

Columbia 5-Year IMP Action Plan ¹				Prior to FY2020	FY 2020	FY2021	FY2022	FY2023	Future Plans
Program or Project ²	Goal	Anticipated Actions	Targeted Community Benefits ³						
Wastewater Treatment									
Wet Weather Improvements*	Implement early measures to enhance peak flow capacity at CRWWTP.	<ul style="list-style-type: none"> Modify existing CWWTP structures to provide additional wet weather flow storage. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. Regulatory compliance. 	<ul style="list-style-type: none"> Installed slide gate valve at WWTP outlet box. June 2019 \$20,455.00 Installed pipe between I&I basin and sludge lagoon so both can act as wet weather basins. July 2018 \$32,047.20 				<ul style="list-style-type: none"> Contracted to have Mission Controllers installed at pump stations to better monitor wet well levels 	<ul style="list-style-type: none"> Utilize pump station controls to identify inflow and infiltration.
Digester Rehabilitation*	Rehabilitate aging biosolids digestion facilities.	<ul style="list-style-type: none"> Target design completion by 2019. Target construction completion by 2021. 	<ul style="list-style-type: none"> Provide sustainable services for the future. 	<ul style="list-style-type: none"> Hired a consultant to design the Digester Complex Rehabilitation project. This project includes new covers and mixers for the three (3) primary digesters along with building roof improvements. June 2018 ~\$1,279,769 for Design and Construction Phase Services Hired a Construction Manager At Risk for the Digester Complex Rehabilitation Project. January 2019 ~\$5,761,084 Rehabilitated the 6" line from the primary sludge thickener building to the digester complex using a CIPP liner. September 2018 ~\$6,500 	<ul style="list-style-type: none"> Published an article in the City Source newsletter highlighting the Digester Complex Rehabilitation project. April 2020 	<ul style="list-style-type: none"> Complete construction of Digester Complex Rehabilitation Project. Substantial completion March 9, 2021. Final payment September 30, 2021 			THIS PROJECT IS COMPLETE
Constructed Wetlands Maintenance	Initiate constructed wetlands maintenance efforts to improve treatment efficiency.	<ul style="list-style-type: none"> Develop plan and detailed cost estimates for implementing improvement actions. 	<ul style="list-style-type: none"> Provide sustainable services for the future. 			<ul style="list-style-type: none"> WTU 2 emergency berm repair in progress due to flooding event in June 2021. ~\$50,000 	<ul style="list-style-type: none"> Completed WTU 2 emergency berm repair from flooding event in June 2021. ~\$60,000 		<ul style="list-style-type: none"> Discuss impacts of wetland maintenance disturbance with Geotechnical engineer, consider a study.
Other Actions taken at WWTP or in Sewer				<ul style="list-style-type: none"> Rehabilitated a badly deteriorated manhole located with the plant piping system using a CIPP liner. November 2018 ~\$20,480 		<ul style="list-style-type: none"> 90% complete Sewer Cost of Service Study ~\$45,750 	<ul style="list-style-type: none"> Drafted RFQ for design-build to install mechanical screens for wetland pump station. Cost of Service Study Storm Water completed Dec 2021 	<ul style="list-style-type: none"> Contracted with a design build team of McClure Engineering and Martin General Contractors to install mechanical screens for the wetland pump station. 	<ul style="list-style-type: none"> Complete design-build to install mechanical screens for wetland pump station. Contract with consultant to update 5 year action plan.

