Water Conservation thru Turf and Irrigation Reduction Programs

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SUPPLY

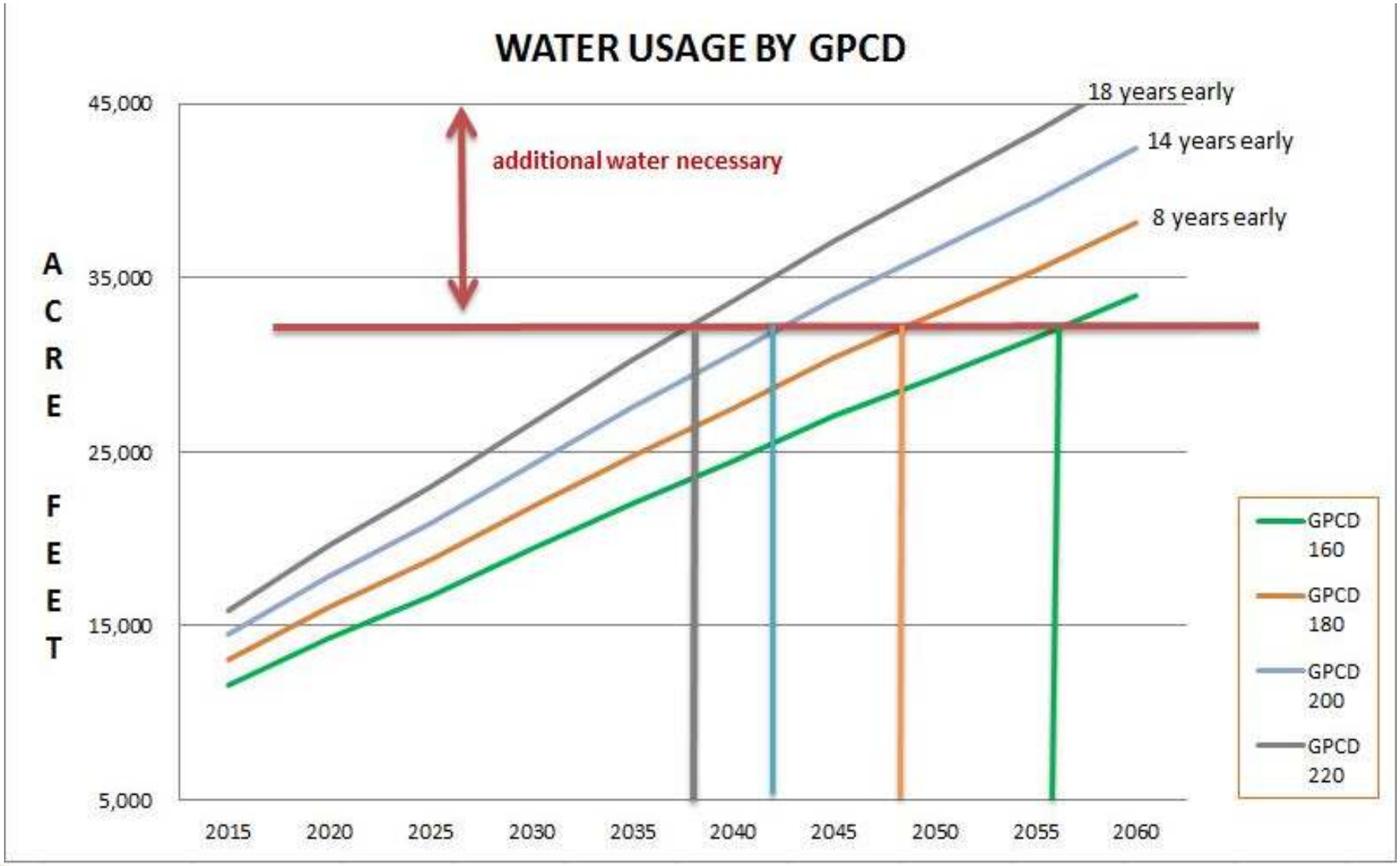
Current Supply is 32,148 acre-feet per year

	ACRE-FEET / YEAR	GALLONS / YEAR	GALLONS / DAY
LAKE GEORGETOWN	6,700	2,183,204,594	5,981,382
LAKE STILLHOUSE HOLLOW	15,448	5,033,752,922	13,791,104
ADDITIONAL BRA	10,000	3,258,514,320	8,927,436
TOTAL WATER RIGHTS	32,148	10,475,471,836	28,699,923

