



Appendix A

Tables for Program Goals:

Strategic Objectives, Initiatives and Goals



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Table A-1. Strategic Objectives, Initiatives and Measures for Program Goal 1

Program Goal 1 <i>Develop and implement Stormwater Program Master Plan</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O1.1	The Master Plan will provide strategic guidance for the range of services, activities, programs, and projects performed utilizing Town Stormwater Utility resources.		Completion of Master Plan Annual Review and Updating of Master Plan at January Stormwater Advisory Board Meeting	Benchmarking against best practices among municipal stormwater programs
O1.2	The Master Plan will be regularly reviewed and updated as needed.		Annual Review and Updating of Master Plan at January Stormwater Advisory Board Meeting Detailed Master Plan Review and Program Assessment Every Five Years	
O1.3	The performance measures and targets in the Master Plan, both regulatory and non-regulatory, will be used to help track implementation of the Town's Stormwater Program.		Annual Review and Updating of Master Plan at January Stormwater Advisory Board Meeting Detailed Master Plan Review and Program Assessment Every Five Years Stormwater Utility Annual Report	
O1.4	Annual budgeting recommendations for the Stormwater Program will be based on the Master Plan, as it continues to be updated and modified.		Use of Master Plan during Town's Annual Budgeting Process	

*[Link to Key Strategic Measures Table](#)



Table A-2. Strategic Objectives, Initiatives and Measures for Program Goal 2

<p>Program Goal 2</p> <p><i>Address stormwater quantity (flooding) as an integral function within the program</i></p>		<p>Existing Program Functions</p>	<p>Strategic Initiatives</p>	<p>Key Strategic Measures*</p>
<p>O2.1</p>	<p>Regulate and guide new development and re-development such that post-development flow rates and volumes of runoff emulate natural undeveloped conditions to the extent practicable, and do not create adverse flooding conditions.</p>	<p>Development Plan Reviews</p> <p>Public Education Program</p>	<p>LUMO and Engineering Design Manual Updates</p> <p>Fee Credit Policy/Program</p>	<p>Reduced flood risk for roads and structures</p>
<p>O2.2</p>	<p>Mitigate cumulative flooding impacts of historically uncontrolled runoff from existing development including public roadways.</p>	<p>Limited Infrastructure CIP</p>	<p>Continued Development of Subwatershed Plans</p> <p>Enhanced Infrastructure CIP</p> <p>Fee Credit Policy/Program</p>	<p>Reduced flood risk for roads and structures</p>
<p>O2.3</p>	<p>Proactively maintain and improve the drainage system to help minimize drainage and flooding problems while protecting receiving waters and other natural resources.</p>	<p>Small Maintenance Projects Program</p> <p>Drainage Partnership Program</p> <p>Ongoing Maintenance Operations</p>	<p>Small Maintenance Projects Program Expansion</p> <p>Drainage Partnership Program Expansion</p> <p>Transition to Proactive Drainage Maintenance Program</p>	<p>Reduced flood risk for roads and structures</p> <p>Reduced reactive maintenance activities and repairs</p>
<p>O2.4</p>	<p>Manage floodplains to minimize public safety hazards while preserving natural floodplain processes to the extent practicable.</p>	<p>Development Plan Reviews</p> <p>Coordination with FEMA</p> <p>Floodplain Management Program</p> <p>Annual Updates of Hazard Mitigation Plan</p>	<p>Continued Development of Subwatershed Plans</p> <p>CRS program</p> <p>Flood Hazard Mitigation Program</p> <p>Flood Warning System**</p> <p>Enhanced Infrastructure CIP</p>	<p>Reduced flood risk for roads and structures</p> <p>Fewer violations of environmental regulations related to water resources (specifically riparian buffers)</p>
<p>O2.5</p>	<p>Increase public awareness of community flood hazards, flood safety and protection measures, and the natural and beneficial functions of floodplains.</p>	<p>Public Education Program</p>	<p>Comprehensive Monitoring Program</p> <p>Stormwater Utility Annual Report</p>	<p>More residents, businesses and staff adopting positive stormwater practices</p>

*[Link to Key Strategic Measures Table](#)

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Table A-3. Strategic Objectives, Initiatives and Measures for Program Goal 3

<p align="center">Program Goal 3</p> <p align="center"><i>Address stormwater quality as an integral function within the program</i></p>		<p align="center">Existing Program Functions</p>	<p align="center">Strategic Initiatives</p>	<p align="center">Key Strategic Measures*</p>
<p align="center">O3.1</p>	<p>Regulate and guide new development and re-development such that post-development pollutant discharges emulate natural undeveloped conditions to the extent practicable.</p>	<p align="center">Development Plan Reviews</p> <p align="center">Public Education Program</p>	<p align="center">LUMO and Engineering Design Manual Updates</p> <p align="center">Fee Credit Policy/Program</p>	<p>Improved physical, chemical and biological stream conditions</p>
<p align="center">O3.2</p>	<p>Mitigate cumulative water quality and erosion impacts of historically uncontrolled runoff from existing development including public roadways.</p>	<p align="center">Bolin Creek Watershed Initiative</p> <p align="center">Street Sweeping Program</p>	<p align="center">Continued Development of Subwatershed Plans</p> <p align="center">Water Quality CIP</p> <p align="center">Fee Credit Policy/Program</p>	<p>Reduced export of nutrients to Jordan Lake</p>
<p align="center">O3.3</p>	<p>Enforce strong erosion and sediment control programs during construction and land disturbance activities to reduce impacts to surface waters.</p>	<p align="center">Development Plan Reviews</p> <p align="center">Pollutant Report Responses</p> <p align="center">Partnership with Orange County ESC Program</p>		<p>Improved physical, chemical and biological stream conditions</p>
<p align="center">O3.4</p>	<p>Identify and eliminate illicit discharges into the stormwater system, with a balanced approach of general and targeted public education efforts combined with effective enforcement measures.</p>	<p align="center">Public Education Program</p> <p align="center">Illicit Discharge Detection and Elimination IDDE Program</p>	<p align="center">IDDE Program Enhancement</p> <p align="center">OWASA MOU</p>	<p>Fewer violations of environmental regulations related to water resources</p>
<p align="center">O3.5</p>	<p>Perform comprehensive, watershed-based monitoring to assess effectiveness of stormwater control measures and track the biological, chemical and physical health of receiving waters.</p>	<p align="center">Bolin Creek Watershed Initiative</p> <p align="center">Biological Monitoring Program</p>	<p align="center">Comprehensive Monitoring Program</p> <p align="center">Continued Development of Subwatershed Plans</p>	<p align="center">Benchmarking against best practices among municipal stormwater programs</p>
<p align="center">O3.6</p>	<p>Ensure proper long-term maintenance and functionality of stormwater control measures.</p>	<p align="center">Post-Construction Inspections of New BMPs</p>	<p align="center">Long Term BMP Inspection and Enforcement Program</p>	<p>Improved physical, chemical and biological stream conditions</p> <p>Reduced export of nutrients to Jordan Lake</p>

*[Link to Key Strategic Measures Table](#)



Table A-4. Strategic Objectives, Initiatives and Measures for Program Goal 4

Program Goal 4 <i>Protect and restore natural stream corridors</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O4.1	Protect streams from further impacts due to urbanization by appropriately regulating development impacts within stream buffers.	Development Plan Reviews Stream Determinations	LUMO and Engineering Design Manual Updates	Improved physical, chemical and biological stream conditions
O4.2	Maximize natural continuity of intermittent and perennial stream corridors by minimizing impacts from manmade infrastructure and maintenance activities.	Development Plan Reviews	Continued Development of Subwatershed Plans LUMO and Engineering Design Manual Updates OWASA MOU	
O4.3	Restore natural streams and stream buffers in concert with watershed management and restoration.	Bolin Creek Watershed Initiative	Continued Development of Subwatershed Plans Water Quality CIP	Improved physical, chemical and biological stream conditions Reduced export of nutrients to Jordan Lake
O4.4	Identify, and work with OWASA to reduce sanitary sewage leaks within and along streams, as well as problems with sanitary sewer overflows.	IDDE Program	OWASA MOU Comprehensive Monitoring Program IDDE Program Enhancement	Improved physical, chemical and biological stream conditions Fewer violations of environmental regulations related to water resources
O4.5	Educate and involve the community with protection, restoration, and stewardship of natural streams.	Public Education Program	Comprehensive Monitoring Program	More residents, businesses and staff adopting positive stormwater practices

**[Link to Key Strategic Measures Table](#)*



Table A-5. Strategic Objectives, Initiatives and Measures for Program Goal 5

Program Goal 5 <i>Develop a public education and public involvement program</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O5.1	Increase general public knowledge and awareness of stormwater, flooding, and surface water quality within the community.	Public Education Program Technical Assistance	Comprehensive Monitoring Program Publication of Annual Stormwater Utility Report CRS Program Flood Warning System**	Fewer violations of environmental regulations related to water resources More residents, businesses and staff adopting positive stormwater practices Benchmarking against best practices among municipal stormwater programs
O5.2	Encourage and enable citizens and the community to make informed environmental decisions through integrated and targeted education and outreach activities.	Public Education Program	Expanded Public Education Programs for Additional Target Audience Groups Collaboration with Stakeholder Groups	
O5.3	Maximize citizen and community involvement in stormwater pollution prevention activities and behavioral changes that benefit surface water management.	Public Education Program Stormwater Advisory Board	Comprehensive Monitoring Program Additional Stormwater Training for Municipal Employees and Operations IDDE Program Enhancement Fee Credit Policy/Program Collaborative Public Education Workshops and Seminars	
O5.4	Satisfy public education, outreach, and involvement requirements of NPDES Phase II permit.	Public Education Program <i>(meets NPDES requirements)</i>		
O5.5	Seek to partner, coordinate, and leverage education, outreach, and involvement programs with community and regional stakeholders.	Public Education Program	Stream Stewards Certification Program Facilitation of Stakeholder Involvement Plan for Bolin Creek Initiative	

*[Link to Key Strategic Measures Table](#)



Table A-6. Strategic Objectives, Initiatives and Measures for Program Goal 6

Program Goal 6 <i>Define the level of service and performance standards for the Stormwater Program</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O6.1	Define the appropriate levels of inspection and maintenance for the various components of the stormwater infrastructure system.	Ongoing Maintenance Operations Street Sweeping Program	Transition to Proactive Drainage Maintenance Program	Reduced reactive maintenance activities and repairs
O6.2	Complete and maintain a database of condition ratings for infrastructure components.	Stormwater System Database Development	Transition to Proactive Drainage Maintenance Program	Reduced reactive maintenance activities and repairs
O6.3	Utilize consistent drainage conveyance system levels-of-service as a basis for prioritization of projects.		Enhanced Infrastructure CIP Small Maintenance Projects Program Expansion Drainage Partnership Program Expansion	Reduced reactive maintenance activities and repairs Reduced flood risk for roads and structures
O6.4	Define timely responses to citizen complaints and/or pollution reports.	Ongoing Maintenance Operations IDDE Program Technical Assistance Drainage Partnership Program	Small Maintenance Projects Program Expansion Drainage Partnership Program Expansion Transition to Proactive Drainage Maintenance Program	Improved physical, chemical and biological stream conditions Benchmarking against best practices among municipal stormwater programs
O6.5	Define appropriate response times for completion of development plan reviews.	Development Plan Reviews		Benchmarking against best practices among municipal stormwater programs

*[Link to Key Strategic Measures Table](#)



Table A-7. Strategic Objectives, Initiatives and Measures for Program Goal 7

Program Goal 7 <i>Ensure compliance with federal and state regulatory mandates</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
07.1	Maintain participation in the National Flood Insurance Program.	Development Plan Reviews Coordination with FEMA Floodplain Management Program	CRS program Flood Hazard Mitigation Program Flood Warning System**	Reduced flood risk for roads and structures Benchmarking against best practices among municipal stormwater programs
07.2	Comply with requirements of the NPDES Phase II Permit, Water Supply Watershed Rules and the Jordan Lake Nutrient Strategy.	Development Plan Reviews IDDE Program Public Education Program Street Sweeping Operations	Water Quality CIP Long-Term BMP Inspection and Enforcement Program IDDE Program Enhancement	Improved physical, chemical and biological stream conditions Reduced export of nutrients to Jordan Lake Benchmarking against best practices among municipal stormwater programs
07.3	Regulate and guide new development and re-development such that projects comply with all applicable federal and state stormwater requirements (e.g., 401/404, Dam Safety).	Development Plan Reviews		Fewer violations of environmental regulations related to water resources Benchmarking against best practices among municipal stormwater programs
07.4	Ensure that municipal projects and operations comply with all applicable federal and state stormwater requirements.	Ongoing Interactions with Other Municipal Departments		Fewer violations of environmental regulations related to water resources Benchmarking against best practices among municipal stormwater programs
07.5	Proactively implement Bolin Creek watershed restoration initiatives in order to forestall a Bolin Creek TMDL from EPA/NC DWR .	Bolin Creek Watershed Initiative	Water Quality CIP	Improved physical, chemical and biological stream conditions

