



Palm Beach County Consumptive Use Permit and Application Renewal Update



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Water Utilities Department

September 19, 2019

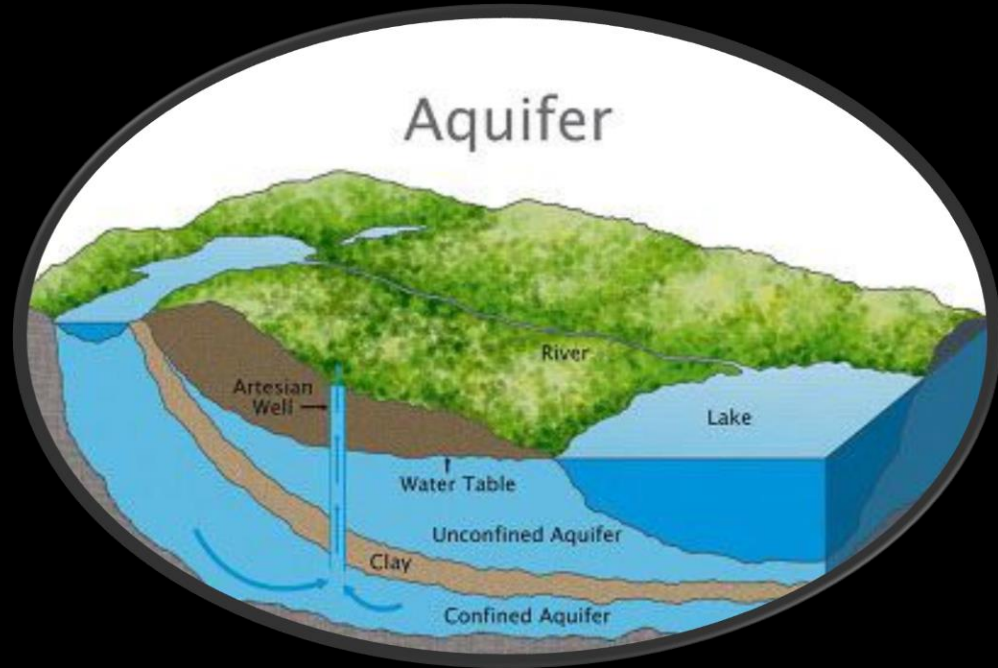
What is CUP?

- A consumptive water use permit allows the holder to withdraw a specified amount of water from the ground (aquifer) or a canal, lake or river (surface water) for reasonable-beneficial uses.
- The water can be used for public supply (drinking water), agricultural and nursery plant irrigation, golf course irrigation, commercial use, dewatering/mining activities and power.
Water uses not covered by these permits include domestic uses, home irrigation and water used for fire fighting.
- Consumptive water use permits require water conservation to prevent wasteful uses, such as the reuse of reclaimed water (treated wastewater).
- The permits also set limits on how much water can be withdrawn at each location in the aquifer or from surface water. These limits protect existing residents' water supplies and protect aquifers from saltwater intrusion damage, and surface water sources from drying up

CUP Facts

- Issued : March 13, 2003
- Permit No. 50-000135-W
- **LIMITING CONDITIONS**
- This permit shall expire on **March 13, 2023**.
- Water use classification: Public Water Supply
- Source classification is Groundwater from:
 - Surficial Aquifer System
 - Biscayne Aquifer
 - Floridan Aquifer System
- Annual allocation shall not exceed **31,751.35 MG/yr.**
- Maximum daily allocation shall not exceed **129.62 MGD.**
- Total Alternative Water Supply (Exhibit 17):

