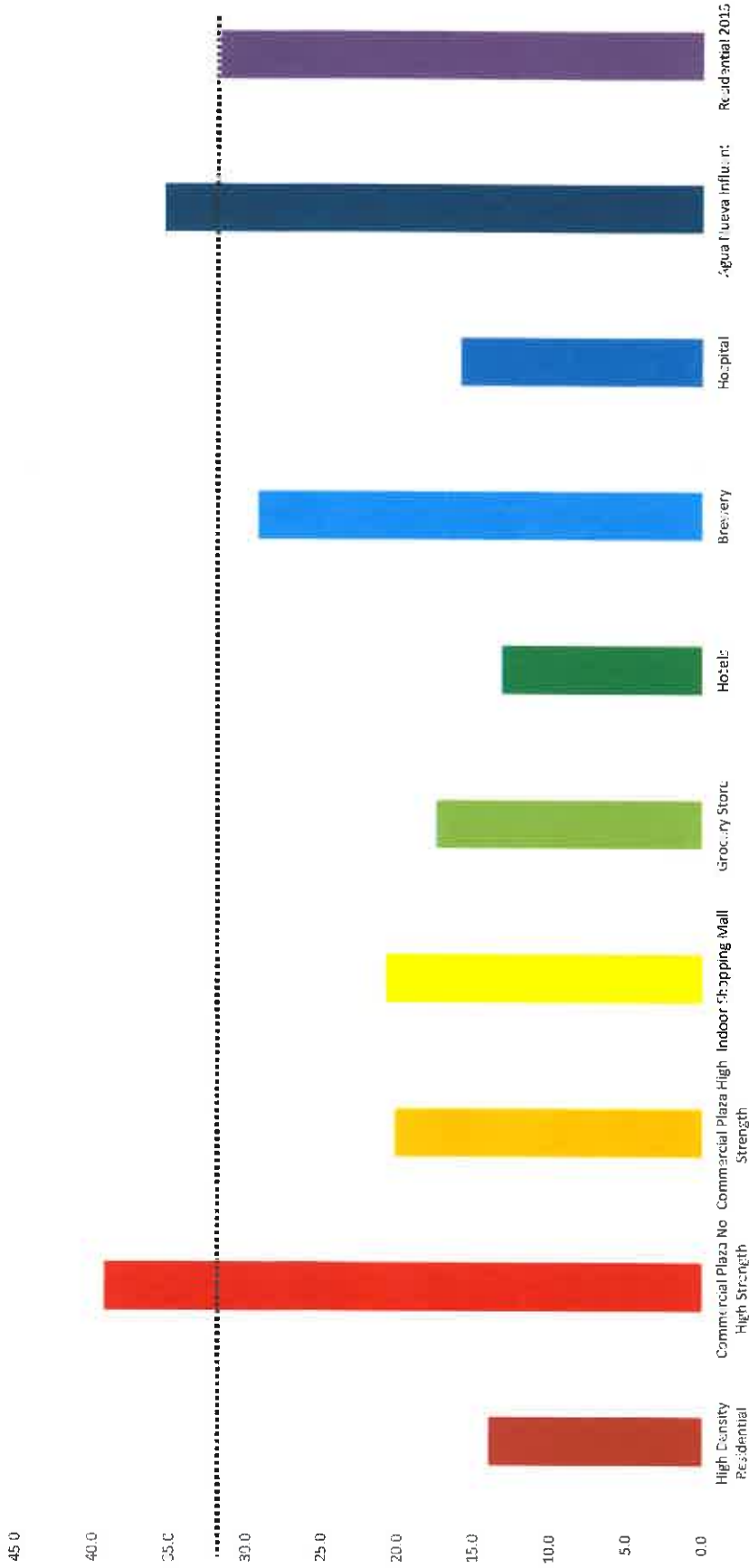
	COD mg/L
High Density Residential	603
Commercial Plaza No High Strength	579
Commercial Plaza High Strength	1779
Indoor Shopping Mall	1288
Grocery Store	908
Hotels	727
Brewery	6288
Hospital	553
Agua Nueva Influent	609
Residential 2013	569

TSS mg/L



	<b>TSS</b>
<b>High Density Residential</b>	<b>207</b>
<b>Commercial Plaza No High Strength</b>	<b>314</b>
<b>Commercial Plaza High Strength</b>	<b>814</b>
<b>Indoor Shopping Mall</b>	<b>376</b>
<b>Grocery Store</b>	<b>202</b>
<b>Hotels</b>	<b>214</b>
<b>Brewery</b>	<b>1095</b>
<b>Hospital</b>	<b>171</b>
<b>Agua Nueva Influent</b>	<b>268</b>
<b>Residential 2013</b>	<b>177</b>

