

**Community Investments Program
FY 2017 through FY 2021**

**Mill Street Island Lanscaping
CIP #OS1701**

Project Description:

To add an easily maintainable landscaped entryway into the downtown South Illinois Avenue area.

Project Justification:

This project is consistent with beautification of the downtown areas as desired by the City Council.

Project Capital Costs:

Budgeted FY 2017	23,320
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	23,320
Prior Years Costs	22,960
Later Years Costs	0
Total Cost	\$46,280

Fund Source:

Local Improvement Fund:

Transfers from General Fund	\$23,320
Transfers from Tax Increment Fun	<u>\$22,960</u>

Total \$46,280

Operating Budget Impact: Upon completion, this project will require annual maintenance and plantings that will be performed within the Forestry Divisions operating budget.

**Drainway/Greenways Path Safety Improvements
CIP #OS1703**

Project Description:

The purpose of this project is to add safety improvements as needed to the existing drainways/greenways path along Piles Fork Creek from Grand Avenue to Walnut Street.

Project Justification:

The drainways/greenways path was constructed in 1982-1983 and includes 9.5 acres of land for public outdoor recreation. The land for this project purchased through a State of Illinois Land and Water Conservation Fund Grant, as such the City is responsible to ensure the property and amenities are maintained, safe, and usable for the general public. Via a lease agreement with the City of Carbondale, the Carbondale Park District is responsible for the regular operation and maintenance of the path and is amenities; however the City is required by the Illinois Department of Natural Resources (IDNR) to ensure the recreational land and amenities are maintained and required. The Park District's limited resources preclude making some of the needed safety improvements including: lighting upgrades, handrails modifications, and limited pathway surface reconstruction. As such the City desires to make some needed improvements.

Project Capital Costs:

Budgeted FY 2017	56,640
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	56,640
Prior Years Costs	59,868
Later Years Costs	0
Total Cost	\$116,508

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues	<u>\$116,508</u>
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Total \$116,508

Operating Budget Impact: Once this project is completed there will be costs necessary to maintain the surface of the paths. This cost will be in the distant future and not practical to estimate at this time.

**Community Investments Program
FY 2017 through FY 2021**

**Poplar Camp Beach Restroom and Concession Stand Replacement
CIP #PB1501**

Project Description:

The project includes the construction of new restrooms, changing facilities and concession stand areas at Cedar Lake.

Project Justification:

The existing restroom and changing facilities do not meet current "Accessibility Standards" as such they need to be upgraded to meet required standards.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	34,000
Estimated FY 2019	252,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	286,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$286,000

Fund Source:

Waterworks & Sewerage Fund – Water System:

Fund Balance - Utility Revenues \$286,000

Total \$286,000

Operating Budget Impact: Once this project is completed there will be costs necessary to maintain the new facilities. This cost is estimated to be similar to the existing facilities and will be absorbed in the operating budget of the Cedar Lake Division.

**City Hall/Civic Center Exterior Repairs
CIP #PB1601**

Project Description:

The purpose of this project is to repair the water damage to the exterior EFIS archways at the City Hall/Civic Center building.

Project Justification:

The City Hall/Civic Center Building was opened in the fall of 1996. The exterior of the building is mostly brick and stone masonry, but the large archways on each side of the building are made of plywood covered by styrofoam insulation and then a sand and mortar top coat. This type of exterior finish is commonly referred to as EFIS or "Dryvit". Water has infiltrated these archways and is causing the EFIS system to fail from the inside out. It is necessary to repair these archways now to avoid very costly repair costs in the future.

Project Capital Costs:

Budgeted FY 2017	152,720
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	152,720
Prior Years Costs	13,776
Later Years Costs	0
Total Cost	\$166,496

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$166,496

Total \$166,496

Operating Budget Impact: This project contains the one time repair costs to the façade of the City Hall/Civic Center. There will be no additional recurring costs associated with the project.

**Community Investments Program
FY 2017 through FY 2021**

**MRP Storage Building
CIP #PB1602**

Project Description:

This project consists of constructing an un-conditioned storage building to provide needed storage for City operations.

Project Justification:

Multiple City Departments have a need to store items that cannot be stored within their existing facilities. The Municipal Rental Properties division currently has some storage space that is used by the various departments within the University City Complex on East College Street. As this space is not adequate, and scattered around in multiple buildings, it is proposed to construct a new storage building on City property near Fire Station #1 that can be used for needed storage by various City Departments and Divisions.

Project Capital Costs:

Budgeted FY 2017	256,320
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	256,320
Prior Years Costs	12,920
Later Years Costs	0
Total Cost	\$269,240

Fund Source:

Rental Properties Fund:

Fund Balance - Service Charges \$269,240

Total \$269,240

Operating Budget Impact: The project is funding the construction of a standard non-air-conditioned building that will be used for storage. Additional ongoing costs are not expected to be significant.

**City Hall/Civic Center Electrical Upgrades and Generators
Upsizing
CIP #PB1701**

Project Description:

Replace the existing generator and switch gear at the City Hall/Civic Center with a new generator that is capable of providing emergency power to the entire building and mechanical systems.

Project Justification:

The existing generator at the City Hall/Civic Center building is only capable of providing basic power to for emergency lights and receptacles in key office areas. It does not provide power to the building HVAC (heating, ventilation, and air conditioning) systems, the elevator, or most offices. As such employees and the general public cannot occupy the building during times of power outages.

Project Capital Costs:

Budgeted FY 2017	24,640
Estimated FY 2018	545,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	569,640
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$569,640

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$569,640

Total \$569,640

Operating Budget Impact: As this is an emergency power supply for the City Hall/Civic Center building and as such it is expected to have minimal annual usage. Operating costs are expected to be similar to the unit it is replacing.

**Community Investments Program
FY 2017 through FY 2021**

**700 Block of South Illinois Avenue
CIP #PK0701**

Project Description:

The project includes expanding the existing parking lot onto property that will be purchased from the railroad. The project is located on the west side of the railroad tracks upon property that is currently occupied by Sidetracks. This will complete parking lot #8 and extend it north to College Street.

Project Justification:

This parking lot provides additional parking for the downtown businesses and will extend the existing lot #8 northerly to College Street.

Project Capital Costs:

Budgeted FY 2017	16,600
Estimated FY 2018	201,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	217,600
Prior Years Costs	436,665
Later Years Costs	0
Total Cost	\$654,265

Fund Source:

Parking Systems Operation Fund:

Fund Balance - Service Charges \$654,265

Total \$654,265

Operating Budget Impact: This project will make parking more convenient for customers of those businesses and should add to meter and fine revenue. Maintenance costs are expected to be minimal, operating costs for the meter kiosks are contained within the Parking Division's budget.

**Parking Lot #26 Improvements (Interfaith Center)
CIP #PK1001**

Project Description:

The project includes the reconstruction of an existing parking lot located north of Grand Avenue and East of Illinois Avenue, adjacent to the Interfaith Center.

Project Justification:

This parking lot was originally constructed in the mid 1990's as a temporary parking lot to meet the immediate needs of adjacent businesses. This parking lot is heavily used and is in poor condition; a permanent and proper parking lot needs to be constructed to adequately serve the needs of the public.

Project Capital Costs:

Budgeted FY 2017	147,460
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	147,460
Prior Years Costs	10,050
Later Years Costs	0
Total Cost	\$157,510

Fund Source:

Parking Systems Operation Fund:

Fund Balance - Service Charges \$157,510

Total \$157,510

Operating Budget Impact: This will provide for better and safer parking accommodation to those using this location. The projected construction will be in Fiscal Years 2016 and 2017. The expense will be partially offset by the revenue increase from the additional metered spaces. The monies in FY 2017 are for an additional expansion.

**Community Investments Program
FY 2017 through FY 2021**

**Parking Lot #14 Reconstruction (City Hall/Civic Center)
CIP #PK1701**

Project Description:

This project will reconstruct the existing parking lot to improve parking lot flow and circulation and help alleviate cut-through traffic. The new parking lot will more accurately and specifically delineate city vehicle and employee parking versus visitor parking. It will also include a concrete surface which is more durable and requires less maintenance.

Project Justification:

The existing City Hall/Civic Center Parking Lot is in need reconfiguration and reconstruction to improve safety and access to the City Hall/Civic Center building.

Project Capital Costs:

Budgeted FY 2017	9,960
Estimated FY 2018	16,000
Estimated FY 2019	334,250
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	360,210
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$360,210

Fund Source:

Parking Systems Operation Fund:

Fund Balance - Service Charges \$25,960
Transfers from TIF District \$334,250

Total \$360,210

Operating Budget Impact: Ongoing maintenance impact will be minimal for the newly constructed lot.

**Parking Lot #19 Reconstruction (Washington St. by Veterans Plaza)
CIP #PK1701**

Project Description:

This project will reconstruct the existing parking lot to improve parking lot flow and circulation. The reconstructed parking lot will be much more aesthetically pleasing and will include a concrete surface which is more durable and requires less maintenance.

Project Justification:

The existing parking lot is failing and in need of reconstruction and reconfiguration.

Project Capital Costs:

Budgeted FY 2017	13,280
Estimated FY 2018	7,000
Estimated FY 2019	236,500
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	256,780
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$256,780

Fund Source:

Parking Systems Operation Fund:

Fund Balance - Service Charges \$20,280
Transfers from TIF District \$236,500

Total \$256,780

Operating Budget Impact: Ongoing maintenance costs will be minimal with the reconstructed lot.

**Community Investments Program
FY 2017 through FY 2021**

**East/West Sanitary Sewer between Schwartz Street and College Street
CIP #SA0106**

Project Description:

Replace existing 8" sanitary sewer west of Oakland Avenue between Schwartz Street and College Street.

Project Justification:

The existing 8" sanitary sewer is in need of repair and replacement.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	144,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	144,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$144,000

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Revenues \$144,000

Total \$144,000

Operating Budget Impact: The line replacement will prevent the cost of utilizing the sewer jet for maintaining flow as well as any excavation repairs necessary due to the old line. Future maintenance cost savings is estimated to be approximately \$600 annually.

**Sanitary Sewer Rehabilitation Program
CIP #SA0901**

Project Description:

Annual Sewer Rehabilitation Program to maintain and improve the integrity of the sewer system and repair problem areas. The early years of this program (primarily through FY 2019) will concentrate on manhole lining with the later years of this project focusing on sanitary sewer lining and repairs.

Project Justification:

Many sewers are in need of repair to improve pipe condition and reduce infiltration and inflow. In addition, the program would reduce blockage in the sewer lines causing customer problems and possible damage to homes.

Project Capital Costs:

Budgeted FY 2017	469,920
Estimated FY 2018	721,000
Estimated FY 2019	865,000
Estimated FY 2020	750,000
Estimated FY 2021	865,000
Total Five-Year Costs	3,670,920
Prior Years Costs	932,937
Later Years Costs	0
Total Cost	\$4,603,857

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$4,603,857

Total \$4,603,857

Operating Budget Impact: This on-going improvement program is providing monies in future years which will be used as each line is identified. Such project/studies were contemplated when the water/sewer rate increase program was instituted. The completion of this project will reduce routine maintenance and intermittent service calls. The maintenance cost will be funded with water department revenues, aided by past and future increases in rates.

**Community Investments Program
FY 2017 through FY 2021**

**Sanitary Sewer Inflow and Infiltration Study
CIP #SA1301**

Project Description:

Evaluate the City's Sanitary Sewer System to identify and correct sources of inflow and infiltration.

FY 2017 will be the fifth (5th) consecutive year of this study. In FY 2017 the majority of smoke testing and manhole inspections are expected to be completed, leaving only a few smaller basins for later years.

Southern Illinois University's (SIU) sanitary sewer system is tributary to the City's system and constitutes approximately 14% of the overall sanitary sewer system in the City. As SIU's sanitary sewer system is private, smoke testing and inspection will not be performed; however outflows analysis will be conducted to determine if significant inflow and infiltration exist within the SIU sanitary sewer system.

Project Justification:

The City's two wastewater treatment plants experience significant flow increases during rain events. These increases in flow are a direct result of rain and storm runoff waters entering the sanitary sewer system. An ongoing sanitary sewer inflow and infiltration study will aid the City in identifying major sources of inflow and infiltration and allow them to be corrected thereby reducing operating costs for the wastewater treatment plant.

Project Capital Costs:

Budgeted FY 2017	314,960
Estimated FY 2018	81,000
Estimated FY 2019	165,000
Estimated FY 2020	0
Estimated FY 2021	16,500
Total Five-Year Costs	725,960
Prior Years Costs	521,871
Later Years Costs	0
Total Cost	\$1,247,831

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$1,247,831

Total \$1,247,831

Operating Budget Impact: This will identify problem areas enabling proper repair/resolution of existing and potential problems. Such project/studies were contemplated when the water/sewer rate increase program was instituted.

**Haake Jenkins Sanitary Sewer
CIP #SA1302**

Project Description:

Install approximately 800 feet of gravity sanitary sewer to eliminate the Haake Jenkins Lift Station.

This project has been in the works for a couple of years as it is necessary for private easements to be secured prior to design being completed. Staff is working with the property owner(s) and hopes to have easements secured in the spring of 2015.

Project Justification:

The Haake Jenkins lift station is in need of extensive rehabilitation, including the installation of new pumps, piping, rails and control systems. Staff has concluded that this lift station can be eliminated by installing gravity sewer to the existing and neighboring Golf Course lift station. This will eliminate ongoing electrical and maintenances costs associated with the operation of the Haake Jenkins lift station.

Project Capital Costs:

Budgeted FY 2017	87,480
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	87,480
Prior Years Costs	9,362
Later Years Costs	0
Total Cost	\$96,842

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$96,842

Total \$96,842

Operating Budget Impact: Simplifies overall operation reducing ongoing repair and operating and possible future replacement costs. Project completion expected in Fiscal Year 2017.

**Community Investments Program
FY 2017 through FY 2021**

**Oak Street – Popular Street to Wall Street Sanitary Sewer Upgrade
CIP #SA1501**

Project Description:

Replace the aging sanitary sewer along Oak Street from Poplar to Wall.

Project Justification:

The expansion of Memorial Hospital continues to add load to the City’s sanitary sewer infrastructure. The existing sewer that serves the hospital complex is nearing capacity and needs to be replaced to insure its continue adequacy.

Project Capital Costs:

Budgeted FY 2017	13,280
Estimated FY 2018	932,500
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	945,780
Prior Years Costs	48,945
Later Years Costs	0
Total Cost	\$994,725

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$994,725

Total \$994,725

Operating Budget Impact: This is the type of expenditure contemplated when the water/sewer rate increases were instituted. This project will minimize the potential of overflow/breakage and resultant costly repairs.

**SEWWTP Interceptor Sewer Extension
(Park St. to Pleasant Hill Road)
CIP #SA1601**

Project Description:

This project includes the extension of the SEWWTP Interceptor Sewer from the intersection of Park Street at Wall Street through SIU Campus to U.S. Highway 51 at Pleasant Hill Road. This project will consist of approximately 2,900 feet of sanitary sewer.

Project Justification:

Over the last decade there have been some significant housing developments in the Grand Avenue, Park Street, and South 51 areas. These developments have significantly increased the demand on the sanitary sewers that serve these areas. Currently the City’s SEWWTP Interceptor Sewer terminates near the old water treatment plant at the corner of Park Street and Wall Street. From this point south, across SIU Campus, the sewer is of small diameter and needs to be upsized in order to adequately handle the developments tributary to the sewer.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	41,360
Estimated FY 2019	514,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	555,360
Prior Years Costs	18,823
Later Years Costs	0
Total Cost	\$574,183

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$574,183

Total \$574,183

Operating Budget Impact: The bulk of the spending and project completion is scheduled for FY 2019.

**Community Investments Program
FY 2017 through FY 2021**

**Creating Community Entryways to the Community
CIP #SP0901**

Project Description:

New masonry monument style signs, similar to those at the entryways to campus, will be installed on the four (4) major entrances to the City. These signs will be elevated above the natural grade and positioned to provide ample view from passing vehicles. The new signs will also include sustainable landscaping and ground mounted lighting. These new masonry monument style signs will boldly state "Welcome to Carbondale" with the sub-text of "Home of Southern Illinois University". The installation of these signs will be a cooperative project with Southern Illinois University.

Project Justification:

Southern Illinois University recently completed the construction of monument signs and landscaped entryways into the university. Creating similar signs and entryways on major corridors into the City will improve the aesthetic appeal and provide a coordinated look and feel between the City and University.

Project Capital Costs:

Budgeted FY 2017	31,660
Estimated FY 2018	53,000
Estimated FY 2019	103,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	187,660
Prior Years Costs	37,184
Later Years Costs	0
Total Cost	\$224,844

Fund Source:

Local Improvement Fund:

Fund Balance - General Fund Revenues	<u>\$224,844</u>
Total	\$224,844

Operating Budget Impact: Ongoing maintenance costs will be minimal with the new signage.

**Illinois Avenue Streetscape Improvements
CIP #SP0904**

Project Description:

The first phase of this project will include the relocation of overhead utility lines and installation of new on street lighting along Illinois Avenue from Mill Street to Cherry Street.

Project Justification:

The downtown plan was just recently completed; this project will help achieve some of the plan goals by relocating the overhead utility lines off of Illinois Avenue and installing new lighting and street scape elements throughout the downtown.

Project Capital Costs:

Budgeted FY 2017	188,280
Estimated FY 2018	483,000
Estimated FY 2019	1,025,000
Estimated FY 2020	527,000
Estimated FY 2021	885,000
Total Five-Year Costs	3,108,280
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$3,108,280

Fund Source:

Local Improvement Fund:

Fund Balance - General Fund Revenues	<u>\$3,108,280</u>
Total	\$3,108,280

Operating Budget Impact: It is too early to calculate expected operating budget costs.

**Community Investments Program
FY 2017 through FY 2021**

**Multimodal Transportation Center
CIP #SP1002**

Project Description:

A new multimodal transportation center will be constructed on the site of the existing Amtrak Station. This new facility will stretch from Cherry Street to Walnut Street and is slated to include a parking garage facility. The City is seeking a federal TIGER grant to help fund this project.

Project Justification:

Public transportation usage is on the rise. In order to provide our citizens and visitors with comprehensive services at one central location it is necessary to construct a multimodal transportation facility. This new facility will provide space which will allow for the consolidation of many local transit services including; Amtrak, Greyhound Bus, Saluki Express, Jackson County Mass Transit, various regional bus services, taxi cab companies, and the like.

Project Capital Costs:

Budgeted FY 2017	54,980
Estimated FY 2018	1,410,000
Estimated FY 2019	10,300,000
Estimated FY 2020	5,590,000
Estimated FY 2021	0
Total Five-Year Costs	17,354,980
Prior Years Costs	29,776
Later Years Costs	0
Total Cost	\$17,384,756

Fund Source:

Local Improvement Fund:

Fund Balance - General Fund Revenues	\$336,980
Transfer from General Fund	\$1,030,000
Grant	\$13,840,000

Tax Increment Fund:

Transfer from TIF District	<u>\$2,177,776</u>
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Total align="right">\$17,384,756

Operating Budget Impact: Municipal funding will supplement the federal award. Future upkeep costs will be budgeted in the building maintenance division.

**Safety Improvements to Railroad Crossing to Allow
Carbondale a Railroad Quite Zone
CIP #SP1702**

Project Description:

Improve the railroad crossings to the required quite zone standards, this will allow the City to apply for a quite zone designation with the Canadian National Railroad.

Project Justification:

The City desires to create a quite zone for railroad traffic. This will require improvements to the existing railroad crossings to meet quite zone standards.

Project Capital Costs:

Budgeted FY 2017	9,960
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	9,960
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$9,960

Fund Source:

Local Improvement Fund:

Fund Balance - General Fund Revenues	<u>\$9,960</u>
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Total align="right">\$9,960

Operating Budget Impact: It is too early to calculate expected operating budget costs associated with this program.

**Community Investments Program
FY 2017 through FY 2021**

**E. College St. At ICRR Tracks Improvements
CIP #SP1703**

Project Description:

Improve the pedestrian railroad crossings to conform to current accessible standards as allowed by the Canadian National Railroad and the Illinois Department of Transportation. This project is partially funded by a Railroad Safety Grant.

Project Justification:

The existing pedestrian crossings at the railroad are rough and do not meet accessible standards, upgrades need to be made.

Project Capital Costs:

Budgeted FY 2017	28,300
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	28,300
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$28,300

Fund Source:

Motor Fuel Tax Fund:

Motor Fuel Tax	<u>\$28,300</u>
Total	\$28,300

Operating Budget Impact: There will be minimal ongoing operating costs when this project is completed.

**Safety Improvements to Railroad Crossing to Allow E. Grand Ave. At ICRR Tracks Improvements
CIP #SP1704**

Project Description:

Improve the pedestrian railroad crossings to conform to current accessible standards as allowed by the Canadian National Railroad and the Illinois Department of Transportation. This project is partially funded by a Railroad Safety Grant.

Project Justification:

The existing pedestrian crossings at the railroad are rough and do not meet accessible standards, upgrades need to be made.

Project Capital Costs:

Budgeted FY 2017	33,300
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	33,300
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$33,300

Fund Source:

Motor Fuel Tax Fund:

Motor Fuel Tax	<u>\$33,300</u>
Total	\$33,300

Operating Budget Impact: There will be minimal ongoing operating costs when this project is completed.

**Community Investments Program
FY 2017 through FY 2021**

**Replace Corrugated Metal Pipes in Southwest Quadrant
CIP #SS9902**

Project Description:

The area for this study is bounded by Sunset Drive on the north, Chautauqua Street on the south, Dixon Street on the east and Little Crab Orchard Creek on the west. When this section of Carbondale was developed, corrugated metal storm drainage systems were often used. These pipes are starting to deteriorate and fail. This study would identify the areas where corrugated metal pipes were used and note the areas that are failing. This information will provide the necessary data for establishing program for repairs. FY 2020 expenditures are the replacement of those pipes identified in the study.

Project Justification:

To maintain a satisfactory storm drainage system.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	25,000
Estimated FY 2020	374,500
Estimated FY 2021	0
Total Five-Year Costs	399,500
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$399,500

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$399,500

Total \$399,500

Operating Budget Impact: It is this type of program/study supported by the water/sewer rate increase program. Completion scheduled in Fiscal Year 2020. No budgetary impact in Fiscal Year 2017.

**Cherry Street/Elm Street Storm Sewer Interceptor
Replacement
CIP #SS1002**

Project Description:

Replacement of the storm sewers from the West Cherry Street/University Avenue area to the East Elm Street/Marion Street area.

Project Justification:

The Cherry Street/University Avenue/Illinois Avenue is a low point and collector areas for storm water runoff. The storm water from this area is conveyed under the railroad tracks to East Elm Street wherein it connects to other storm sewers that take the water to Piles Fork Creek. This area on the West side of the railroad tracts has experienced flooding for decades and warrants further study for possible storm sewer replacements to aid in alleviating the flooding problems.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	25,000
Estimated FY 2019	401,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	426,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$426,000

Fund Source:

Tax Increment Fund:

Transfer from TIF District \$426,000

Total \$426,000

Operating Budget Impact: This project will protect against future flooding events. No budgetary impact in Fiscal Year 2017.

**Community Investments Program
FY 2017 through FY 2021**

**City Wide Drainage Study
CIP #SS1401**

Project Description:

This project will take an overall look at the City's storm water conveyance systems and identify and quantify needed infrastructure improvements.

Project Justification:

There are numerous locations around the City that flood during time of heavy rainfall.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	265,000
Total Five-Year Costs	265,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$265,000

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues	<u>\$265,000</u>
Total	\$265,000

Operating Budget Impact: Costs to correct the flooding issues will need to be budgeted in future years.

**Oakland Avenue Reconstruction
(Walnut St. to Chautauqua Street)
CIP #ST0202**

Project Description:

The proposed improvements will reduce congestion by the addition of dedicated bicycle lanes on both sides of the roadway, widen lane widths to 12 feet throughout the length of the project, improve intersections with side streets, and enhance the existing pedestrian facilities. This project will help remove bicycle/vehicular conflicts and improve the travel time for both modes of transportation (enhance the level of service) along this corridor. Intersection improvements along the corridor will also improve various levels of service.

Project Justification:

Oakland Avenue is one of the main entrances to Southern Illinois University (SIU). This project proposes to reconstruct and widen Oakland Avenue between Illinois State Route 13 (Walnut Street) and Chautauqua Street (SIU Campus) to provide for a higher level of service and provide accommodations for heavy bicycle traffic. The current ADT of this section of roadway peaks at 7,700 vehicles per day and includes two intersections with other Federal Aid Routes (Freeman Street and Mill Street). The current roadway section is approximately 30 feet wide with left hand turn lanes and/or on-street parking that reduces the effective lane widths to 10 feet wide for much of the length.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	190,000
Estimated FY 2019	0
Estimated FY 2020	1,280,000
Estimated FY 2021	0
Total Five-Year Costs	1,470,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$1,470,000

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues	\$338,200
Federal Aid	<u>\$1,132,000</u>
Total	\$1,470,000

Operating Budget Impact: No budget impact in FY 2017.

**Community Investments Program
FY 2017 through FY 2021**

**Annual Collection Street Resurfacing Program
CIP #ST1204**

Project Description:

The purpose of this project is to develop and then continue to quantify street resurfacing or reconstruction needs on the City's collector and arterial streets. Based on the information collected and tabulated by this project direction will be provided to Street Maintenance for inclusion in their budget and programs; and or needed CIP projects will be developed and planned for.

This project will provide for repaving of heavily used roadways throughout the City.

Project Justification:

This project will allow a proactive and systematic approach to resurfacing streets and sections of streets around the City.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	5,000
Estimated FY 2019	0
Estimated FY 2020	5,000
Estimated FY 2021	0
Total Five-Year Costs	10,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$10,000

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$10,000

Total \$10,000

Operating Budget Impact: This is a preventative maintenance program to avoid major street repairs in the future. No impact in FY2017 is planned.

**Bridge Maintenance and Rehabilitation Program
CIP#ST1301**

Project Description:

To proactively maintain and rehabilitate bridge structures throughout the City to extend the service life of these structures and avoid costly replacements.

Project Justification:

The City has numerous bridges throughout the community that it is responsible for inspecting, repairing, and maintaining. Many of these structures are beginning to show signs of their age. Recent inspections of several structures indicate that there is a growing need for heavy maintenance and/or rehabilitation which will likely continue for a number of years. The projects being planned for in the 5 year CIP are as follows: FY 2017 Pleasant Hill Road Overpass; FY 2019 Chautauqua west of Emerald Lane; FY 2021 Sunset Drive west of Emerald Lane.

Project Capital Costs:

Budgeted FY 2017	113,280
Estimated FY 2018	0
Estimated FY 2019	64,000
Estimated FY 2020	83,000
Estimated FY 2021	696,500
Total Five-Year Costs	956,780
Prior Years Costs	3,480
Later Years Costs	0
Total Cost	\$960,260

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$960,260

Total \$960,260

Operating Budget Impact: This was an ongoing preventative maintenance program but with no expenditure of funds until FY 2017.

**Community Investments Program
FY 2017 through FY 2021**

**West Mill Street Resurfacing (University to Oakland)
CIP #ST1701**

Project Description:

The existing concrete roadway surface resurfaced to provide a smoother and more aesthetically pleasing entrance to the campus.

Project Justification:

West Mill Street borders the northern edge of the Southern Illinois University Campus as such the roadway should be aesthetically pleasing and create a nice entryway to the campus.

Project Capital Costs:

Budgeted FY 2017	9,960
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	451,500
Estimated FY 2021	0
Total Five-Year Costs	461,460
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$461,460

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$461,460

Total \$461,460

Operating Budget Impact: This resurfacing will be carried out in FY 2020, with engineering work being performed in FY 2017.

**Lewis Lane Sidewalk (College to Walnut)
CIP#SW1502**

Project Description:

Add sidewalks to the east side of Lewis Lane between College and Walnut.

Project Justification:

There is currently no sidewalk on the east side of Lewis Lane from East College Street to East Walnut Street. Connecting the existing sidewalks along the east side of Lewis Lane in this area will complete the sidewalks in and around the superblock area.

Project Capital Costs:

Budgeted FY 2017	23,300
Estimated FY 2018	97,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	120,300
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$120,300

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$42,700
State Aid \$77,600

Total \$120,300

Operating Budget Impact: There will be minimal ongoing operating costs when this project is completed.

**Community Investments Program
FY 2017 through FY 2021**

**Sidewalk Improvements
CIP #SW1701**

Project Description:

This project has four components:

- (1) Repair dangerous and/or deteriorated sidewalks throughout the City of Carbondale
- (2) Improve sidewalks in the downtown area
- (3) Work with the Partnership for Disability Issues organization to create sidewalk routes throughout the City for the physically challenged
- (4) Construct new sidewalks where missing sections of walk creates a gap in the sidewalk flow

Project Justification:

Remove hazardous situations and make the areas more aesthetically pleasing.

Project Capital Costs:

Budgeted FY 2017	100,000
Estimated FY 2018	100,000
Estimated FY 2019	100,000
Estimated FY 2020	100,000
Estimated FY 2021	100,000
Total Five-Year Costs	500,000
Prior Years Costs	243,718
Later Years Costs	0
Total Cost	\$743,718

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$743,718

Total \$743,718

Operating Budget Impact: This program includes the annual ongoing improvements to the municipal wide sidewalk network.

**East Main and East Walnut Sidewalk Infill
CIP #SW1702**

Project Description:

Phase I of this project will consist of providing sidewalk infill on East Main Street from Lewis Lane to Cedarview Drive.

Project Justification:

Provide sidewalk connectors where sidewalks are missing on East Walnut Street and East Main Street, between Cedarview Drive and Lewis Lane.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	70,200
Estimated FY 2019	73,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	143,200
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$143,200

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$143,200

Total \$143,200

Operating Budget Impact: There will be minimal ongoing operating costs when this project is completed.

**Community Investments Program
FY 2017 through FY 2021**

**Dillinger Road/Bicentennial Industrial Park Watermain Loop
CIP #WS9701**

Project Description:

This project consists of looping the water mains in Bicentennial Industrial Park with the lines located on Dillinger Road and U.S. Highway 51.

Project Justification:

The City's water distribution system ends at the Bicentennial Industrial Park; this is also the location from which two (2) Water Districts, Lakeside and Desoto, used to supply their systems with water from the City. The connections to these two Water Districts still exist, however they are now only used for "emergency" situations. As such water in this area no longer circulates well and there is now a need to loop the water mains together to aid in keeping the water fresh.

Project Capital Costs:

Budgeted FY 2017	119,980
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	119,980
Prior Years Costs	16,818
Later Years Costs	0
Total Cost	\$136,798

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$136,798

Total \$136,798

Operating Budget Impact: Preliminary work was completed in FY 2016. FY 2017 contains the actual construction of the project.

**Oakland Avenue Watermain Replacement
(Walnut to Chautauqua)
CIP #WS0203**

Project Description:

This project consists of replacing the waterlines located on Oakland Avenue from Walnut Street to Chautauqua Street.

Project Justification:

Oakland Avenue is scheduled to be reconstructed in a few years; the roadway reconstruction project is being funded partially with Federal Funds through the Southern Illinois Metropolitan Planning Organization (SIMPO). As such the City needs to replace the old dilapidated water mains prior to the new roadway design and construction.

Project Capital Costs:

Budgeted FY 2017	864,840
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	864,840
Prior Years Costs	28,234
Later Years Costs	0
Total Cost	\$893,074

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$893,074

Total \$893,074

Operating Budget Impact: Preliminary work was planned for FY 2016 with completion planned for FY 2017.

**Community Investments Program
FY 2017 through FY 2021**

**Crab Orchard Water District Improvements
CIP #WS0803**

Project Description:

Improve areas served by the former Crab Orchard Water District by making connections to existing City Water lines where available and replace water lines as described in agreement with the former Crab Orchard Water District. Work on this project will resume in FY 2019 and is planned to include water lines along Lewis Lane and Grand Avenue.

Project Justification:

Many of the lines are in poor condition and need to be replaced.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	40,000
Estimated FY 2020	445,000
Estimated FY 2021	445,000
Total Five-Year Costs	930,000
Prior Years Costs	1,693,335
Later Years Costs	0
Total Cost	\$2,623,335

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$2,623,335

Total \$2,623,335

Operating Budget Impact: This is an ongoing upgrade of water utility lines in an area of the community previously serviced by a water district. Funds for this project are made possible via a surcharge on the customers of the former utility.

**Backup Water Supply
CIP #WS0901**

Project Description:

Study various options to provide adequate potable water for our community should there be a catastrophic failure of the City's raw water supply system and/or water treatment plant. Develop and analyze various alternatives including interconnections to other regional water supplies and design and implement the chosen option(s).

Project Justification:

The City Reservoir (also referred to as Evergreen Lake) has been the City's backup waters supply for decades. Unfortunately the lake has now silted to a point that severely limits the amount of useful water that can be pumped from it to the water treatment plant, In the event of an emergency wherein the City was not able to pump water from Cedar Lake, the City would have great difficulty in getting adequate raw water to the plant for treatment.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	80,000
Estimated FY 2020	543,000
Estimated FY 2021	0
Total Five-Year Costs	623,000
Prior Years Costs	743
Later Years Costs	0
Total Cost	\$623,743

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$623,743

Total \$623,743

Operating Budget Impact: This is a long-term project that would provide a desirable resource for the City.

**Community Investments Program
FY 2017 through FY 2021**

**Pecan Street Waterline Replacement
(400-900 Blocks)
CIP #WS0904**

Project Description:

Replace 2,700 feet of six inch water line on Pecan Street 400-900 blocks.

Project Justification:

This line on Pecan Street has broken several times. It needs to be replaced.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	33,000
Estimated FY 2020	403,000
Estimated FY 2021	0
Total Five-Year Costs	436,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$436,000

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$436,000

Total \$436,000

Operating Budget Impact: This provides for future replacement of water lines in need of improvement. Once replaced, this will reduce operating expense costs for repair and patching of the line.

**Cedar Lake Pump Station Renovations
CIP #WS1202**

Project Description:

The existing pump station was built in 1975 and all equipment, including valves, motors, wiring, and pumps, is original. The existing structure will remain intact, and all equipment will be replaced with modernized equipment.

Project Justification:

All of the equipment at this pump station is far beyond its expected service life, and needs to be replaced. This is the only pump station that provides raw water to the Water Treatment Plant, and any failures will severely jeopardize the City's ability to supply water to the public. In addition to eliminating the risk of catastrophic failure, significant cost savings will be realized with newer, more energy efficient equipment.

Project Capital Costs:

Budgeted FY 2017	972,960
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	972,960
Prior Years Costs	262,026
Later Years Costs	0
Total Cost	\$1,234,986

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$972,486

State Aid \$262,500

Total \$1,234,986

Operating Budget Impact: This project will lead to less cost in maintenance and operation. Project completion anticipated in Fiscal Year 2017 which will see reduced maintenance costs over future years.

**Community Investments Program
FY 2017 through FY 2021**

**Feeder Water Main Replacements (10" & larger)
CIP #WS1301**

Project Description:

The purpose of this project is to replace dilapidated water main feeder lines of 10" and larger in diameter.

Project Justification:

There are many water mains throughout the City that are dilapidated and in need of replacement. Priority should be given to the water systems feeder water mains that are 10" or larger in diameter as these lines feed many of the other lines throughout the City. In recent years the City has been experiencing frequent breaks on its 10" diameter water mains on Forest Street and Springer Street, this project will initially concentrate on these areas.

