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PFLUGERVILLE
TEXAS

DATE: May 8, 2018

TO: Mayor and City Councilmembers

FROM: Amy Giannini, P.E., CFM
City Engineer

SUBJECT: Discuss and consider a recommendation to the City Council by the Planning & Zoning regarding the FY 2019 – FY 2023 Capital Improvement Plan

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As required by the City Charter, the Planning and Zoning (P&Z) Commission annually reviews and submits a **5-year Capital Improvement Plan** to the City Council and City Manager at least 120 days before the beginning of the budget year that starts in October. Projects are prioritized by staff and programmed with a recommended year of construction.

This document is respectfully submitted by staff to the City Council for consideration and approval.

Capital Improvement Projects are large projects that enhance or expand the infrastructure of the City. These projects typically take more than one year to develop and complete and are frequently paid for with bond proceeds and the utility fund.

The Capital Improvement Plan is a multi-year plan covering five years that forecasts spending for all anticipated capital projects. The plan addresses both repair and replacement of existing infrastructure as well as the development or acquisition of new facilities, property, improvements and capital equipment to accommodate future growth. As a planning tool, it enables the City to identify needed capital projects and coordinate facility financing, construction, operation and scheduling.

City Charter Requirement

The City's Charter requires the Planning and Zoning (P&Z) Commission to submit a 5-year Capital Improvement Plan to the City Council and City Manager at least 120 days before the beginning of the budget year that starts in October. The plan must include a prioritized list of projects that are programmed with a recommended year of construction.

Project Funding

Funding plays an integral role in how capital projects are prioritized. There are several different funding sources for capital improvement projects including but not limited to the following:

- Certificates of Obligation (CO) - a bond secured by property tax that does not require voter approval.
- General Obligation (GO) - a bond can be acquired only after the approval of the voters as the debt service is typically added to the tax rate for projects such as streets, municipal facilities, and park improvements.
- General Fund (GF) - the largest fund within the City, the GF accounts for most of the City's financial resources. General Fund revenues include property taxes, licenses and permits, local taxes, service charges, and other types of revenue. This fund usually includes most of the basic operating services, such as police, parks and recreation, streets, and general administration.
- Utility Fund (UF) – the UF funds projects from the sale of water and wastewater services, utility impact fees and the issuance of revenue bonds.
- Developer-Funded – projects may be funded as part of a development or performance agreement and through capital impact fees for new development. Developer-funded projects may or may not be managed by City staff.

Currently, the City uses CO and GO bonds to fund roadway, drainage, sidewalk and park projects. Smaller projects may even be funded out of the GF or UF if the project is a high priority to the citizens and City Council. Voters approved the $62.5 million in general obligation bonds in 2014 and 2015 for parks ($25 million) and roadway improvement ($28 million in 2014 and an additional $9.5 million in 2015 for Weiss Lane) projects. Utility projects are typically funded by the Utility Fund, capital recovery fees (impact fees from new development) and Utility COs are funded through utility revenue guaranteed by the tax rate.

Staff Recommendation

Staff recommends the development of a program for the listed roadway projects using GO bonds, COs, grant funding, economic development agreements and other funding sources. City staff have listed the roadway projects by priority based upon anticipated development times for plans, utility adjustments and right of way acquisition.

Transportation / Roadway / Streets Projects

A safe and efficient arterial roadway system is essential to support economic development within the SH 130 corridor as well as other parts of the City. By providing the necessary connections to the City's commercial and single-family developments, the City will continue to grow and flourish as accessibility and public infrastructure improves.

As this development occurs, public schools will also need to expand and construct new schools to serve community needs. This will have a direct impact on the existing rural two-lane roadway network. Therefore, the ability of the City to advance significant projects to construction is highly contingent on the development of a program that identifies and prioritizes the needs of the community.

In accordance with the City's 2016-2017 Strategic Plan and as part of the CIP process in 2017, the City Council requested that staff create a Transportation CIP based on staff developed criteria for CIP evaluation. In September 2017, staff presented the City Council a ranked transportation CIP based on developed scoring criteria. Staff has used the feedback from the City Council to develop criteria for the evaluation of the Unfunded FY 2019 – FY 2023 Transportation CIP. The criteria includes several factors including mobility, safety, community goals and policies, implementation, project value and system management. The scoring team consists of members from several departments involved in planning, building and maintaining infrastructure in the City.

Projects for programming in the 2019-2023 CIP Plan are included in the tables below and includes a proposed timeline for design and construction during the year the activity begins.

