

CITY OF GEORGETOWN, TEXAS

CAPITAL IMPROVEMENT PLAN

UTILITY SERVICES

FISCAL YEAR 2016

Georgetown Utility Systems Advisory Board
April 10, 2015

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Capital Improvement Plan

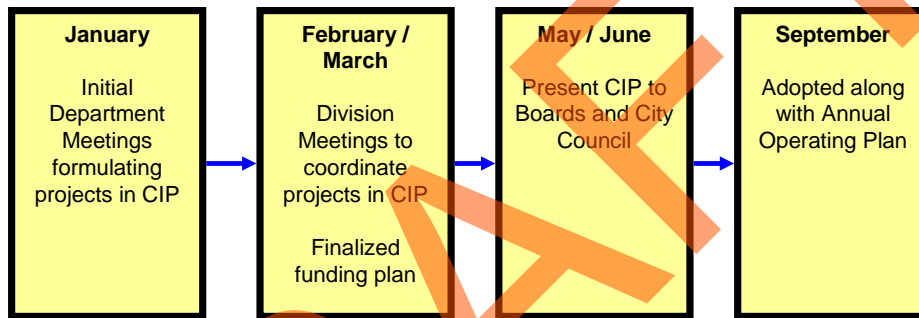
The City of Georgetown annually updates and adopts a five-year Capital Improvements Plan (CIP) Schedule as part of the operating budget adoption process. Needed capital improvements are identified through system models, repair and maintenance records, and growth. The City uses a team approach to prioritizing capital improvement projects, whereby City staff from all operational areas provide input and ideas relating to each project and its effect on operations, such as:

Fire and Police Services staff provides insight into a project's impact on emergency traffic responses, public lighting issues and other public safety concerns.

Planning & Development staff gives direction regarding new development and the infrastructure needs relating to this growth.

Other utility departments, such as the **Transportation, Energy and Water Services Departments** exchange information regarding each project and coordinated timing of many of the related projects in an effort to create less inconvenience for the citizens affected.

The timeline for the CIP planning process is outlined below:



By using this team approach, the City develops cooperation among the departments, identifies potential problem areas, and prioritizes financing issues.

2016 Capital Improvement Summary	
<i>(in thousands)</i>	
Funding	
Operating Revenue	\$ 21,988
Utility Revenue Debt	4,599
Total Funding	\$ 26,587
Project Costs	
Georgetown Utility Systems	
Water Services	\$ 22,930
Energy Services	3,588
Debt Issuance Cost	69
Total Project Cost	\$ 26,587

The Capital Improvements Projects (CIP) generally consists of infrastructure and related construction and do not include small capital items such as furniture, equipment and vehicles. Significant maintenance projects, such as street repairs are not included in the capital project schedules. These maintenance type projects are not capitalized as a fixed asset and are always cash funded; therefore, they are considered operational in nature and are included in the departmental operating budget. The CIP schedules consolidate the capital spending priorities for all operating activities of the City, including all governmental and enterprise activities that provide services to the citizens of Georgetown.

The CIP Schedules are included as part of the annual operating budget. The first year of the list becomes the capital budget for the approved budget year. The following pages outline the CIP Schedule for each

activity and include anticipated projects, current year project location and sources of funding.

Water Services

Introduction

Georgetown Utility Systems Water Services Utility maintains a Capital Improvement Program (CIP) to address the community’s need for superior water, wastewater, and irrigation service. This CIP is determined by many factors including on-going annexation, service improvement, the rehabilitation of aging water and wastewater infrastructure, and the need to meet changing state and federal requirements.

The City operates three water treatment plants and five wastewater treatment plants. This table lists each plant with its current capacity. Water Services retains ownership of these plants and contracts for their operation. The City’s current utilization of its water supply is 40% ground water and 60% surface water.