Project Capital Costs:

Budgeted FY 2017	787,660
Estimated FY 2018	504,000
Estimated FY 2019	514,000
Estimated FY 2020	514,000
Estimated FY 2021	524,000
Total Five-Year Costs	2,843,660
Prior Years Costs	502,947
Later Years Costs	0
Total Cost	\$3,346,607

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$3,346,607

Total \$3,346,607

Operating Budget Impact: This project will produce significantly progressively less costly maintenance and operation. This is also a project supported by the water/sewer rate increase program.

**Cedar Lake Sediment and Nutrient Load Reduction
Projects
CIP #WS1503**

Project Description:

Stabilize 14,000 linear ft. of Cedar Lake shoreline; stabilize 20,000 linear ft. of gully and construct sediment control basins on 200 acres within the watershed.

Project Justification:

Identified impairments to Cedar Lake will be addressed by reducing phosphorous, nitrogen and sediment loading. The proposal will address shoreline erosion and turbid water with a reduction in these impairments, as well.

Project Capital Costs:

Budgeted FY 2017	1,501,372
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	2,648,372
Prior Years Costs	100,071
Later Years Costs	0
Total Cost	\$2,748,443

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$1,063,443
 State Aid \$1,500,000
 Federal Aid \$185,000

Total \$2,748,443

Operating Budget Impact: This was an important consideration in the water/sewer rate increase program. Some of the impact will have been funded by these increases.

**Community Investments Program
FY 2017 through FY 2021**

**Water Plant Clearwell Painting and Repairs
CIP #WS1601**

Project Description:

This project consists of the refurbishing and painting of the two (2) 1,000,000 gallon clear wells at the Water Treatment Plant.

Project Justification:

The City's Water Treatment Plant was built in the early 1990's. A few years ago Staff had inspections performed on all of the City's water towers as well as the two (2) clear wells at the water treatment plant. Staff has since painted the clear well exteriors but now the interior of these tanks needs to be repaired and painted, this work is beyond the scope of what can be accomplished in-house and therefore plans and specifications need to be prepared for the required work.

Project Capital Costs:

Budgeted FY 2017	296,915
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	296,915
Prior Years Costs	291,477
Later Years Costs	0
Total Cost	\$588,392

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$588,392

Total \$588,392

Operating Budget Impact: The project is funded and completed within FY 2017. This project will ensure the availability of continued clean, potable water within the community.

**Water Plant Filter Rehabilitation
CIP #WS1701**

Project Description:

This project will provide for the rehabilitation of two (2) of the six (6) filters each year until they have all been rehabilitated to a like new condition.

Project Justification:

The City's water treatment plant is over 20 years old as such the filter equipment is in need of rehabilitation.

Project Capital Costs:

Budgeted FY 2017	280,312
Estimated FY 2018	280,500
Estimated FY 2019	280,500
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	841,312
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$841,312

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$841,312

Total \$841,312

Operating Budget Impact: This project will ensure the availability of continued clean, potable water within the community. By rehabilitating the existing filter equipment to current industry standards operating costs may decrease.

**Community Investments Program
FY 2017 through FY 2021**

**Dixon Street Waterline Replacement
(Old West Main To Skyline)
CIP #WS1702**

Project Description:

Design and construct a new water main along Dixon Street.

Project Justification:

The water main along Dixon Street is dilapidated and has experienced numerous breaks in the last few years. This water main is in need of replacement.

Project Capital Costs:

Budgeted FY 2017	144,920
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	144,920
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$144,920

Fund Source:

Waterworks & Sewerage Fund - Water System:

Fund Balance - Utility Fund Revenues \$144,920

Total \$144,920

Operating Budget Impact: Replacement of this main will reduce service calls for breakage and repair.

**NWWWTP Nutrient Removal Upgrades
CIP #WW1001**

Project Description:

The purpose of this project is to study the existing capabilities of the treatment system to meet new nutrient removal requirements, make recommendations for improvements, and design and implement the chosen improvements.

Project Justification:

In order to meet forthcoming nutrient mandates from the Illinois Environmental Protection Agency (IEPA) as well as improve wastewater treatment efficiencies it is necessary to review the treatment processes and make needed changes.

Project Capital Costs:

Budgeted FY 2017	1,054,600
Estimated FY 2018	0
Estimated FY 2019	462,000
Estimated FY 2020	0
Estimated FY 2021	986,000
Total Five-Year Costs	2,502,600
Prior Years Costs	22,825
Later Years Costs	0
Total Cost	\$2,525,425

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$2,525,425

Total \$2,525,425

Operating Budget Impact: These are mandated changes required by the IEPA to be completed over the next few fiscal years.

**Community Investments Program
FY 2017 through FY 2021**

**NWWWTP Bar Screen on Grit Chamber
CIP #WW1002**

Project Description:

To replace the bar screen with a finer one.

Project Justification:

To reduce rags and lower maintenance.

Project Capital Costs:

Budgeted FY 2017	400,980
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	400,980
Prior Years Costs	9,947
Later Years Costs	0
Total Cost	\$410,927

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$410,927

Total \$410,927

Operating Budget Impact: To be completed all in FY 2017. Operating costs should reduce as less non-biodegradable waste products will get past the finer screens. These reductions have not been accounted for in the current budget.

**SEWWTP Mechanical Bar Screen
CIP #WW1005**

Project Description:

Installation of a mechanical bar screen in the raw wet well to remove trash and debris from the wastewater stream prior to raw pumps.

Project Justification:

To reduce maintenance issues with debris coming through the raw pumps and improve safety for personnel by reducing the necessity of entering a confined space.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	45,000
Estimated FY 2020	466,000
Estimated FY 2021	0
Total Five-Year Costs	511,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$511,000

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$511,000

Total \$511,000

Operating Budget Impact: This is a future project with no impact for several years. Operating costs should reduce as less non-biodegradable waste products will get past the screen. These reductions in cost will be accounted for at a later date.

**Community Investments Program
FY 2017 through FY 2021**

**Alarm Communication and Flow Monitoring System for
All Lift Stations
CIP #WW1006**

Project Description:

The purpose of this project is to install new communication and monitoring systems for the City's Sanitary Sewer Lift Stations.

Project Justification:

The existing monitoring systems for the City's Sanitary Sewer Lift Stations consists of automatic dialers that use telephone lines to place calls to staff to inform them of issues. The existing system is very basic and does not have any way to provide actual feedback or monitoring of systems at the lift stations. Newer technology will allow staff to interact with the lift stations remotely and provide flow, pump, power, and alarm information on a real time basis.

Project Capital Costs:

Budgeted FY 2017	136,640
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	136,640
Prior Years Costs	13,408
Later Years Costs	0
Total Cost	\$150,048

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$150,048

Total \$150,048

Operating Budget Impact: This project will eliminate all telephone lines to 15 lift stations for an annual savings of approximately \$4,700.

**Kent Drive Lift Station and Forcemain Modifications
CIP #WW1007**

Project Description:

The purpose of this project is to evaluate the capacity and location of the Kent Drive Lift Station and Forcemain, study options for replacement, and design and implement the selected option.

Project Justification:

The Kent Drive Sanitary Sewer Lift Station and Forcemain are nearing capacity and need to be evaluated to ensure continued reliability. As the existing lift station is not in an ideal location, it is likely that a new lift station will need to be constructed in an alternate location.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	35,000
Estimated FY 2020	375,000
Estimated FY 2021	0
Total Five-Year Costs	410,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$410,000

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$410,000

Total \$410,000

Operating Budget Impact: No impact in FY 2017.

**Community Investments Program
FY 2017 through FY 2021**

**NWWWTP Effluent Pump Replacement
CIP #WW1009**

Project Description:

The purpose of this project is to improve the energy efficiency and reliability of the effluent pumps at the NWWWTP. New pumping systems and controls will be designed and constructed.

Project Justification:

The effluent pumps at the NWWWTP are aging and highly inefficient, new pumps and variable frequency drives (VFD's) would improve the efficiency of the plant during time of high flow.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	168,000
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	168,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$168,000

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$168,000

Total \$168,000

Operating Budget Impact: Once completed, the project should reduce utility expenses in the operating budget for the NWWWTP division.

**Lift Station Emergency Power Systems
CIP #WW1301**

Project Description:

This project will provide emergency backup power to various lift stations throughout the City.

Project Justification:

During power outages it is necessary for City staff to travel from lift station to lift station with portable generators and or pumps to prevent sewage backups. Installation of emergency generators at key lift stations will lessen the burden on staff and provide for seamless operation of these lift stations during power outages.

Project Capital Costs:

Budgeted FY 2017	149,960
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	149,960
Prior Years Costs	320,043
Later Years Costs	0
Total Cost	\$470,003

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$250,003

State Aid \$220,000

Total \$470,003

Operating Budget Impact: Avoid risk of damage from loss of power. Also reduces cost of overtime pay of City Staff covering outages.

**Community Investments Program
FY 2017 through FY 2021**

**NWWWTP River Vault Renovations
CIP #WW1601**

Project Description:

The purpose of this project is to evaluate the condition of the existing river vault and siphon control systems, decide on appropriate renovations, and implement these renovations.

Project Justification:

The NWWWTP effluent is discharged to the Big Muddy River through a siphon system. This system prevents the effluent from having to be pumped and saves the City significant electrical costs. The control structure at the Big Muddy River is referred to as the River Vault” and consists of a 12’ x 18’ underground vault that houses the valves and controls; this vault is accessed through a 40’ long 4’ diameter tube that extends to the surface. The existing steel vault and tube were installed in the early 1980’s and are beginning to show significant signs of corrosion and deterioration.

Project Capital Costs:

Budgeted FY 2017	406,580
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	406,580
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$406,580

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$406,580

Total \$406,580

Operating Budget Impact: Preliminary work to begin in FY 2016 with completion planned in FY 2017.

**NWWWTP Install Concrete Bottoms in the Sludge Holding Lagoons
CIP #WW1701**

Project Description:

Design and construct concrete bottoms for the sludge lagoons at the NWWWTP.

Project Justification:

Many of the sludge holding lagoons at the both the SEWWTP and the NWWWTP have concrete bottoms in them. Lagoons with concrete bottoms are significantly easier to operate and maintain. Staff recommends installing concrete bottoms in the lagoons that do not have them.

Project Capital Costs:

Budgeted FY 2017	13,280
Estimated FY 2018	239,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	252,280
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$252,280

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$252,280

Total \$252,280

Operating Budget Impact: There is no current estimate for the operating impact that this project may have. Maintenance and labor savings generated by this project will most likely be diverted to other areas of need within the division.

**Community Investments Program
FY 2017 through FY 2021**

**SEWWTP Excess Flow Lagoon Modification
CIP #WW1702**

Project Description:

This project will include various modifications to the lagoons to help stabilize the banks and fully drain the lagoon by gravity back into the plant for treatment

Project Justification:

The excess flow lagoons at the SEWWTP were deepened a number of years ago, at the time funds were not available to provide a gravity drainage system to get all off the water back to the plant for treatment. This has caused water to remain in the ponds year round saturating the berms, which has caused some slope failures. Staff recommends reworking the lagoons berms and installing valves and piping to provide for proper drainage of the ponds.

Project Capital Costs:

Budgeted FY 2017	273,240
Estimated FY 2018	0
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	273,240
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$273,240

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$273,240

Total \$273,240

Operating Budget Impact: There will be minimal ongoing operating costs when this project is completed.

**SEWWTP Logic Cabinet Upgrades
CIP #WW1703**

Project Description:

This project will provide for the design and construction of new logic cabinets and control systems at the SEWWTP. This will help insure plant reliability and operational efficiency.

Project Justification:

The main control systems at the SEWWTP are aging and in need of upgrading/replacement.

Project Capital Costs:

Budgeted FY 2017	0
Estimated FY 2018	174,000
Estimated FY 2019	0
Estimated FY 2020	0
Estimated FY 2021	0
Total Five-Year Costs	174,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$174,000

Fund Source:

Waterworks & Sewerage Fund - Wastewater System:

Fund Balance - Utility Fund Revenues \$174,000

Total \$174,000

Operating Budget Impact: The operating impact of this project has not yet been developed.