

**Community Investments Program
FY 2015 through FY 2019**

**Open Space Development
CIP #OS1002**

Project Description:

Designate and develop open space improvements within the City. Possible projects could include Helen Westburg Park, extend Greenway/Bikeway along Piles Fork Creek, comprehensive bike route plan, Central Downtown Bike/Pedestrian Greenway Park.

Project Justification:

Open space will be developed as a commitment from the half-cent Home Rule Sales Tax increase.

Project Capital Costs:

Budgeted FY 2015	478,080
Estimated FY 2016	108,000
Estimated FY 2017	108,000
Estimated FY 2018	108,000
Estimated FY 2019	0
Total Five-Year Costs	802,080
Prior Years Costs	93,112
Later Years Costs	0
Total Cost	\$895,192

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues	\$505,242
State Aid, Grant or Motor Fuel Tax	<u>\$389,950</u>

Total align="right">\$895,192

Operating Budget Impact: This project is an open commitment that includes green space development. The actual development plans will transpire as an on-going planning process. Any possible budget impacts will be determined as the actual plans are derived.

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

Project Description:

The project includes a portion of purchased railroad right-of-way located on the west side of the tracks extending north from Mill Street to a point approximately 200 feet south of the center line of College Street be utilized to construct a parking lot.

Project Justification:

This parking lot provides additional parking for the downtown businesses.

Project Capital Costs:

Budgeted FY 2015	186,200
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	186,200
Prior Years Costs	37,522
Later Years Costs	0
Total Cost	\$223,722

Fund Source:

Parking Systems Operation Fund:

Loan (CDAP) align="right">\$175,000

Fund Balance:

Service Charge, Parking Meters align="right">\$48,722

Total align="right">\$223,722

Operating Budget Impact: This project will make parking more convenient for customers of those businesses and should add to meter and fine revenue. Projected construction will be in Fiscal Year 2015.

**Community Investments Program
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**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 2015	0
Estimated FY 2016	90,800
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	90,800
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$90,800

Fund Source:

Parking Systems Operation Fund:

Fund Balance:

Service Charge, Parking Meters \$90,800

Total \$90,800

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 2015 and 2016.

**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 2015	0
Estimated FY 2016	144,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	144,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$144,000

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water &
Sewer User Fees \$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. Maintenance cost savings is estimated to be approximately \$600 annually. The projected construction completion and savings will be estimated to begin in Fiscal Year 2016.

**Community Investments Program
FY 2015 through FY 2019**

**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.

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 2015	271,840
Estimated FY 2016	329,000
Estimated FY 2017	329,000
Estimated FY 2018	329,000
Estimated FY 2019	329,000
Total Five-Year Costs	1,587,840
Prior Years Costs	114,060
Later Years Costs	0
Total Cost	\$1,701,900

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water & Sewer User Fees	<u>\$1,701,900</u>
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Total \$1,701,900

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.

**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.

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 2015	277,480
Estimated FY 2016	208,000
Estimated FY 2017	233,000
Estimated FY 2018	193,000
Estimated FY 2019	0
Total Five-Year Costs	911,480
Prior Years Costs	343,841
Later Years Costs	0
Total Cost	\$1,255,321

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water & Sewer User Fees	<u>\$1,255,321</u>
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Total \$1,255,321

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.

**Community Investments Program
FY 2015 through FY 2019**

**Haake Jenkins Sanitary Sewer
CIP #SA1302**

Project Description:

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

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 2015	78,660
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	78,660
Prior Years Costs	4,448
Later Years Costs	0
Total Cost	\$83,108

Fund Source:

Waterworks and Sewerage Fund:
Waste Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$83,108

Total **\$83,108**

Operating Budget Impact: Simplifies overall operation reducing ongoing repair and operating and possible future replacement costs. Project completion expected in Fiscal Year 2015.