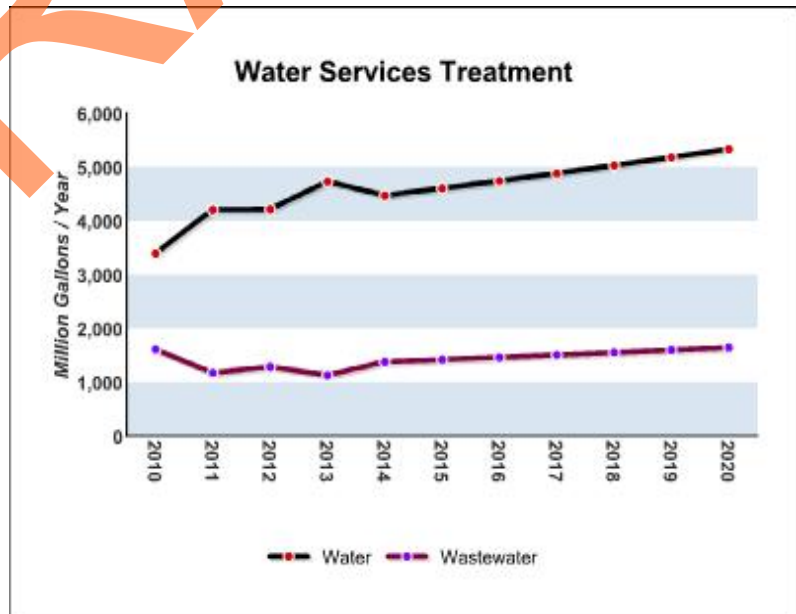
Water Treatment Plants	MGD
Lake Water Plant	28.600
San Gabriel Park Plant	6.307
Southside Plant	3.144
Total Capacity	38.051

Wastewater Treatment Plants	MGD
San Gabriel Plant	2.500
Pecan Branch Plant	1.500
Dove Springs Plant	2.500
Berry Creek Plant	0.300
Cimarron Hills Plant	0.200
Total Capacity	7.000

Growth

Population growth within the Water Utility service area continues to drive the need for capital improvement. The City of Georgetown’s water and wastewater demand is projected to grow by approximately 15% over the next five years. The five year plan includes plans to expand the capacity of the water treatment system to meet peak demand.

Wastewater flows are also anticipated to grow by approximately 18% over the next five years. City staff continues to look for ways to improve services within the current infrastructure, and thus delay plant expansions if at all possible.



Age

One of the greatest issues facing Water Services is the replacement of older water and wastewater system mains. The City of Georgetown has been providing water and wastewater service for over one hundred years. Some of the early infrastructure has exceeded its useful life and requires extensive repair or replacement to continue the delivery of reliable service to the community.



The Wastewater improvements being recommended continue the rehabilitation of sanitary sewer mains that may be experiencing inflow and infiltration throughout the City. An aggressive sanitary sewer main improvement program eliminates the potential for Sanitary Sewer Overflows (SSO) and allows for the delivery of reliable wastewater service to the community.

Regulatory Changes

The City of Georgetown is subject to requirements of the Edwards Aquifer Recharge Zone (EARZ) rules because 98% of the City is over the Edwards Aquifer Recharge Zone. The regulatory requirements of the Texas Commission on Environmental Quality (TCEQ) require testing of at least 20% of the collection system every year, thus testing the entire system every 5 years. The testing is included in the Wastewater CIP program. Once problems are identified, the City has twelve (12) months to make repairs. A significant portion of the capital budget for the Wastewater Utility is dedicated for inspection and repair of existing mains.

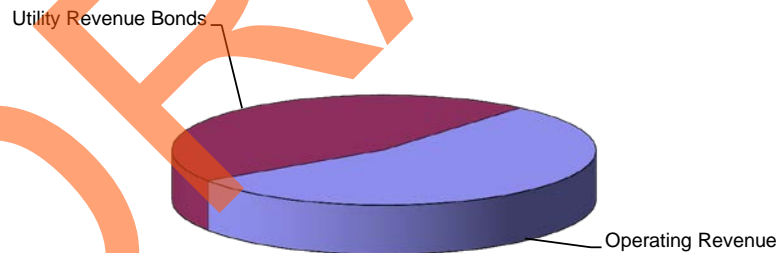
City of Georgetown, Texas
Water Services Capital Improvement Program
FY 2016 to 2020

The City's five year Capital Improvement Program funding comes from a combination of cash, debt funding, and impact fees. Actual amount of debt issues will be determined upon each individual year's consideration of actual resources available, coverage requirement and other considerations.

