



City of Garden Ridge

9400 Municipal Parkway
Garden Ridge, Texas 78266-2600
(210) 651-6632
Fax (210) 651-9638

AGENDA REGULAR CITY WATER COMMISSION MEETING

Tuesday, September 23, 2014 at 6:00 P.M.

The Garden Ridge City Water Commission will meet in a regular session on Tuesday, September 23, 2014 at 6:00 p.m. in the City Council Chambers, City Hall, 9400 Municipal Parkway, Garden Ridge, Texas. This meeting is open meeting, open to the public, subject to the Open Meetings Law of the State of Texas, and as required by law, notice is hereby posted on Friday, September 19, 2014 before 5:00 p.m., providing time, place, date and agenda thereof. The meeting facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodations or interpretive services must be made 48 hours in advance of this meeting.

1. Call to Order
2. Roll Call
3. Citizen's Participation – 3 minute limit per citizen

Rules for Citizen's Participation:

The Water Commission welcomes citizen participation and comments at all of their Commission Meetings. As a courtesy to your fellow citizens and out of respect to our appointed officials, we must request that if you wish to speak, that you please follow these guidelines.

- a. Direct your comments to the entire Commission, not to an individual member, nor to the audience.
- b. Show the Water Commission the same respect and courtesy that you would like to be shown.
- c. Limit remarks to three (3) minutes per citizen during Item 3.
- d. Citizen comments may be deferred to a specific Business Item set forth in Section 5, below, if such comments pertain to such Business Item.

*NOTE: The Texas Open Meetings Act permits a member of the public or a member of the governmental body to raise a subject that has not been included in the notice for the meeting. However, any discussion of the subject **must be limited** to a proposal to place the subject on the agenda for a future meeting and any response to a question posed to the Commission is limited to either a statement of specific factual information or a recitation of existing policy. TEX. GOV'T CODE § 551.042.*

4. Approval of Minutes
 - a. August 26, 2014 Regular Water Commission Meeting
5. Business Items

The City Water Commission may discuss, consider and/or take possible action on recommendation to the City Council on the following:

- a. The Water Commission will conduct a Public Hearing to receive citizen input into proposed amendments to Ordinance 159 establishing landscape and irrigation system requirements for residential and commercial properties in the City of Garden Ridge for the purpose of water conservation; providing for variances and providing a penalty for violation of said ordinance
 - b. Proposed amendments to Ordinance 159 establishing landscape and irrigation system requirements for residential and commercial properties in the City of Garden Ridge for the purpose of water conservation; providing for variances and providing a penalty for violation of said ordinance
 - c. Discussion on possible amendments to Ordinance 54-012014, Section 35, Rebate Programs and Water Conservation Incentives, for the inclusion of Residential Irrigation Design Rebate, Swimming Pool Filter Replacement Rebate and WaterSaver Patioscape Rebate
 - d. Update on City Council action concerning Water Study Group recommendations
 - e. Update on proposed legislative efforts for the creation of a Groundwater Conservation District for the Trinity Aquifer in Comal County
 - f. Update on Comprehensive Water Plan assignments/projects
 - g. Water Conservation Public Awareness Program for the City of Garden Ridge to include participation in National Night Out
6. Update on actions taken by the City Council in previous City Council Meetings
 7. Water Manager Monthly Activity Report
 - a) Water pumping/usage from city wells
 - b) Water system infrastructure maintenance, repairs and/or projects
 - c) Static levels, drawdown levels and flow rates on the Trinity Well
 - d) Water and/or Drought Management
 8. Adjourn

AGENDA NOTICES:

Decorum Required:

Any disruptive behavior, including shouting or derogatory statements or comments may be ruled out of order by the Presiding Officer. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

Action by Commission Authorized:

The Commission may vote and/or act upon any item within this Agenda. The Commission reserves the right to retire into executive session concerning any of the items listed on this Agenda, pursuant to and in accordance with Texas Government Code Section 551.071, to seek the advice of its attorney about pending or contemplated litigation, settlement offer or on a matter in which the duty of the

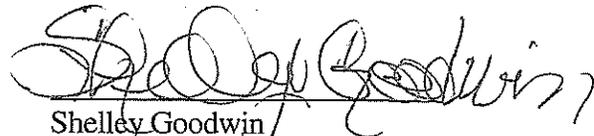
attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas conflict with the Open Meetings Act and may invoke this right where the City Attorney, the Mayor or a majority of the Governing Body deems an executive session is necessary to allow privileged consultation between the City Attorney and the governing body, if considered necessary and legally justified under the Open Meetings Act. The City Attorney may appear in person, or appear in executive session by conference call in accordance with applicable state law.

Executive Sessions Authorized:

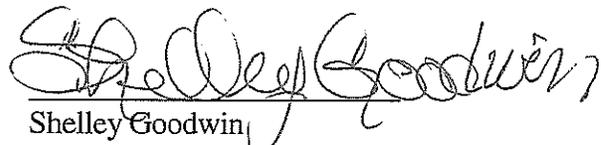
This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Executive Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.

Attendance By Other Elected or Appointed Officials:

It is anticipated that members of other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.


Shelley Goodwin
City Secretary

This is to certify that I, Shelley Goodwin, posted this Agenda at 4:00p.m. on September 18, 2014 on the bulletin board located at the entrance to the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas.


Shelley Goodwin
City Secretary



City of Garden Ridge

9400 Municipal Parkway
Garden Ridge, Texas 78266-2600
(210) 651-6632
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MINUTES OF CITY WATER COMMISSION REGULAR MEETING August 26, 2014

Members Present:

Chairman Jim Bower
Commissioner David Heier
Commissioner Jim Kohl
Commissioner Pat Ramirez
Commissioner Ray Pitzen
Mayor Pro Tem Knaus

Member Absent:

Commissioner Richard Holloway

City Staff Present:

Nancy Cain, City Administrator
Bryan Lantzy, Councilmember
Royce Goddard, Water Department Manager
Deirdre Gentry, Administrative Assistant
Shelley Goodwin, City Secretary

1. Call to Order

With a quorum of the City Water Commissioner present, Chairman Bower called the regular meeting of the Garden Ridge City Water Commission to order at 6:00 p.m. on Tuesday, June 24, 2014, in the City Council Chambers of the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

2. Citizen's Participation – 3 minute limit per citizen

No one wished to speak.

3. Approval of Minutes

a) July 15, 2014 Regular Water Commission Meeting

Motion: A motion was made by Commissioner Heier and seconded by Commissioner Kohl to approve the minutes of July 15, 2014 Water Commission Meeting with correction. The motion passed unanimously.

4. Business Items

The City Water Commission may discuss, consider and/or take possible action on recommendation to the City Council on the following:

a. Update on Comprehensive Water Plan assignments/projects

The Commission and the City Administrator discussed the status of their assignments. Commissioner Kohl stated he will be out for the next few meetings, but would like to participate when he returns.

b. Water Conservation Public Awareness Program for the City of Garden Ridge to include participation in National Night Out

The Water Commission discussed the Water Commission display at the upcoming Fair/National Night Out activities.

c. Discussion on conducting a Public Hearing on September 23, 2014 to receive citizen input into proposed amendments to Ordinance 159 establishing landscape and irrigation system requirements for residential and commercial properties in the City of Garden Ridge for the purpose of water conservation; providing for variances and providing a penalty for violation of said ordinance

Nadine Knaus, Mayor Pro tem stated at the last City Council meeting they recommended the Water Commission hold a public hearing regarding the amendments to Ordinance 159. She stated the notice will be sent to the newspaper, posted on the website along with the proposed amendments, and a CTY message will be sent out.

d. Petition by Mr. and Mrs. James E. Young, 21329 Forest Waters Circle for a waiver of three fourths of their August 2014 water bill due to a malfunctioning toilet

Mrs. Young stated while they were gone on vacation they had a commode that ran the entire time. She provided the history of their water use for the past 23 years they have lived in Garden Ridge. She stated they have paid \$360.00, approximately 3/4 towards the bill, and ask for the remainder to be waived due to unusual circumstances.

The Water Commission discussed the normal process for leak adjustments.