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Wastewater Collection									
System Renewal*	Continue system renewal at current rates with appropriation of dedicated funding to provide effective wastewater collection.	<ul style="list-style-type: none"> Rehabilitate up to 1% of collection system structures per year, depending upon contractor availability and pricing. Secure dedicated annual funding for continued renewal. Current bond funding runs out in 2019. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Began construction of the FY18 Main & Manhole Rehabilitation project. September 2018 ~\$2,404,712.63 Constructed the Upper Merideth Sewer Relocation and Stream Stabilization Project. April 2019 ~\$351,397 17,278 feet sewer CCTV inspected (FY2019) 167 sanitary structures raised/replaced; 668 feet sewer repaired/replaced (FY2019) 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2020 is attached Completed FY18 Sewer Main & Manhole Rehabilitation project. Developed new technical specifications and RFP for a multi-year contract for Sewer and Stormwater Rehabilitation and Cleaning Services. 179,861 feet sewer CCTV inspected 193 sanitary structures raised/replaced; 337 feet sewer repaired/replaced 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2021 is attached Signed a contract, renewable for up to 5 years, for Sewer and Stormwater Rehabilitation and Cleaning Services with Ace Pipe Cleaning. Completed 90% of FY19 Sewer Rehabilitation Project ~\$3,166,000; Lined 46,452 feet pipe 225,460 feet sewer CCTV inspected 254 sanitary structures raised/replaced; 532 feet sewer repaired/replaced 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2022 is attached Completed FY19 Sewer Rehabilitation; lined 30,511 feet in FY22. Completed Sewer Rehabilitation #8 project; lined 39,100 feet. Initiate PO for Sewer Rehabilitation #9 \$2,991,205 Applied for MDNR ARPA funding for sewer rehabilitation work. 190,705 feet sewer CCTV inspected 284 sanitary structures raised/replaced; 245 feet sewer repaired/replaced 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2023 is attached Substantial completion of Sewer Rehabilitations #9 with 54,483 feet in FY23. Initiate PO for Sewer Rehabilitation #10 \$7,095,168.69 Unsuccessful application for MDNR ARPA funding for sewer rehabilitation work. 150,935 feet sewer CCTV inspected 212 sanitary structures raised/replaced; 196 feet sewer repaired/replaced Completed construction of Court Hickory Sewer Relocation Completed construction of S. Providence Sewer Relocation 	<ul style="list-style-type: none"> Complete Sewer Rehabilitation #10 ~\$7,000,000 Issue PO for Sewer Rehab #11 ~\$2,700,000 Funding for Rehabilitation Projects planned in CIP document through FY2030 ~\$2,700,000 annually 63/70 Sewer Relocation 63/ Grindstone Sewer relocation
Private Common Collector Elimination (PCCE)*	Implement identified PCCE projects in the CIP with appropriation of dedicated funding to reduce illicit sewage discharges.	<ul style="list-style-type: none"> Continue Private Common Collector elimination, depending on ability to gain easements, as well as contractor availability and pricing. Secure dedicated funding. Current bond funding runs out in 2019. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Constructed the following private common collector elimination (PCCE) projects: PCCE #24 PCCE #39 PCCE #8 Phase 1, 2, 3 PCCE #3 Phase 1 PCCE #16 Phase 1 and 2 	<ul style="list-style-type: none"> Constructed the following private common collector elimination (PCCE) projects: PCCE #3 Phase 2 PCCE #8 Phase 4 PCCE #16 Phase 2 PCCE #22 Allocated prior year appropriation to future PCCE projects in Dec 2019. 	<ul style="list-style-type: none"> Constructed the following private common collector elimination (PCCE) projects: PCCE #3 Phase 3 - 90% complete PCCE #8 Phase 5 - 90% complete PCCE #16 Phase 3 - 90% complete 	<ul style="list-style-type: none"> Constructed the following private common collector elimination (PCCE) projects: PCCE #3 Phase 4A and Phase 4B PCCE #18 Spring Valley Rd PCCE #21 Stanford Dr 	<ul style="list-style-type: none"> Constructed the following private common collector elimination (PCCE) projects: PCCE #3 Stewart, Ridge, & Medavista Phase 5 PCCE #23 Lakeshore & Edgewood PCCE #25 Glenwood PCCE #27 Grace Ellen 	<ul style="list-style-type: none"> Proposed construction of the following private common collector elimination (PCCE) projects: PCCE #28 Hickory Hill PCCE #31 Oakwood PCCE #35 Richmond PCCE #38 N. 8th St. Funding for PCCE Projects to PCCE #50 planned in CIP document through FY2030