In 2010, the City updated its impact fees. The maximum fees are \$4,714 for water, \$1,694 for wastewater, and \$5,240 for wastewater in the South Fork basin. The City Council set the current fees at \$3,511 for water, \$1,694 for wastewater, and \$2,927 for wastewater in the South Fork basin.

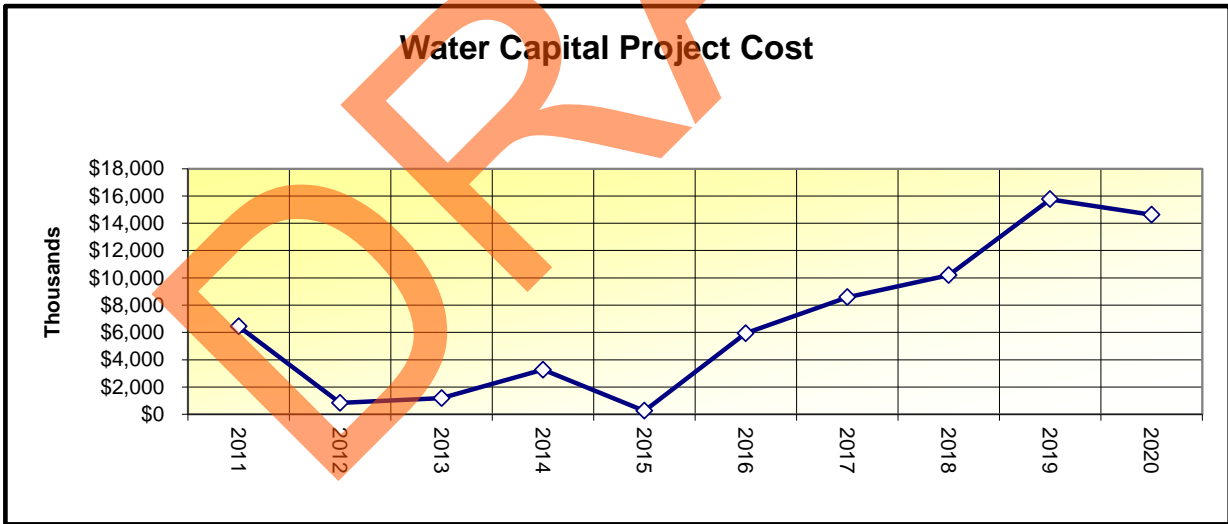
	2016	2017	2018	2019	2020	Total
<i>(Thousands of dollars)</i>						
Projected Annual Project Cost						
Water	\$ 5,937	\$ 8,577	\$ 10,196	\$ 15,757	\$ 14,625	\$ 55,092
Wastewater	10,362	8,279	16,090	11,756	18,376	64,863
Rural Water	6,631	4,296	4,341	5,477	250	20,995
Debt Issuance Cost	69	-	276	325	300	970
Sources of Funding						
Operating Revenue	18,400	21,152	12,467	11,670	13,528	77,217
Utility Revenue Bonds	4,599	-	18,436	21,645	20,023	64,703

Combined 5 Year Estimated Funding Sources



City of Georgetown, Texas
Water Capital Improvement Program
FY 2016 to 2020

Project	Prior Year	2016	2017	Projected 2018	2019	2020
<i>(Thousands of dollars)</i>						
Current Projects:						
Water Mains	\$ 1,912	\$ 5,602	\$ 1,738	\$ 1,087	\$ 3,882	\$ -
Pump and Storage Upgrades	1,713	335	6,819	5,397	-	2,750
Water Treatment Plant Upgrade & Expansion	-	-	20	3,712	11,875	11,875
Totals	\$ 3,625	\$ 5,937	\$ 8,577	\$ 10,196	\$ 15,757	\$ 14,625



**City of Georgetown, Texas
Capital Improvement Program**

Water Mains

Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
1,912	5,602	1,738	1,087	3,882	-	14,221	

Description :

Project entails replacement of water lines in the service area to improve firefighting capabilities and eliminate aged, undersized lines. Replacement of lines is coordinated with the Street Department CIP program to replace water lines prior to or during street rehabilitation to minimize the impact of maintenance on upgraded streets.