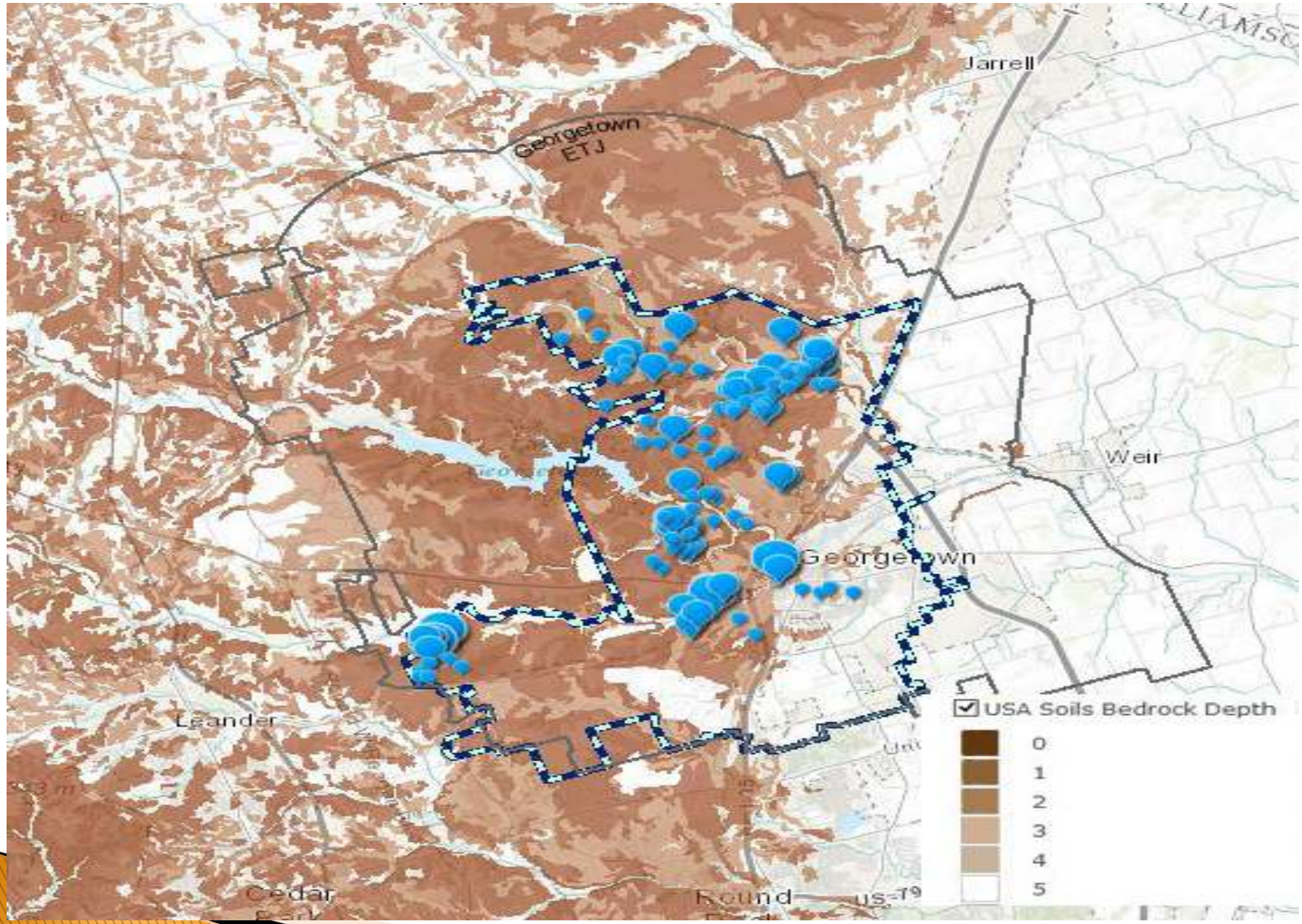
2013 Demand was 14,795 acre-feet

2014 Demand was 11,342 acre-feet

DRIVERS


WATER USAGE BY GPCD
45,000
35,000
25,000
15,000
5,000
ACRE FEET
additional water necessary
18 years early
14 years early
8 years early
2015
2020
2025
2030
2035
2040
2045
2050
2055
2060
GPCD 160
GPCD 180
GPCD 200
GPCD 220

GEOGRAPHY


Jarrell
Georgetown ETJ
Weir
Georgetown
Leander
Cedar
Round
USA Soils Bedrock Depth
0
1
2
3
4
5

LOT SIZES

	1/2" water	1" water	
water mnthly on ave lot (1/4 acre)	7,427	14,854	kgal
water mnthly on larger lot (1/3 acre)	9,804	19,607	kgal
water mnthly on even larger lot (1/2 acre)	17,555	35,109	kgal
water mnthly on an estate lot (1 acre)	35,109	70,219	kgal

Lot size based on 1/4 acre	irrigable area based on 55%	1/2 inch of water	requirements based on 4 wks
43,560.00	10,890.00	5,989.50	1,856.75
0.25	0.55	0.31	4.00
10,890.00	5,989.50	1,856.75	7,426.98
		1" water	
		0.62	4.00
		3,713.49	14,853.96

A qrtr acre lot with 55% irrigable area

NEW LANDSCAPING

New Residential Construction

- Landscaped areas must have a minimum soil depth of 6 inches
- Builders must submit a landscape design plan for approval
- Landscape inspections required
- Plants must be from City's Preferred Plant List
- Turf must be a warm weather variety with summer dormancy capabilities