<u>Year</u>	<u>MGD</u>
2009	11.50
2014	13.50
2019	15.50
2024	17.50



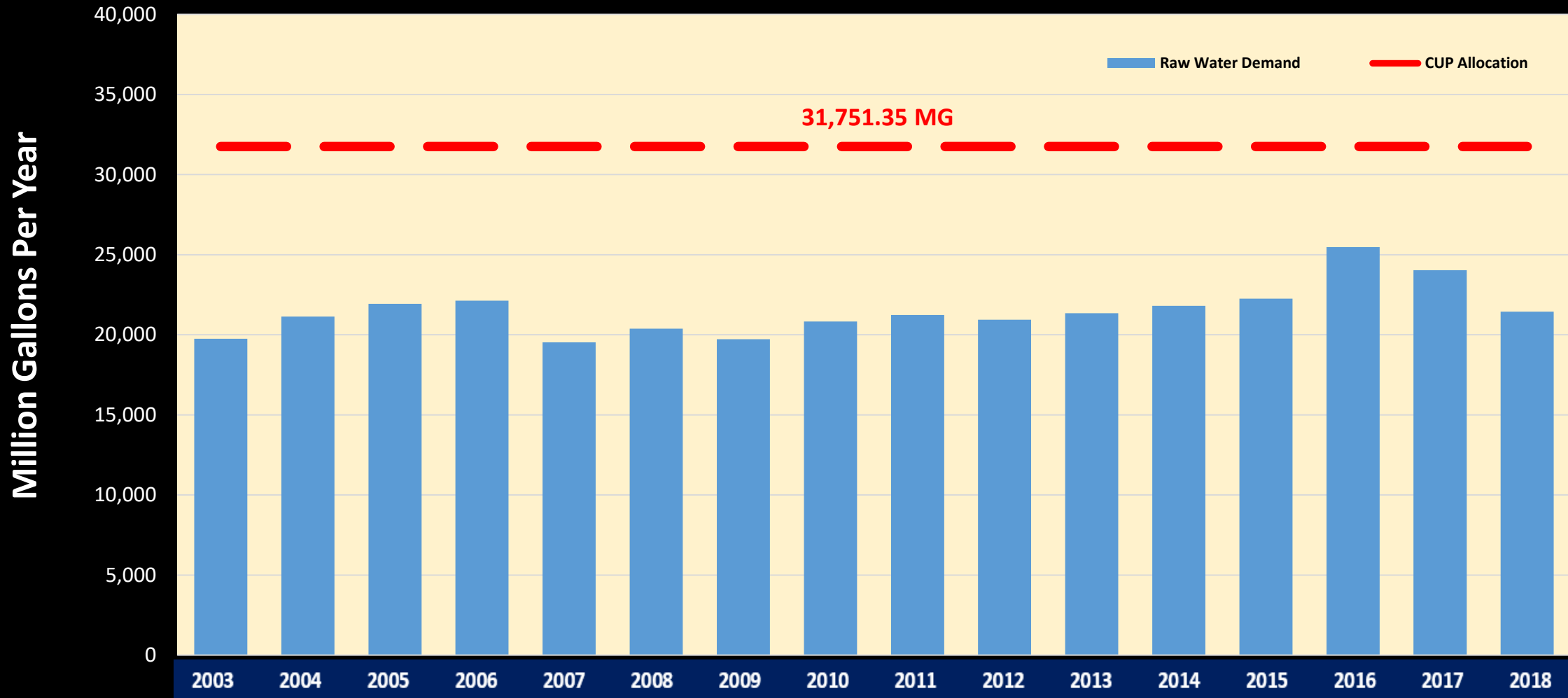
2003 CUP Projected Water Use Demand

Table G (March 13, 2003)

YEAR	POPULATION	PER CAPITA GPCPD	TOTAL ANNUAL MG	AVERAGE DAY MGD	MAXIMUM DAY MGD
2002	368,013	143	19,177	52.54	78.28
2003	377,462	146	20,049	54.93	81.85
2004	386,870	146	20,550	56.30	83.89
2005	396,227	146	21,046	57.66	85.91
2006	405,475	146	21,535	59.00	87.91
2007	414,653	146	22,024	60.34	89.91
2008	423,763	146	22,568	61.66	91.87
2009	432,795	146	22,988	62.98	93.84
2010	441,737	146	23,510	64.41	95.97
2011	450,512	146	23,977	65.69	97.88
2012	459,287	146	24,511	66.97	99.79
2013	468,062	146	24,911	68.25	101.69
2014	476,836	146	25,378	69.53	103.60
2015	485,611	149	26,484	72.56	108.11
2016	495,756	149	27,113	74.08	110.38
2017	505,901	149	27,590	75.59	112.63
2018	516,045	149	28,145	77.11	114.89
2019	526,190	149	28,696	78.62	117.14
2020	536,335	153	30,005	81.98	122.15
2021	547,061	153	30,521	83.62	124.59
2022	558,003	153	31,131	85.29	127.08
2023	569,163	153	31,751	86.99	129.62
2024	580,546	153	32,475	88.73	132.21