Funding Sources :

Funded by cash from operations.

Subprojects (000):	2016	2017	2018	2019	2020
Water- Street Rehabilitation	846	330	-	-	-
Shell Rd. Water (H-3)	4,756	-	-	-	-
West Loop (H-1B) Ph I Innerspace to Th. Oaks	-	1,408	-	-	-
FM 1460 to Maple Water (H-2)	-	-	357	915	-
Rabbit Hill Water (RH-1)	-	-	730	2,071	-
West University Ave.	-	-	-	896	-

Notes:

**City of Georgetown, Texas
Capital Improvement Program**

Pump and Storage Upgrades

Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
1,713	335	6,819	5,397	-	2,750	17,014	

Description :

Elevated & Ground Storage Tank, along with pump station expansions will be constructed to meet current and future system demand in the 1065 pressure plane. Projects consist of the Park Water Treatment Plant high service pump station improvements. This plant improvement is scheduled for removal because of a regulatory issue.



Funding Sources :

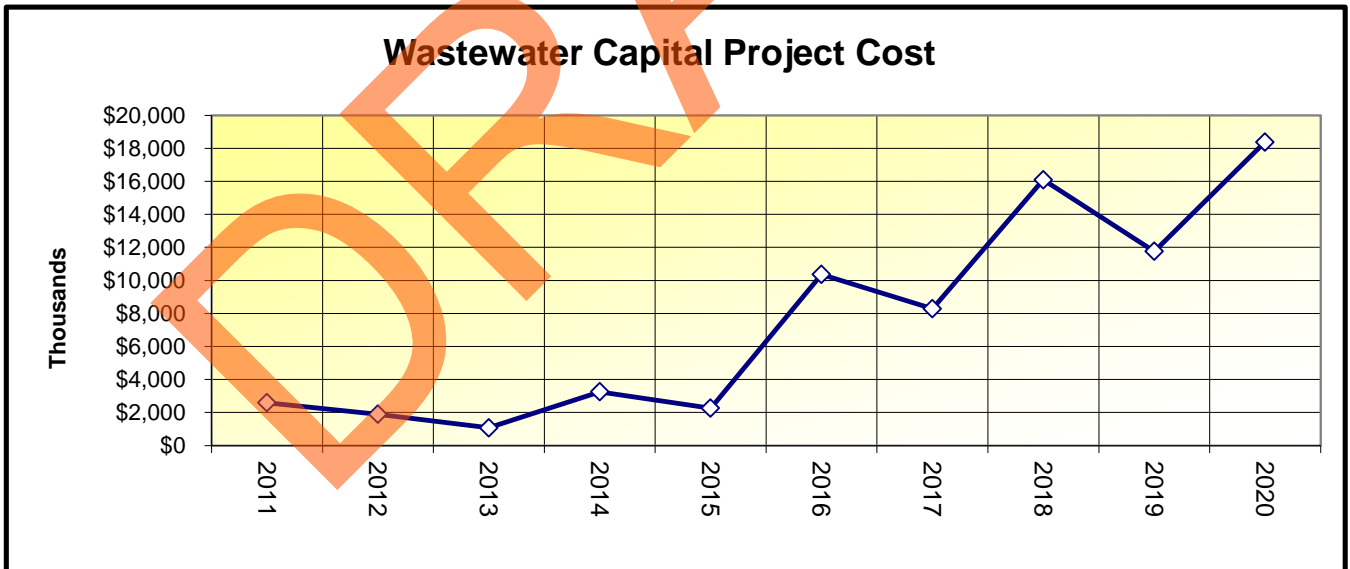
Funded by cash from operations.