Motion: A motion was made by Commissioner Heier and seconded by Commissioner Pitzen to recommend to the City Council approval to treat like a leak adjustment and allow for 50% adjustment. The motion passed unanimously.

e. Petition by the City of Garden Ridge for a variance to be allowed to water a city drainage easement through property owned by Carmen Morales located at 20325 Grass Creek to reestablish lawn/landscape disturbed by the CIP Project and variance being requested for a period of 60 days

Nancy Cain, City Administrator stated the Capital Improvement Project requires the City to obtain a drainage easement through property owned by Carmen Morales for the installation of drainage culverts and grading of a drainage channel. She stated during the negotiations with Ms. Morales the City agreed to reestablish her lawn that was disturbed. She also stated the City is requesting a variance to water newly laid sod and other landscape that has to be replaced. This variance would be for 60 days upon the completion of the drainage project.

The Water Commission discussed the type of grass that would be used.

Motion: A motion was made by Commissioner Ramirez and seconded by Commissioner Heier to recommend the City Council approval of the variance request for the City to water city

drainage easement through property owned by Carmen Morales. The motion passed unanimously.

f. Presentation by Shelby Trial on drip irrigation

Shelby Trial stated he has a table set up in the back to show drip irrigation. He stated he would also like to do a hands on presentation at National Night Out.

The Water Commission agreed by consensus to allow Shelby Trial to have a table as part of the Water Commission display at the National Night Out.

g. Discussion on possible amendments to Ordinance 54-012014, Section 35, Rebate Programs and Water Conservation Incentives, for the inclusion of Residential Irrigation Design Rebate, Swimming Pool Filter Replacement Rebate and WaterSaver Patioscape Rebate

The Water Commission reviewed the Ordinance and discussed rebates, inspectors and licenses.

Motion: A motion was made by Commissioner Heier and seconded by Commissioner Pitzen to the study and to work on the wording on the landscape section. The motion passed unanimously.

h. Lease of three acre feet of Edwards Water Rights from Lloyd Lohman at \$138.50 per acre foot for a term of three years

Nancy Cain, City Administrator stated she was contacted by Lloyd Lohman regarding leasing 3 acre feet of Edward's water rights that he has available. She stated he would lease water rights at \$138.50 per acre foot annually for a lease term of three years.

Robert Balch, Water Committee stated he would recommend leasing and then try to purchase the water rights in the future.

Motion: A motion was made by Commissioner Kohl and seconded by Commissioner Heier to recommend to City Council the approval of 3 acre feet of Edwards Water Rights from Lloyd Lohman at \$138.50 per acre foot annually for a lease term of three years. The motion passed unanimously.

i. Reappointment/Appointment of City Water Commissioners for Place 1, Place 3 and Place 4 due to expiring terms of office on September 30, 2014

Commissioner Kohl, Ramirez and Pitzen all stated they were interested in serving another term.

Motion: A motion was made by Commissioner Heier and seconded by Chairman Bower to recommend to City Council the approval of reappointment of City Water Commissioners Jim Kohl, Place 1, Pat Ramirez, Place 3, and Ray Pitzen, Place 4. The motion passed unanimously.

j. Water Search Committee report and recommendations

Robert Balch, Water Search Committee, provided the Water Commission with a PowerPoint (see attached) regarding objectives and potential sources of water.

The Water Commission discussed perforating the casing in the abandoned Trinity well to access the upper Trinity, acidize the perforations and test output of the abandoned well. They also discussed other conservation options.

Motion: A motion was made by Commissioner Pitzen and seconded by Commissioner Heier to recommend to City Council the perforation of the casing to access the upper Trinity, acidize the perforations and test output of the abandoned Trinity well. The motion passed unanimously.

5. Update on actions taken by the City Council in previous City Council Meetings

City Administrator Nancy Cain reported that at the August 6, 2014 City Council meeting the Council had no items from the Water Commission for consideration, so there were no actions on water related items.

6. Water Manager Monthly Activity Report

a) Water pumping/usage from city wells

Royce Goddard, Water Manager reviewed the monthly water pumping/usage from the city wells and discussed the water system operations (see attached report).

Royce Goddard, Water Manager reported 65.42 acre feet from the Edwards Aquifer and 32.28 acre ft. from the Trinity. He stated the average daily usage is 1,273,360 gallons.

b) Water system infrastructure maintenance, repairs and/or projects

Nothing to report at this time

c) Static levels, drawdown levels and flow rates on the Trinity Well

Water Manager Director Royce Goddard reported that the static level was at 173.7 feet.

d) Water and/or Drought Management

The City of Garden Ridge is still currently at Stage 3 Watering Restrictions

7. Adjourn

Motion to adjourn was made by Chairman Ramirez and seconded by Commissioner Heier. The motion passed unanimously and the meeting adjourned at 8:10 p.m.

Jim Bower, Chair

ATTEST:

Shelley Goodwin, TRMC
City Secretary

**SIGN IN TO SPEAK AT THE AUGUST 26, 2014
CITY WATER COMMISSION REGULAR MEETING**

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NAME

ADDRESS

SUBJECT

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Garden Ridge Water Search Committee

Report to Water Commission

August 26, 2014

Objectives

The Water Search Committee was tasked to:

1. Identify potential sources of additional water for the City of Garden Ridge
2. Estimate their initial and on-going costs, technical and legal risks, and time to complete
3. Emphasize finding additional source(s) before the current lease with the City of Schertz expires

27 Potential Sources Identified

These can be summarized in groups as follows:

- Extend the lease from the City of Schertz
- Buy additional Edwards water rights
- Purchase water from various entities
- Participate in a water pipeline project
- Drill new well(s)

Extend the Lease with Schertz

- The City of Schertz
 - Stated publicly that they will be needing additional water supplies in the next 5 years
 - Authorized an expensive expansion of their participation in the Schertz-Sequin LGC
- Conclusion:
 - Not a secure long-term solution
 - Might be available for a short period of time
 - Continue to monitor

Buy Additional Edwards Rights

- Need 400 – 500 acre feet (AF) actual water
- At stage 4 that would require 667 – 833 AF
- Current cost approximately \$12,000 acre-foot
Cost if available \$8.0 – 10.0 million
Probably not available at this cost
if at all
- Monitor prices; may want to purchase small quantities at “reasonable” prices

Purchase Water Locally

- Pipeline cost estimated at \$500,000 per mile not including right-of-ways or significant obstacles
- Pipeline costs alone make Rockwall Ranch, SAWS, quarries in New Braunfels, etc. very expensive
- Green Valley and City of Schertz unable to supply our requirements at the current time

Participate in Pipeline Project

- Cibolo Valley and SAWS Vista Ridge completion dates too distant
- Canyon Regional route and completion date too uncertain
- Various other options in discussions only
- Only apparent viable pipeline for Garden Ridge's short-term needs would be the new Schertz-Sequin proposal