**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 replace to insure its continue adequacy.

Project Capital Costs:

Budgeted FY 2015	56,960
Estimated FY 2016	915,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	971,960
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$971,960

Fund Source:

Waterworks and Sewerage Fund:
Waste Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$971,960

Total **\$971,960**

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.

**Community Investments Program
FY 2015 through FY 2019**

**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.

Project Justification:

To maintain a satisfactory storm drainage system.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	0
Estimated FY 2017	24,000
Estimated FY 2018	306,000
Estimated FY 2019	0
Total Five-Year Costs	330,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$330,000

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$330,000

Total \$330,000

Operating Budget Impact: It is this type of program/study supported by the water/sewer rate increase program. Completion scheduled in Fiscal Year 2018. No budgetary impact in Fiscal Year 2015.

**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 where 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 2015	0
Estimated FY 2016	0
Estimated FY 2017	25,000
Estimated FY 2018	340,000
Estimated FY 2019	0
Total Five-Year Costs	365,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$365,000

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$365,000

Total \$365,000

Operating Budget Impact: This project will protect against future flooding events. No budgetary impact in Fiscal Year 2015.

**Community Investments Program
FY 2015 through FY 2019**

**Schwartz Street Improvements
(Oakland to Eason)
CIP #ST8705**

Project Description:

This project consists of reconstructing Schwartz Street between Oakland Avenue and Eason Drive with new curb and gutters, inlets, storm sewers, sidewalks and appurtenances.

Project Justification:

This project will provide better access to the area and eliminate the open ditches.

Project Capital Costs:

Budgeted FY 2015	410,700
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	410,700
Prior Years Costs	64,626
Later Years Costs	0
Total Cost	\$475,326

Fund Source:

Motor Fuel Tax Fund:	
State Aid, Grant or Motor Fuel Tax	\$21,500
Local Improvement Fund:	
Fund Balance - General Revenues	<u>\$453,826</u>
Total	\$475,326

Operating Budget Impact: This project cuts down on routine maintenance and the risk of injury and property damage. The project is planned to be completed in FY 2015.

**Lewis Lane and Grand Avenue Roundabout
CIP #ST0903**

Project Description:

Design and install a round-a-bout at the intersection of Grand Avenue and Lewis Lane.

Project Justification:

This intersection experiences significant delays at peak morning hours due to its proximity to Lewis School, the Carbondale Middle School, and several major apartment complexes. The delays are not such of such magnitude to require the installation of traffic signals; however the installation of a round-a-bout should mitigate these issues.

Project Capital Costs:

Budgeted FY 2015	24,960
Estimated FY 2016	480,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	504,960
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$504,960

Fund Source:

Local Improvement Fund:	
Fund Balance - General Revenues	\$100,992
State Aid, Grant or Motor Fuel Tax	<u>\$403,968</u>
Total	\$504,960

Operating Budget Impact: FY 2015 will see only preliminary activities for this project.

**Community Investments Program
FY 2015 through FY 2019**

**Street Patching Program
CIP #ST1201**

Project Description:

This project will provide for patching of roadways throughout the City.

Project Justification:

This project will allow a proactive and systematic approach to patching streets and potholes around the City.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	3,500
Estimated FY 2017	0
Estimated FY 2018	3,500
Estimated FY 2019	0
Total Five-Year Costs	7,000
Prior Years Costs	165,544
Later Years Costs	0
Total Cost	\$171,544

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$171,544

Total \$171,544

Operating Budget Impact: This project will reduce the risk of injury and property damage.

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

Project Description:

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 2015	0
Estimated FY 2016	4,000
Estimated FY 2017	0
Estimated FY 2018	4,000
Estimated FY 2019	0
Total Five-Year Costs	8,000
Prior Years Costs	3,440
Later Years Costs	0
Total Cost	\$11,440

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$11,440

Total \$11,440

Operating Budget Impact: This is a preventative maintenance program to avoid major street repairs in the future. No impact in FY2015 is planned.