Subprojects (000):	2016	2017	2018	2019	2020
Park Water Treatment Plant Pump Station Exp	335	5,931	-	-	-
Park Water Treatment Plant Raw Pump Station	-	888	5,397	-	-
Sun City Elevated Storage Tank	-	-	-	-	2,750

Notes:

City of Georgetown, Texas
Wastewater Capital Improvement Program
FY 2016 to 2020

Project	Prior Year	2016	2017	Projected 2018	2019	2020
<i>(Thousands of dollars)</i>						
<u>Current Projects:</u>						
Wastewater Interceptors	\$ 5,711	\$ 9,994	\$ 4,208	\$ 9,238	\$ 2,592	\$ 1,000
Pumping Upgrades	3,383	368	450	1,100	2,060	10,272
Plant Upgrades	-	-	3,621	5,752	7,104	7,104
Totals	\$ 9,094	\$10,362	\$ 8,279	\$ 16,090	\$ 11,756	\$ 18,376



**City of Georgetown, Texas
Capital Improvement Program**

Wastewater Interceptors

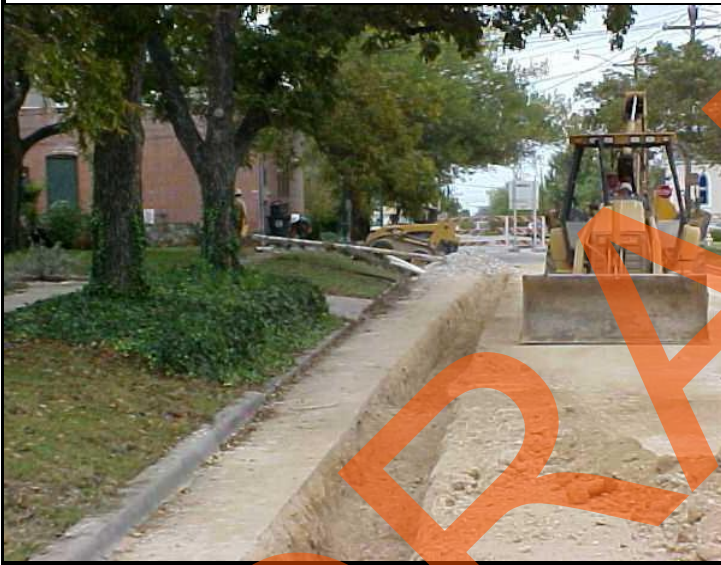
Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
5,711	9,994	4,208	9,238	2,592	1,000	32,743	

Description :

Project entails replacement of wastewater lines in the service area to improve flow, add new service, add capacity and eliminate aged, undersized lines to comply with Edwards Aquifer Recharge Zone requirements. Replacement of lines is coordinated with the Street Department CIP program to replace wastewater lines prior to or during street rehabilitation to minimize the impact of maintenance on upgraded streets.



Funding Sources :

Funded with cash from operations.

Subprojects (000):	2016	2017	2018	2019	2020
Wastewater - Street Projects	200	-	-	-	-
Berry Creek Interceptor (BCI-4)	1,489	-	-	-	-
Berry Creek Interceptor (BCI-5)	1,533	-	-	-	-
EARZ	2,500	2,000	1,500	1,000	1,000
Berry Creek Interceptor (BCI-6)	4,272	-	-	-	-
Berry Creek Interceptor (BCI-3)	-	2,208	7,738	-	-
San Gabriel Interceptor (SGI-2)	-	-	-	1,592	-

Notes:

**City of Georgetown, Texas
Capital Improvement Program**

Pumping Upgrades

Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
3,383	368	450	1,100	2,060	10,272	17,633	

Description :

Project is a multi-year project to upgrade or decommission the City's 33 lift stations (LS). Included are control panel upgrades, SCADA and fiber upgrades, pump upgrades, emergency diesel installation, installation of safety grates, etc.



Funding Sources :