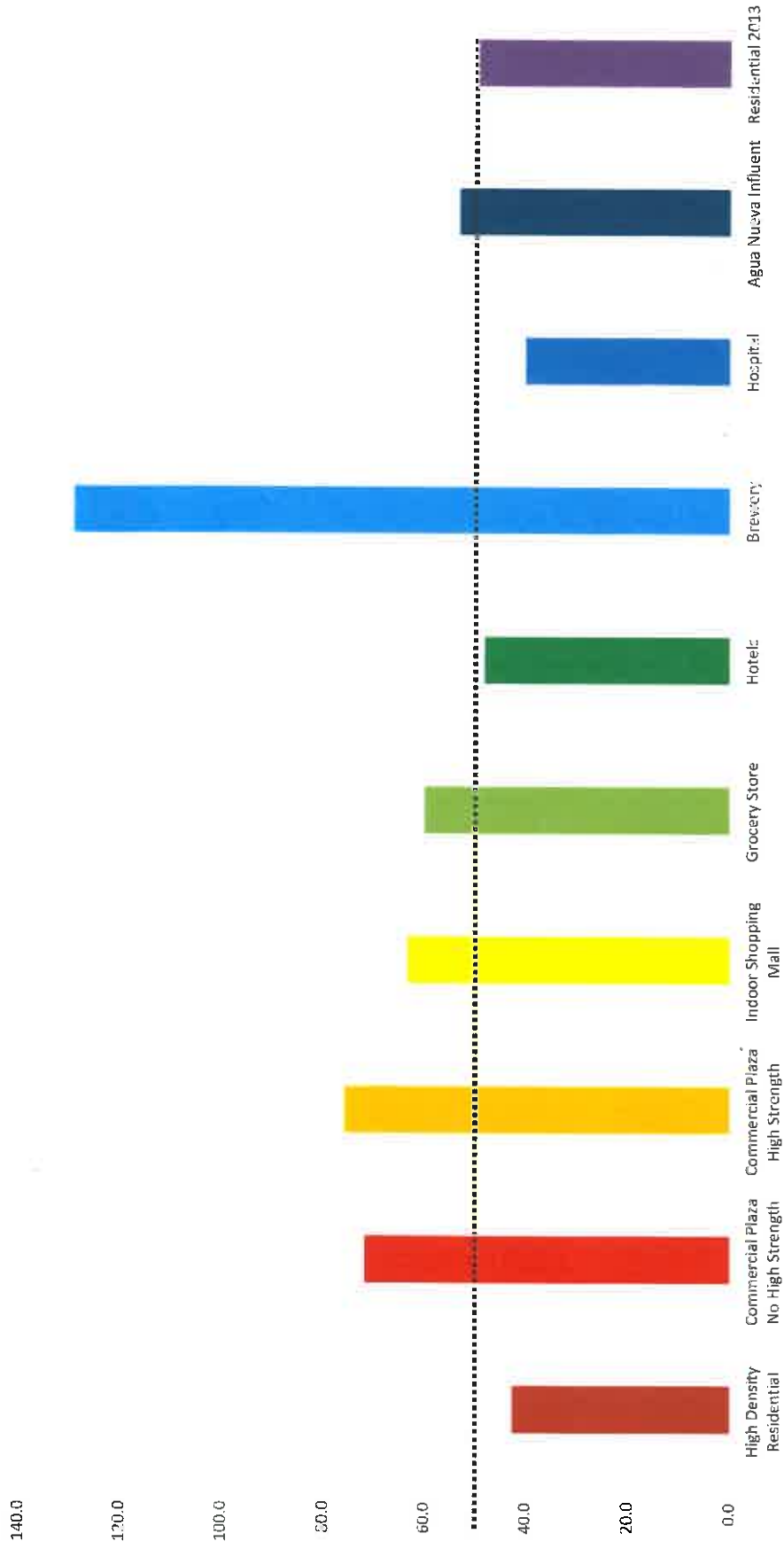
# Ammonia mg/L



	Ammonia
High Density Residential	14.0
Commercial Plaza No High Strength	39.3
Commercial Plaza High Strength	20.2
Indoor Shopping Mall	20.8
Grocery Store	17.5
Hotels	13.2
Brewery	29.3
Hospital	15.9
Agua Nueva Influent	35.5
Residential 2013	31.9