CUP Allocation vs. Actual Demand/Withdraw

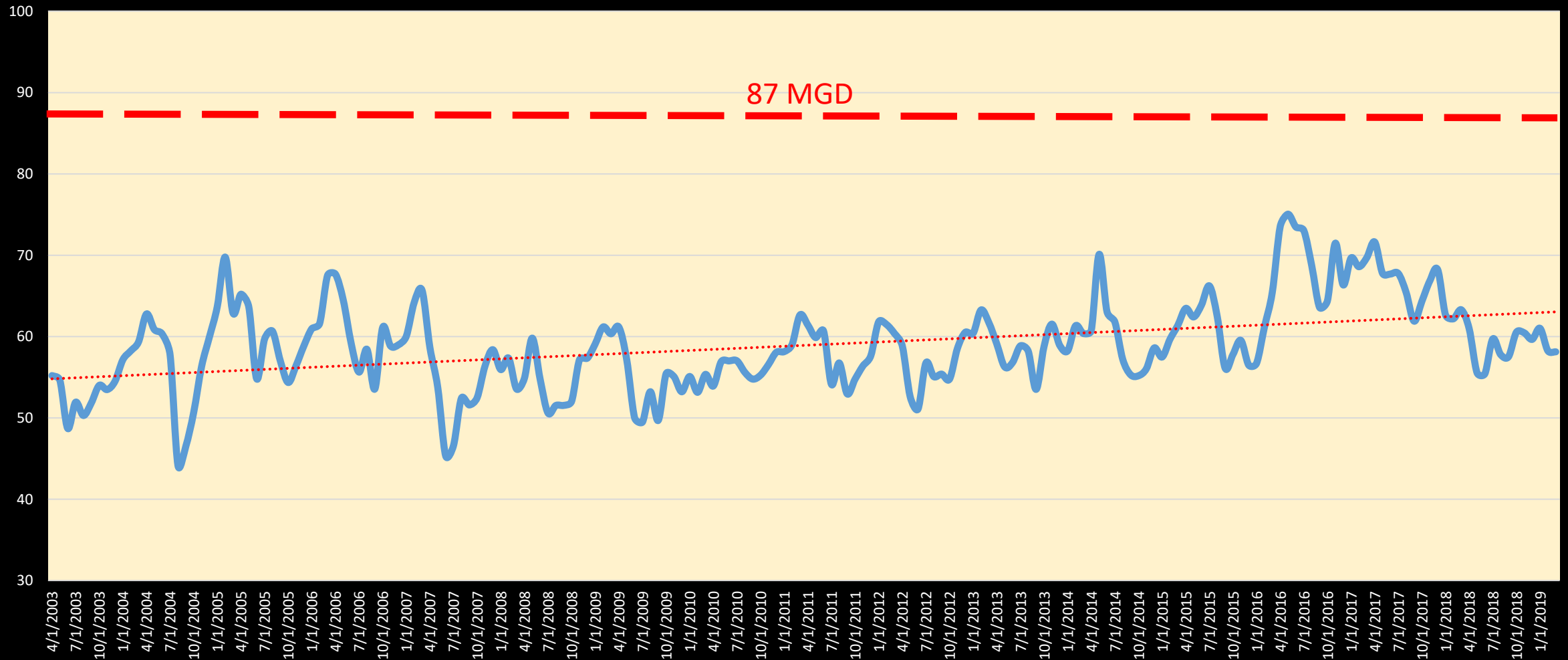
Annual Allocation



Annual allocation shall not exceed **31,751.35 MG**

CUP Allocation vs. Actual Demand/Withdraw

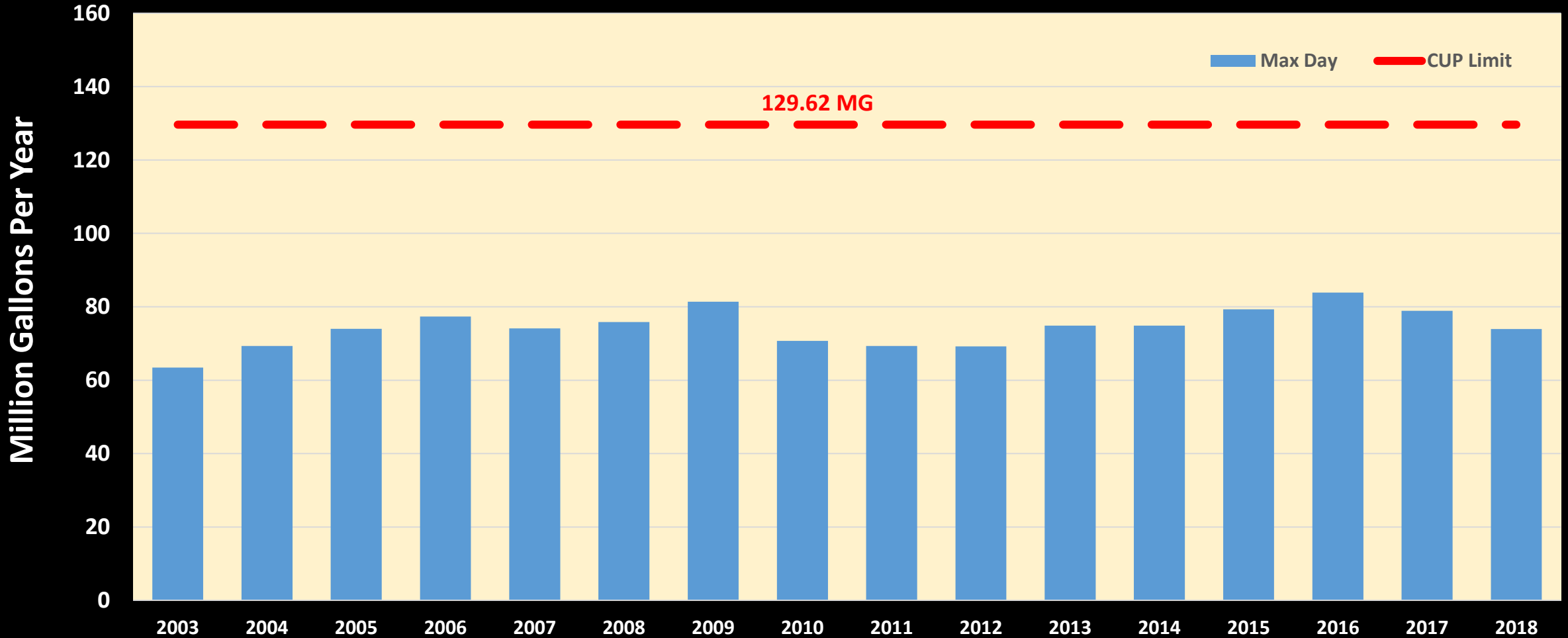
Daily Allocation



Average Daily Allocation = 87 MGD

CUP Allocation vs. Actual Demand/Withdraw

Max Day



Maximum daily allocation shall not exceed **129.62 MG**

Emergency Interconnect

WUD can provide up to 20 MGD water to eight (8) neighboring municipalities during emergency events:

- Boca Raton
- Broward County
- Delray Beach
- Lake Worth
- Northern Springs Improvement District
- Palm Springs
- Parkland
- West Palm Beach

Bulk Users

WUD provides approximately 2.4 million gallons per day of water to six municipalities with future commitment of over 12 MGD

Municipalities	Contract Allocation GPD	MAX Contract purchase option GPD
Atlantis	750,000	1,000,000
Boynton Beach	1,000,000	No limit
Lake Clark Shores	800,000	No limit
North Springs Improvement Dist.	15,000	No limit
Seacoast Utilities	660,000	5,000,000
Westlake (SID)	100,000	5,000,000

Major Factors Reducing GPCPD Water Demand

Implemented state-of-the art treatment techniques/process to nearly eliminate water flushing and improve water quality.

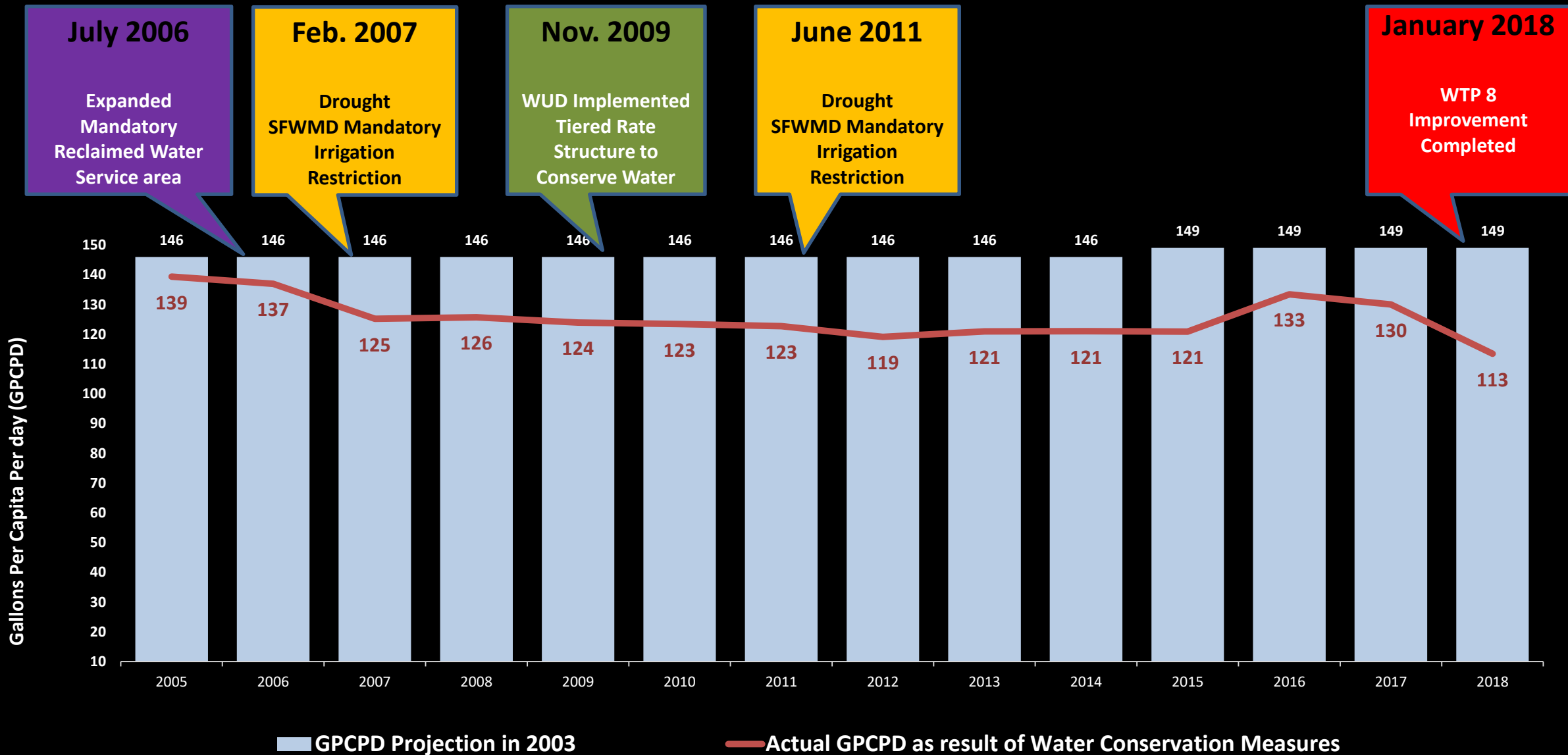
Tiered Rate Structure to encourage efficient use of water