Reduce Building Backups*	Implement backflow prevention program to reduce building backups.	<ul style="list-style-type: none"> Obtain Council approval for backflow prevention program with allocation of \$100,000 per year for 5 years. Implement community outreach to build awareness of backflow prevention program. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Implemented Cost Reimbursement Program for the Installation of Pressure Sewers and Backflow Devices or Removal of Plumbing Fixtures. July 2017 3 applications received. Funded \$1002.01 in reimbursements Published article in City Source newsletter December 2018 and July 2019 Dry Weather: 8 SSO; 7 backups FY19 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2020 is attached 0 applications received. Dry Weather: 6 SSO; 5 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2021 is attached 4 applications received. Funded \$1000 in reimbursements Individually contacted all owners that reported a backup during wet weather event about reimbursement program. Dry Weather: 7 SSO; 3 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2022 is attached 1 reimbursement application received. Dry Weather: 4 SSO; 2 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2023 is attached 1 reimbursement application received. Dry Weather 7 SSO; 11 backups 	<ul style="list-style-type: none"> Continue to fund reimbursement programs \$50,000 available for reimbursements in FY2024
System Capacity Enhancements and Private I/I Reduction*	Reevaluate private I/I program to reduce peak wet weather flows.	<ul style="list-style-type: none"> Assess benefits and cost-effectiveness of previous and modified private I/I program. Implement community outreach to build awareness of modified program. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. Regulatory compliance. 	<ul style="list-style-type: none"> Revised ordinance for Cost Reimbursement Program for Private Source Inflow and Infiltration Reduction. Dec 2017 and July 2019 5 applications received. Funded \$4485 in reimbursements Published an article in City Source newsletter January 2019 and July 2019 Wet Weather: 20 SSO; 2 backups FY2019 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2020 is attached 2 applications received. Funded \$675 in reimbursements Published an article in City Source newsletter December 2019 Wet Weather: 2 SSO; 0 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2021 is attached 4 reimbursement applications received. Updated website Installed 89 LCRs with FY19 Rehabilitation project Wet Weather: 41 SSO; 9 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2022 is attached 1 reimbursement application received. Discovered and removed open 24" diameter sewer pipe adjacent to Hinkson Creek. (20 to 30 mgd during a flooding event) Lined a sewer main near Hulen Lake that was leaking approximately 1 mgd. Wet Weather: 6 SSO; 0 backups 	<ul style="list-style-type: none"> Sewer collection system maintenance summary for FY2023 is attached 1 reimbursement application received Capped a 6" cleanout pipe near airport lagoon causing I&I Maintenance to divert stormwater away from Pump Station Eliminated 380 feet of broken and leaking 12" VCP Eliminated manholes 3B52 & 3B57 and abandoned associated pipes Wet Weather: 0 SSO, 0 backups 	<ul style="list-style-type: none"> Develop flow model to identify capacity and I/I issues \$50,000 available for reimbursements in FY2023

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System Expansion	Provide adequate and cost-effective wastewater services to developing areas for watershed protection.	<ul style="list-style-type: none"> • Fund expansion projects currently identified in the CIP, as needed. • Develop systematic approach for evaluating sewer extensions to better identify sewer mains that should be upsized to convey future capacity. 	<ul style="list-style-type: none"> • Protect quality of life. • Provide sustainable services for the future. • Improve water quality. 	<ul style="list-style-type: none"> • Constructed the Upper Hinkson Creek Outfall Extension Phase 1. August 2017 ~\$9,792,638 	<ul style="list-style-type: none"> • Sewer permit extension summary for FY2020 is attached • Constructed the Fifth to Wilkes Relief Sewer Phase 1. July 2020 ~\$384,280 • Hired Innovyze to aid in the development of a wastewater collection model in Innovyze's InfoSWMM software. Feb 2020 ~\$54,000 • Hired a Sewer Technician to aid in modeling efforts on November 18, 2019 	<ul style="list-style-type: none"> • Sewer permit extension summary for FY2021 is attached • 90% complete with Innovyze contract to aid in the development of a wastewater collection model in Innovyze's InfoSWMM software. Feb 2020 ~\$54,000 • Fund Rt B Economic Development Sewer project ~\$1,300,000 	<ul style="list-style-type: none"> • Sewer permit extension summary for FY2022 is attached • Completed Innovyze contract to develop wastewater collection base model in Innovyze's InfoSWMM software. ~\$54,000 • Contract with Olsson to prepare flow monitoring plan to calibrate the sewer model. • Substantially completed Rt B Economic Development Sewer project \$832,178 	<ul style="list-style-type: none"> • Sewer permit extension summary for FY2023 is attached • Contract with Olsson to complete a dry & wet weather calibration of sewer model using Innovyze's InfoSWMM software • Contract with TREKK to collect 3 months of flow monitoring data 	<ul style="list-style-type: none"> • Continue to review and permit sewer extensions • Engineer to finalize calibration of model.