**Community Investments Program
FY 2015 through FY 2019**

**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.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	62,000
Estimated FY 2017	0
Estimated FY 2018	122,000
Estimated FY 2019	0
Total Five-Year Costs	184,000
Prior Years Costs	22,774
Later Years Costs	714,000
Total Cost	\$920,774

Fund Source:

Motor Fuel Tax Fund:	
State Aid	\$898,000
Local Improvement Fund:	
Fund Balance – General Revenues	<u>\$22,774</u>
Total	\$920,774

Operating Budget Impact: This was an ongoing preventative maintenance program but didn't do any work in FY 2010 and FY 2011 and now must catch up.

**Superblock Area Sidewalk Improvements
CIP#SW1302**

Project Description:

Evaluate the needs of pedestrians in and around the superblock area, which is bounded by Lewis Lane, E. Walnut Street, Giant City Road, and Grand Avenue. Plan and construct sidewalk improvements as necessary to meet these needs.

Project Justification:

The superblock area has been developed over the past decade and is now a thriving community complex that includes the Superblock Recreational Fields, Carbondale Community High School, Carbondale Middle School, and Lewis Elementary School; it will also be the site of the new Carbondale Park District Water Park. The need for adequate and safe pedestrian routes has been expressed by the community and needs to be evaluated.

Project Capital Costs:

Budgeted FY 2015	195,300
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	195,300
Prior Years Costs	25,782
Later Years Costs	0
Total Cost	\$221,082

Fund Source:

Local Improvement Fund:	
Fund Balance - General Revenues	\$41,644
State Aid	<u>\$179,438</u>
Total	\$221,082

Operating Budget Impact: Cuts down on routine maintenance and risk of injury and property damage. Scheduled completion for Fiscal Year 2015 when anticipated maintenance savings should begin.

**Community Investments Program
FY 2015 through FY 2019**

**Sidewalk Improvements
CIP #SW1501**

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 2015	60,000
Estimated FY 2016	60,000
Estimated FY 2017	100,000
Estimated FY 2018	100,000
Estimated FY 2019	100,000
Total Five-Year Costs	420,000
Prior Years Costs	275,784
Later Years Costs	0
Total Cost	\$695,784

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$695,784

Total \$695,784

Operating Budget Impact: FY2015 expenditures are planned to be \$60,000 in the Local Improvement Fund.

**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 an around the superblock area.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	118,750
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	118,750
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$118,750

Fund Source:

Local Improvement Fund:

Fund Balance - General Revenues \$23,750
State Aid, Grant or Motor Fuel Tax 95,000

Total \$118,750

Operating Budget Impact: No funds are to be expended in FY2015.

**Community Investments Program
FY 2015 through FY 2019**

**Mill Street Water Main
CIP #WS0201**

Project Description:

This project replaces 2,900 feet of 6" water main on Mill Street between University Avenue and Oakland Avenue.

Project Justification:

This eliminates a water line that has had high maintenance costs and disruption of service.

Project Capital Costs:

Budgeted FY 2015	28,080
Estimated FY 2016	866,200
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	894,280
Prior Years Costs	34,564
Later Years Costs	0
Total Cost	\$928,844

Fund Source:

Waterworks and Sewerage Fund:
Water System Fund Balance:
Utility Fund Revenues, Water &
Sewer User Fees

\$928,844

Total \$928,844

Operating Budget Impact: It is this type of project that the water/sewer rate increase program was instituted for. FY2015 spending of \$28,080 is for the early phases of the program.

**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.

Project Justification:

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

Project Capital Costs:

Budgeted FY 2015	434,920
Estimated FY 2016	388,000
Estimated FY 2017	408,000
Estimated FY 2018	648,000
Estimated FY 2019	468,000
Total Five-Year Costs	2,346,920
Prior Years Costs	627,627
Later Years Costs	0
Total Cost	\$2,974,547

Fund Source:

Waterworks and Sewerage Fund:
Water System Fund Balance:
Utility Fund Revenues, Water &
Sewer User Fees

\$2,974,547

Total \$2,974,547

Operating Budget Impact: It is anticipated that maintenance will not be necessary on the new lines for approximately the first 10 years.

