Restaurant Study

(Calculation methodology for Food Service Establishment Sewer Capacity Charge)

Chula Vista - 2015

The Reason for the amendment is to revise the method of calculating the *Capacity Connection Requirements for Food Service Establishments* so that it more accurately reflects the actual system needs and water conservation within the City.

Municipal Code **13.14.090 Sewer capacity charge**

The owner or person making application for a permit to develop or modify use of any residential, commercial, industrial or other property shall pay a sewer capacity charge. All revenue derived from such fees shall be deposited in the trunk sewer capital reserve fund. The amount of such charge shall be the required fee(s).

MASTER FEE SCHEDULE FEE BULLETIN

Chapter 12 – Sewer Fees

Construction & Development

The following rates of flow for various land uses shall be utilized in determining the total fee due for any given property:

Restaurant

Small (<= 12 seats) ..... 1.1 EDU

Large (>12 seats) .....25 GPD/seat

One EDU of flow $3,450

What is the Sewer Capacity Charge?

- One time Charge paid at building permit
- Grants rights to connect and flow to the City of Chula Vista Sanitary Sewer System
- Grants rights to treat and dispose of sewage at the City of San Diego Metropolitan Wastewater System

Current Capacity Formula

(>12 Seats)

- S = # of seats
- EDU = Equivalent Dwelling unit
- D = Generation Rate per EDU (230 Gallons Per Day)
- Current Generation per Seat = 25 GPD
- Current Sewer Capacity Charge per EDU = $3,450

EDU = (S x 25)/D

Sewer Capacity Charge = EDU x 3450

Example for a 127 seat Facility:

EDU = (127x25)/230 = 13.8 EDU

Sewer Capacity Charge = 13.80 x $3,450 = $47,610

Current Capacity Formula

(<=12 Seats)

Flat fee of 1.1 EDU

Sewer Capacity Charge = EDU x 3450

Example for a 12 seat Facility:

Sewer Capacity Charge = 1.1 x $3,450 = $3,795

Restaurant Survey Process

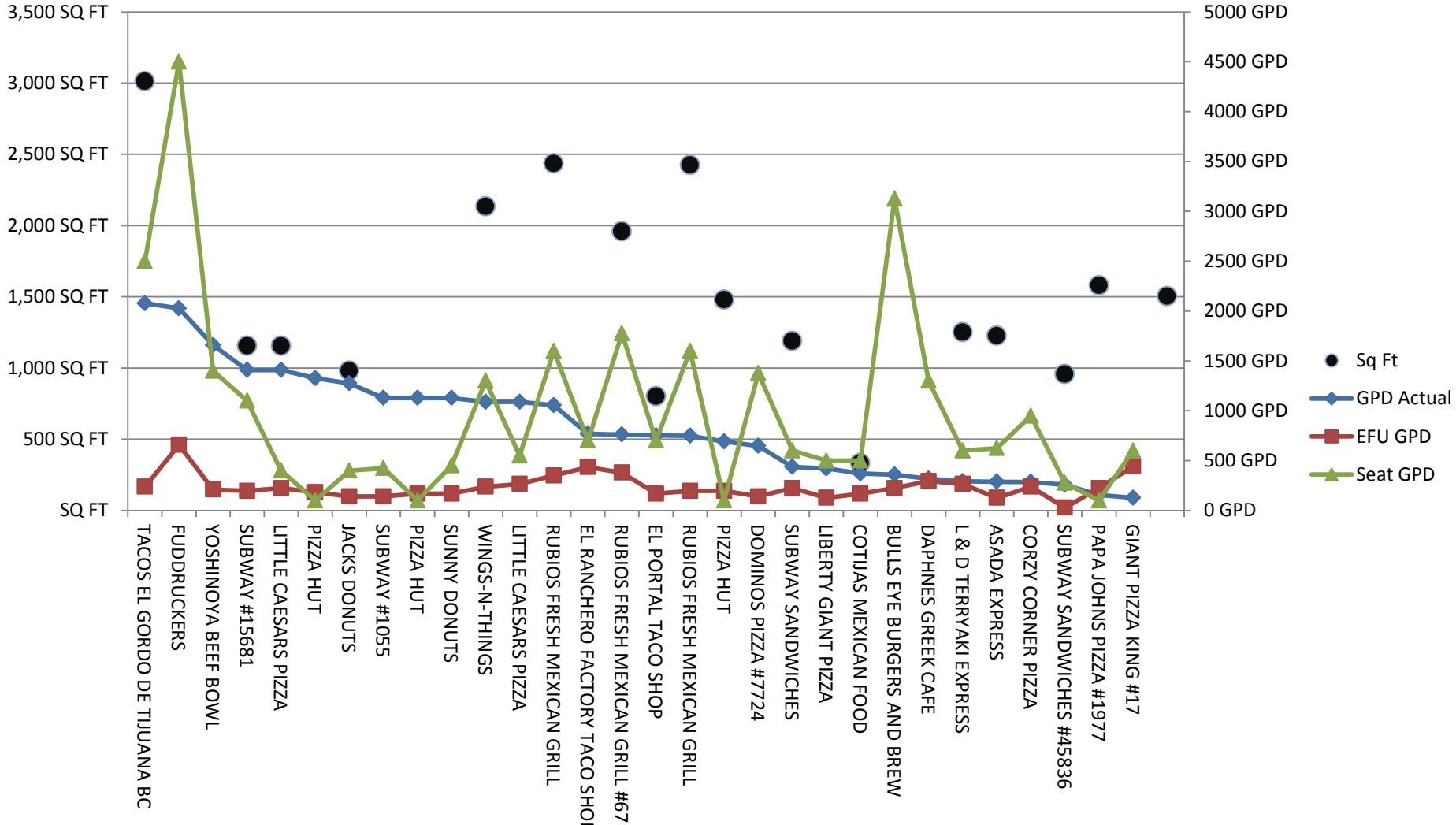
184 Locations surveyed out of 700 total (26%)

ADDRESS:			DATE:
NAME:			BY:
FIXTURES	PUBLIC USED	PRIVATE USED	
Bar Sink			
Bathtub			
Bidet			
Dental Unit or Cuspidor			
Drinking Fountain			
Floor Drain			
Clothes Washer			
Lavatory			
Shower (each head)			
Sink or dishwasher			
Mop Basin			
3 Comp Sink			
Urinal			
Water Closet			

- 12 Month Water Usage
- Seats counted
- Fixture units counted at each location
  - Converted to Estimated Fixture Units per California Plumbing Code

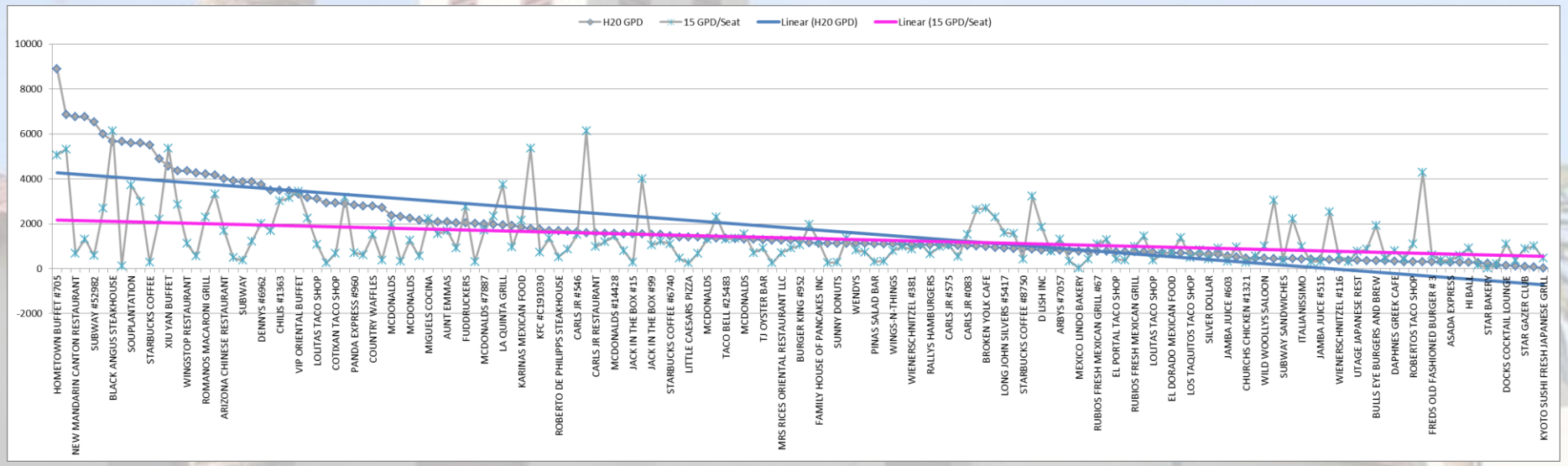
Analysis of Data

NO DISCERNABLE PATTERN



OVERALL AVERAGE

adjusted water used / all seats



Restaurant Categories

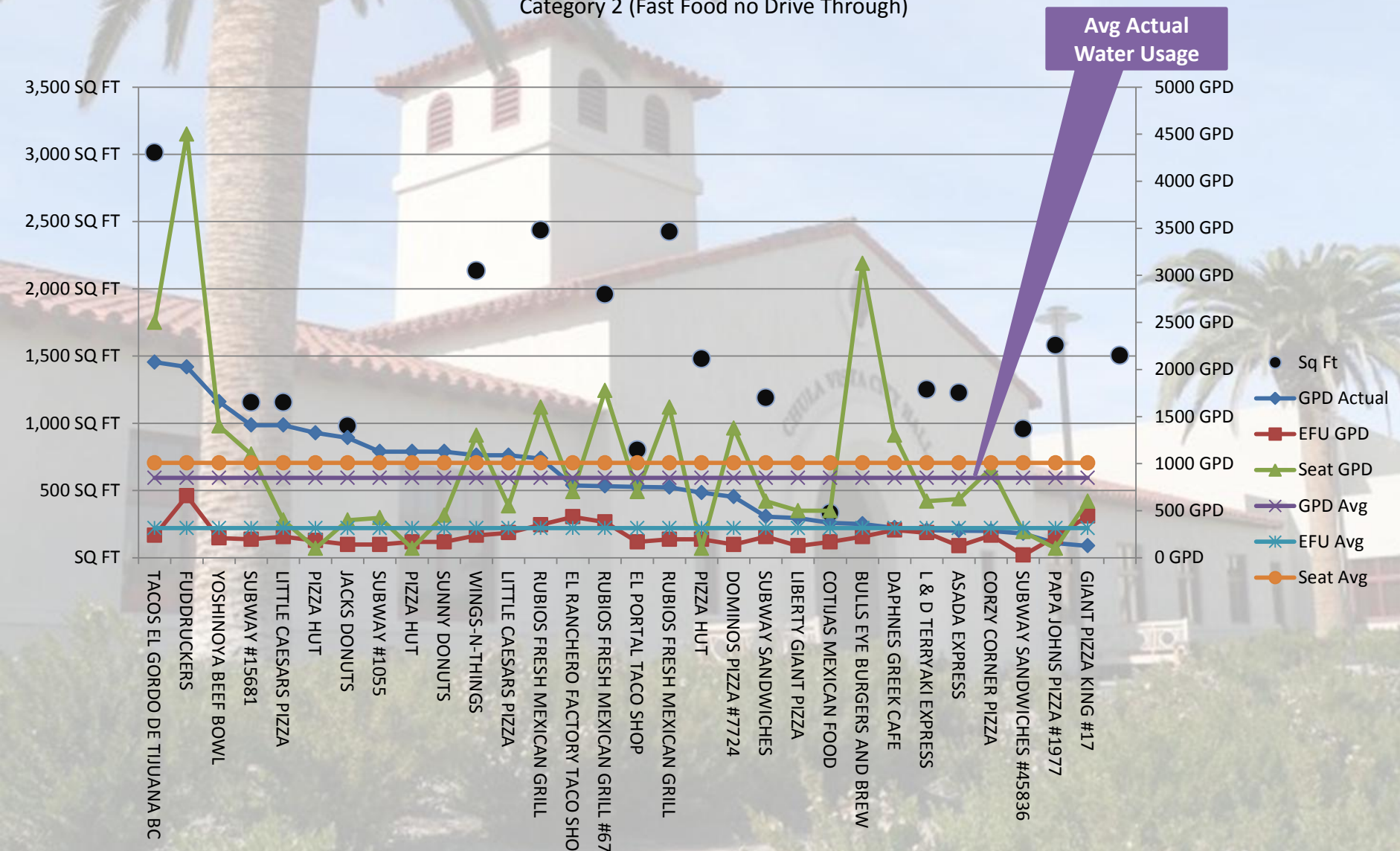
Based upon findings the Food Service Establishments were divided into the following categories for use within the Study

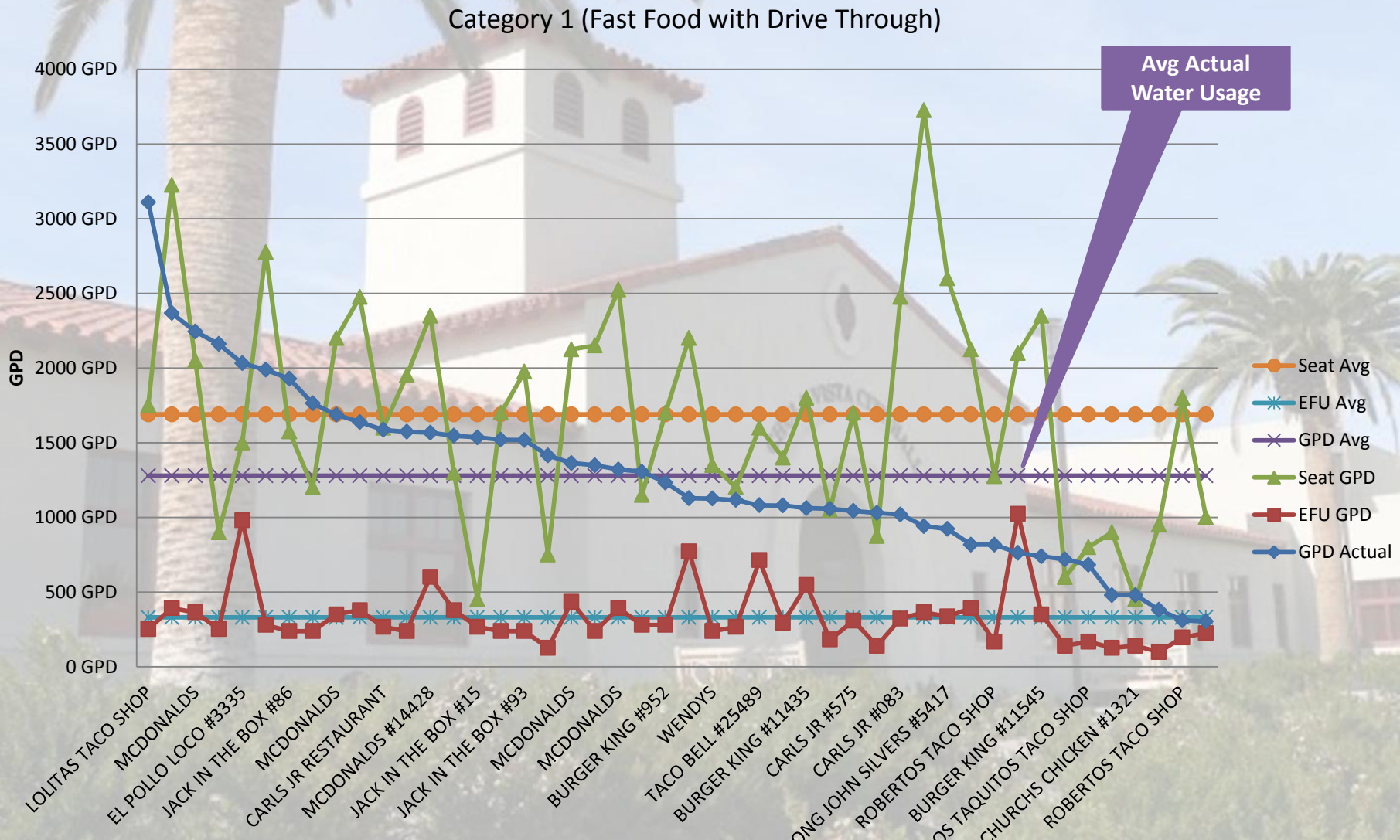
- 184 Locations surveyed out of 700 total (26%)
- Divided into 6 categories

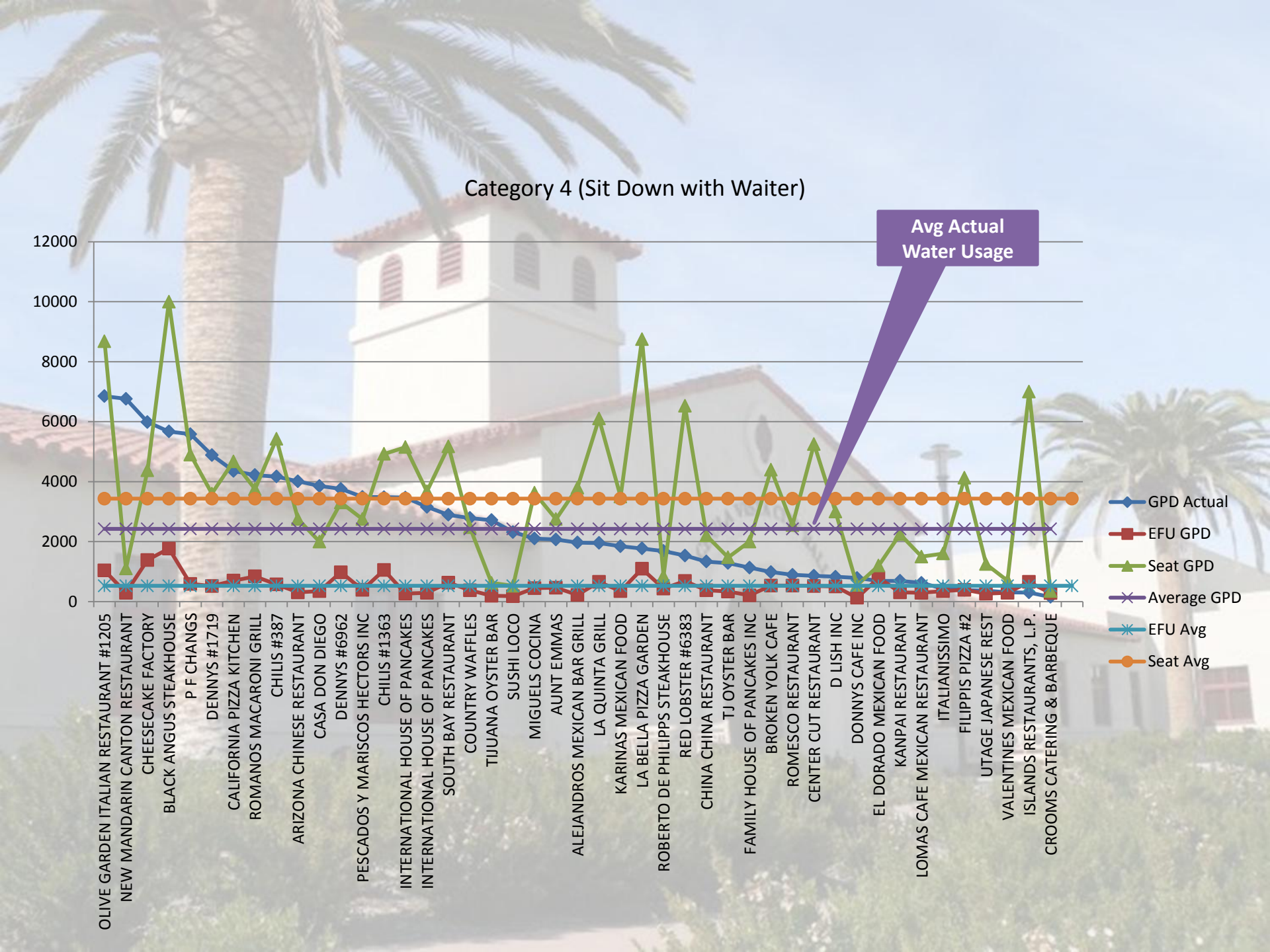
1. **Fast Food with Drive Through**
2. **Fast Food without Drive Through**
3. **Buffet**
4. **Sit Down with Waiter**
5. **Coffee Shop**
6. **Bar/Nightclub**

