

Columbia 5-Year IMP Action Plan¹			
Program or Project²	Goal	Anticipated Actions	Targeted Community Benefits³
Wastewater Treatment			
Wet Weather Improvements*	Implement early measures to enhance peak flow capacity at CRWWTP.	<ul style="list-style-type: none"> Modify existing CRWWTP 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.
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.
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.
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.
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.
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.
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.
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.
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.

Columbia 5-Year IMP Action Plan ¹			
Program or Project ²	Goal	Anticipated Actions	Targeted Community Benefits ³
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.
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 streamwalks 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.
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.
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.
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.
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.

Columbia 5-Year IMP Action Plan ¹			
Program or Project ²	Goal	Anticipated Actions	Targeted Community Benefits ³
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.
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.
Activities to Measure Water Quality Improvements ⁴			
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.
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.
<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>			