Table 1 – Current Transportation/Roadway/Streets (Funded)

Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
East Pflugerville Parkway and SH 130 Intersection Improvements	Construct intersection improvements including two additional lanes through the intersection and a traffic signal	2014 GO Bond	$2.1M	2014/2017
East Pflugerville Parkway	Reconstruct the existing two-lane road with curb and gutter and a new sidewalk along Pflugerville Parkway from Colorado Sand Drive to Becker Farm Road	2014 GO Bond	$2.7M	2014/2018
Pfennig Lane Widening and Roadway Improvements	Construct a three-lane roadway section that includes a two-way central left turn lane, curb and gutter and curve modifications	2014 GO Bond	$2.8M	2015/2018
Weiss Lane Roadway Improvements	Construct a four-lane urban roadway from just north of the Wilbarger Creek bridge to Kelly Lane, adjacent to the future high school	2014/ 2015 GO Bond & Travis County Bond	City - $15.8M County - $7.4M Total - $23.2M	2015/2017
Heatherwilde and Windermere Neighborhood Streets	Repairs and reconstruction of streets including Cactus Blossom Drive , Columbine Street, Ardisia Drive, Simsbrook Drive, Dashwood Creek Drive, Blackthorn Drive, Thackeray Lane, Gravesbend Road, Isle of Man Road, Isle of Man Court, Gower Street and Langland Road	2014 GO Bond	$3.8M	2015/2018
	Total Funded Projects		**$34.6M**	

Table 2 – Transportation Planning and Analysis (Funded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
Master Transportation Plan	With emphasis on traffic analysis at FM 685/Town Center Drive/SH 130/Kelly Lane and SH 130 from E. Pecan Street to Cameron Road	GF	$200K	2018-2019
SH 45 Frontage Road	Toll and Revenue Study for frontage road gaps west of Heatherwilde Blvd.	CO	$138K	2017-2018
	Total		**$338K**	

Table 3 – Transportation/Roadway/Streets (Unfunded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
1. Old Austin-Hutto Road	Reconstruct and widen Old Austin-Hutto Road to an urban three-lane section with curb and gutter, storm drain and eliminate low water crossing (100% plans complete)	CO (Design) /TBD	$3.35M	2015/2019
2. FM 685/Copper Mine Drive Overpass Improvements	Median reconstruction and lane use changes to unbalance bridge for dedicated dual left-turn lanes for northbound FM 685 traffic	TBD/TIA	$403K	TBD
3. Colorado Sand Drive	Construct the middle section of Colorado Sand Drive to a four-lane urban divided section with water and wastewater service improvements	TBD	$3.38M	TBD
4. FM 685 and Kelly Lane Intersection Improvements	Southbound Left-turn and Right-turn Lane Improvements at Southbound Frontage Road at Kelly Lane	TBD/TIA	$656K	TBD
5. Town Center Drive Improvements	Various median and widening improvements from FM 685 to Limestone Commercial Drive including access management, signage and striping, and possible signalization	TBD/TIA	$753K	TBD
6. Immanuel Road Widening	Reconstruct and widen Immanuel Road to an urban three-lane section with storm sewer, pedestrian and landscaping improvements from E. Pecan Street to Pigeon Forge Road (bridge replacement not in project scope)	TBD	$4.47M	TBD
7. Pfluger Farm Lane North	Extend an urban three-lane roadway north of Town Center Drive to SH 45	TBD	$3.96M	TBD
8. E. Pecan Street at Biltmore Avenue Intersection Improvements	Install traffic signal at E. Pecan Street and Biltmore Avenue intersection and install median improvements from Sun Light Near Way to SH130 Southbound Frontage Road for access control	TBD/TIA	$500K	TBD