Indoor Water Conservation Program/Education

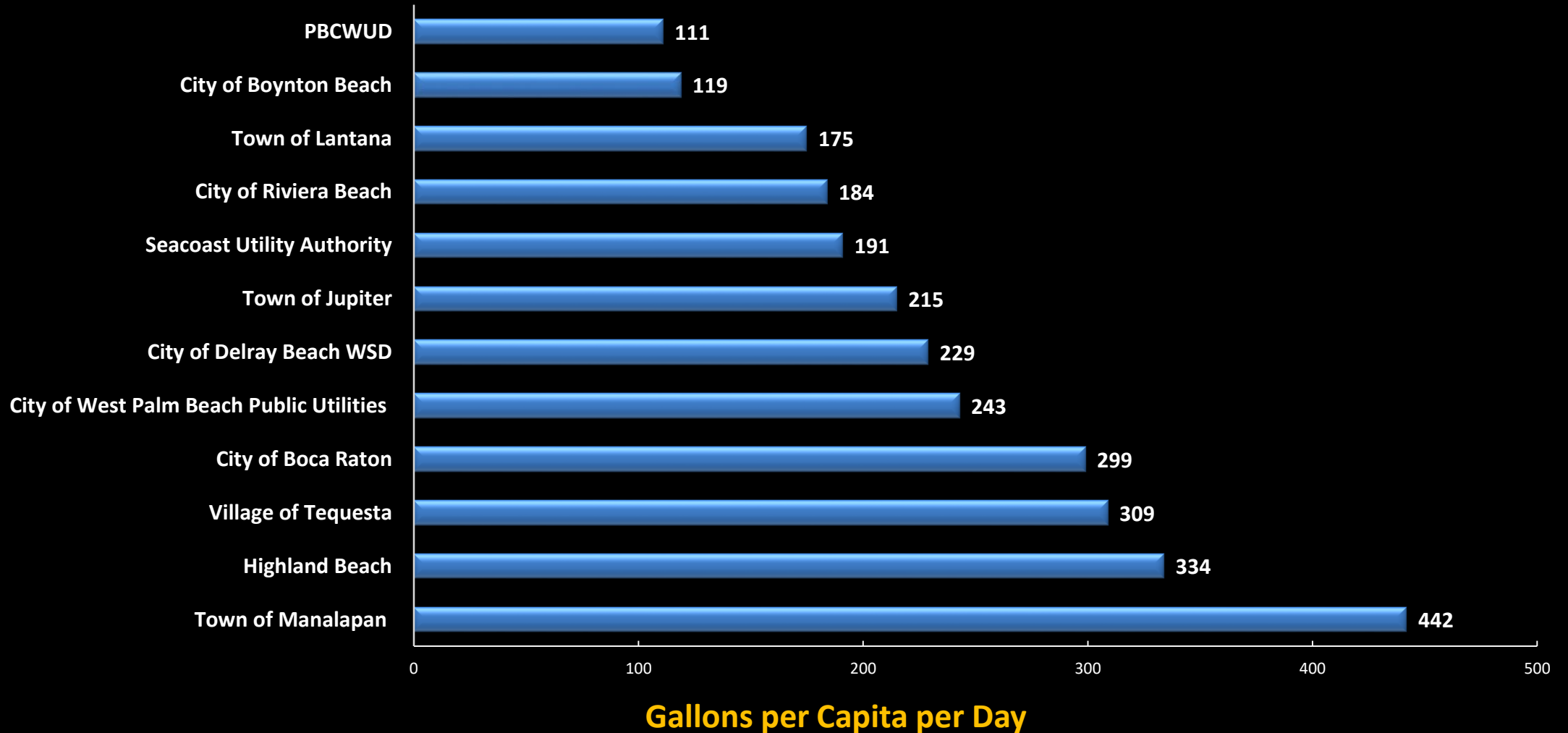
Outdoor Water Use Conservation by implementing an aggressive reclaimed water program.

Reduced distribution system water loss due to leaks and unaccounted water.