NEW IRRIGATION

New Installation Requirements

- Must be a zonal irrigation system
- Must include an operational rain sensor and moisture sensor
- Can only irrigate 2.5 x foundation footprint with spray or rotor irrigation heads (10,000 ft^2 max)
- Installation must include programming to the City's required irrigation settings and written instructions

EXISTING LANDSCAPING

Incentive / Rebate Programs

- Convert turf to planting beds AND change irrigation system heads to drip or bubblers
- Convert irrigable area to permeable hardscape AND cap off of the corresponding irrigation zones
- Must use plants from the approved plant list
- Minimum of 100 square feet converted at a time

EXISTING IRRIGATION

Incentive / Rebate Programs

- **Conversion of a spray or rotor irrigation zone to drip or bubblers**
- **Cap Off an entire zone**
- **Must use plants on the authorized plant list**
- **Annual Irrigation Tune up**
- **Standard 3-day irrigation schedule**

SYNOPSIS

LANDSCAPE & IRRIGATION REQUIREMENTS Effective 6/1/2014	PURPOSE	UNIT	WATER SAVINGS	BLDR COST	CUSTOMER SAVINGS
RESTRICTED IRRIGABLE AREA: No more than an area equal to 2.5 x the foundation footprint can be planted in turf (with a max turf area of 10,000 ft^2) 1 ACRE B = assumes 7,500 left natural	Reduces the amount of turf to be irrigated, which is the primary cause of increased or excessive irrigation. Although replacing large areas of turf with alternate plantings can increase the cost of a home, the water savings it facilitates, covers the additional cost.	1/4 ACRE 1/2 ACRE 1 ACRE A 1 ACRE B	34 GPCD 106 GPCD 250 GPCD 136 GPCD	$ 1,187 $ 3,699 $ 8,723 $ 4,747	$ 6.66 / mo $20.77 / mo $49.98 / mo $26.66 / mo
REQUIRED PLANT LIST: Plant choice for installed landscaping shall be native or adaptive species that are selected from the City's Preferred Plant List found in the UDC.	Native and adaptive plants require less water to survive and are more tolerant of our hot and dry climate, as well as, resistant to local pests and diseases.	100 ft^2 Beds 2,627k Beds	1 Acre Foot $65	same	$ 0.30 / water
LAWNS AND TURF GRASSES. Any lawn or turf grass located within an irrigable area shall be fully sodded or seeded in a warm weather grass variety that has summer dormancy capabilities.	Grasses with summer dormancy use less water while in their dormant state, which is triggered by excessive water deficiency, as is characteristic of our local summer climate. The following numbers apply if the lawn is allowed to go dormant.	1/4 ACRE 1/2 ACRE 1 ACRE A 1 ACRE B	25 GPCD 50 GPCD 100 GPCD 69 GPCD	same	$ 59.73 / 4-mo $ 119.48 /4-mo $ 238.96 / 4-mo $ 164.15 / 4-mo
RESTRICTED SPRAY IRRIGATION: Spray and rotor irrigation systems can irrigate an area equal to 2.5 x the foundation's footprint, up to a maximum area of 10,000 ft^2.	Restricts the area of a lot that can be irrigated with less efficient equipment, but does not restrict the plants. The area can be supplemented with more efficient equipment, such as drip or bubblers or with manual irrigation.	1/4 ACRE 1/2 ACRE 1 ACRE A 1 ACRE B	34 GPCD 106 GPCD 250 GPCD 136 GPCD	$ 1,187 $ 3,699 $ 8,722 $ 4,747	$ 6.66 / mo $20.77 / mo $48.98 / mo $26.66 / mo
RAIN AND MOISTURE SENSORS: All automatic irrigation systems that are installed shall include an operational rain sensor and soil moisture sensor. These may be part of the original irrigation system or stand-alone products that are integrated with the irrigation system at the time of installation.	Ensures the installation of equipment that controls the irrigation system to restrict watering during rain events or when soil still retains moisture for the plants use. Once set, the sensors do not require any action on the part of the customer.	Rainfall 1.94" 1/4 ACRE 1/2 ACRE 1 ACRE	3.7 GPCD 8.7 GPCD 17.4 GPCD	NA	$ 8.88 $ 20.88 $ 41.76

REBATES

Program	Units	Rebate	Available	Program Cost	Average Unit	Estimated Participation
Turf Replacement	100 ft^2	$40.00	1,600 units	$ 64,000	4,0000 ft^2	40
Irrigation System Upgrade	Zone	$75.00	240 units	$ 18,000	3 zones	80
Cap Off Zones	Zone	$100.00	240 units	$ 24,000	3 zones	80
Annual Irrigation Checkup	Each	$50.00	1,000 units	$ 50,000	1 annually	1,000
Rain Barrels	Each	$15.00	500 units	$ 7,500	1 annually	500
WATER CONSERVATION PLAN INCENTIVE PROGRAMS				**$ 163,500**		

Please hold QUESTIONS until the end…