Schertz-Sequin Contract Conditions

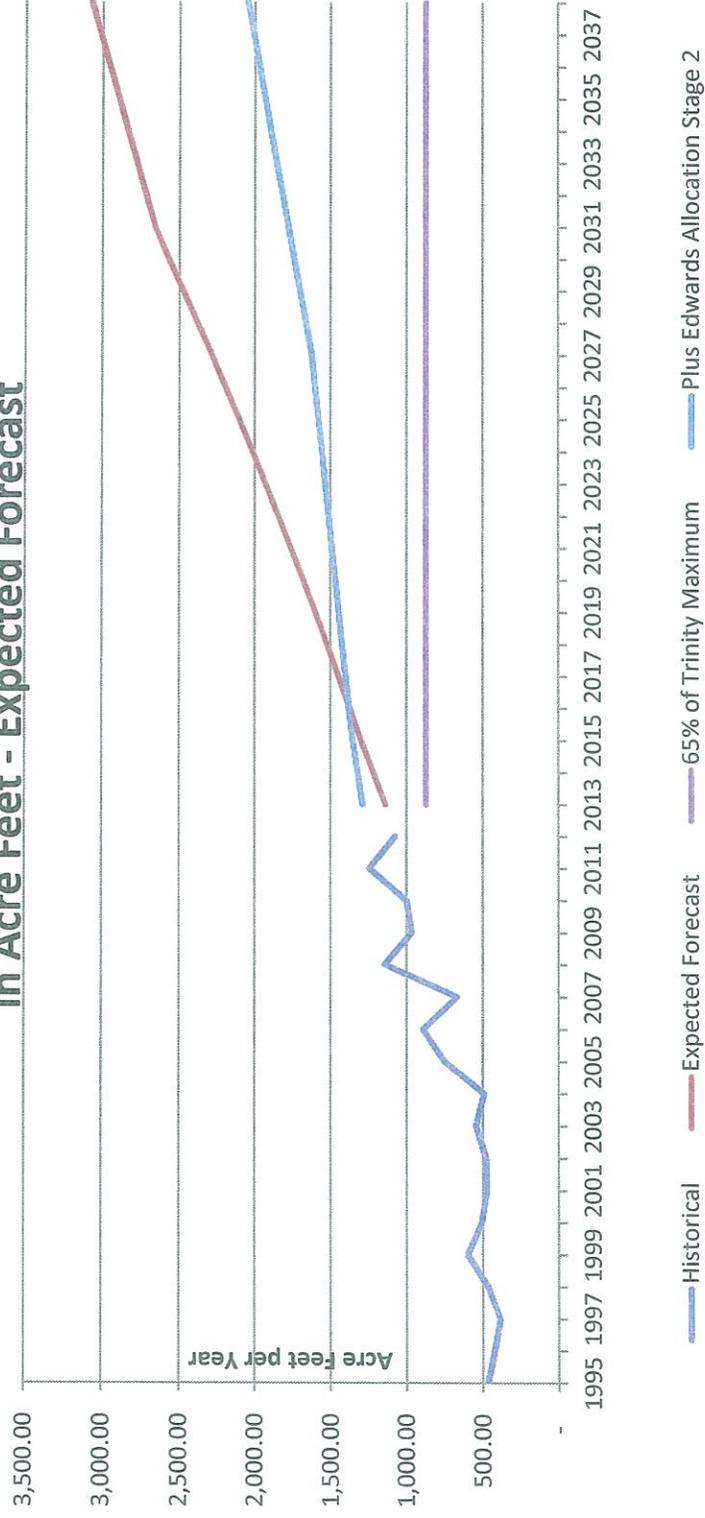
- Take or pay contract: 30 - 40 year term
- Cost based rates with uneven cost sharing
- Would require City of Schertz to “wheel”
water to FM 2252
 - Results in further volume controls (gallons per
minute ranges, etc.)
 - Adds operational complexities
- Water delivered equally per month / day

Not Only an Issue of
How Much Water
Garden Ridge Needs

But When does Garden Ridge
Need the Water?

Need Forecasted at 500 Acre Feet per Year

Historical and Projected Pumpage w/Capacity Overlay
in Acre Feet - Expected Forecast



Additional Water Needed

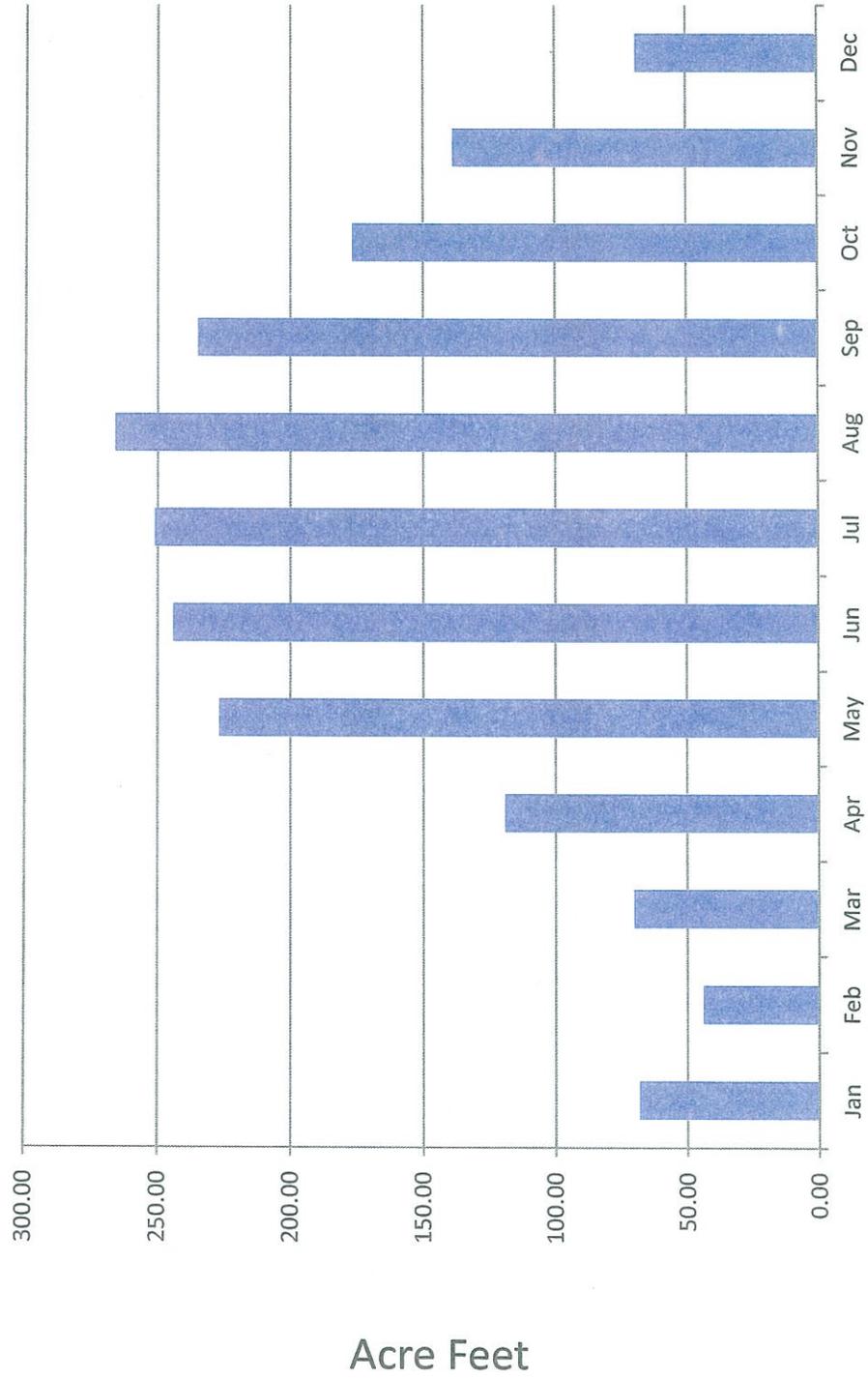
Limited Restrictions – Drought Conditions

- 400 - 500 acre feet additional water required
 - Last year’s forecast showed a shortage of 500 acre feet
 - The new SCADA capabilities and associated changes to operating parameters the Trinity may produce up to an additional 100 acre feet

Needed to Estimate Use per Day

- Projected daily 2018 water requirements
- Hot, drought conditions
- Continued trend of new housing units using more irrigation water than traditional areas
- Based usage on 2010 2011 historical date
 - Record pumpage
 - Drought conditions
 - Limited irrigation restrictions at those times

Projected Daily Use by Month 2018

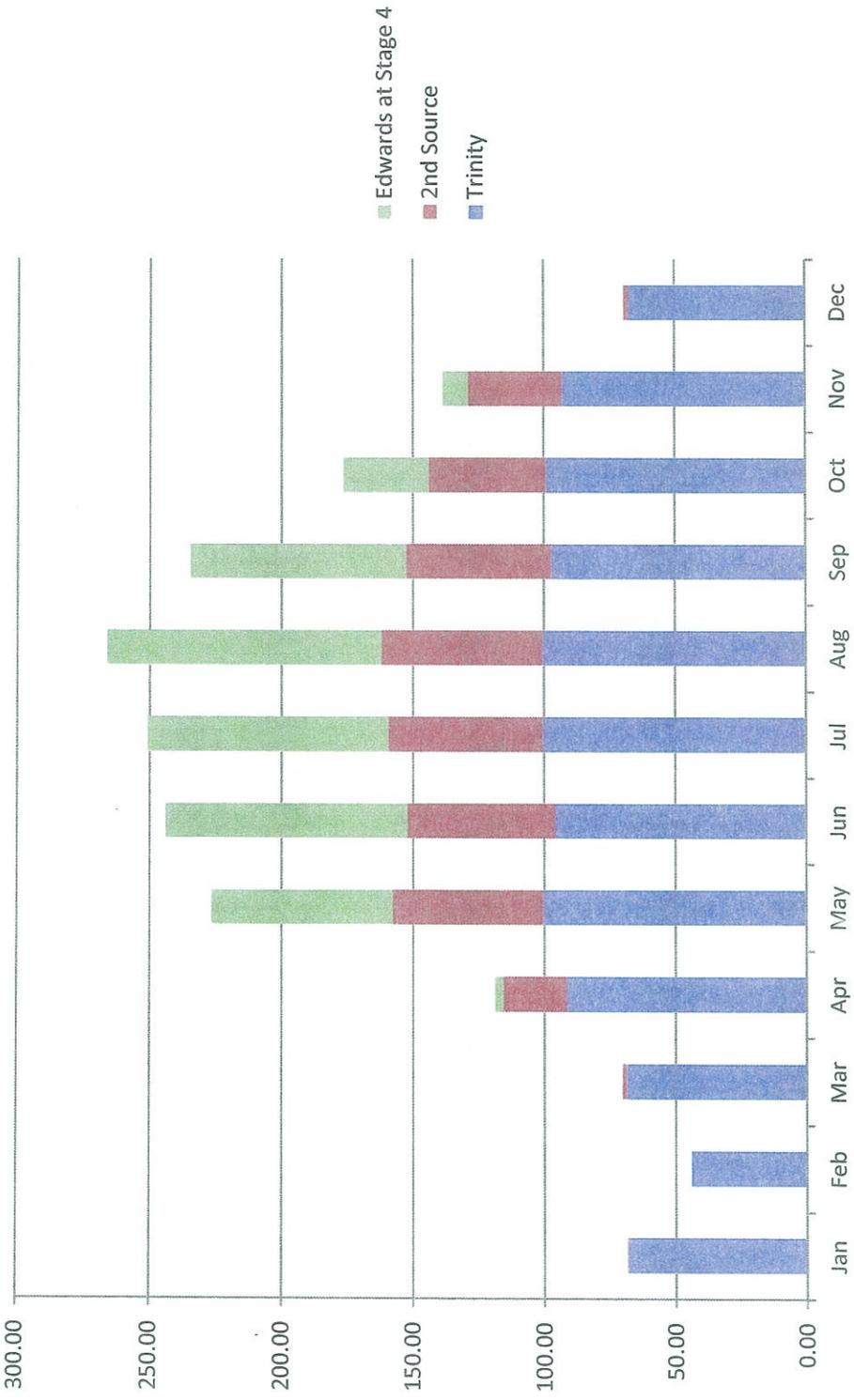


Simulated System Operations

Ideal Dispatch Parameters:

- Run the Trinity as much as possible (4 hour rest period per day)
- Use all Edwards rights to meet peak demand
- Solve for least leveled amount to meet demand

Additional Water Only Needed Half the Days in a Year



Water from Pipeline Contract

Limited Restrictions – Drought

- Need an additional 2 acre feet / day during peak periods
- Does not need any of that water about half the time
- However, we would be required pay for the fixed quantity of water
- Would greatly increase the complexity of Garden Ridge's water system operations
- Extremely expensive proposition

Financial Considerations

Schertz-Sequin LGC Contract

- Two acre feet per day - 730 acre feet per year
- Current estimate: \$4.55 per thousand gallons
\$1,100,000 per year initially
30 – 40 year commitment
- Rate not guaranteed – cost basis contract
- Rates will increase over time as costs rise
- Deliveries could be interrupted or reduced
- Annual commitment to pay would remain

Financial Recap of Alternatives

- Pipeline contract: 2 Acre Feet / Day capacity
 - 730 acre feet/year \$1,100,000 per year*
 - Based upon quoted Schertz-Sequin Local Government Corporation's latest estimate
 - Would require significant infrastructure additions
- Edwards rights More than \$8.0 million *
 - If available
 - Based on current estimate of \$12,000 acre/foot

*plus storage, etc.

Drill New Trinity Well

- Various options were noted regarding drilling a new Trinity well
 - Drill through existing Edwards wells at Timber Rose, Fairview Circle, Bracken Church, etc.
 - Revisit abandoned well at old City Hall
 - Drill on new site

Drilling a Trinity Well

Presentation by Bill Stein from

WBG Guyton July 15, 2014

- Drilling a well is never guaranteed
- However, Garden Ridge is located in a very favorable location
- No one site in Garden Ridge is seen superior to any other

Bill Stein

- Several Years ago
 - Was the hydrologist on the abandoned well at the old City Hall several years ago
- Recently was the hydrologist
 - For Green Valley on their very successful well on FM 2252
 - For New Braunfels Utilities on their 4 very successful Trinity wells

According to Bill

- All of the new Trinity wells are getting water from the upper Trinity
- The current Trinity well was drilled to acquire water from the middle Trinity Aquifer
- Consequently, the well at the old City Hall targeted the middle Trinity
 - the water volumes were disappointing
- Looking at the records from Trinity #1, Bill now believes the water is actually from the upper

Proposal

- Go back into the abandoned well
 - Perforate the casing to access the upper Trinity
 - Acidize the perforations and test output
- Estimated cost through testing -
approximately \$150,000
- If productive, cost to fully develop would need
to be determined – guess the cost at \$1.5 –
2.0 million

Summary

- Schertz lease is not a long-term solution
- Pipeline contracts are very expensive and complex – only one available in the near term
- Additional Edwards rights might be a solution
 - At least \$8.0 million to meet drought conditions
 - Probably not enough rights available for purchase
- Drilling another Trinity well appears to be a cost-effective option

Recommendation:
Determine viability of the
Abandoned Trinity well

- Can this well be salvaged?
- \$150,000 to find the answer
- Will determine future course of action

What we would Learn

Potential Outcome	Impact on Future Actions
<ul style="list-style-type: none">• Little or no value in old well	<ul style="list-style-type: none">• Consider other options<ul style="list-style-type: none">– Increased conservation– Look for Edwards rights– Other
<ul style="list-style-type: none">• 150 – 300 GPM output	<ul style="list-style-type: none">• Develop well – consider other options as needed

Additional Notes

- The new SCADA will allow for increased Trinity use, reducing the need for more water
- Trend in increased water for irrigation is a significant driver
 - Adopt proposal to limit size of irrigation systems
 - Consider new metering options
 - Start a new meter reading book for new developments to allow easier tracking
 - Separate irrigation meters would provide options
 - Reduce size of water meters to 5/8"

New SCADA Report

Date	TRINITY WELL # 1	TIMBER ROSE WELL	WELL 2252 WELLS	SM3009		LG3009		3009GS		SM2252		LG2252		Timber Rose FLOW	Total Usage Gallons (Wells- Tank)	Total Usage GPM
				FLOW	GAL	FLOW	GAL	FLOW	GAL	FLOW	GAL	FLOW	GAL			
8/20/2014 0:00	0	0	1,910	1,600	6,667	0	0	0	0	0	0	0	0	10,833	1,083	
8/20/2014 0:10	0	0	1,922	4,000	8,889	0	0	0	0	0	0	0	0	6,331	633	
8/20/2014 0:20	0	0	1,923	3,200	6,667	0	0	0	0	0	0	0	0	9,363	936	
8/20/2014 0:30	0	0	1,924	3,200	8,889	0	0	0	0	0	0	0	0	7,151	715	
8/20/2014 0:40	0	0	1,925	3,200	11,111	0	0	0	0	-8,438	0	0	13,377	1,338		
8/20/2014 0:50	0	0	1,928	-800	4,444	0	0	0	0	8,438	0	0	7,198	720		
8/20/2014 1:00	0	0	1,931	1,600	2,222	0	0	0	0	8,438	0	0	7,050	705		
8/20/2014 1:10	0	0	1,933	800	4,444	0	0	0	0	8,438	0	0	5,648	565		
8/20/2014 1:20	0	0	1,929	-2,400	-4,444	0	0	0	0	16,875	0	0	9,259	926		
8/20/2014 1:30	0	0	1,937	-800	-2,222	0	0	0	0	16,875	0	0	5,517	552		
8/20/2014 1:40	0	0	1,925	-800	-4,444	0	0	0	0	16,875	0	0	7,619	762		
8/20/2014 5:20	0	0	0	-800	-2,222	0	0	0	0	-16,875	0	0	19,897	1,990		
8/20/2014 5:30	0	0	0	-1,600	-4,444	0	0	0	0	-8,438	0	0	14,482	1,448		
8/20/2014 5:40	0	0	0	-800	-2,222	0	0	0	0	-16,875	0	0	19,897	1,990		
8/20/2014 5:50	0	0	0	-1,600	-4,444	0	0	0	0	-8,438	0	0	14,482	1,448		
8/20/2014 6:00	0	0	985	8,000	15,555	-16,728	0	0	0	-16,875	0	0	19,898	1,990		
8/20/2014 6:10	0	0	1,931	6,400	13,333	-19,516	0	0	0	-8,438	0	0	27,530	2,753		
8/20/2014 6:20	0	0	1,931	4,800	8,889	-16,728	0	0	0	0	0	0	22,349	2,235		