Major Factors Reducing GPCPD Water Demand



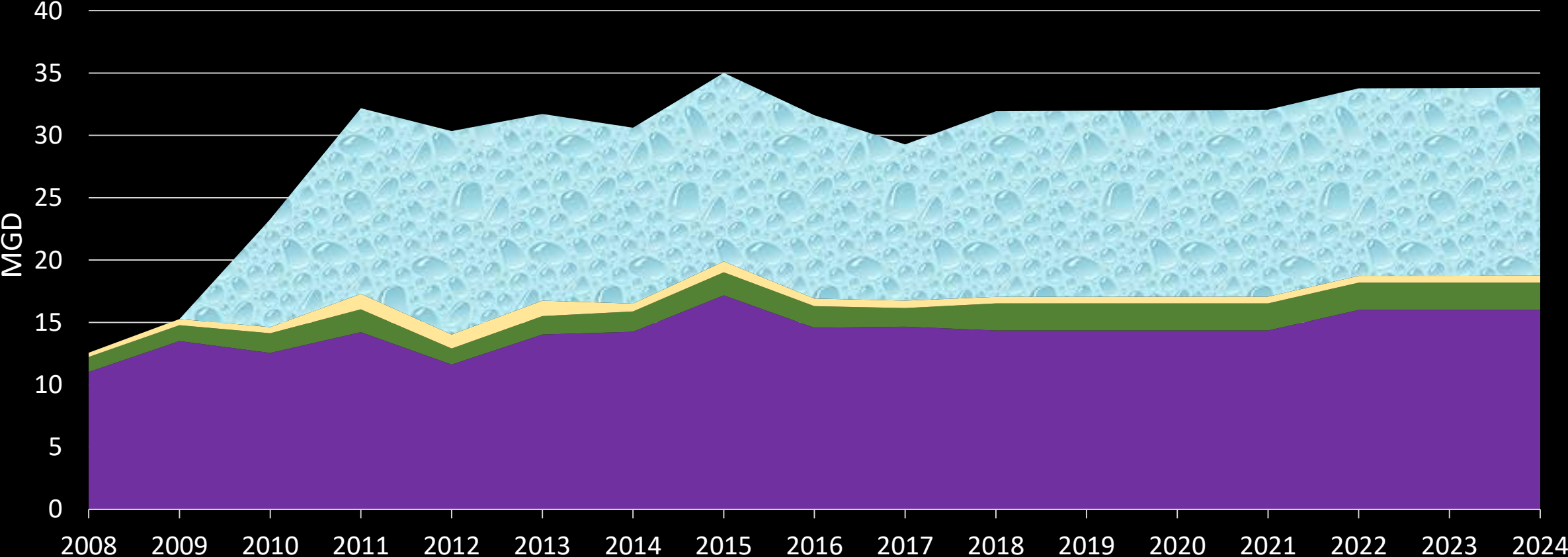
Average Water Per Capita Use Rates – PBC 2012-2016



Source: South Florida Water Management District
2016 Lower East Cost Water Supply Plan