Wet Weather Planning*	Develop collection system model and evaluate future system capacity enhancement strategies.	<ul style="list-style-type: none"> • Conduct comprehensive flow monitoring through 2020 to calibrate collection system model. • Develop model by 2021. • Evaluate system capacity enhancement strategies through 2022. 	<ul style="list-style-type: none"> • Protect public health and safety. • Improve quality of life. • Provide sustainable services for the future. • Improve water quality. • Regulatory compliance. 		<ul style="list-style-type: none"> • Hired Innovyze to aid in the development of a wastewater collection model in Innovyze's InfoSWMM software. Feb 2020 ~\$54,000 • Hired a Sewer Technician to aid in modeling efforts on November 18, 2019 	<ul style="list-style-type: none"> • 90% complete with Innovyze contract to aid in the development of a wastewater collection model in Innovyze's InfoSWMM software. Feb 2020 ~\$54,000 	<ul style="list-style-type: none"> • Completed Innovyze contract to develop wastewater collection base model in Innovyze's InfoSWMM software. ~\$54,000 • Contract with Olsson to prepare flow monitoring plan to calibrate the sewer model. • Completed Tupelo Larch relocation. \$201,425 	<ul style="list-style-type: none"> • Contract with TREKK to collect 3 months of flow monitoring data • Contract with Olsson to complete a dry & wet weather calibration of sewer model using Innovyze's InfoSWMM software 	<ul style="list-style-type: none"> • Engineer to finalize calibration of model.
System Cleaning	Enhance sewer cleaning program to practicably mitigate overflows and backups due to blockages.	<ul style="list-style-type: none"> • Develop prioritized cleaning program. • Purchase new jet truck. • Plan for new building for field operations and collections personnel. 	<ul style="list-style-type: none"> • Protect public health and safety. • Improve quality of life. • Provide sustainable services for the future. • Improve water quality. 	<ul style="list-style-type: none"> • 883,311 feet sewer cleaned FY2019 • Purchased jet truck June 2018 	<ul style="list-style-type: none"> • Sewer collection system maintenance summary for FY2020 is attached • Purchased jet truck December 2019 • 597,866 feet sewer cleaned • Purchased CCTV truck June 2020 	<ul style="list-style-type: none"> • Sewer collection system maintenance summary for FY2021 is attached • Purchased jet truck December 2020 • 668,395 feet sewer cleaned by City staff • Contracted with Ace Pipe Cleaning to perform routine maintenance ~\$130,000 and 101,820 feet cleaned 	<ul style="list-style-type: none"> • Sewer collection system maintenance summary for FY2021 is attached • 465,365 feet sewer cleaned by City staff • Contracted with Ace Pipe Cleaning to perform routine maintenance 15,549 feet cleaned in FY22 ~\$94,369 contract 	<ul style="list-style-type: none"> • Sewer collection system maintenance summary for FY2023 is attached • 421,424 feet of sewer cleaned by City staff • Contracted with Ace Pipe Cleaning to perform routine maintenance 31,500 feet cleaned in FY23 ~\$199,427 contract 	<ul style="list-style-type: none"> • Continue sewer collection system maintenance and inspections • Re-evaluate new equipment and facilities due to inability to hire staff. Continue to evaluate cost: benefit of contracting maintenance work.