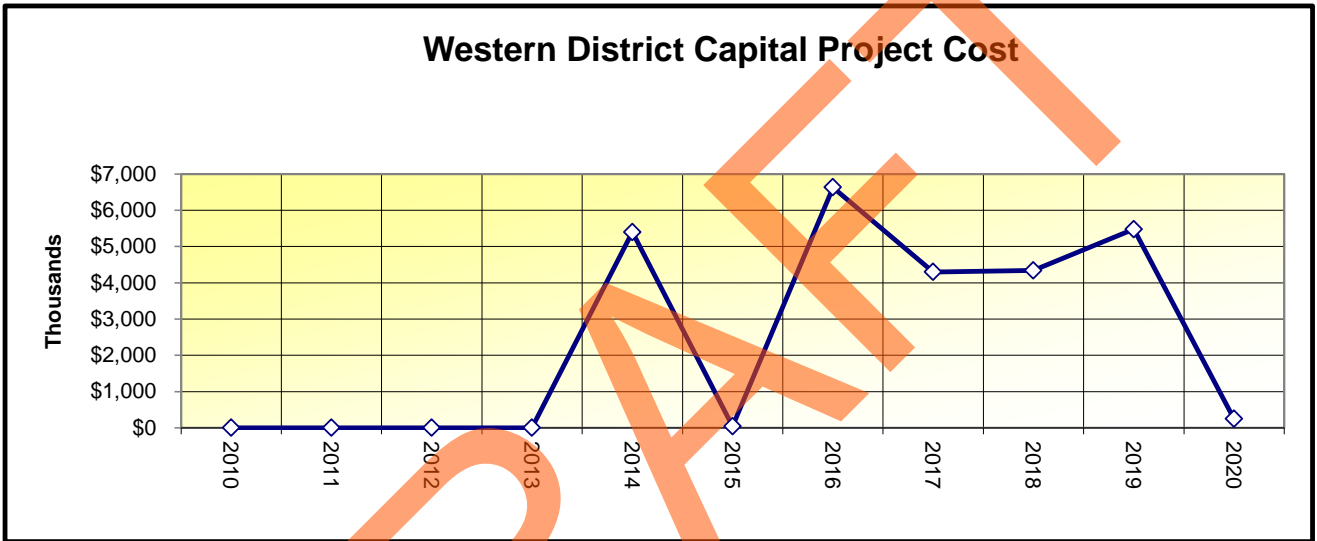
Funded with cash from operations.

Subprojects (000):	2016	2017	2018	2019	2020
Lift Station Upgrades	250	250	250	250	250
Westinghouse Lift Station & Force Main (Rebuild)	118	200	850	-	-
Berry Creek Lift Station & Force Main (BCI-LS)	-	-	-	919	5,315
Cowan Creek Lift Station & Force Main	-	-	-	891	4,707

Notes:

City of Georgetown, Texas
Western District Capital Improvement Program
FY 2016 to 2020

Project	Prior Year	2016	2017	Projected 2018	2019	2020
<i>(Thousands of dollars)</i>						
<u>Future Projects:</u>						
Western District - Mains	\$ -	\$ 5,294	\$ 4,296	\$ 4,341	\$ 5,477	\$ 250
Western District - Pump and Storage	-	1,337	-	-	-	-
Totals	\$ -	\$ 6,631	\$ 4,296	\$ 4,341	\$ 5,477	\$ 250



**City of Georgetown, Texas
Capital Improvement Program**

Western District - Mains

Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
-	5,294	4,296	4,341	5,477	250	19,658	

Description :

Projects include the addition of new water mains and upsizing of existing water mains to improve service and meet the demand for existing and future growth in the Western district.



Funding Sources :

Funded with cash from operations and with utility revenue debt.

Subprojects (000):	2016	2017	2018	2019	2020
Miscellaneous line extension	250	250	250	250	250
Pastor GST Line Upgrade (H-1a14)	445	-	-	-	-
CR 200 line improvements (CO-1)	1,186	-	-	-	-
Cr 255 (WD14-2)	3,413	2,062	-	-	-
CR 258 (WD14-3)	-	1,984	1,831	-	-
SH 138 (Hoover-2)	-	-	748	1,922	-
CR 248 (WD14-4)	-	-	642	1,403	-
CR 147 (WD14-1)	-	-	580	1,267	-
Wolfridge (Hoover-1)	-	-	290	635	-

Notes:

**City of Georgetown, Texas
Capital Improvement Program**

Western District - Pump and Storage

Responsible Division: Water Services

Financial Plan (thousands of dollars) :

Prior Years	Budget 2016	Projected					Total
		2017	2018	2019	2020		
-	1,337	-	-	-	-	1,337	

Description :

Project includes the rehabilitation of existing pump stations to meet the demands of existing customers and future growth in the Western district.



Funding Sources :

Funded with cash from operations.