PBCWUD Alternative Water Supply

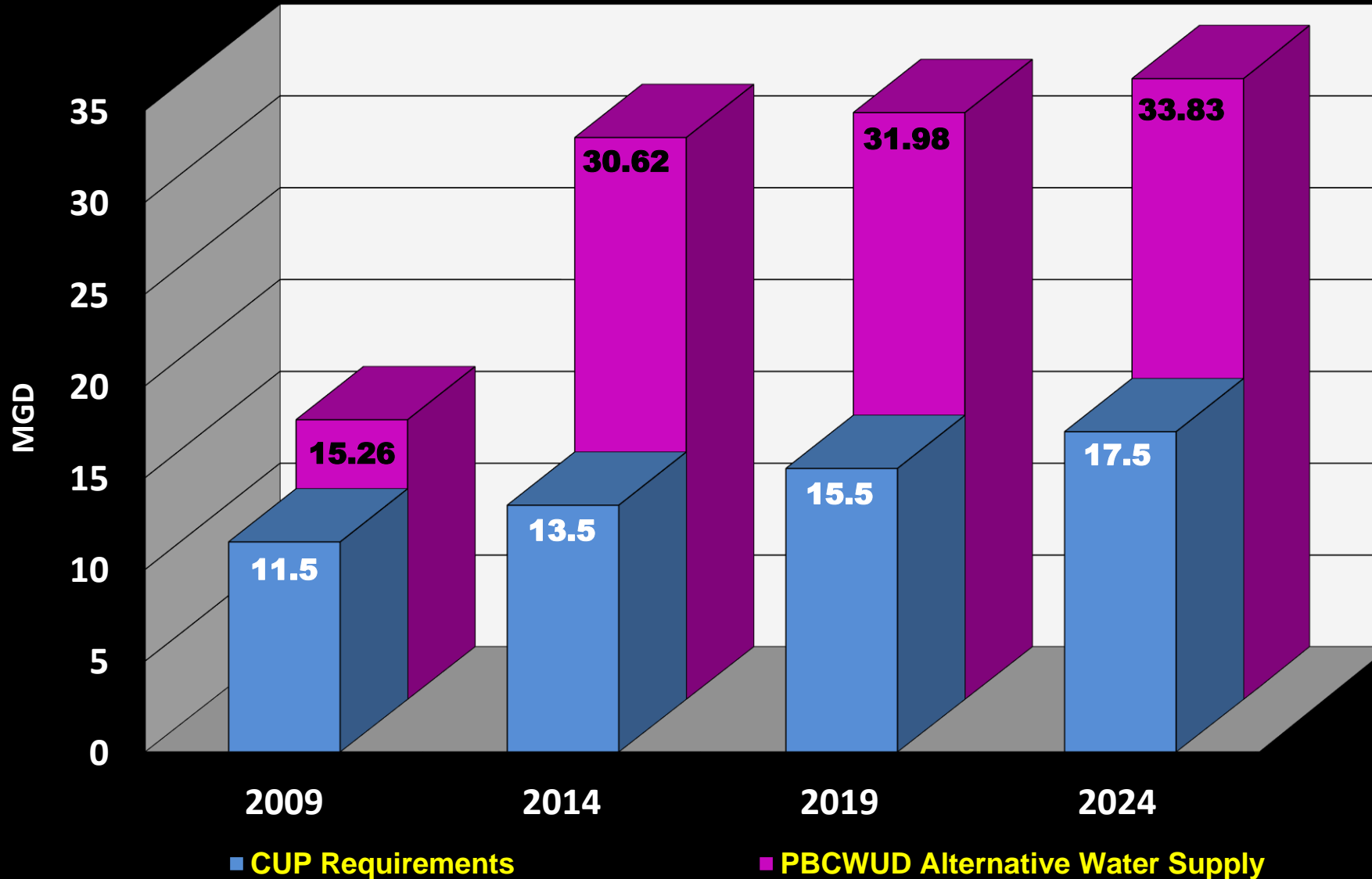
SRWRF Wetlands CRWRF FPL/ECR



Over 110 Billion Gallons of Alternative Water Supply from 2008-2018

SFWMD 20-Year Water Use Permit

Alternate Water Supply Requirements



2009 - 11.50 MGD
2014 - 13.50 MGD
2019 - 15.50 MGD
2024 - 17.50 MGD

CUP Deliverables

- **Quarterly**
 - **Limiting Condition 30:** Water level monitoring program – reports water levels from monitoring wells at wellfields 2, 3, 8 & 9
- **Annual**
 - **Limiting Condition 20:** Water Loss Report – accounts for water use, accounted and unaccounted losses in the distribution system
 - **Limiting Condition 41:** Reuse Update Report – provides reclaimed water amounts produced and uncommitted, pipeline information, list of reclaimed water users
- **Every 5 Years**
 - **Limiting Condition 17:** Calibration Reports for flow meters
 - **Limiting Condition 34:** 5 Year Compliance Report – per capita numbers, reclaimed water numbers to comply with exhibits 9 and 10 (submitted in 2013, 2018)
- **Every 10 Years**
 - **Limiting Condition 24:** 10 Year Compliance Report; includes updated population and per capita data, updated well inventory/facilities list, water conservation efforts (submitted in 2018)

2023 CUP Renewal Submittals

• Raw Water Demand

- Residential and other metered uses, treatment and distribution losses, Large Users Agreements
- Number, type & size of each withdraw source (wells)
- Per Capita Daily Water Use, Maximum Monthly Peaking Ratio
- Past pumpage records and projected population estimates

• Water Conservation Requirement

- Water Conservation Public Education Plan
- Outdoor Water Use Conservation Program
- The Selection of Rate Structure to efficient use of water
- Water loss reduction program
- Indoor Water Conservation Program

• Water Resource Evaluations

- Data Collection, Monitoring, Evaluation and Modeling
- Basic Impact Assessment
- Calibrate Numeric Simulation Models



CUP Renewal Supporting Documentations

- Regional Reclaimed Water Master Plan (Brown & Caldwell) July 2019
- Raw Water Master Plan (Tetratech) June-2020
 - Modeling of all wellfields
- Reclaimed Water Feasibility Study (Tetratech) June-2020



CUP Renewal Timeline



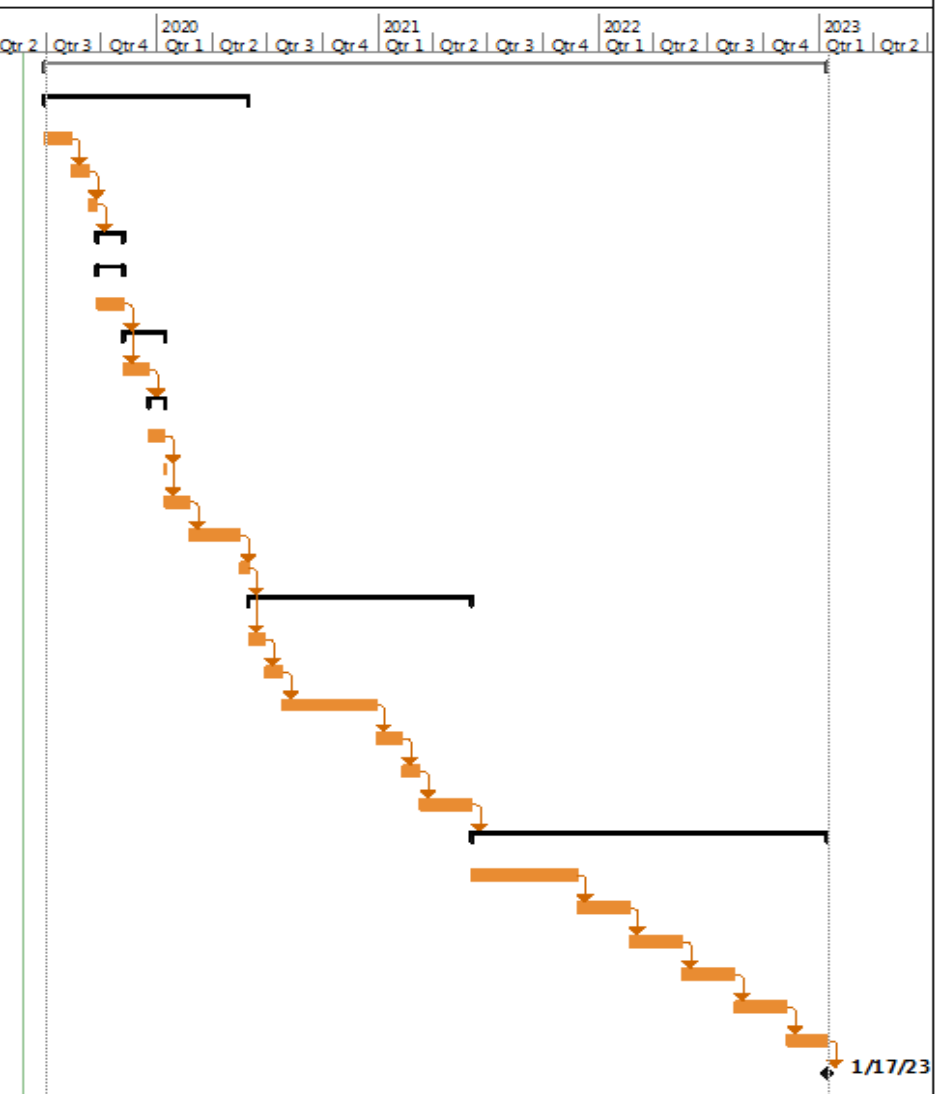
- Issue NTP to Engineers for Permit Application **July 2020**
- Submit Draft Permit Application to SFWMD **August 2021**
- Obtain CUP **February 2023**