**Community Investments Program
FY 2015 through FY 2019**

**Cedar Lake
Spillway Repair and Gabion Installation
CIP #WS1002**

Project Description:

Repair the damaged/displaced portion of the riprap spillway with gabions.

Project Justification:

Due to heavy rains in the spring of 2008, the riprap portion of the spillway suffered heavy damage/displacement. The spillway needs to be repaired to prevent further degradation of the gabion portion of the spillway.

Project Capital Costs:

Budgeted FY 2015	337,840
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	337,840
Prior Years Costs	8,122
Later Years Costs	0
Total Cost	\$345,962

Fund Source:

Waterworks and Sewerage Fund:	
Water System Fund Balance:	
Utility Fund Revenues, Water & Sewer User Fees	<u>\$345,962</u>
Total	\$345,962

Operating Budget Impact:

This will help to avoid more serious and costly repairs in the future.

**Water Plant Lagoon Renovations
CIP #WS1201**

Project Description:

Reconstruct three existing, single-stage sludge lagoons into a two-stage lagoon system. Two of the existing earthen lagoons will be combined into one large concrete lagoon for primary settlement and detention of solids, and the third lagoon will be used for final settlement.

Project Justification:

Existing lagoons are undersized and incapable of properly handling filter backwash and clarifier blowdown waters. Solids content of the effluent discharged into the receiving stream needs to be reduced. Combining two of the logons by removing the earthen berm and increasing the depth by two feet will expand the total storage capacity from 170,000 gallons to 400,000 gallons. Increase detention time will improve settlement of solids as well as allow more time for chlorine to dissipate naturally, which will reduce the amount of chemical needed for chlorine removal.

Project Capital Costs:

Budgeted FY 2015	519,960
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	519,960
Prior Years Costs	103,627
Later Years Costs	0
Total Cost	\$623,587

Fund Source:

Waterworks and Sewerage Fund:	
Water System Fund Balance:	
Utility Fund Revenues, Water & Sewer User Fees	<u>\$623,587</u>
Total	\$623,587

Operating Budget Impact: This project is expected to be completed in FY 2015. These are the type of proactive initiatives which were considered in the water/sewer rate increase program.

**Community Investments Program
FY 2015 through FY 2019**

**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 2015	745,720
Estimated FY 2016	190,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	935,720
Prior Years Costs	21,735
Later Years Costs	0
Total Cost	\$957,455

Fund Source:

Waterworks and Sewerage Fund:
Water System Fund Balance:

State Aid/Grant	\$350,000
Utility Fund Revenues, Water & Sewer User Fees	<u>\$607,455</u>
Total	\$957,455

Operating Budget Impact: This project will lead to less cost in maintenance and operation. Project completion anticipated in Fiscal Year 2016.

**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 2015	393,000
Estimated FY 2016	350,000
Estimated FY 2017	350,000
Estimated FY 2018	350,000
Estimated FY 2019	350,000
Total Five-Year Costs	1,793,000
Prior Years Costs	18,471
Later Years Costs	0
Total Cost	\$1,811,471

Fund Source:

Waterworks and Sewerage Fund:
Water System Fund Balance:

Utility Fund Revenues, Water & Sewer User Fees	<u>\$1,811,471</u>
Total	\$1,811,471

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.

**Community Investments Program
FY 2015 through FY 2019**

**Dogwood Road Water Main Extension
CIP #WS1502**

Project Description:

Construct a water main on Dogwood Road from the City Limits to the Devil's Kitchen Water District (DKWD) Boundary.