Water Commission
As Of 26 August 2014

	2013						2014					
	Edwards			Trinity			Edwards			Trinity		
	Gallons	Acre Feet	Quarterly Acre Feet	Gallons	Acre Feet	Quarterly Acre Feet	Gallons	Acre Feet	Quarterly Acre Feet	Gallons	Acre Feet	Quarterly Acre Feet
January	193,000	0.59	53.08	17,104,000	52.49	53.08	0	0.00	51.38	16,743,000	51.38	51.38
February	719,000	2.21	68.06	21,458,000	65.85	68.06	1,000	0.00	53.52	17,438,000	53.52	53.52
March	4,110,000	12.61	94.53	26,692,000	81.91	94.53	567,000	1.74	62.92	20,501,000	62.92	169.56
April	9,909,000	30.41	77.04	15,193,000	46.63	77.04	5,793,000	17.78	77.66	25,304,000	77.66	95.43
May	7,721,000	23.69	78.89	17,984,000	55.19	78.89	6,107,000	18.74	75.01	24,441,000	75.01	93.75
June	6,332,000	19.43	93.16	24,024,000	73.73	93.16	27,186,000	83.43	12.72	4,145,000	12.72	285.33
July	13,417,000	41.18	119.92	25,658,000	78.74	119.92	30,026,000	92.15	19.71	6,424,000	19.71	111.86
August	16,315,000	50.07	136.41	28,135,000	86.34	136.41	21,316,000	65.42	32.28	10,518,000	32.28	97.69
September	6,103,000	18.73	74.40	18,140,000	55.67	74.40	0	0.00	0.00	0	0.00	209.56
October	26,000	0.08	53.36	17,363,000	53.29	53.36	0	0.00	0.00	0	0.00	0.00
November	866,000	2.66	50.20	15,491,000	47.54	50.20	0	0.00	0.00	0	0.00	0.00
December	30,000	0.09	46.68	15,180,000	46.59	46.68	0	0.00	0.00	0	0.00	0.00
TOTAL	65,741,000	201.75	945.71	242,422,000	743.97	945.71	90,996,000	279.26	385.19	125,514,000	385.19	664.44
	<i>Total Edwards Allocation 552.567</i>						<i>Returned 263.497</i>					
	<i>Total Edwards Allocation 1002.187</i>						<i>Unused 833.507</i>					

Current Edwards Permits		Lease		BVFD		1/1/14 - 12/31/14	
Permit	Allocation	Edwards	City of Schertz	Edwards	City of Schertz	Edwards	City of Schertz
Allocated Pumpage	CO00139	P100-767	484.071	Acre Feet			
Purchase	BE 00109I	P100-327	2	Acre Feet			
Purchase	ME 00417D	P101-185	1.301	Acre Feet			
Purchase	ME 00479I	P101-315	3.895	Acre Feet			
Purchase	UV 00437I	P101-699	2	Acre Feet			
Purchase	UV 00461I	P101-752	4	Acre Feet			
Purchase	UV 00478I	P101-801	2	Acre Feet			
Purchase	UV 00537H	P101-959	2	Acre Feet			
Purchase	UV 00576I	P102-040	14	Acre Feet			
Purchase	UV 00630G	P102-146	1.76	Acre Feet			
Purchase	BE 00081AE	P100-200	62	Acre Feet			
Transfer	UV00435	P106-186	1	Acre Foot			
Transfer	CO00118B	P103-312	4.5	Acre Feet			
Transfer	CO00119AA	P102-416	2	Acre Feet			
Transfer	CO00119AA	P102-564	0.66	Acre Feet			
Lease	CO00129	P105-780	15	Acre Feet			
Lease	City of Schertz		400	Acre Feet			
Total	Edwards Allocation		1,002.19	Acre Feet			

Total Available Edwards Water 568.267 Acre Feet 185,170,370.2 gals

Trinity Static level 173.7' Pump level 88.2'

Average usage per connection: 20,685 gals. 1539 Connections

Average Daily usage: 8/1-8/25 1,273,360 gals

Total Water Loss for 2013: 4,034,060 gals or 12.38 Ac/Ft or 1.31% of 308,163,000 gals or 945.73 Ac/Ft pumped

ORDINANCE NO. 159-092010

AN ORDINANCE ESTABLISHING LANDSCAPE AND IRRIGATION SYSTEM REQUIREMENTS FOR RESIDENTIAL AND COMMERCIAL PROPERTIES IN THE CITY OF GARDEN RIDGE FOR THE PURPOSE OF WATER CONSERVATION; PROVIDING FOR VARIANCES AND PROVIDING A PENALTY FOR VIOLATION OF SAID ORDINANCE

WHEREAS, the City of Garden Ridge is a growing community with limited water sources; and

WHEREAS, one water source from which the city pumps water from is legislatively regulated and therefore over pumping from the water source can result in significant fines and levies; and,

WHEREAS, due to weather conditions in south Texas droughts are common and can result in mandatory drought and water conservation restrictions and rules which limit the amount and times at which water can be used by residents and businesses in the city; and

WHEREAS, lot sizes in Garden Ridge are a minimum of $\frac{3}{4}$ acres and landscape and sprinkler systems consume approximately 50% *or more* of the water metered at residences and businesses in the city and therefore the city has determined that there are means by which this type of water usage can be reduced; and,

WHEREAS, implementing water conservation standards for landscaping and irrigation systems are necessary to preserve and protect the health and safety of the city's residents to ensure an ample water supply for the City of Garden Ridge.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARDEN RIDGE, TEXAS:

Section 1. Definitions.

Groundcover vegetation – means perennial vegetation that spreads along the ground that is adaptive to traffic and requires minimal maintenance and irrigation

Irrigation system - an underground or above ground system of pipes, fittings and sprinkler heads which when in operation dispenses water onto lawns and landscape

Natural state – means an area or areas of a property on which trees, grasses and other vegetation which are native to the area have remained in their natural state

State licensed irrigator – an individual licensed by the State of Texas to design and install irrigation systems

Summer Dormancy – means the ability of turf grass to survive without water for a period of sixty consecutive days during the months of May through September

Turf grass - means perennial grasses that are adapted to regular mowing and traffic through management

Variance - means an exception to any provisions of this ordinance

Xeriscape – a landscape consisting of a maximum of fifty percent turf grass, with the remaining percentage of landscape incorporating low water use plants and/or pervious hardscape

Section 2. Drought Tolerant Grasses and Ground Cover.

- a) All lawns for new residential and commercial properties and developments must be planted with drought tolerant grasses or other drought tolerant ground cover vegetation that has a period of summer dormancy of sixty consecutive days without water during the months of May through September.

Drought Tolerant Lawn Grasses are limited to:

St. Augustine varieties: Floratam variety only

Bermuda varieties: Celebration
GN1
Tex Turf
Tifway 419
Common
Grimes EXP
Tif Sport

Buffalo varieties: All varieties

Zoysia varieties: El Toro
Empire
Jamur
Palisades

No more than ~~50%~~ 13,068 square feet of the pervious ground cover can be grass irrigated.

~~As guidance turf grass proportion to lot size is limited to:~~

~~¾ acre lot = 32,670 square feet — 50% pervious ground cover = 16,335 square feet~~

~~1-acre lot = 43,560 square feet — 50% pervious ground cover = 21,780 square feet~~

~~1.25 acre lot = 54,450 square feet — 50% pervious ground cover = 27,225 square feet~~

- b) Existing residential and commercial properties may restore damaged turf. Turf damage not exceeding 50% of the lawn area may be replaced with the same turf

existing prior to damage. Turf damage exceeding 50% of the lawn area must be replanted with acceptable drought tolerant grass as listed in Section 2(a) above. Lawn area does not include any area or areas on a property which have been allowed to remain in its native state.

Section 3. Xeriscape Landscape.

- a) New residential and commercial properties and developments must use xeriscape landscaping on all areas of the yard that are not planted in turf. Builders and developers are restricted to offering Xeriscape landscape plans which meet this ordinance. All new residential and commercial developments must incorporate xeriscape landscape requirements into subdivision covenants. Lawn area does not include any area or areas on a property which have been allowed to remain in its native state.
- b) Replacement landscaping on existing residential and commercial properties must incorporate xeriscape landscaping consistent with this ordinance.

Section 4. Irrigation Systems.

- a) A state licensed irrigator must submit a *to scale (1" = 30')* detailed plan and schematic of an irrigation system (including any new system, the refurbishing of any existing system, and any extension of any existing system) to be installed within the city to the City Water Department for approval and permitting prior to beginning installation. *Plans must be drawn in ink (not pencil).*
- b) *The plan must include complete coverage of the area to be irrigated.*

~~All new and refurbished sprinkler systems must have rain sensors installed on the system~~

- c) *The irrigation plan must include, at a minimum the following information:*
 - (1) *Irrigator's seal, signature and date of signing*
 - (2) *All major physical features and the boundaries of the area(s) to be watered*
 - (3) *A North arrow*
 - (4) *A legend*
 - (5) *The zone flow measurement for each zone*
 - (6) *Location and type of*
 - a. *Controller*
 - b. *Sensor (for example, but not limited to rain, moisture, wind, flow or freeze>*
 - (7) *Location, type and size of each*
 - a. *Water source, such as but not limited to, a water meter and point(s) of connection*
 - b. *Backflow prevention device*

A violation of this ordinance by act, or omission, including the failure to comply with any requirement of this Ordinance shall be considered a Class C misdemeanor and the municipal court shall have jurisdiction over such offense. Any person, firm, or corporation violating any provision of this ordinance shall be fined not less than one-hundred dollars (\$100) and not more than five-hundred dollars (\$500.00) for each offense. Each day such act or omission occurs, and each section of the ordinance violated constitutes a separate and independent offense.

In addition to misdemeanor prosecution, the City may seek civil penalties pursuant to Chapter 54 of the Texas Local Government Code for any violation and obtain injunction, attorney's fees, costs of court and civil penalties of up to either \$1,000 per day or \$5,000 per day as provided by State Law. Civil penalties are cumulative to criminal penalties.

Section 7. Severability

If any section, paragraph, subdivision, clause or phrase of this ordinance shall be adjudged invalid or held unconstitutional, the same shall not affect the validity of this ordinance as a whole or any part of any provision thereof other than the part so decided to be invalid or unconstitutional.

Section 8. Effective Date

This ordinance shall take effect immediately upon its passage, approval and publication according to law.

PASSED AND APPROVED THIS DAY OF 2014.

Nadine L. Knaus, Mayor Pro tem

ATTEST:

Shelley Goodwin, TRMC
City Secretary

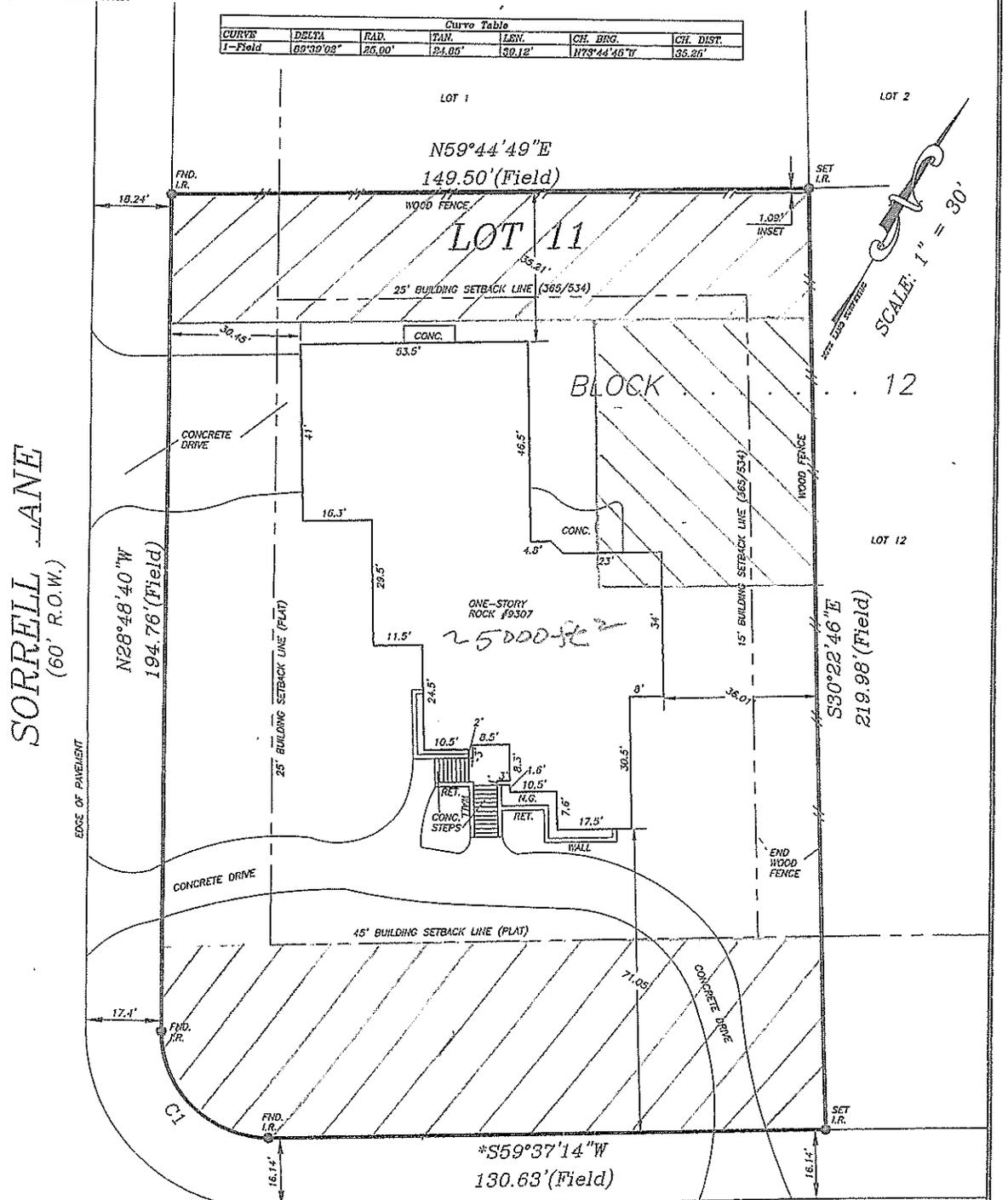
This property is not located in the 100 year flood plane according to the N.F.I.P. Map No. 48550B 0005 C, Effective Date December 30, 1980, Zone "C".

*NOTE: Bearing based on Plat recorded in Volume 4, Page 48 of the Map & Plat Records of Comal County, Texas.

NOTE: This survey is being provided solely for the use of the current parties and no license has been created, express or implied, to copy the survey except as is necessary in conjunction with this transaction.

Subject to restrictive covenants and/or easements recorded in Vol. 228, Pg. 41; Vol. 365, Pg. 534, of the Deed Records of Comal County, Texas; and Vol. 4, Page 48 of the Map and Plat Records of Comal County, Texas and all other restrictive covenants and easements.

Curve Table						
CURVE	DELTA	RAD.	TAN.	LEN.	CH. BRG.	CH. DIST.
1-Field	69°39'28"	25.00'	24.05'	38.12'	N73°44'46"W	36.26'



0.75 Acre lot
 CROSS Hatched AREA \approx 13,000 sq ft
 SURVEY PLAT
 TEAKWOOD LANE (60' R.O.W.)

BEING Lot 11, Block 12, Garden Ridge Estates, Unit 4, City of Garden Ridge, Comal County, Texas, as recorded in Volume 4, Page 48, of the Map & Plat Records of Comal County, Texas being known as 9307 Teakwood Lane.

I, a Registered Professional Land Surveyor in the State of Texas, do hereby certify that, to the best of my knowledge, information and belief, the above plat is a true representation of an actual survey made on the ground under my supervision, to the local standard of care, and that I have located apparent easements, right-of-ways, and encroachments as of the 4th day of June 2004.

This the 9th day of June, 2004.

BUTZ
 LAND
 SURVEYING

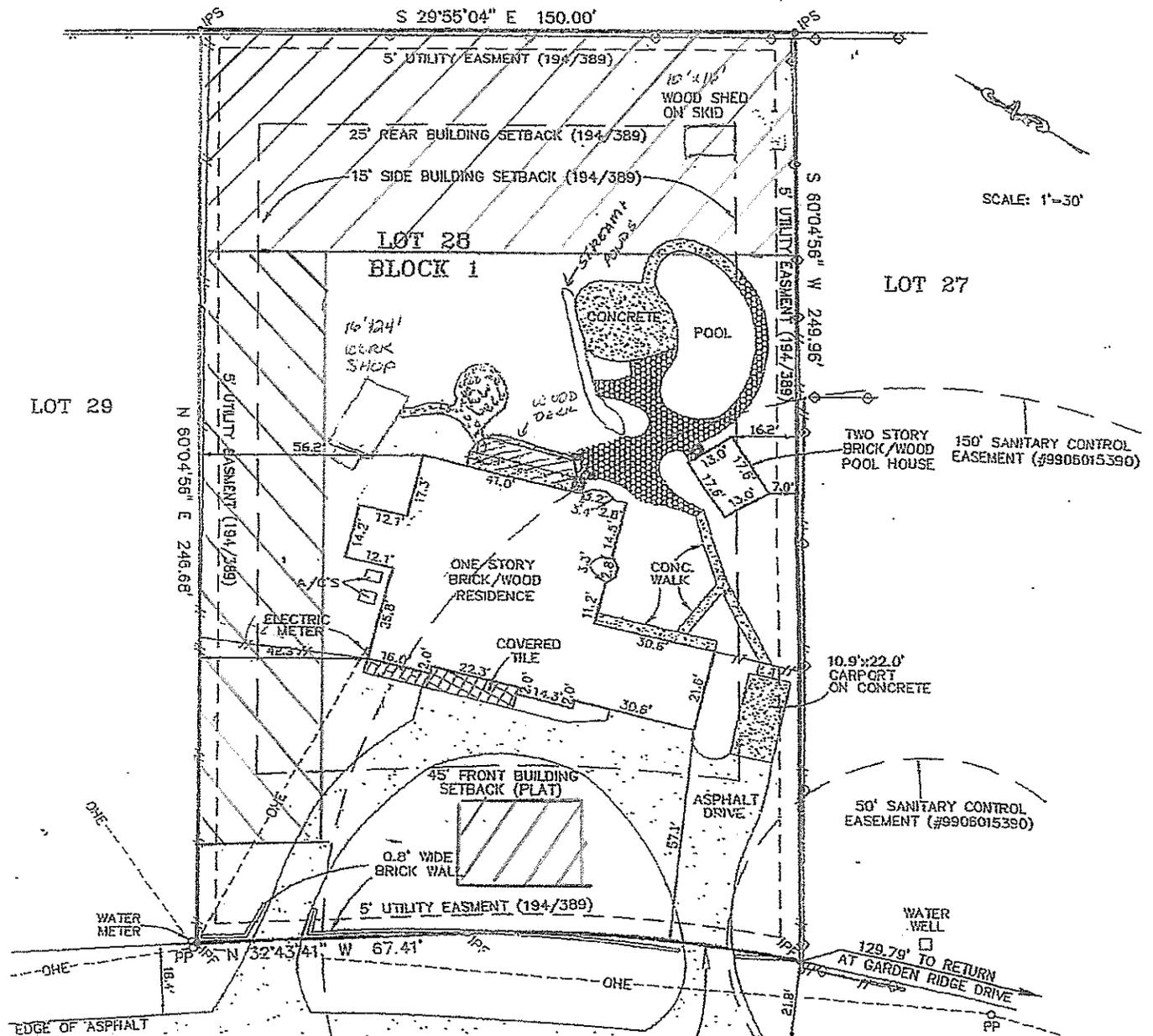


[Signature]
 J. M. Butz, Jr., R.P.L.S. No. 2024
 JOB NO. 04-193

PHONE 210-667-1380
 FAX 210-667-1334

DRAWN BY: R.C.C.

UNDEVELOPED



SCALE: 1"=30'

LOT 29

LOT 28
BLOCK 1

LOT 27

TWO STORY BRICK/WOOD POOL HOUSE
150' SANITARY CONTROL EASEMENT (#9906015390)

ONE STORY BRICK/WOOD RESIDENCE

10.9'x22.0' CARPORT ON CONCRETE

45' FRONT BUILDING SETBACK (PLAT)

50' SANITARY CONTROL EASEMENT (#9906015390)

TIMBER ROSE DRIVE
(60' ROW)

L=83.16'
R=323.40'
Δ=14°44'02"
CLEN=82.93'
BRG=N 25°21'49" W

REFERENCES:
VOL. 184, PG. 389 D.R.
DOC# 9906015390 O.R.

CHICAGO TITLE COMPANY
GF# 20001529
BUYER: MADINE L. KNAUS
ADDRESS: 20592 TIMBER ROSE DRIVE
GARDEN RIDGE, TEXAS

SURVEY OF:

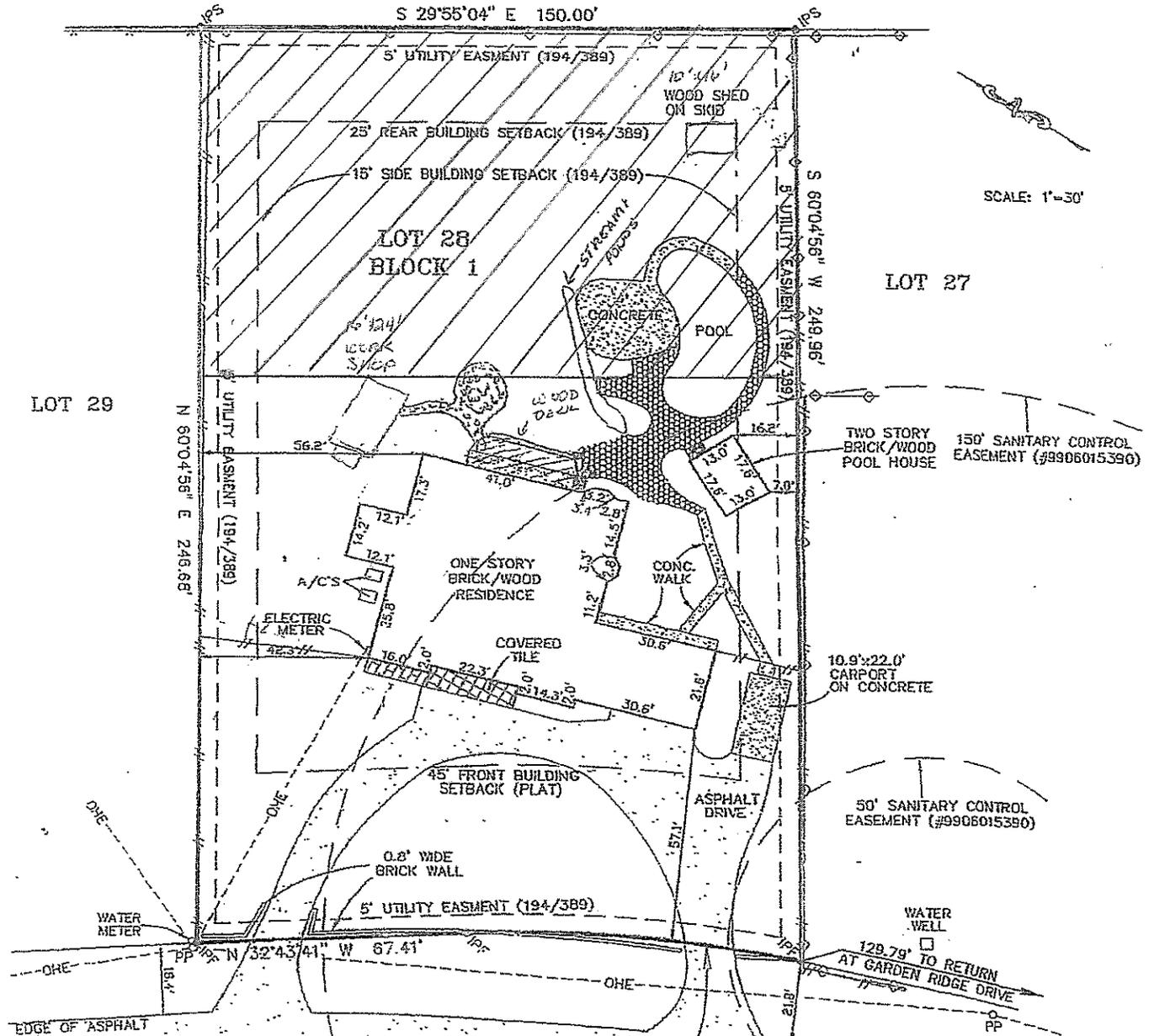
LOT 28, BLOCK 1, GARDEN RIDGE ESTATES UNIT 1, CITY OF GARDEN RIDGE, ACCORDING TO VOLUME 2, PAGES 48-49, OF THE MAP AND PLAT RECORDS COMAL COUNTY, TEXAS.