Subprojects (000):	2016	2017	2018	2019	2020
Domel pump station improvement	1,337	-	-	-	-

Notes:

Energy Services

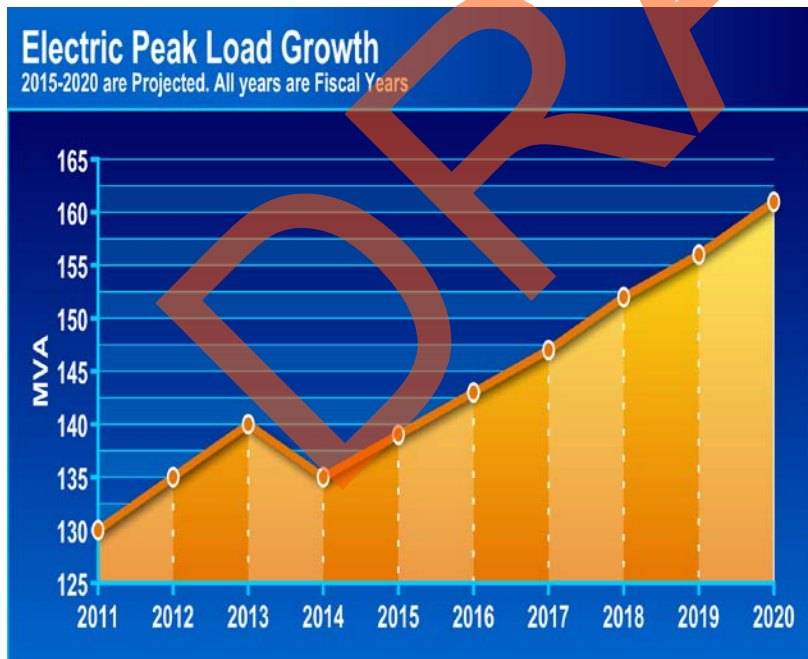
Introduction

The Energy Services Utility maintains a Capital Improvement Program (CIP) to address the community's need for superior electric service. The CIP is developed by incorporating several factors including service improvement, increased reliability, equipment aging, and extension of service within the certificated service area, regulatory changes, competition within dually certified areas, and support for economic development. The City operates and maintains an energy delivery system including seven substations and 394 miles of distribution lines consisting of both 12.5kV and 25kV. In addition to energy delivery, the Energy Services Utility operates the SCADA system, fiber-optic communications network, and the AMR system. These additional systems support collectively the electric and water utilities.

Substations	MVA
Chief Brady	47.0
East	94.0
Gabriel	55.0
Georgetown	44.0
Glasscock	80.0
Rivery	94.0
South	47.0
Total Capacity	461.0
Distribution lines	
Electric Lines	394.0
Fiber lines	77.0
Networked AMI Meters	22,636.0

Growth

Over the past ten years, the City of Georgetown Electric distribution system has experienced



rapid growth, with the addition of several new residential and commercial developments in the system's service area. The system anticipates a continued growth of 15% in the service area over the next five years. The Capital Improvement Plan (CIP) includes projects over the next five years to add power bank additions at substations along with other substation support and modifications to address growth and reliability. Additionally, the CIP includes new extensions of overhead and underground feeders to new commercial and residential developments, system improvements projects for load

and reliability control, as well as the service extensions from the existing distribution system to service new customers.

Age

To address the aging of the system, the CIP includes projects to inspect, treat or replace deteriorated poles and rehabilitate aging facilities. In 2008/09, the Utility began a long term project to identify and rehabilitate overhead & underground facilities system wide including phased conversion of portions of its 12.5kV system to 25kV for reliability.