Table 3 – Transportation/Roadway/Streets (Unfunded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
9. Arterial A	Reconstruct and widen Meister Lane from New Meister to SH 45 to an urban four-lane roadway	TBD	$4.22M	TBD
10. Kelly Lane Phase 2	Reconstruct and widen Kelly Lane to an urban four-lane divided section from W. Falcon Pointe Drive to Moorlynch Avenue	TBD	$6.40M	TBD
11. West Black Locust Drive	Reconstruct West Black Locust Drive from Grand Avenue Parkway to N Heatherwilde Boulevard to existing section	TBD	$1.64M	TBD
12. Central Commerce Drive	Reconstruct and widen Central Commerce Drive from Royston Lane to Picadilly Drive to an urban three-lane roadway	TBD	$3.82M	TBD
13. E. Pecan Street Turn Lane Improvements at FM 685	Eastbound and westbound Left-turn capacity improvements on E. Pecan Street including median extension and reconstruction east of FM 685 and lane marking adjustments west of FM 685	TBD/TIA	$253K	TBD
14. Pecan Street at Heatherwilde Blvd Intersection Improvements	Install Left-turn lanes on northbound and southbound Heatherwilde Boulevard at Pecan Street	TBD	$354K	TBD
15. Royston Lane	Reconstruct and widen Royston Lane to a three-lane roadway from Central Commerce Drive to Grand Avenue Parkway including a storm sewer improvements	TBD	$3.47M	TBD
16. Melber Lane	Construct two lanes from Cameron Road through 1849 Park property	Developer/ TBD	$3.54M	TBD
17. Picadilly Drive	Reconstruct and widen Picadilly Drive to an urban four-lane section from Central Commerce to the city limits	TBD	$3.68M	TBD
18. Kelly Lane Phase 3	Reconstruct and widen Kelly Lane to an urban four-lane divided section from Moorlynch Ave to Weiss Lane	TBD	$10.24M	TBD
19. Wilke Ridge Lane	Reconstruct and widen Wilke Ridge Lane from W Pflugerville Parkway to N Heatherwilde Boulevard to a three-lane urban section	TBD	$2.53M	TBD
20. Schultz Lane	Reconstruct and widen Schultz Lane from 300’ north of Springbrook Road to City Limits to an urban four-lane roadway	TBD	$2.86M	TBD

Table 3 – Transportation/Roadway/Streets (Unfunded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
21. Rowe Lane at SH 130 Northbound Frontage Road	Install right-turn deceleration and acceleration lanes on SH 130 Northbound Frontage Road created by widening frontage road to the inside for approximately 500' either side of Rowe Lane intersection	TBD/TIA	$236K	TBD
22. E. Pflugerville Parkway Extension/ Realignment East of Weiss Lane	Extend Pflugerville Pkwy east of Weiss Lane to create continuous arterial route along today's Jesse Bohls Drive	TBD	$3.47M	TBD
	Total Transportation/Roadway/ Streets (Unfunded)		**$64.19M**	

Table 4 – Traffic Signal Improvements (Unfunded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
Traffic Signal Installation and Improvements	Install four traffic signals	TBD	$1.0M	TBD
	Total Traffic Signal Improvements (Unfunded)		**$1.0M**	

Table 5 – Transportation Planning and Analysis (Unfunded)				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
1.SH 130 at Kelly Lane Preliminary Engineering Study	Concept Schematic for future Kelly Ln Displaced Left-turns and/or Divergent Diamond Interchange	TBD	$350K	TBD
2.Rowe Lane Overpass Preliminary Engineering Study	Concept Schematic for future multi-lane overpass at SH 130	TBD	$250K	TBD
3.Rowe Lane Study	Corridor Study from Heatherwilde Boulevard to Eastern City Limits	TBD	$250K	TBD
4.East Pecan Street Study	Corridor Study from SH 130 to Fuchs Grove	TBD	$250K	TBD
5.Cele Road Study	Corridor Study from Weiss Lane to Melber Lane	TBD	$250K	TBD
	Total Transportation Planning and Analysis (Unfunded)		**$1.35M**	

The proposed transportation projects referenced in the proposed 5-YR CIP total approximately $101.48M. It is important to note that there is currently no funding available or allocated toward the unfunded portions of the CIP totaling $66.54M.

Facility Projects

The City of Pflugerville has experienced tremendous growth over the past decade, and that growth is anticipated to continue well beyond the next decade. The current needs of the growing community have surpassed the size of the City's current aging facilities.

The City is currently working on a City Hall Needs Assessment which documents a deficit of approximately 20,000 sf of space based on current needs and staffing. The Assessment also projects the need for a 63,000 sf building with a future population of 160,000.

The Police Department also completed a Justice Center Expansion Facility Needs Assessment in 2017. The Needs Assessment documented the needs of the Department through 2035 and proposed several additions including a new Municipal Courts Building, new Communications and Training Center, CID expansion, Property and Evidence expansion, Long Term Holding expansion, HVAC Replacement, and additional parking areas. The total additional areas proposed equate to approximately 50,000 sf of added space and improvements.

Table 6 – Facilities

Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
City Hall Needs Assessment Implementation	Construct a new 63,000 sf City Hall Complex	TBD	$33M	TBD
City Hall Land Acquisition, if necessary	Purchase land to accommodate City Hall Complex	TBD	$1M	TBD
Courtyard Renovations at Justice Center	Fill in and renovate 4,829 sf existing courtyards at the Justice Center	TBD	$604K	TBD
Justice Center Expansion	Expand existing justice center to a 50,000 sf facility	TBD	$37M	TBD
Public Works Master Plan	Develop a Public Works Facility Master Plan	TBD	$100K	TBD
Parks Master Plan including operational facilities	Develop a Parks Facility Master Plan	TBD	$100K	TBD
	Total Facilities		**$71.8M**	

Water and Wastewater Utility Projects

Master planning is important to provide guidance and planning for future efforts. In 2013, the City Council adopted water and wastewater master plans prepared by Lockwood, Andrew and Newnan. These plans included 5-year and 10-year capital improvement projects to support the City's future growth. City staff have used the overall plan to provide a roadmap for programming of water and wastewater infrastructure in the proposed 2019-2023 capital improvement plan. An update to the Water Master Plan is currently underway and it is anticipated that City Council will adopt the updated plan in 2019.

Efforts that Affect the Master Plan

The City previously entered into an agreement with the Manville Water Supply Corporation (MWSC) that released the MWSC's obligation to provide service to the old North Travis County MUD No. 5 (NTCMUD #5) and their ability to require impact fees within the NTCMUD #5 geographical boundary. This agreement also required the City to purchase 685,000 gallons of water per day from the MWSC at a designated location, for the remainder of the term of the agreement (expiring in September 2036) for the NTCMUD #5 District. Therefore, in order for the City to serve the customers directly within the NTCMUD #5, the City was required to construct water utility projects to service the former NTCMUD #5 area.

Water

Currently, the City's water is supplied by surface and groundwater/well sources. Lake Pflugerville is the source of surface water, which is permitted through the Lower Colorado River Authority (LCRA); and the City is under contract to purchase and transport water from the LCRA to Lake Pflugerville.

The water treatment plant (WTP) has a rated capacity of 21.6 million gallons per day (MGD), and production currently totals an average of approximately 4.6 MGD. Three wells draw water directly from the Edwards Aquifer and can produce up to 6 million gallons per day (MGD).

In addition, there are three water service providers within the City limits (City, MWSC and Windermere/SW Water). Windermere/Southwest Water and MWSC have interconnections with the City's system.

The City is a wholesale customer of the MWSC and a wholesale provider to MWSC and Windermere Utility Corporation.

To plan for the City's future needs, water utility projects were classified into four categories in the master plan.

1. System Strength and Reliability
2. Storage
3. Distribution
4. Miscellaneous System Improvements

This table below denotes recommendation from City staff for water utility projects for the 5-year CIP and includes a proposed timeframe for design and construction.

Table 7 – Water Utility Projects

Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
System Strength and Reliability				
Pump Station at Water Treatment Plant	Build pump station at Water Treatment Plant to Support the 800' Pressure Plane	Utility Fund	$2,575,000	2019/2020
River Intake Relocation	Relocate 150 feet of Intake Piping to a Deeper location in the Colorado River for Increased Intake Capacity	Utility Fund	$1,887,000	2021/2022
	Total		**$4,462,000**	
Storage				
Elevated Storage Tank for 800' Pressure Plane	Construct an Elevated Storage to serve customers in the 800' Pressure Plane	Utility Fund	$5,150,000	2019/2020
	Total		**$5,150,000**	
Distribution				
West SH 45 Water Extension and Interconnect	Bore 900 Linear Feet of 16" Water Line Under SH 45 to provide water service to properties north and east of SH 45 and SH 130	Utility Fund	$873,400	2018/2019
South Weiss Transmission Main from Pleasanton Parkway to SH 130	Install a 24-inch transmission main along Weiss Lane from the Pleasanton Parkway to E. Pecan Street and a 16-inch main along Pecan to SH 130	Utility Fund	$3,656,000	2019/2020
Oxford Transmission Main Extension	Install 16-inch transmission main extension bore from Dessau Road to Oxford Drive	Utility Fund	$686,000	2021/2022
	Total		**$5,215,400**	
Miscellaneous System Improvements				
Water Master Plan Update	Perform Strategic Planning Efforts to update the Water Master Plan	Utility Fund	$200,000	2018
Manville Water Line (MUD 5 Agreement)	Reimbursement to Manville for installation of 12" Water Line per NTCMUD #5 agreement	Utility Fund	$1,000,000	2019
Impact Fee and CIP Update	Perform Strategic Planning Efforts to Update the Impact Fees and CIP	Utility Fund	$140,000	2019
City Well #6 Rehabilitation	Rehabilitate existing well for increased capacity	Utility Fund	$853,000	2019/2019
Pecan Street/ Parkway Drive Interconnect	Bore a 12" interconnection under Pecan Street for	Utility Fund	$390,000	2020/2021

Table 7 – Water Utility Projects				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
	connection to system acquired from Austin			
Porchester Castle Path /Stone Hill Pressure Plane Interconnection	Install two PRVs needed to interconnect the 950-ft & 888-ft pressure plane	Utility Fund	$57,000	2021/2022
Wells Branch Loop	Install 16-inch main extension from 10th Street to Settlers Valley Drive	Utility Fund	$475,000	2021/2022
Water Master Plan Update	Perform Strategic Planning Efforts to update the Water Master Plan	Utility Fund	$230,000	2023
Impact Fee Update	Perform Strategic Planning Efforts to Update the Impact Fees and CIP	Utility Fund	$165,000	2023
	Total		**$3,510,000**	
	Total Water		**$18,337,400**	

Wastewater

The City has experienced tremendous growth over the past decade, and that growth is anticipated to continue well beyond the next decade.

During the development of the Water Master Plan and impact fees in 2012-13, the City determined that an updated Wastewater Master Plan was also necessary to accurately depict the City's future wastewater infrastructure needs to satisfy the growth. The previous 2008 Wastewater Master Plan was developed considering three service areas: Cottonwood Creek, Wilbarger, and Central. The City treats its wastewater at the existing Central Wastewater Treatment Plant (WWTP) located in the Gilleland Creek natural drainage basin. The 2008 master plan capped the flow to the Central WWTP at 5.3 million gallons per day (MGD), based on full build-out flow analysis of the future service area for the Central WWTP, and recommended the construction of a new wastewater plant in the Wilbarger basin.

Lockwood, Andrew and Newnam (LAN) was contracted by the City to update the City's wastewater master plan and capital improvements plan in July 2012. The study included an analysis of the City's existing system and a determination of the City's future development and wastewater treatment needs. The master plan developed by LAN utilized the concept of diverting more flow to the existing WWTP in the Central Service area and increasing its capacity to further defer the expense of a new plant and associated interceptors. The master plan assumed that by completing the expansion of the Central WWTP to 6.9 million gallons per day (MGD) by fiscal year 2019, the construction of another regional wastewater treatment facility to serve the Wilbarger and the Cottonwood watershed basins could be deferred beyond the 5-year utility CIP.

After increasing the permitted capacity of the Central WWTP from 4.4 to 5.3 MGD in late 2016, it was determined that the facility could not achieve the final permit phase capacity of 5.85 MGD without making improvements. After completing the design planning for the West SH 130 Interceptor Phase I and II project, it was determined that the build-out capacity of the Central WWTP should be increased from 9 to 10 MGD and, because the plant had exceeded 75% of the permitted flow several times between 2013 to 2017, design of the expansion to 10 MGD should be started as soon as possible in order to ensure compliance with TCEQ requirements. In April of 2017, Freese and Nichols began the study phase of the 10 MGD expansion and, after completing the study, recommended the expansion be designed and constructed in three phases. The design of Phase I of the expansion project, which will upgrade the wet capacity of the plant to 7.25 MGD, was started in March of 2018. Phase II of the project, scheduled to begin design in 2020 after construction of Phase I is complete, will complete the upgrade to 10 MGD. Phase III of the project, anticipated to be constructed in 2026, will complete the upgrade by increasing the plant's sludge processing capacity to 10 MGD.

The final design and construction of another regional wastewater treatment facility up to 25 MGD east of SH 130 and corresponding wastewater interceptor lines will be needed in the future but may be deferred until such time the City reaches 75% of the expanded 10 MGD capacity at the Central WWTP or other significant system components such as the Weiss Lane Lift Station and force main reach capacity.

The 2013 Wastewater Master Plan serves as a tool to be used by the City in ensuring that its wastewater system develops in a systematic and prioritized manner. An update to the wastewater master plan is currently underway and it is anticipated that City Council will adopt the updated plan in 2019.

To plan for the City's future needs, the following core principles guide the development of projects:

- Capacity expansion
- Removal of lift stations from collection system, and
- Development-driven improvements

Please refer to the table below for the recommended wastewater utility projects and the proposed years of design and construction.

Table 8 – Wastewater Utility Projects

Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
Capacity Expansion				
Central WWTP Expansion Phase 1	Construct new components of 10 MGD plant	Utility Fund	$46,812,000	2017/2019
New Sweden Package Treatment Plant	Install a 0.475 MGD package treatment plant	Utility Fund	$13,276,000	2017/2021
Central WWTP Expansion Phase 2	Rehabilitate and convert existing portions of plant	Utility Fund	$10,846,000	2020/2021
	Total		**$70,934,000**	
Lift Station Removal				
Decommission Pfluger Lane (Pflugerville Parkway) Lift Station	Removal of existing lift station	Utility Fund	$180,000	2016/2018
Decommission Highland Park Lift Station	Removal of existing lift station	Utility Fund	$180,000	2019/2020
	Total		**$360,000**	
Development-Driven Improvements				
Wastewater Master Plan Update	Perform Strategic Planning Efforts to update the Wastewater Master Plan	Utility Fund	$180,000	2018/2018
SH 45/SH 130 Tunnels and Connector	Extend Service Area to the North of SH 45	Utility Fund	$2,884,000	2018/2019
West SH 130 Interceptor Phase 1 & 2	Install wastewater interceptor from wastewater treatment plant to the northwest corner of Pflugerville Parkway and FM 685	Utility Fund	$16,000,000	2017/2018
Impact Fee and CIP Update	Perform Strategic Planning Efforts to Update the Impact Fees and CIP	Utility Fund	$140,000	2019/2019
Carmel Force Main Extension	Extend 24" Force Main from Weiss Lane to SH 130 Interceptor	Utility Fund	$1,900,000	2019/2019
Weiss Lane Lift Station Capacity Upgrade	Evaluate Lift Station and construct upgrades	Utility Fund	$300,000	2019/2020
Sorento Interceptor Phase 2	Extend 33" Wastewater Main from Jesse Bohls to Weiss Lane	Utility Fund	$3,640,000	2019/2020
Highland Park & Pfluger Lane Interceptor Upsize	Replace existing gravity interceptor with 36-inch capacity to convey wastewater to the SH 130 interceptor	Utility Fund	$435,000	2019/2020

Table 8 – Wastewater Utility Projects				
Project Name	Project Description	Funding Source	Total Cost Estimate	Design/ Construct
Highland Park & Pfluger Lane Interconnector Phase 2	Install a 4-inch gravity interceptor to convey wastewater from Highland Park lift station	Utility Fund	$726,000	2019/2020
New Sweden/ Cottonwood Interceptor Phase 1	Construct a 27" gravity sewer main from New Sweden WWTP property to Melber Lane north of Cele Road	Utility Fund	$5,500,000	2019/2021
Lakeside Wastewater Interceptor Phase 1	Install a 18" Collection and Transmission Line	Utility Fund	$888,000	2020/2021
Lakeside Wastewater Interceptor Phase 2	Install a 18" Collection and Transmission Line	Utility Fund	$599,000	2021/2022
Wastewater Master Plan Update	Perform Strategic Planning Efforts to update the Wastewater Master Plan	Utility Fund	$215,000	2023
Impact Fee Update	Perform Strategic Planning Efforts to Update the Impact Fees and CIP	Utility Fund	$165,000	2023
	Total		**$33,572,000**	
	Total Wastewater		**$104,866,000**	

The proposed water and wastewater utility projects referenced in the proposed 5-YR CIP total approximately $123,203,400. It is important to note that the construction of the utility projects will require additional funding aside from Utility Fund Balance and impact fees. The City will need to issue CO bonds for the construction of these projects.

Reclaimed Water (Reuse)

In early 2015, the City completed a Reclaimed Water Master Plan. This Master Plan illustrates the improvements and phasing necessary to provide reclaimed water for portions of the City. Examples of large users are cooling towers, large scale irrigation and manufacturing. The source of the reclaimed water is the City's wastewater treatment plant. Table 9 below illustrates the initial projects that would be implemented.

Table 9 – Reclaimed Water Projects			
Project Name	Project Description	Total Cost Estimate	Design/ Construct
Reclaimed Water Pumping and Storage	Construct pumps and storage for system and one million gallon storage	$5,470,000	2020/2021
Segment 1 Distribution Line	Construct a 20" re-use main from WWTP to SH 130	$2,258,000	2020/2021
Segment 2 Distribution Line	Construct a 16"/12" re-use main to East Cameron Road	$2,245,000	2020/2021
	Total Reclaimed Water	**$9,973,000**	