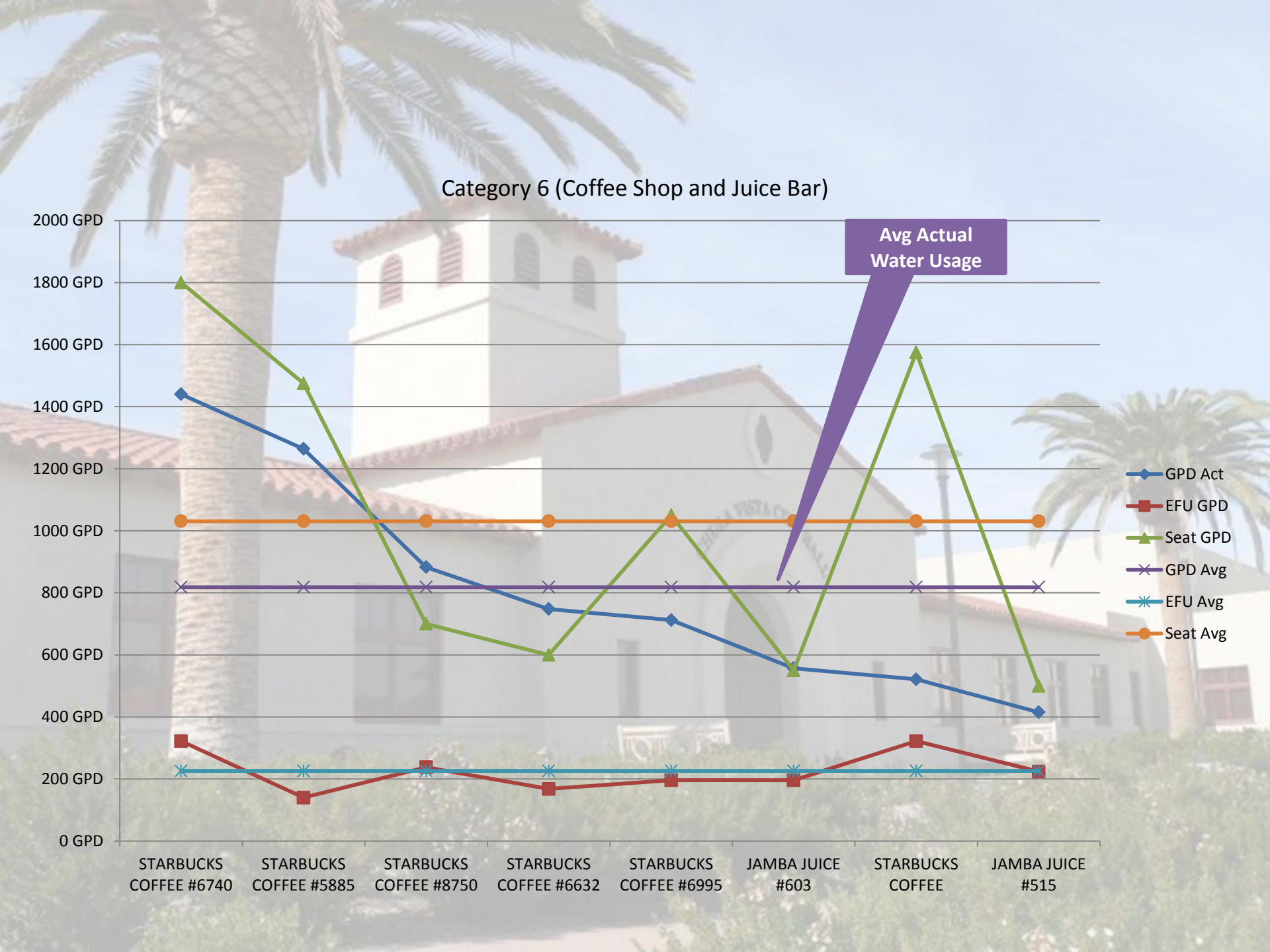
Analysis of Data

Category 2 (Fast Food no Drive Through)