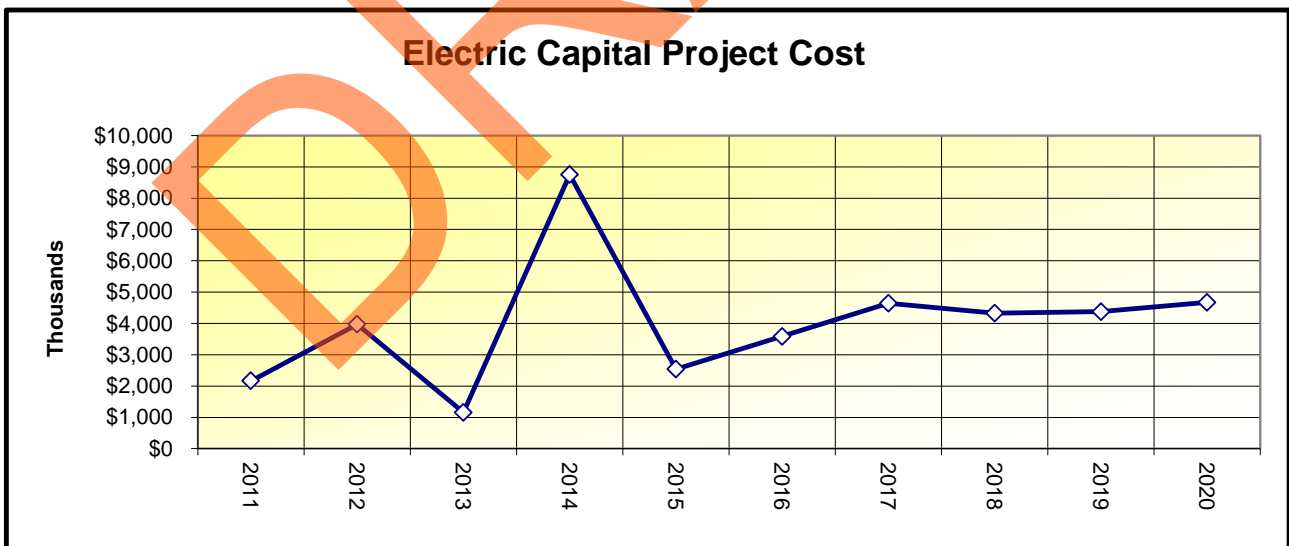
Regulatory Changes

The City's electric system is subject to reliability standards of the North American Electric Reliability Council (NERC), operational control and reliability through the Electric Reliability Council of Texas (ERCOT). Due to the deregulated electric market in Texas, and the City's status as a non-opt-in municipal retail provider, the City must continue to monitor developments in the Texas market place. The replacement of the AMR system with an AMI system will support regulatory changes related to Smart-Grid. The City has a Conservation and Environmental department to focus on conservation within the electric utility, including the provision for capital investment in conservation-related projects.

City of Georgetown, Texas
Electric Capital Improvement Program
FY 2016 to 2020

	2016	2017	2018	2019	2020	Total
<i>(Thousands of dollars)</i>						
Projected Annual Project Cost	\$ 3,588	\$ 4,648	\$ 4,323	\$ 4,373	\$ 4,673	\$ 21,605
Debt issuance cost	-	17	13	13	18	61
Sources of Funding						
Operating Revenue	3,588	3,500	3,500	3,500	3,500	17,588
Utility Revenue Debt	-	1,165	836	886	1,191	4,078

Project	Prior Year	2016	2017	Projected 2018	2019	2020
<i>(Thousands of dollars)</i>						
Current Projects:						
Substations / Communication	\$ 2,453	\$ -	\$ -	\$ -	\$ -	\$ -
System Improvements	4,500	3,588	4,648	4,323	4,373	4,673
Solar	3,270	-	-	-	-	-
Totals	\$ 10,223	\$ 3,588	\$ 4,648	\$ 4,323	\$ 4,373	\$ 4,673



**City of Georgetown, Texas
Capital Improvement Program**

System Improvements

Responsible Division:

Financial Plan (thousands of dollars) :

Prior Year	Budget 2016	Projected					Total
		2017	2018	2019	2020		
4,500	3,588	4,648	4,323	4,373	4,673	26,105	

Description :

These projects provide for various system improvements and modifications to the existing electric system overhead and underground main and branch feeder circuits. Projects include the replacement and modification of facilities, circuit ties for reliability improvements, voltage conversions, conductor replacement or upgrades, capacitor and sectionalization switches for system performance.



Funding Sources :

Funded by operating revenue.

Projects (000):

	2016	2017	2018	2019	2020
System Improvements	1,615	2,725	2,400	2,450	2,450
Operational	1,973	1,923	1,923	1,923	2,223

Notes: