4 Goals and Objectives

The ultimate goal of the *Haskett Creek Watershed Plan* is to meet water quality standards and improve aquatic habitat in Haskett Creek and Penwood Branch to support a wide range of benthic macroinvertebrates. The following section outlines the objectives and actions that will need to be taken to achieve this goal, as well as the timeframe, partners, resources, and evaluation criteria that are needed to accomplish each action and ensure the plan's success. Objectives and actions were identified by a team of local and regional stakeholders that will be responsible for the implementation of this plan, including the City of Asheboro, Randolph County, City of Randleman, Randolph County Cooperative Extension, Randolph County Soil & Water, Keep Randolph County Beautiful, Piedmont Land Conservancy, Piedmont Conservation Council, NC Wildlife Resources Commission, and NC Division of Water Resources. This chart should continue to be updated as the needs of the watershed change and action items are completed.

Primary Goal

Improve benthic community rating to good-fair or better in order to meet biological water quality standards

OBJECTIVES	
1	Reduce peak stormwater flows by at least 20%.
2	Protect and restore riparian buffers along creeks and tributaries.
3	Preserve existing open space to provide water quality benefits.
4	Continue and expand public outreach and education.

The implementation chart is organized as follows:

Timeframe – The period of time in which each task is to be completed. Actions are grouped into four categories, based on local priorities and feasibility: Ongoing (continuous), Short (1-3 years), Mid (3-5 years), or Long (5-10 years). Although this plan is meant to be a living document, a 10-year planning horizon was assumed for the purposes of implementation.

Partners – The organizations that are responsible for implementing each task. Organizations in **bold** have been assigned to lead this particular initiative.

Resources Needed – Assets that will need to be secured in order to complete each task. Resources are grouped into six main categories: Funding, Staff Capacity, Technical Assistance, Training, Public or Elected Official Support, and Educational Materials.

Evaluation Criteria – Specific indicators that will be used to track the progress and success of each action. It is recommended that local stakeholders regularly maintain this information using spreadsheets or other resources discussed in this plan.

Organization	Abbreviation
Asheboro/Randolph Chamber of Commerce	Commerce
City of Asheboro	Asheboro
City of Randleman	Randleman
Clean Water Management Trust Fund	CWMTF
Duke Energy	Duke
Keep Randolph County Beautiful	KRCB
Mountains-to-Sea Trail	MST
North Carolina Department of Transportation	NCDOT
North Carolina Division of Water Infrastructure	NCDWI
North Carolina Division of Water Resources	NCDWR
North Carolina Office of Recovery and Resiliency	NCORR
North Carolina Urban Forest Council	UFC
North Carolina Wildlife Resources Commission	WRC

Organization	Abbreviation
North Carolina Zoo	NC Zoo
Piedmont Conservation Council	PCC
Piedmont Land Conservancy	PLC
Piedmont Legacy Trails	PLT
Piedmont Natural Gas	PNG
Piedmont Triad Regional Council	PTRC
Piedmont Triad Rural Planning Organization	PTRPO
Randolph County	Randolph County
Randolph County Cooperative Extension	RCCE
Randolph County Soil & Water	RCSW
Stormwater SMART	SSMART
University of North Carolina School of Government	UNCSOG

4.1 Objective 1: Reduce Stormwater Runoff

The primary cause of water quality impairments in Haskett Creek and Penwood Branch is stormwater runoff. Based on available data, peak stormwater flows need to be reduced by at least 20% in order to restore water quality conditions. Reducing stormwater runoff helps prevent erosion and the transport of pollutants and helps to maintain natural stream channel functions and habitat.

Objective 1: Reduce peak stormwater flows by at least 20%

Action #	Specific Action	Timeframe	Partners	Resources Needed	Evaluation Criteria
1-1	Implement identified stormwater control measure projects	Short-Mid	**Asheboro**, PART, Lindley Park Elementary, PTRC, RCSW, RCCE, NCDWR, CWMTF, engineering firms	Funding, technical assistance, & staff time	# of SCMs installed, stormwater reduced, water quality data, value added ($/ft/yr)
	Note: Utilize Project Atlas and WIPS tool. Apply for 319 or other grant funding to support.				
1-2	Identify additional stormwater retrofit opportunities on public properties	Short	**Asheboro**, Randolph County, Randleman, school system, RCSW, RCCE, KRCB, PTRC, engineering firms	Technical assistance & staff time	# of identified projects
	Note: Utilize SCM Suitability Model. Prioritize highly visible sites to promote education.				
1-3	Promote stormwater retrofits in future maintenance or redevelopment of publicly owned buildings, parks, parking lots and drainage systems	Ongoing	**Asheboro**, Randolph County, Randleman, RCSW, RCCE, WRC, PTRC, NCDWR, NCDWI, CWMTF, engineering firms	Staff time & training	# of SCMs installed, stormwater reduced, water quality data, value added ($/ft/yr)
	Note: Work with partners to provide trainings/information sessions.				
1-4	Develop street tree program and encourage stormwater reduction measures on City streets in future capital improvement projects	Mid	**Asheboro**, Randolph County, Randleman, RCSW, RCCE, PTRC, UFC, landscaping companies, nurseries	Funding, technical assistance, staff time, & training	# of street trees planted/SCMs, stormwater reduced, water quality data, value added ($/ft/yr)
	Note: Identify streets that are wide enough to accommodate SCMs. Adjust ordinances using Code & Ordinance worksheet to accommodate.				