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Stormwater Management									
MS4 Program Enhancements*	Enhance Public Education and Outreach, Illicit Discharge Detection and Elimination, and Construction Site Stormwater Runoff Control to reduce bacteria, sediment, and trash discharges.	<ul style="list-style-type: none"> Continue to develop and distribute public education messages as outlined in the Stormwater Management Plan. Hire technician to support MS4 program with focus on IDDE. Conduct stream walks and outfall inspections in all City streams within 5-year action plan period. Develop map of stormwater outfalls. Update Erosion and Sediment Control Manual and policies and procedures. Continue to work with MS4 partners to effectively implement stormwater management program, particularly Minimum Control Measure #4. Continue to work with MS4 partners to implement CAM program to improve Hinkson Creek water quality. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. Regulatory compliance. 	<ul style="list-style-type: none"> Published an article in City Source newsletter in June 2018 Hired a Storm Water MS4 Technician on January 28, 2019 Completed 22 illicit discharge investigations Developed a stormwater outfall map for MS4 permit renewal, 2307 outfalls identified. 2017-2018 CAM Progress Report submitted 	<ul style="list-style-type: none"> Published an article in City Source newsletter in October 2019, June 2020, and Aug 2020 Inspected 92,567 feet sewer line for damage. Completed 23 illicit discharge investigations Completed 131 outfall inspections 	<ul style="list-style-type: none"> Provided calendar year 2020 MS4 Annual Report on April 27, 2021; published to website Inspected 272,293 feet sewer line for damage. Completed 17 illicit discharge investigations Completed 838 outfall inspections Work with MS4 partners to update SWMP Published an article in City Source newsletter in March 2021, April 2021 2019 CAM Progress Report finalized; 2020 CAM Progress Report drafted 	<ul style="list-style-type: none"> Provided calendar year 2021 MS4 Annual Report on April 28, 2022; published to website Inspected 190,705 feet sewer line for damage. Completed 20 illicit discharge investigations Completed 349 outfall inspections MDNR approved the updated SWMP on April 1, 2022. Interested Parties meeting on January 19, 2022 and Public Hearing on March 7, 2022 with a 30+ day comment period. Published an articles in City Source newsletter: IDDE October 2021; SWMP December 2021; winter salt use February 2022; Hinkson Creek May 2022; watersheds June 2022; IDDE August 2022 2020 CAM Progress Report finalized 	<ul style="list-style-type: none"> Provided calendar year 2022 MS4 Annual Report on October 23, 2023; published to website Inspected 150,935 feet sewer line for damage Completed 32 illicit discharge investigations Completed 371 outfall inspections CAM Chloride Report Completed Implemented Annual MS4 meeting, for training City Staff. Reviewed and revised (if needed) applicable ordinances, protocols, checklists etc... 	<ul style="list-style-type: none"> Update MS4 Storm water Management Plan (SWMP) and implement required public outreach. Publish articles in City Source newsletter and on social media Continue IDDE inspections Continue outfall inspections with a goal of 20% each year BMP Inspection training for owners and contractors. City staff meeting to review SWMP Update erosion and sediment control policies and procedures Implement Annual MS4 meeting Complete 2021 and 2022 CAM Progress Report
System Renewal	Implement renewal program to address failing corrugated metal pipe (CMP) and structures beyond physical effective life.	<ul style="list-style-type: none"> Initiate renewal activities as resources and funding allow. Secure additional funding to implement these actions. 	<ul style="list-style-type: none"> Protect public health and safety. Improve quality of life. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Repaired thirty-one (31) storm structures and replaced one (1) FY2019 Replaced 458 feet storm pipe FY2019 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2020 is attached Repaired twenty-six (26) storm structures and replaced three (3) Replaced 1,229 feet storm pipe 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2021 is attached Replaced 284 feet storm pipe (181 ft CMP) Repaired 7 storm structures 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2022 is attached Replaced 1,454 feet storm pipe (1,406 ft CMP) Repaired 17 storm structures FY19 Storm Rehab project & Aldeah and Ash Replacement and Rehabilitation Construct Bray Longwell ~\$160,000 Applied for MDNR ARPA funding for CMP pipe lining and renewal. 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2023 is attached Replaced 575 feet storm pipe Repaired 15 storm structures Completed Bray & Longwell Improvement Construct Capri Drive Improvement Awarded MDNR ARPA funding for CMP pipe lining and renewal. Eligible for up to \$796,446.25 in ARPA funds. 	<ul style="list-style-type: none"> Ross Outlet Improvement Bernadette Drive Improvement Nebraska Avenue Improvement Royal Lytham Drive Replacement Utilize MDNR ARPA funding for CMP pipe lining. ~\$800,000 ARPA ~\$200,000 City
Condition Assessment	Establish and begin implementing a condition assessment program.	<ul style="list-style-type: none"> Begin assessing CMP throughout the City. Secure additional funding to implement these actions. 	<ul style="list-style-type: none"> Protect public health and safety. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> CCTV inspected 32,660 feet of storm pipe FY2019 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2020 is attached CCTV inspected 57,425 feet storm pipe Developed new technical specifications and RFP for a multi-year contract for Sewer and Stormwater Rehabilitation and Cleaning Services. 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2021 is attached CCTV inspected 24,389 feet storm pipe 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2022 is attached CCTV inspected 46,200 feet storm pipe Contract with TREKK Design Group to perform CMP condition assessment and prioritize system renewal. Inspected and prioritized 276 segments of 36" CMP or greater. \$32,365 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2023 is attached CCTV inspected 31,616 feet storm pipe Contracted with TREKK to complete a condition assessment on "unknown" pipes. 236 locations evaluated, and 124 characterizations completed 	<ul style="list-style-type: none"> Continue condition assessment and prioritize system renewal as appropriate.