Category 1 (Fast Food with Drive Through)
Avg Actual Water Usage
GPD
4000 GPD
3500 GPD
3000 GPD
2500 GPD
2000 GPD
1500 GPD
1000 GPD
500 GPD
0 GPD
Seat Avg
EFU Avg
GPD Avg
Seat GPD
EFU GPD
GPD Actual
LOLITAS TACO SHOP
MCDONALDS
EL POLLO LOCO #3335
JACK IN THE BOX #86
MCDONALDS
CARLS JR RESTAURANT
MCDONALDS #14428
JACK IN THE BOX #15
JACK IN THE BOX #93
MCDONALDS
MCDONALDS
BURGER KING #952
WENDYS
TACO BELL #25489
BURGER KING #11435
CARLS JR #575
CARLS JR #083
LONG JOHN SILVERS #5417
ROBERTOS TACO SHOP
BURGER KING #11545
LOS TAQUITOS TACO SHOP
CHURCHS CHICKEN #1321
ROBERTOS TACO SHOP


Category 4 (Sit Down with Waiter)
Avg Actual Water Usage
12000
10000
8000
6000
4000
2000
0
GPD Actual
EFU GPD
Seat GPD
Average GPD
EFU Avg
Seat Avg
OLIVE GARDEN ITALIAN RESTAURANT #1205
NEW MANDARIN CANTON RESTAURANT
CHEESECAKE FACTORY
BLACK ANGUS STEAKHOUSE
P F CHANGS
DENNYS #1719
CALIFORNIA PIZZA KITCHEN
ROMANOS MACARONI GRILL
CHILIS #387
ARIZONA CHINESE RESTAURANT
CASA DON DIEGO
DENNYS #6962
PESCADOS Y MARISCOS HECTORS INC
CHILIS #1363
INTERNATIONAL HOUSE OF PANCAKES
INTERNATIONAL HOUSE OF PANCAKES
SOUTH BAY RESTAURANT
COUNTRY WAFFLES
TIJUANA OYSTER BAR
SUSHI LOCO
MIGUELS COCINA
AUNT EMMAS
ALEJANDROS MEXICAN BAR GRILL
LA QUINTA GRILL
KARINAS MEXICAN FOOD
LA BELLA PIZZA GARDEN
ROBERTO DE PHILIPPS STEAKHOUSE
RED LOBSTER #6383
CHINA CHINA RESTAURANT
TJ OYSTER BAR
FAMILY HOUSE OF PANCAKES INC
BROKEN YOLK CAFE
ROMESCO RESTAURANT
CENTER CUT RESTAURANT
D LISH INC
DONNYS CAFE INC
EL DORADO MEXICAN FOOD
KANPAI RESTAURANT
LOMAS CAFE MEXICAN RESTAURANT
ITALIANISSIMO
FILIPPIS PIZZA #2
UTAGE JAPANESE REST
VALENTINES MEXICAN FOOD
ISLANDS RESTAURANTS, L.P.
CROOMS CATERING & BARBEQUE


Category 6 (Coffee Shop and Juice Bar)
2000 GPD
1800 GPD
1600 GPD
1400 GPD
1200 GPD
1000 GPD
800 GPD
600 GPD
400 GPD
200 GPD
0 GPD
Avg Actual Water Usage
GPD Act
EFU GPD
Seat GPD
GPD Avg
EFU Avg
Seat Avg
STARBUCKS COFFEE #6740
STARBUCKS COFFEE #5885
STARBUCKS COFFEE #8750
STARBUCKS COFFEE #6632
STARBUCKS COFFEE #6995
JAMBA JUICE #603
STARBUCKS COFFEE
JAMBA JUICE #515

Proposed Rate of Flow

Category 1: Fast Food with Drive Thru

These locations have a drive through, no waiter, plastic utensils, paper products, no linens and disposable glassware. The food is self-ordered and picked up. No distinctions were made between chains and single locations (examples: McDonalds, Burger King, Robertos)

Locations Surveyed:	46
Average Water Used:	1,279 GPD
Average # of Seats:	68
Proposed rate of flow:	18.8 GPD

Proposed Rate of Flow

Category 2: Fast Food with No Drive Thru

*These locations **do not** have a drive through, no waiter, plastic utensils, paper products, no linens and disposable glassware. The food is self-ordered and picked up. No distinctions were made between chains and single locations (examples: Subway, Pizza Hut, Quiznos)*