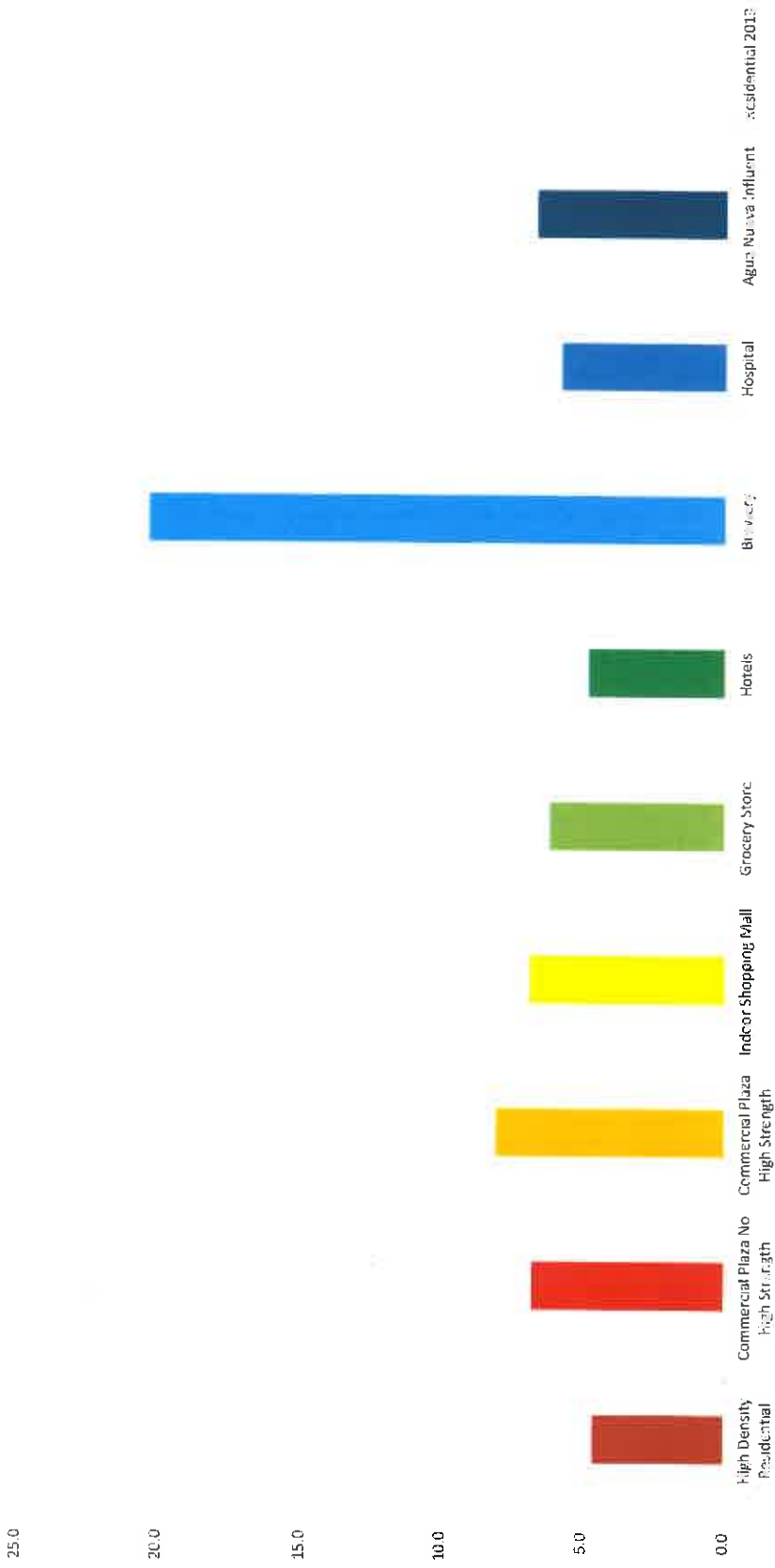


# Nitrogen mg/L



	Nitrogen mg/L
High Density Residential	42.7
Commercial Plaza No High Strength	72.0
Commercial Plaza High Strength	76.0
Indoor Shopping Mall	63.6
Grocery Store	60.2
Hotels	48.3
Brewery	129.3
Hospital	40.3
Agua Nueva Influent	53.4
Residential 2013	49.7

# Phosphorus



	Phosphorus
High Density Residential	4.6
Commercial Plaza No High Strength	6.8
Commercial Plaza High Strength	8.1
Indoor Shopping Mall	6.9
Grocery Store	6.2
Hotels	4.8
Brewery	20.4
Hospital	5.8
Agua Nueva Influent Residential 2013	6.7
	NA



### Sample Analysis Report

Client:	Industrial Wastewater Control	Work Order ID:	1703008
Project:	High Strength User Fee Study-Commercial	Lab Received Date:	2/28/17 16:22
Permit Type:	Investigative	Project Number:	04016

**Sample Integrity**

- SAMPLE RECEIPT:** Samples were received intact at the required temperature, unless otherwise noted with a data qualifier. Please refer to the Chain of Custody for sample receipt details.
- HOLDING TIMES:** All samples were analyzed within prescribed holding times and/or in accordance with the Pima County CRAO Laboratory Quality Manual.
- PRESERVATION:** Samples requiring preservation were verified prior to sample analysis.
- QA/QC CRITERIA:** All analyses met method criteria, except as noted in the report with data qualifiers.
- COMMENTS:**

All results on this report intended for compliance submission must have the associated chain(s) of custody attached for the results to meet reporting requirements as per ADHS Laboratory Licensure Rules. If you have received this report for compliance purposes and it is not complete, please contact the Compliance and Regulatory Affairs Office for a final report in its entirety.

Reviewed By:



Laboratory Director or Designee  
 Pima County Regional Wastewater Reclamation Department  
 Compliance and Regulatory Affairs Office Laboratory

10-12-17

Date

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### Analytical Report for Samples

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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Sample Qualifiers
TR - TCI Wealth Advisors	1703008-01	Water	2/28/2017 15:15:00	2/28/2017 16:22:00	Q6

**Sample ID: 1703008-01**

**Site Location: TR - TCI Wealth Advisors**

**Site Number: 04016-1013**

**Sample Start Date/Time 2/28/2017 11:15:00**

**Sample End Date/Time 2/28/2017 15:15:00**

**Sampled By: Ryan Wichert**

Parameter	Sample Type	Analysis Method	Analysis Date/Time	Analysis Value	Units	MDL	MRL	Data Qualifiers	Analyst	SubLab
Chemical Oxygen Demand	C	Hach 8000	3/7/17 11:37	1010	mg/l.	18.0	20.00		CJF	
Total Suspended Solids	C	SM 2540D	3/2/17 11:20	516	mg/L		2.50		ESW	

**Sample ID: 1703008-02**

**Site Location: TR - The Home Depot**

**Site Number: 04016-1014**

**Sample Start Date/Time 2/28/2017 9:45:00**

**Sample End Date/Time 2/28/2017 15:45:00**

**Sampled By: Ryan Wichert**

Parameter	Sample Type	Analysis Method	Analysis Date/Time	Analysis Value	Units	MDL	MRL	Data Qualifiers	Analyst	SubLab
Chemical Oxygen Demand	C	Hach 8000	3/7/17 11:37	1190	mg/l.	18.0	20.00		CJF	
Total Suspended Solids	C	SM 2540D	3/2/17 11:20	224	mg/L		2.50		ESW	



### Qualifier Definitions

Q6 Sample was received above recommended temperature.

### General Notes and Definitions

J Equivalent to E4 Qualifier - Concentration estimated. Analyte was detected below laboratory minimum reporting limit (MRL) but above MDL.

ND Analyte NOT DETECTED at or above reporting limit (MDL).  
Equivalent to E8 Qualifier - Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

C Sample Type - Composite

CD Sample Type - Composite Duplicate

D Sample Type - Discrete

DD Sample Type - Discrete Duplicate

NR Not Reported

DET Analyte DETECTED

DRY Sample results reported on a dry weight basis.

RPD Relative Percent Difference.

Analysis Date Analysis Date represents the final reading date.

Field Results Field Results are not subject to approval of Laboratory Director.

Solids, Total Volatile Used for process control samples only.

RE Re-analysis has been performed.

FD Field Duplicate

FB Field Blank

### Case Narrative(s)

*None*



Pima County  
WASTEWATER RECLAMATION  
Compliance and Regulatory Affairs Office Laboratory

Pima County Regional Wastewater Reclamation Department  
**COPY RUSH**

CHAIN OF CUSTODY

WORK ORDER & SAMPLE(S)  
1702 1703003-01

PROJECT-LOCATION NUMBER: 04016-1013  
(00000-0000)

PROJECT & LOCATION: High Strength User Fee Study - Commercial - TR - TCI Wealth Advisors

SAMPLE START DATE: 02/28/2017  
SAMPLE END DATE: 02/28/2017

SAMPLE START TIME: 10:55 (Military time)  
SAMPLE END TIME: 15:15 (Military time)

CLIENT: IWC  
SAMPLER(S): [Handwritten]

Permit Type:  APP  AZPDES  IWC

Investigative  Reuse  Process Control  Other

Matrix:  Biosolids  Groundwater  Industrial  Soil  Stormwater  Surface Water  Wastewater  Air  Other