Flood Reduction	Address known areas of flooding to reduce public health and safety concerns.	<ul style="list-style-type: none"> Implement opportunistic flood reduction projects, depending on available funding after emergency and critical system repairs. Develop stormwater project ranking system. 	<ul style="list-style-type: none"> Protect public health and safety. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Developed a ranking system 	<ul style="list-style-type: none"> Evaluated current projects identified in CIP under new ranking system and revised funding amounts and years as needed 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2021 is attached Utilized ranking system to prioritize CIP funding. Completed design Hickman & 6th Completed LOMR for upper square mile of Mill Creek 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2022 is attached Completed construction Hickman & 6th Started construction on Quail Drive Improvement Applied for MDNR ARPA funding for Nebraska improvement and Crestridge culvert replacement 	<ul style="list-style-type: none"> Storm water maintenance summary for FY2023 is attached Completed construction on Quail Drive Improvement Awarded MDNR ARPA funding for Nebraska Ave stormwater improvement. Eligible for up to \$619,660.60 in ARPA funds 	<ul style="list-style-type: none"> Nebraska Avenue Improvement Project Crestridge Drive Culvert Replacement Alan Lane Improvement Project

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Runoff Treatment	Reduce pollutant runoff in Hinkson Creek tributary watersheds to improve water quality.	<ul style="list-style-type: none"> Implement opportunistic runoff treatment projects, depending on available funding. Develop stormwater project ranking system. Continue to implement CAM process. 	<ul style="list-style-type: none"> Protect public health and safety. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Developed a ranking system CAM study: Hinkson Creek Aquatic Macroinvertebrate Data Mining Project 	<ul style="list-style-type: none"> Evaluated current projects identified in CIP under new ranking system and revised funding amounts and years as needed CAM study: Agerich Hinkson Creek Synoptic Sampling 	<ul style="list-style-type: none"> Maintain native vegetation areas where possible CAM study: USGS Chemical Analysis ~\$25,130.67 CAM study: Agerich Hinkson Creek Synoptic Sampling ~\$13,285 	<ul style="list-style-type: none"> Applied for MDNR ARPA funding for Calvert Drive Detention 	<ul style="list-style-type: none"> Awarded MDNR ARPA funding for Calvert Dr. stormwater improvement. Eligible for up to \$2,219,928.20 in ARPA funds Completed CAM Chloride study 	<ul style="list-style-type: none"> Increase native vegetation areas where possible Utilize MDNR ARPA funding for Calvert Drive Detention. ~\$2,220,000 ARPA ~\$590,000 City Fund CAM studies and projects as appropriate.