Locations Surveyed:	41
Average Water Used:	849.17 GPD
Average # of Seats:	40
Proposed rate of flow:	21.2 GPD

Proposed Rate of Flow

Category 3: Buffets

These locations feature an all you can eat menu, china table settings, non-plastic utensils, and non-disposable glassware. (Examples: Souplantation, Zorbas, Hometown Buffet)

Locations Surveyed:	8
Average Water Used:	3,426.37 GPD
Average # of Seats:	236
Proposed rate of flow:	14.5 GPD

Proposed Rate of Flow

Category 4: Sit Down with Waiter

These locations feature a waiter, non-plastic silverware, china table settings, real glassware and a full menu. No distinction made between chains and individual Locations (Examples: Chillls, Black Angus, Karinas)

Locations Surveyed:	49
Average Water Used:	2,422.52 GPD
Average # of Seats:	137
Proposed rate of flow:	17.7 GPD

Proposed Rate of Flow

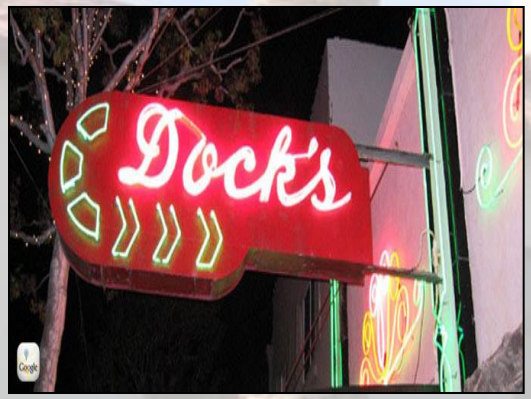
Category 5: Coffee Shops and Juice Bars

These locations feature prepackaged food, and focus on beverage sales, no waiter, plastic utensils, paper products, no linens and disposable glassware. The food is self-ordered and picked up. No distinction made between chains and individual Locations (Examples: Starbucks, Jamba Juice, Shell gas station)

Locations Surveyed:	9
Average Water Used:	817.50 GPD
Average # of Seats:	41
Proposed rate of flow:	19.9 GPD

Proposed Rate of Flow

Category 6: Bars and Nightclubs



These locations serve mainly alcohol and prepackaged food only. The utilize real glassware No distinction made between chains and individual Locations (Examples Hi Ball, Silver Dollar, Docks)

Locations Surveyed:	11
Average Water Used:	481.45 GPD
Average # of Seats:	72
Proposed rate of flow:	7 GPD

Example of Sewer Capacity Charge with proposed rate of flow

Category 2

Per Seat Calculations

Example for a 127 seat Facility (Current rate of flow):

EDU = (127x25)/230 = 13.8 EDU

Sewer Capacity Charge = 13.80 x $3,450 = $47,610

Example for a 127 seat Facility (Proposed rate of flow):

EDU = (127x21.2)/230 = 11.70 EDU

Sewer Capacity Charge = 11.70 x $3,450 = $40,365

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Large (>12 seats) .....25 GPD/seat

One EDU of flow $3,450

Based on the 2013 California Plumbing Code Sections 422.0 and 702.0, County of San Diego Department of Environmental Health, and the City of Chula Vista requirements, **all FSEs are required to have at least 1 drinking fountain, 2 lavatories, 1 mop basin, 1 sink (each set of faucets) and 1 water closet**.

Fixtures	**Fixture Unit Equivalent**	**Quantity Used**	**EFUs**
Drinking Fountain	0.5	1	0.5
Lavatory	1	2	2
Mop Basin	3	1	3
Sink (each set of faucets)	2	1	2
Water Closet	4	1	4
Total			**11.5 EFUs**

11.5 EFU = 0.6 EDU
This equates to $2,070
rather than $3,795

- The proposal is to continue with a seat based method with a flow rate adjusted per category because it more accurately represents the actual average water use.
- Lower the minimum fee per restaurant from 1.1 EDUs to 0.6 EDUs.
- The average per seat water usage is in line with industry standards
- The individual rates of flow per category and the lowered minimum will provide a more accurate projection of capacity requirements.

Presented to:

- Chamber of Commerce
- Development oversight Committee

Recommendation

That Council adopt Resolution

QUESTIONS AND ANSWERS