INORGANIC CHEMISTRY		METALS		Tot Diss		D C	
Aluminum	<input type="checkbox"/>	Titanium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antimony	<input type="checkbox"/>	Vanadium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arsenic	<input type="checkbox"/>	Zinc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barium	<input type="checkbox"/>	PPHs *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beryllium	<input type="checkbox"/>	TCLP Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boron	<input type="checkbox"/>	503 Metals **	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input type="checkbox"/>	Disolved Cr+6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calcium	<input type="checkbox"/>	WET METHODS		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium	<input type="checkbox"/>	Ammonia as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cobalt	<input type="checkbox"/>	Chloride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	Cyanide, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardness	<input type="checkbox"/>	Cyanide, Amenable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iron	<input type="checkbox"/>	Fluoride	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	Ignitability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnesium	<input type="checkbox"/>	Nitrate as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manganese	<input type="checkbox"/>	Nitrite as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury	<input type="checkbox"/>	Nitrate/Nitrite as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury LL	<input type="checkbox"/>	Nitrogen, Total Kjeldahl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Molybdenum	<input type="checkbox"/>	Nitrogen, Total as N	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nickel	<input type="checkbox"/>	Orthophosphate as P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potassium	<input type="checkbox"/>	Phosphorus, Total as P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium	<input type="checkbox"/>	Sulfate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Silver	<input type="checkbox"/>	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sodium	<input type="checkbox"/>	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thallium	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tin	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ORGANIC CHEMISTRY		D C	
Acroline and Acrylonitrile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dioxin GC/SIMS Scan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organochlorine Pesticides & PCBs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purgeable Organics (GC/MS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Semivolatile Organics (GC/MS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bis(2-ethylhexyl) phthalate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digester Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil and Grease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic Carbon, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic Carbon, Dissolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Herbicides (Contract Lab)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Semivolatile Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Volatile Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TTHM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Petroleum Hydrocarbons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile Acids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EFFLUENT TOXICITY TESTING		D C	
Chronic P. promelas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic C. dubia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic Selenastrum capricornutum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chain of Custody Record (Signature Only)		Date		Time (Military time)	
Retrieved by: [Signature]	Received by: [Signature]	02-28-17	10:55	15:15	
Retrieved by:	Received by:				
Retrieved by:	Received by:				
Retrieved by:	Received by:				

LAB USE ONLY		Yes		No		NA	
Chain of Custody Record completed appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample labels match Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct number of sample bottles were delivered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Custody seals intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient sample volume for analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample containers damaged/frozen?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 ml vials headspace > pos-sized air bubble?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received from a refrigerator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* Sb, As, Be, Cd, Cr, Cu, Pb, Ni, Se, Ag, Tl, Zn, Mercury (Cold Vapor)  
- Al, Cl, Co, Fe, Mn, Mo, N, Ni, S, Sn, Zn



Pima County Regional Wastewater Reclamation Department  
Compliance and Regulatory Affairs Office Laboratory

**RUSH**  
**COPY**

**CHAIN OF CUSTODY**

WORK ORDER & SAMPLE(S)  
1700-1703008-02

PROJECT & LOCATION: High Strength User Fee Study - Commercial - TR - The Home Depot

PROJECT-LOCATION NUMBER: 04016-1014

SAMPLE START DATE: 02/28/17

CLIENT: IWC

SAMPLER(S): Michael Valera

SAMPLE END DATE: 02/28/17

SAMPLE START TIME: 09:05

SAMPLE END TIME: 15:15

Permit Type:  APP  AZPOES  IWC

Matrix:  Biosolids  Soil  Wastewater  Groundwater  Stormwater  Air  Industrial  Surface Water  Other

INORGANIC CHEMISTRY METALS Tot Diss D C

Aluminum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chlorine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antimony	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mech 100/14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arsenic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Specific Conductance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW 2510 B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beryllium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Oxygen, Dissolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW 4500-O G	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pH @ pH Temp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calcium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW 4500-H B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cobalt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SW 2500 B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total Depth of Well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Depth to Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Magnesium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Manganese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Mercury LL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Molybdenum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Nickel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Potassium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Selenium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Silver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Sodium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Thallium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Tin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

ORGANIC CHEMISTRY D C

Acroline and Acrylonitrile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Alkalinity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dioxin GC/SIM/MS Scan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organochlorine Pesticides & PCBs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purgeable Organics (GC/MS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Coliform, Fecal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Semivolatile Organics (GC/MS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Coliform, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bis(2-ethylhexyl) phthalate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Specific Conductance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Digester Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. coli	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil and Grease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Oxygen, Dissolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic Carbon, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organic Carbon, Dissolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solids, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Herbicides (Contract Lab)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solids, Total Dissolved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solids, Total Suspended	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TCLP Semivolatile Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solids, Volatile Suspended	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TTHM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Petroleum Hydrocarbons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Volatile Acids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

EFFLUENT TOXICITY TESTING D C

Chronic P. promelas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic C. dubia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chronic Selenastrum capricornutum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMPLIANCE FIELD MEASUREMENTS

Chlorine	<input type="checkbox"/>	Result	Units
Mech 100/14	<input type="checkbox"/>		µg/L
Specific Conductance	<input type="checkbox"/>		µmhos/cm
Oxygen, Dissolved	<input type="checkbox"/>		mg/L
SW 4500-O G	<input type="checkbox"/>		
pH @ pH Temp	<input type="checkbox"/>		pH Units @ °C
SW 4500-H B	<input type="checkbox"/>		
Temperature	<input type="checkbox"/>		°C
SW 2500 B	<input type="checkbox"/>		
Total Depth of Well	<input type="checkbox"/>		feet
Depth to Water	<input type="checkbox"/>		feet
Other	<input type="checkbox"/>		