*[Link to Key Strategic Measures Table](#)

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Table A-8. Strategic Objectives, Initiatives and Measures for Program Goal 8

Program Goal 8 <i>Establish clear stormwater leadership that the public recognizes.</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O8.1	Seek to maximize retention of qualified staff and provide ongoing training.	Staff Continuing Education		Benchmarking against best practices among municipal stormwater programs
O8.2	Encourage staff participation in regional/state/national stormwater organizations and programs.	Staff Participation and Leadership in NCWRA, APWA, NCAFM, NAFSMA, Nutrient Scientific Advisory Board		
O8.3	Provide appropriate comments and responses regarding proposed regulatory initiatives and changes.	Ongoing Reviews of Federal Register Updates re: Stormwater Ongoing Responses to EPA/NC DWR Participation in Nutrient Scientific Advisory Board		
O8.4	Staff support to the Stormwater Advisory Board .	Stormwater Advisory Board		

*[Link to Key Strategic Measures Table](#)



Table A-9. Strategic Objectives, Initiatives and Measures for Program Goal 9

Program Goal 9		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
<i>Integrate programs to utilize resources efficiently.</i>				
O9.1	Identify and mitigate competing or contradictory factors within Town policies, ordinances, plans and operational activities that impact stormwater goals and objectives.	Ongoing Interactions with Other Municipal Departments	<u>LUMO</u> and Stormwater Design Updates	<i>Program integration efforts help to maximize program effectiveness and thus indirectly contribute to Key Strategic Measures.</i>
O9.2	Coordinate with internal municipal departments as needed to advance stormwater management goals and objectives.	Ongoing Interactions with Other Municipal Departments		
O9.3	Establish/maintain partnerships with community and external organizations to advance stormwater management goals and objectives.	Public Education Program Bolin Creek Watershed Initiative <u>UNC</u> Representative on Stormwater Advisory Board <u>UNC-TOCH</u> Partnership on Restaurant Pollution Prevention <u>TJCOG</u> Membership & Participation Joint Efforts with Town of Carboro <u>ESC</u> Program with Orange County	Comprehensive Monitoring Program <u>OWASA MOU</u>	
O9.4	Utilize stormwater as a beneficial water resource asset for Chapel Hill and the region.	Public Education Program (e.g., Rain Barrels)	<u>LUMO</u> and Engineering Design Manual Updates Fee Credit Policy/Program <u>OWASA MOU</u>	
O9.5	Actively seek external grant funding opportunities to leverage Town utility resources.	Bolin Creek Watershed Initiative Ongoing Grant Applications/Awards		

*[Link to Key Strategic Measures Table](#)



Table A-10. Strategic Objectives, Initiatives and Measures for Program Goal 10

Program Goal 10 <i>Establish an understanding of the stormwater system as a utility.</i>		Existing Program Functions	Strategic Initiatives	Key Strategic Measures*
O10.1	Develop and maintain a comprehensive database of the stormwater system, including natural streams.	Stormwater System Database Development	Comprehensive Monitoring Program Publication of Annual Stormwater Utility Report	Benchmarking against best practices among municipal stormwater programs
O10.2	Manage the stormwater system as a utility.	Technical Assistance Ongoing Maintenance Program Stormwater System Database Development Stormwater Utility Billing	Comprehensive Monitoring Program Transition to Proactive Drainage Maintenance Program Publication of Annual Stormwater Utility Report	Benchmarking against best practices among municipal stormwater programs
O10.3	Educate officials, citizens, and other municipal staff regarding the management and function of the stormwater system.	Public Education Program Technical Assistance Ongoing Maintenance Program	Comprehensive Monitoring Program Publication of Annual Stormwater Utility Report	Fewer violations of environmental regulations related to water resources More residents, businesses and staff adopting positive stormwater practices

**[Link to Key Strategic Measures Table](#)*