Stream Erosion Control	Stabilize stream channels with excessive channel erosion to reduce sediment discharges.	<ul style="list-style-type: none"> Identify and implement opportunistic stream erosion control projects, depending on available funding after emergency and critical system repairs. Develop stormwater project ranking system. Continue to implement CAM process. 	<ul style="list-style-type: none"> Protect public health and safety. Provide sustainable services for the future. Improve water quality. 	<ul style="list-style-type: none"> Constructed the Upper Merideth Sewer Relocation and Stream Stabilization Project. April 2019 ~\$351,397 Developed a ranking system 	<ul style="list-style-type: none"> Evaluated current projects identified in CIP under new ranking system and revised funding amounts and years as needed 	<ul style="list-style-type: none"> Prepare information to fund Hinkson Creek Bank Stabilization at Clear Creek Force Main for FY22 Utilized ranking system to prioritize CIP funding. 	<ul style="list-style-type: none"> Completed construction of Hinkson Creek Bank Stabilization at Clear Creek Force Main. ~\$90,000 Utilized ranking system to prioritize CIP funding. 	<ul style="list-style-type: none"> Utilized ranking system to prioritize CIP funding. 	<ul style="list-style-type: none"> Identify funding sources for green infrastructure projects. Fund CAM studies and projects as appropriate
Planning and Program Support	Develop stormwater master plan and enhance data management processes.	<ul style="list-style-type: none"> Initiate master planning and data management efforts. Secure additional funding to implement these actions. 	<ul style="list-style-type: none"> Protect public health and safety. Provide sustainable services for the future. Improve water quality. 			<ul style="list-style-type: none"> 90% complete Stormwater Cost of Service Study ~\$30,000 	<ul style="list-style-type: none"> Completed Stormwater Cost of Service Study ~\$30,000 	<ul style="list-style-type: none"> Contracted with TREKK Design Group to complete CMP Unknown pipe study. Identified over 124 unknown stormwater pipes 	
Activities to Measure Water Quality Improvements⁴									
Water Quality Monitoring	Implement water quality monitoring program to help define baseline conditions and track future improvements.	<ul style="list-style-type: none"> Develop water quality monitoring plan within first 5 years and implement when additional funding is secured. 	<ul style="list-style-type: none"> Evaluate IMP effectiveness. Provide technical basis for future IMP modifications. 			<ul style="list-style-type: none"> Prepare information to fund preparation of a Water Quality Monitoring plan for FY22 	<ul style="list-style-type: none"> Contracted with HDR to develop water quality monitoring plan. ~\$49,955 	<ul style="list-style-type: none"> Developed draft water quality monitoring plan 	<ul style="list-style-type: none"> Identify funding for water quality monitoring plan Contract with consultant to update 5 year action plan
Hinkson Creek Flow Gage	Collect continuous Hinkson Creek stream flow data.	<ul style="list-style-type: none"> Continue annual funding for USGS flow gage operation. 	<ul style="list-style-type: none"> Evaluate IMP effectiveness. Provide technical basis for future IMP modifications. 	<ul style="list-style-type: none"> Renewed funding 2018 and 2019 	<ul style="list-style-type: none"> Renewed funding 2020 	<ul style="list-style-type: none"> Renewed funding for 2021 	<ul style="list-style-type: none"> Renewed funding for 2022 	<ul style="list-style-type: none"> Renewed funding for 2023 	<ul style="list-style-type: none"> Renewed funding for 2024
<p>Note 1 - Goals and actions identified in this 5-Year IMP Action Plan reflect the City's understanding of infrastructure and regulatory needs and priorities with respect to the information currently available. The City will implement these actions to the extent possible but acknowledge that weather, staff availability, Council approval and other resource constraints or unanticipated needs may impede complete implementation of the Action Plan or require that it be modified. Further, the City notes that many of the activities outlined in this Action Plan assume that sufficient additional funding will be made available through sewer rate increases, bond financing that must be approved through a local election, and stormwater rate increases that must be approved by a majority vote. If sufficient additional funding does not become available, the 5-Year IMP Action Plan will be modified to reflect available funding and resources.</p> <p>Note 2 - High priority program and project needs were identified by City staff and are denoted with an asterisk (*). These represent projects that are intended to directly and expeditiously reduce significant public health risks, improve water quality, or enhance customer service.</p> <p>Note 3 - Targeted community benefits are presented in Section 4.3 and explained in greater detail in Attachments J and N.</p> <p>Note 4 - Element 5 of EPA's Framework requires that municipalities outline activities that will be used to measure IMP effectiveness. Activities listed here will be used to measure water quality improvements that occur over time. Additional program management and Utility service performance measures are discussed in Section 6.</p>									