NOTES:
IPF = 1/2" IRON PIN FOUND
IPS = 1/2" IRON PIN SET
OHE = OVERHEAD ELECTRIC LINE
PP = POWER POLE
-// = WOOD FENCE
-o- = CHAIN LINK FENCE
-X- = WIRE FENCE

(NO PORTION OF SUBJECT PROPERTY IS LOCATED WITHIN A SPECIAL FLOOD)

0.85 ACRE lot
CROSS HATCHED AREA ≈ 13,000 ft²

UNDEVELOPED



SCALE: 1"=30'

REFERENCES:
VOL 184, PG. 389 D.R.
DOC# 9906015390 O.R.

L=83.16'
R=323.40'
Δ=14°44'02"
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CHICAGO TITLE COMPANY
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BUYER: NADINE L. KNAUS
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SURVEY OF:

LOT 28, BLOCK 1, GARDEN RIDGE ESTATES
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PP = POWER POLE
-// = WOOD FENCE
-o- = CHAIN LINK FENCE
-x- = WIRE FENCE

NO PORTION OF SUBJECT PROPERTY IS LOCATED WITHIN A SPECIAL FLOOD

0.85 ACRE lot
CROSS hatched AREA = 13,000 sq ft

35.04- Residential Irrigation Design Rebate

Customers of the Water Department are entitled to a (1) rebate per household of up to \$800, to **be credited to their water bill for the proof of purchase and installation** for any combination of options, depending on the number of zones converted or capped, and if irrigation remains at or below a personalized schedule for water use over a one year period. Only existing systems are eligible for rebates. All customers approved to receive the first installment of their rebate will be given the final installment if they meet the water use requirements by the end of 12 month period.

How it works:

Step 1: Have a licensed irrigator review your landscape and conservation goals, make recommendations specific to your home and leave you with written recommendations, that you can use to apply for rebate.

Step 2: Have licensed irrigator complete the work , or you may complete it yourself. If you complete it yourself you must follow all city and state laws governing irrigation installation and design.

Step 3: Once installation of the redesigned system has been completed, call the city to schedule a final inspection. The city will conduct a final inspection, including work completed and irrigation controller scheduling. The inspector will then determine the amount of rebate you may qualify for and provide you with a written copy. **This will serve as your application for the Residential Irrigation Design Rebate.** Upon final inspection and application approval, The City will credit your water bill with the initial installment of 50 percent of the total approved rebate.

STEP 4: If your water use remains at or below the watering recommendations for a period of one year, the final installment of the remaining 50 percent of the eligible rebate will be applied to your account.

What is Eligible?

The following may be done on each zone of your system, but the **maximum total rebate payment per property is \$800.**

IRRIGATION DESIGN REBATE

Amount	Procedure	Description
\$450	Disabling entire system	The removal of the backflow device, backflow box, all valve boxes and the controller; cutting the "T" connection and capping snugly to the mainline.
		The removal and capping of an existing zone valve.
\$250	Capping a zone	<ul style="list-style-type: none"> This might be chosen because an area is now hardscape, has been converted to bedding area instead of turf, or because the plants are mature and do not require regular irrigation.

IRRIGATION DESIGN REBATE

Amount	Procedure	Description
\$200	Converting a pop-up spray zone to drip/bubblers	<p>The conversion of a zone that is currently irrigated by a pop-up spray or rotor irrigation system.</p> <ul style="list-style-type: none"> ▪ Drip system pop-up spray must include appropriate pressure regulation, a filter and pressure release valve. ▪ For conversion from fixed sprays and rotors to a drip system, emitters must not exceed 1 gallon per hour. ▪ Drip irrigation must consist of: (1.) Half-inch tubing with built-in emitters; or (2.) Smaller point-source tubing connected laterally with individual emitters for specific plants. Tubing with laser holes is not eligible for rebate. ▪ Fittings should not be the barbed connection fittings but compression fittings that are more secure. ▪ System must include: (1.) A pop-up head with its nozzle closed or capped and the stem painted a bright color; or (2.) A manufactured flag indicator. This will indicate that the zone is working properly. Misters are not allowed. ▪ Bubblers must be nonadjustable, fixed flow - not to exceed 1 gallon/minute per head.
\$150	Splitting a zone to beds and turf	Conversion of a single zone that covers both turf and beds to two separate zones for turf and beds.

35.05- Swimming Pool Filter Replacement Rebate

Here's a dirty little secret about your old swimming pool filtering system:

It wastes water, energy and money. It's time to consider a new water- and energy-efficient cartridge filter system. Here's why:

- The City will give you a rebate up to **\$250 on your water bill for proof of purchase and installation** when you replace your pool's sand or diatomaceous earth (D.E.) filter(s) with a new high-efficiency cartridge filter system.
- Replacing your sand or D.E. filter with a high-efficiency cartridge filter system can reduce your water consumption by as much as 20,000 gallons per year.
- Translation: Lower water and energy bills.

Requirements

All participants in the City Pool Filter Replacement Rebate program must:

- Be City water customers for the requested installation property site.
- Own their pools and have either a sand filter or diatomaceous earth filter.

Participants shall not hold City Conservation responsible for pool water quality or any costs associated with maintenance or repairs.

Rebate Details:

- Rebate will be credited to the City water **bill for proof of purchase and installation** of the applicant.
- Rebate is available only on filter systems purchased after June 1, 2014.

35.06- WaterSaver Patioscape Rebate

Customers of the Water Department are entitled to (1) rebate per household to be credited to their water bill for the **proof of replacing 200 square feet of grass** with an approved patioscape.

Program Eligibility & Highlights

- Residential customers must meet these eligibility requirements: (a.) Must be a water customer. (b.) Must be the homeowner.
- If you have an irrigation system, you must schedule an irrigation checkup with a licensed irrigator, then you must **cap the spray heads/rotors or drip lines** in the area you intend to install your patioscape.
- Participants can **call the city to apply**.
- The package is available for grass/turf replacement only. Existing beds and/or patios are not eligible for this program.
- The patioscape must be at least 200 contiguous square feet.
- Patioscape must be at least 10 feet wide and cannot be used to create a pathway.
- The dug up area for the patioscape should be free of debris and have a hard packed, yet pervious, sub-soil to build a proper patio foundation.
- The WaterSaver Patioscape Rebate is only available for the purchase of **flagstone, stepping stones or pavers**. No substitutions are allowed.
- The customer must agree to allow a post-inspection by City staff.

Amount of Rebate - one hundred dollars (\$100.00)