LAB USE ONLY

Sample Inspection: Yes  No  NA

Chain of Custody Record completed appropriately? Yes  No  NA

Sample labels match Chain of Custody? Yes  No  NA

Correct number of sample bottles were delivered? Yes  No  NA

Custody seals intact? Yes  No  NA

Within holding time? Yes  No  NA

Sufficient sample volume for analysis? Yes  No  NA

Samples are in properly preserved containers? Yes  No  NA

Sample containers damaged/leaking/frozen? Yes  No  NA

40 ml vials headspace > pea-sized air bubble? Yes  No  NA

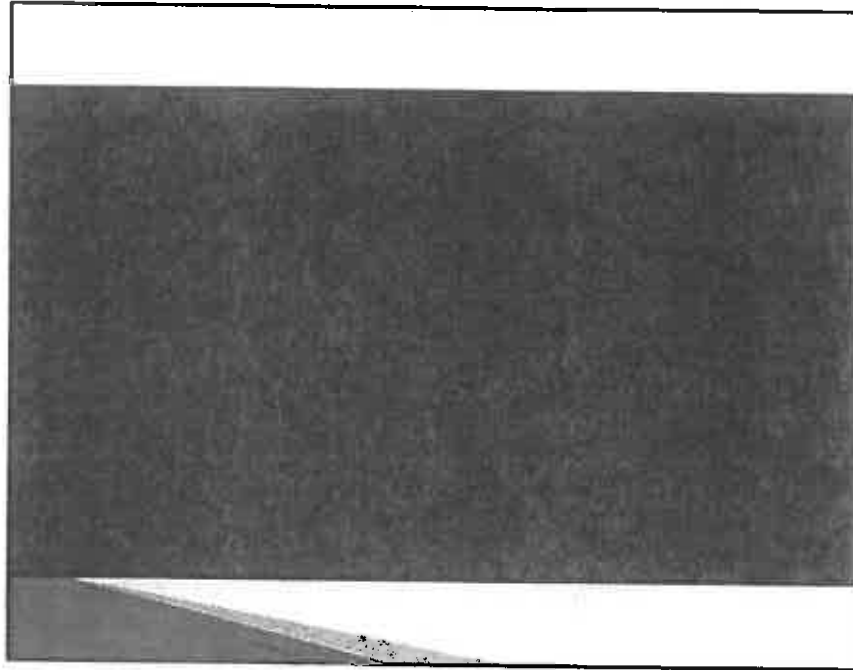
Recovered from a refrigerator? Yes  No  NA

\* Sh. As. Bn. Cd. Cr. Cu. Pb. Ni. Se. Ag. Tl. Zn. Mercury (Cold Vapor)  
\*\* As. Cd. Cr. Cu. Pb. Mercury. Mo. Ni. Sn. Zn

# Sampling Data

## Commercial Class





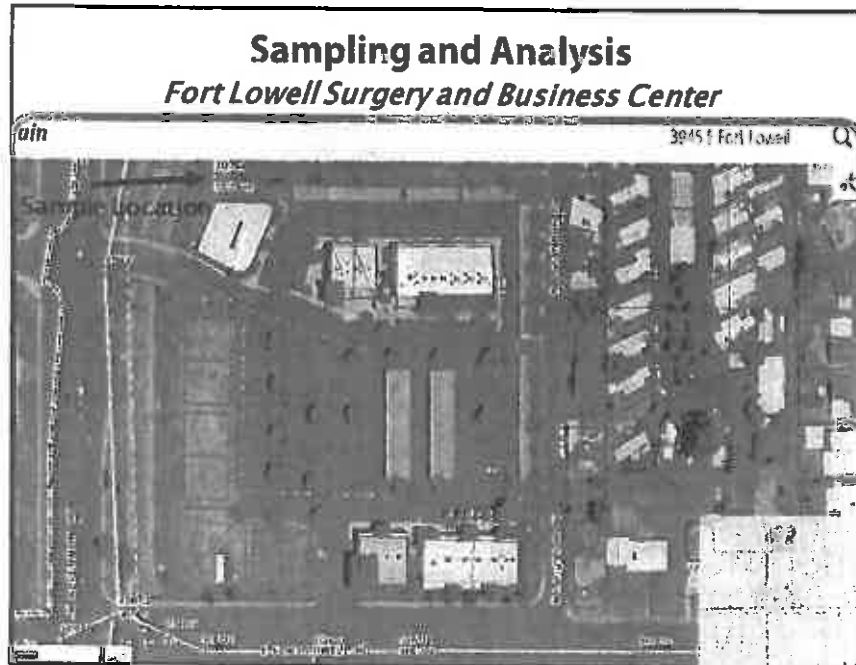
**Video of a typical sampling event.  
This is how we do it!**



## Residential Sampling

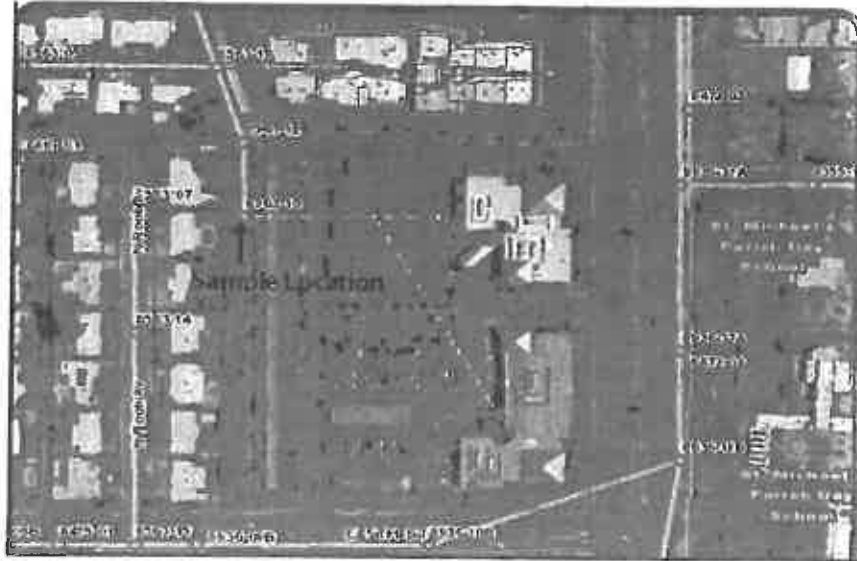


A strength of wastewater study for the residential class was conducted in 2013. This map shows a sewer layout in a residential neighborhood. The sample location was chosen because it only receives sewerage from residences before comingling with other customer classes. This is also a safe, accessible manhole that should yield representative data.