Project Justification:

The DKWD desires to purchase water from the City of Carbondale which requires them to install a new 6" water main along Dogwood Road from the City Limits to a new pump station which will be located at the existing boundary of the water district. During the project discussions City staff expressed that they would prefer to have an 8" water main along with fire hydrants and additional valves in lieu of the proposed 6" water main. DKWD agreed to provide for these additional expenses. This project covers the additional expenses needed to upsize the water main and install fire hydrants and valves along Dogwood Road.

Project Capital Costs:

Budgeted FY 2015	128,000
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	128,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$128,000

Fund Source:

Waterworks and Sewerage Fund:
Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$128,000

Total \$128,000

Operating Budget Impact: The additional costs of this project will be assigned to the Devils Kitchen Water

District.
**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 2015	21,360
Estimated FY 2016	50,000
Estimated FY 2017	2,320,000
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	2,391,360
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$2,391,360

Fund Source:

Waterworks and Sewerage Fund:
Federal Aid \$1,392,000
State Aid/Grant 232,000
Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$767,360

Total \$2,391,360

Operating Budget Impact: This was an important consideration in the water/sewer rate increase program.

Some of the impact will be affected by this rate increase.

**Community Investments Program
FY 2015 through FY 2019**

**New Era Road Lift Station Replace Existing Pumps
CIP #WW9602**

Project Description:

Replace the pumps and wet well for the New Era Road Pump Station.

Project Justification:

In recent years the development at the Southern Illinois Airport has caused an increased load on an aging sanitary sewer lift station. The existing lift station is a combination wet well/dry well system, this system requires staff to enter into the underground dry well to maintain the pumps and control systems. A new wet well with submersible pumps will be constructed adjacent to the existing pump station and the existing dry well will be decommissioned.

Project Capital Costs:

Budgeted FY 2015	129,360
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	129,360
Prior Years Costs	9,841
Later Years Costs	0
Total Cost	\$139,201

Fund Source:

Waterworks and Sewerage Fund:
Waste Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$139,201

Total \$139,201

Operating Budget Impact: New equipment will increase capacity and handle the increased load incurred by the S.I. Airport.

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

Project Description:

To replace the bar screen with a finer one.

Project Justification:

To reduce large debris and lower maintenance.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	210,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	210,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$210,000

Fund Source:

Waterworks and Sewerage Fund:
Waste Water System Fund Balance:
 Utility Fund Revenues, Water &
 Sewer User Fees \$210,000

Total \$210,000

Operating Budget Impact: It is too soon to estimate potential savings from this improvement.

**Community Investments Program
FY 2015 through FY 2019**

**NWWWTP Clarifier Renovations
CIP #WW1004**

Project Description:

To upgrade plant components for sludge handling which are more than 30 years old.

Project Justification:

To avoid a major break down in the treatment process which will cause the plant effluent to go out of compliance.

Project Capital Costs:

Budgeted FY 2015	1,597,280
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	1,597,280
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$1,597,280

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water & Sewer User Fees	<u>\$1,597,280</u>
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Total	\$1,597,280
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Operating Budget Impact: This project is to be funded in part by rate increase program implemented. Ongoing avoidance of cost of noncompliance and repairs.

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

Project Description:

Communication system to monitor for high wet well, power failure and flow data.

Project Justification:

Replace existing obsolete equipment, improve reliability of alarm warning system, eliminate monthly telecommunication fees and provide capability to monitor and collect flow data for future infiltration and inflow studies.

Project Capital Costs:

Budgeted FY 2015	0
Estimated FY 2016	250,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	250,000
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$250,000

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water & Sewer User Fees	<u>\$250,000</u>
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Total	\$250,000
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Operating Budget Impact: This project will eliminate all telephone lines to 15 lift stations for an annual savings of approximately \$4,700.

**Community Investments Program
FY 2015 through FY 2019**

**SEWTP Plant Concrete Lagoon Bottom
CIP #WW1201**

Project Description:

This project involves installation of a concrete bottom in the West lagoon. Installation of drain lines to the Sludge Lagoon Pump Station will also be required.