CUP Renewal Process Timeline



PBCWUD 2023 Consumptive Use Permit Application Process

ID	Task Name	Duration	Start	Finish	2020	2021	2022	2023								
					Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	
0	SFWMD CUP 2023	1343 days	Mon 7/1/19	Tue 1/17/23												
1	Water Resources Engineering Selection Process	349 days	Mon 7/1/19	Mon 6/1/20												
2	Develop New CCNA proposal per new EBO	45 days	Mon 7/1/19	Tue 8/13/19												
3	Goal Setting Committee	30 days	Tue 8/13/19	Wed 9/11/19												
4	Goal Setting Committee Meeting	14 days	Wed 9/11/19	Tue 9/24/19												
5	Advertise (Request For Qualifications)	46 days	Wed 9/25/19	Fri 11/8/19												
6	Assign New WUD Project Manager	46 days	Wed 9/25/19	Fri 11/8/19												
7	Proposal Preparation	46 days	Wed 9/25/19	Fri 11/8/19												
8	Receive Proposals	71 days	Fri 11/8/19	Wed 1/15/20												
9	Proposal Review and Short List	43 days	Fri 11/8/19	Thu 12/19/19												
10	Short List Committee	28 days	Fri 12/20/19	Wed 1/15/20												
11	Selection Committee & Presentations	28 days	Fri 12/20/19	Wed 1/15/20												
12	Selection Committee Meeting	1 day	Thu 1/16/20	Thu 1/16/20												
13	Contract Negotiations	42 days	Thu 1/16/20	Tue 2/25/20												
14	BCC Agenda	87 days	Tue 2/25/20	Tue 5/19/20												
15	BCC Meeting	14 days	Tue 5/19/20	Mon 6/1/20												
16	SFWMD CUP Application Process	384 days	Tue 6/2/20	Mon 6/7/21												
17	Issue NTP to Water Resources Engineer	29 days	Tue 6/2/20	Mon 6/29/20												
18	Pre data gathering coordination meeting	30 days	Tue 6/30/20	Tue 7/28/20												
19	Comprehensive Data review	160 days	Wed 7/29/20	Wed 12/30/20												
20	Issue Draft Pre Application Report	45 days	Wed 12/30/20	Thu 2/11/21												
21	CUP Pre-application meeting with SFWMD staff	30 days	Fri 2/12/21	Fri 3/12/21												
22	Incorporate SFWMD comments into CUP Application	90 days	Sat 3/13/21	Mon 6/7/21												
23	Prepare & submit Final CUP Application to SFWMD	610 days	Mon 6/7/21	Tue 1/17/23												
24	SFWMD staff review of CUP Application	180 days	Mon 6/7/21	Sun 11/28/21												
25	1st Quarterly meeting with SFWMD	90 days	Sun 11/28/21	Wed 2/23/22												
26	2nd Quarterly meeting with SFWMD	90 days	Wed 2/23/22	Sat 5/21/22												
27	3rd Quarterly meeting with SFWMD	90 days	Sat 5/21/22	Tue 8/16/22												
28	4th Quarterly meeting with SFWMD	90 days	Tue 8/16/22	Fri 11/11/22												
29	SFWMD issue Draft Permit	70 days	Fri 11/11/22	Tue 1/17/23												
30	SFWMD Issue Final Permit	0 days	Tue 1/17/23	Tue 1/17/23												



Project: SFWMD CUP 2023
Date: Thu 5/23/19

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

Questions