A strength of wastewater study for the commercial class was conducted in 2015. 27 locations were sampled and analyzed during the study. This is the Fort Lowell Surgery and Business Center and was one of the commercial properties used in our strength of discharge study. The complex includes Doug S John Law office, Child and Family support services, Gencor Mortgage office, Rick engineering firm, Surgery center of Tucson and other offices. The sample location selected collects wastewater from this complex before comingling with other customers. This is the same method used to conduct residential wastewater strength studies.

## Sampling and Analysis *Wilmot and 5<sup>th</sup> Street Business Center*



This is the Wilmot and 5<sup>th</sup> Business Center and was one of the commercial properties used in our strength of discharge study.

The complex includes Arizona Oncology, Radiology Limited, American Financial Network office and other offices.

The sample location selected collects wastewater from this complex before comingling with other customers.

This is the same method used to conduct residential wastewater strength studies.

## **Sampling and Analysis** *La Cholla Corporate Center*



This is the La Cholla Corporate Center and was one of the commercial properties used in our strength of discharge study.

The complex includes Northwest Children's Dentistry, State Farm Insurance, Visiting Angels, Chiropractors, Arizona Hearing Specialists, Southwest Investment Advisors and other offices.

The sample location selected collects wastewater from this complex before comingling with other customers.

This is the same method used to conduct residential wastewater strength studies.

<b>Sampling Data</b>				
<b>Class</b>	<b>COD</b>	<b>TSS</b>	<b>Factor</b>	<b>\$ per Ccf</b>
<b>Residential (Average)</b>	<b>569</b>	<b>177</b>	<b>1.00</b>	<b>\$3.629</b>
				<b>Proposed \$ per Ccf</b>
<b>Commercial (Average)</b>	<b>579</b>	<b>314</b>	<b>1.16</b>	<b>\$4.210</b>

Results from the average of commercial complex sampling data show strength factor of 1.16 based on the sampling and analysis.

COD and TSS removal is paramount to wastewater treatment.

The higher the COD and TSS values, the more it costs Pima County RWRD to achieve EPA and ADEQ permit limits.

COD is Chemical Oxygen Demand.

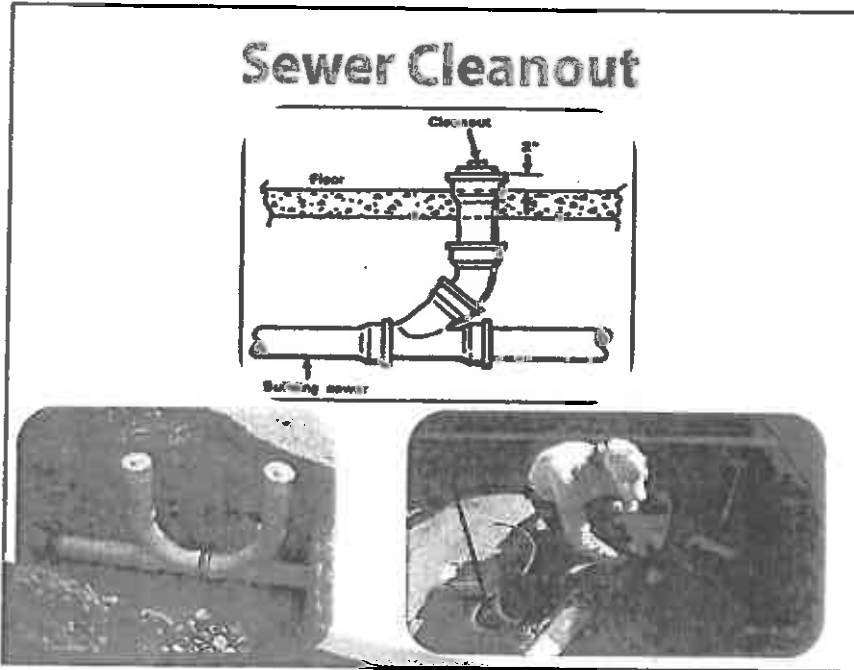
TSS is Total Suspended Solids.

Ccf = 748 gallons

# Sampling Data Individual Businesses

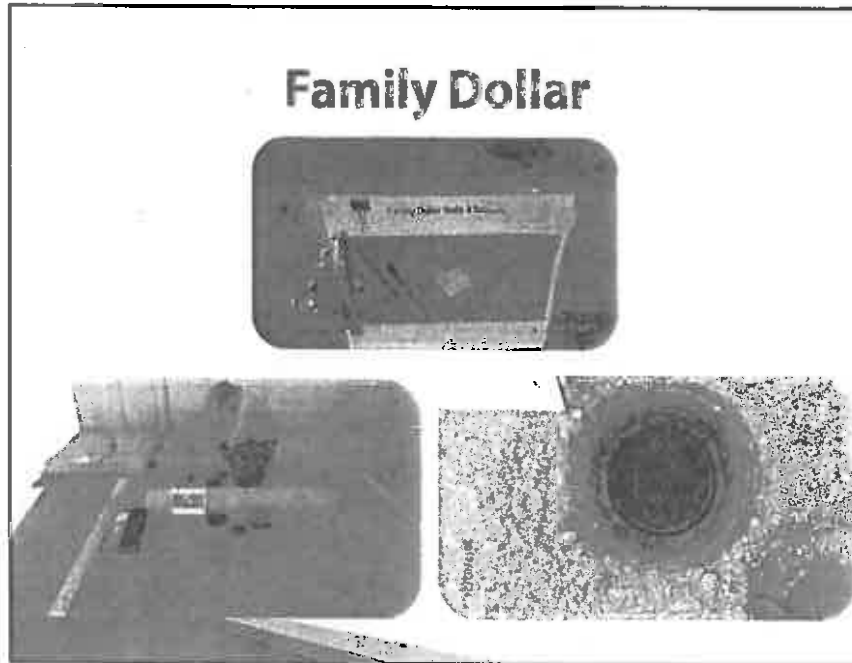


**A strength of wastewater for individual businesses was attempted in 2017.  
Sampling individual commercial businesses is problematic.  
Many have low or intermittent flow making sampling impractical.  
Finding sample locations for individual businesses before comingling with other discharges is often not possible.**



The only access to many commercial businesses is a sewer cleanout. Sampling cleanouts over the course of a business day is not practical. The sampler would have to remain above ground and the sewer cleanout open. Many cleanouts are out in the front of businesses, in the sidewalk or parking lot close to the building foundation.



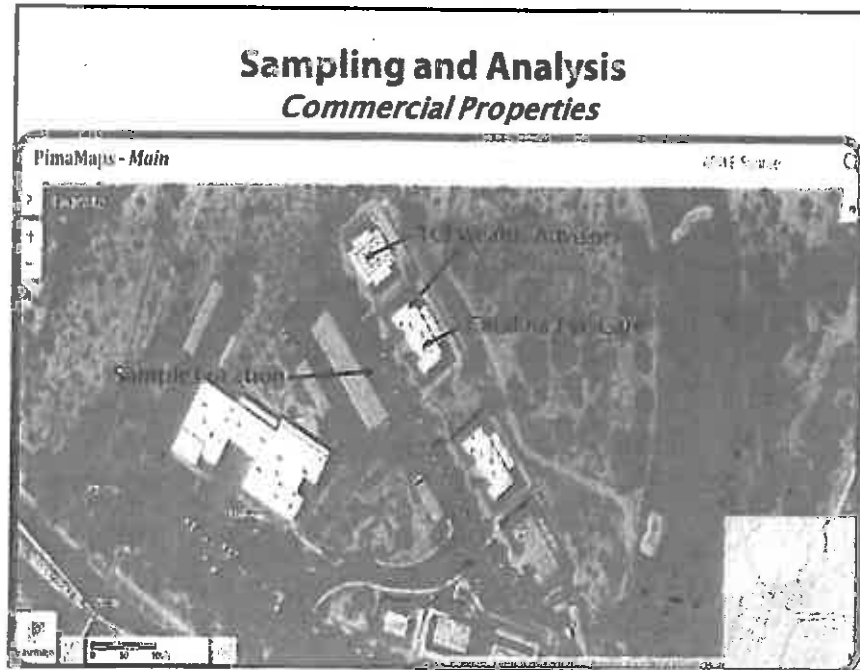


**This is the Family Dollar on S. Midvale Park**

**The only access to the sewer discharge before comingling with other customers is the cleanout.**

**We concluded that a representative sample could not be taken at this location.**

## Sampling and Analysis *Commercial Properties*



This sample location was chosen to narrow down the strength of wastewater coming from just a few businesses.

The data collected from this sample location shows the average Chemical Oxygen Demand and Suspended Solids are above residential average

COD was 1010mg/L

TSS was 516 mg/L

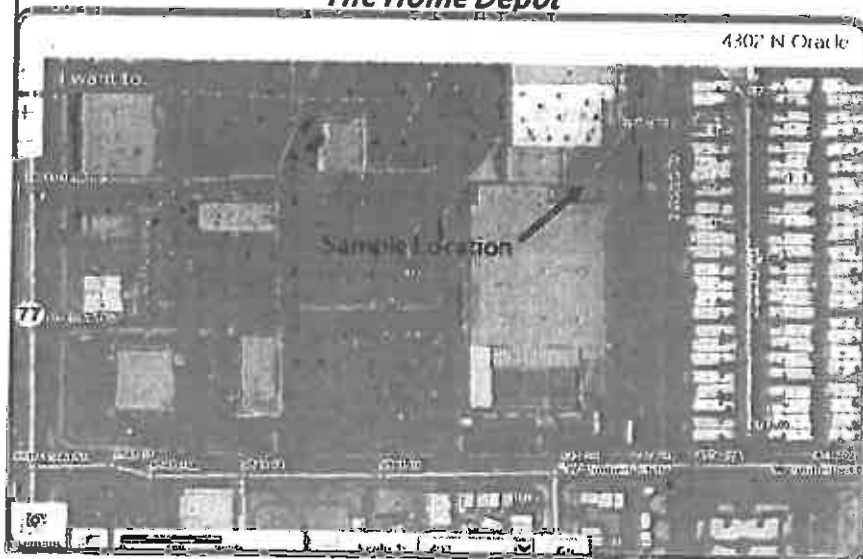
## Impact to our Customers 4011 and 4021 E Sunrise Drive

CUSTOMER	SERVICE ADDRESS	Consumption Ccf	Current Monthly Charge	Proposed 10%	Increase
TCI Wealth Advisors	4011 E Sunrise	5.00	\$18.15	\$21.05	\$2.90
TCI Wealth Advisors	4021 E Sunrise	2.00	\$7.26	\$8.42	\$1.16
Five Daughters LLC	4021 E Sunrise	1.00	\$3.63	\$4.21	\$0.58

\* August 2017

Consumption data from Tucson Water August 2017  
Ccf = 748 gallons

## Sampling and Analysis *The Home Depot*



This sample location was chosen because there is an accessible manhole that receives flow from the Home Depot only.

The data collected from this sample location shows the average Chemical Oxygen Demand and Suspended Solids are above residential strength average.

COD was 1190 mg/L

TSS was 224 mg/L

## Impact to our Customer Home Depot

CUSTOMER	SERVICE ADDRESS	Consumption Ccf	Current Monthly Charge	Proposed Increase 10%
Home Depot	1302 N Oracle Rd	38.33	\$139.10	\$161.36 \$22.26

\* August 2017

Consumption data from Tucson Water August 2017  
Ccf = 748 gallons



**REGIONAL WASTEWATER RECLAMATION ADVISORY COMMITTEE (RWRAC) PUBLIC MEETING  
ON PROPOSED RATE INCREASE TO THE COMMERCIAL BILLING CLASS**

Pima County Natural Resources, Parks and Recreation  
Conference Room  
3500 W. River Road  
Tucson, Arizona 85741

Monday, October 16, 2017  
6:00 p.m.