Project Justification:

Three sludge lagoons were originally installed at the Southeast Treatment Plant when it was initially built. Sludge was pumped from the digesters to the lagoons and then during summer months was applied onto the city farm ground in wet form. Eventually, the EPA required the application of the sludge be dry form rather than wet. Drying beds were added for this purpose. With the most recent Plant upgrade, the lagoons are used for sludge stabilization after digesting and prior to drying and land application. When the Plant upgrade was done, only one lagoon was equipped with a concrete bottom. With this process the lagoon has been filled to capacity each year. The lagoons can only be emptied in the summer when the sludge can be dried. Currently, the sludge in the concrete bottom lagoon is pumped to the drying beds and only requires approximately one or two days to finish cleaning after it is pumped down to the bottom. To use one of the clay bottom lagoons, emptying requires months of dewatering with portable pumps and then use of an end loader and dump trucks for two to three weeks to dig out the sludge. Installation of a concrete bottom in another lagoon would allow for a more efficient use of our employees and assets.

Project Capital Costs:

Budgeted FY 2015	207,360
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	207,360
Prior Years Costs	12,466
Later Years Costs	0
Total Cost	\$219,806

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water &
Sewer User Fees

\$219,806

Total

\$219,806

Operating Budget Impact: Substantially reduces the drying time for the sludge and also reduces the utilization of resources; equipment and personnel.

**Community Investments Program
FY 2015 through FY 2019**

**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 2015	414,360
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	414,360
Prior Years Costs	365,006
Later Years Costs	0
Total Cost	\$779,366

Fund Source:

Waterworks and Sewerage Fund:	
Waste Water System Fund Balance:	
State Aid/Grant	\$220,000
Utility Fund Revenues, Water & Sewer User Fees	<u>\$559,366</u>
Total	\$779,366

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

**Pinecrest Liftstation and Forcemain Improvements
CIP #WW1502**

Project Description:

Replace pumps and increase force main size.

Project Justification:

The Pinecrest lift station on Chautauqua was initially designed to serve low density residential development along Chautauqua between Pinecrest Drive and tower Road. With the addition and expansion of the Prairie Living complex the capacity of the existing pumps and force main are not at their limits and need to be upgraded to efficiently and effectively handle the existing and future sanitary sewer loads.

Project Capital Costs:

Budgeted FY 2015	18,720
Estimated FY 2016	350,000
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	368,720
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$368,720

Fund Source:

Waterworks and Sewerage Fund:	
Waste Water System Fund Balance:	
Utility Fund Revenues, Water & Sewer User Fees	<u>\$368,720</u>
Total	\$368,720

Operating Budget Impact: This project is needed to accommodate the needs of current and future population increase.

**Community Investments Program
FY 2015 through FY 2019**

**Murdale Lift Station Pump Addition
CIP #WW1503**

Project Description:

Add third pump and variable frequency drives (VFD's) to the two existing pumps.

Project Justification:

The Murdale lift station was rehabbed a number of years ago and included provisions to add a third pump. Adding a third pump will provide greater redundancy and more capacity as needed during high flow events. Adding VFD's will allow for better efficiency and operations of the pump station.

Project Capital Costs:

Budgeted FY 2015	243,480
Estimated FY 2016	0
Estimated FY 2017	0
Estimated FY 2018	0
Estimated FY 2019	0
Total Five-Year Costs	243,480
Prior Years Costs	0
Later Years Costs	0
Total Cost	\$243,480

Fund Source:

Waterworks and Sewerage Fund:

Waste Water System Fund Balance:

Utility Fund Revenues, Water &
Sewer User Fees \$243,480

Total \$243,480

Operating Budget Impact: This will improve the efficiency of the pump savings on power and provide a greater margin of safety during high flow events.