- A. Call to Order / Roll Call
- B. Pledge of Allegiance
- C. Call to the Audience
- D. Proposed Rate Increase to the Commercial Billing Class
  - 1. Overview & Sampling Data for the Commercial Billing Class – Jason Grodman
  - 2. Discussion/Action
- E. Call to the Audience
- F. Adjournment

Date of Notice: October 12, 2017

Jennifer C. Coyle, Special Assistant to the Director

Copies posted: County Administration Building: 1<sup>st</sup> and 5<sup>th</sup> Floors, "A" and "B" Levels.

NOTE: Under the State Open Meeting Act Rules, no topics other than those listed above may be addressed or acted on at this meeting. Members of the RWRAC will attend either in person or by telephone conference call.

Persons with a disability may request a reasonable accommodation by contacting Veronica Lopez at (520) 724-6500 or by email: Veronica.Lopez@pima.gov. Requests should be made at least 24 hours before the scheduled meeting to allow time to arrange the accommodation.



**NOTICE OF PROPOSED SEWER USER FEE INCREASE  
FOR THE COMMERCIAL BILL CLASS**

Pursuant to ARS §11-251.13, Pima County is providing notice that on or after November 7, 2017, the Board of Supervisors will consider a sewer user fee increase of up to sixteen percent (16%) for the Commercial bill class. This increase may be a phased implementation in smaller increments over a period of time, or a one-time sixteen percent (16%) increase.

The Commercial bill class includes customers primarily engaged in wholesale or retail, communication, finance, insurance, and any other non-residential service not identified as an Industrial Bill Class as outlined in Pima County Code, 13.24, Sanitary Sewer User Fees.

Sampling over the past several years by the Department has confirmed the higher cost of service for commercial customers when compared to residential customers. This information is outlined in the Raftelis Financial Consultants Rate Structure Study which can be viewed by calling the Regional Wastewater Reclamation Department at (520) 724-6500, or at 201 N Stone Ave, 8<sup>th</sup> Floor, Tucson, AZ, 85701.

A public meeting sponsored by the Regional Wastewater Reclamation Advisory Committee on the proposed sewer user fee increase is scheduled for:

**Monday, October 16, 2017 at 6:00 p.m.**

Pima County Natural Resources, Parks and Recreation Department – Conference Room  
3500 W. River Road, Tucson AZ 85741

There will also be an opportunity to speak on the proposed sewer user fee increase during the public hearing at the Pima County Board of Supervisors meeting when the matter is scheduled for action, which is currently anticipated to occur on Tuesday, November 7, 2017.

Written comments can be sent to Jennifer C. Coyle, Pima County Regional Wastewater Reclamation Department, 201 N. Stone Avenue, 8<sup>th</sup> Floor, Tucson, AZ 85701.



ORDINANCE 2017-\_\_

AN ORDINANCE OF THE BOARD OF  
SUPERVISORS OF PIMA COUNTY, ARIZONA;  
RELATING TO WASTEWATER; AMENDING  
PIMA COUNTY CODE, TITLE 13, CHAPTER 24,  
SANITARY SEWER USER FEES

The Board of Supervisors of Pima County Arizona finds that:

1. The cost to manage wastewater discharged from Commercial customers is sixteen (16) percent higher than the cost to manage wastewater discharged from Residential customers.
2. Residential and Commercial customers are currently charged the same user fees.
3. An increase in the Commercial class user fee is warranted to ensure wastewater management costs are equitably distributed among user classes.

BE IT ORDAINED BY THE PIMA COUNTY BOARD OF SUPERVISORS:

SECTION 1. *Amendment.* The Pima County Code, Title 13, Chapter 24, Section 13.24.600, Table 3 is hereby amended as follows:

Table 3  
Rates for Multi-Family, Commercial, and Industrial Users

User Class	Class Name	Billing Class	Strength Factor	Rate (dollars per CCF)
2A	Multi-Family	MF	1.0	\$3.629
2B	Commercial	C	<del>1.01.16</del>	<del>3.629</del> <u>4.210</u>
3C	Auto body and fender repair	SA	2.10	7.620
3K	Mortuary	SB	1.09	3.955
3N	Laundromat	SC	1.09	3.955
4E	Pet clinic	SD	1.20	4.355
4G	Restaurant, with seating and china	SE	2.03	7.367
4H	Restaurant, fast food	SF	2.32	8.418
5A	Car wash, self-service	SG	1.19	4.318
5C	Bottling company	SI	1.68	6.097

5F	Printing; copying	SJ	1.01	3.665
5G	Electrical component manufacturer	SK	1.14	4.137
5I	Industrial laundry	SL	1.06	3.846
5J	Bakery	SM	3.63	13.172
5K	Miscellaneous food processor	SN	2.33	8.455
5L	Chemical, pharmaceutical	SO	1.25	4.536
5M	Meat packing	SP	2.38	8.637
5S	Car wash, full service	SH	1.23	4.463

**SECTION 2. Severability.** If any provision of this Ordinance, or the application of any provision thereof is determined by a court of law to be invalid, the invalidity of that provision shall not affect other provisions or the application of this ordinance which can be given effect without the provision determined to be invalid, and to this end the provisions of this Ordinance are severable.

**SECTION 3. County Officers and Employees.** The various County officers and employees are authorized and directed to perform all acts necessary or desirable to give effect to this Ordinance.

**SECTION 4. Effective Date.** This Ordinance shall become effective 31 days after it is adopted by the Board of Supervisors.

**PASSED AND ADOPTED** by the Board of Supervisors of Pima County, Arizona, this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

**PIMA COUNTY BOARD OF SUPERVISORS:**

\_\_\_\_\_  
Chairperson

**ATTEST:**

\_\_\_\_\_  
Clerk of the Board

Dated: \_\_\_\_\_

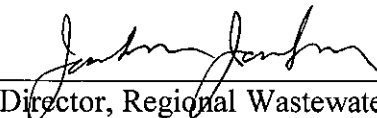
APPROVED AS TO FORM:



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Deputy County Attorney  
**CHARLES WESSELHOFT**

APPROVED AS TO CONTENT:



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Director, Regional Wastewater Reclamation  
Department

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Director, Finance Department