1-5	Work with Department of Transportation to incorporate retrofits into highway upgrades	Mid-Long	Asheboro, Randolph County, Randleman, NCDOT, **PTRPO**	Staff time & technical assistance	# of SCMs installed, stormwater reduced, water quality data, value added ($/ft/yr)
	Note: Coordinate with Piedmont Triad RPO.				
1-6	Develop cost share/incentive program to encourage SCMs on private property	Mid	**Asheboro**, Randolph County, Randleman, RCSW, RCCE, WRC, SSMART, Commerce, businesses, & homeowners	Funding, technical assistance, educational materials, & staff time	# of SCMs installed, funding provided ($)
	Note: This could include financial assistance, development incentives, or recognition programs for both structural or non-structural SCMs.				
1-7	Map and inventory existing stormwater network	Short	Asheboro, Randolph County, Randleman, **PTRC**, engineering firms, NCDWR	Funding & technical assistance	# of outfalls/pipes mapped, # of maintenance needs detected
	Note: Use SCITs tool to mark outfalls. PTRC also has experience mapping stormwater infrastructure.				
1-8	Work with businesses and homeowners to disconnect roof drains	Mid	**Asheboro**, Randolph County, Randleman, SSMART, businesses, homeowners	Funding, educational materials, & staff time	# of roofs disconnected, volume of stormwater reduced
	Note: Identify neighborhoods with direct roof drain connections. City could provide this service at no-cost to homeowners to incentivize.				
1-9	Reduce sources of I/I	Mid-Long	**Asheboro**, Randolph County, Randleman, PTRC, NCDWI, NCDWR, engineering firms	Funding, technical assistance, & staff time	# of repairs made, volume of I/I reduced
	Note: Inventory stormwater and wastewater systems. Conduct testing to identify potential leaks, connections, or other maintenance needs.				
1-10	Consider establishing LID requirements for new development	Short	**Asheboro**, Randolph County, Randleman, RCSW, RCCE, PTRC, WRC, UNCSOG	Technical assistance, staff time, & elected official buy-in	N/A
	Note: Utilize Code & Ordinance Worksheet. UNC School of Governments also has a model Phase II ordinance.				
1-11	Incorporate watershed plan recommendations into other City/County plans	Short	**Asheboro, Randolph County, Randleman**, PTRC	Staff time	N/A
	Note: Asheboro in process of updating Future Land Development Plan. Coordinate with other departments as needed.				

4.2 Objective 2: Protect and Restore Riparian Buffers

Another factor contributing to water quality impairments in Haskett Creek and Penwood Branch is a lack of riparian buffers. Based on an analysis of riparian buffer conditions, about 34% of streams and tributaries within the watershed have moderately to severely degraded buffers. However, riparian buffers are one of the most effective means of protecting water resources. They filter nutrients and other pollutants, lower water temperature, improve aquatic habitat, stabilize stream banks, and enhance the area for recreation and wildlife. Objective 2 outlines the steps that are needed to protect and restore riparian buffers throughout the watershed.

Objective 2: Protect and restore riparian buffers along creeks and tributaries

Action #	Specific Action	Timeframe	Partners	Resources Needed	Evaluation Criteria
2-1	Implement identified riparian buffer improvement projects using native plants	Short-Mid	**Asheboro**, Randolph County, Randleman, PTRC, WRC, property owners, landscaping companies, nurseries, NCDWR, CWMTF	Funding, technical assistance, stakeholder buy-in, & staff time	Linear feet of buffers, stormwater reduced, water quality data, value added ($/ft/yr)
	Note: Utilize Project Atlas and WIPS tool. Apply for 319 or other grant funding to support.				
2-2	Stabilize eroding stream banks with native plants and materials	Mid	**Asheboro**, Randolph County, Randleman, PTRC, WRC, property owners, landscaping companies, nurseries, NCDWR, CWMTF	Funding, technical assistance, stakeholder buy-in, & staff time	Linear feet of stabilized streambank, water quality data, value added ($/ft/yr)
	Note: Replace hardened structures where feasible.				
2-3	Ground truth riparian buffer assessment to identify additional riparian buffer improvement and stream restoration projects	Short	**Asheboro**, Randolph County, Randleman, PTRC, RCSW, RCCE, KRCB	Technical assistance & staff time	# of identified projects
	Note: Utilize Riparian Buffer Assessment and WIPS tool.				

2-4	Extend water supply watershed buffer protections to impaired waters	Short	**Asheboro**, Randolph County, Randleman, PTRC	Staff time & elected offical buy-in	Linear feet of riparian buffers protected, stormwater reduced, water quality data, value added ($/ft/yr)
	Note:				
2-5	Identify buffers as a priority in other ordinances and plans	Short	**Asheboro**, Randolph County, Randleman, PTRC	Staff time	N/A
	Note: Subdivision, landscaping, future land use plan, recreation, etc.				
2-6	Develop cost share/incentive program to encourage businesses and homeowners to restore buffers on private property	Mid	**Asheboro**, Randolph County, Randleman, RCSW, RCCE, WRC, SSMART, Commerce, businesses, & homeowners	Funding, technical assistance, & staff time	# of participants, linear feet of buffers, funding provided ($)
	Note: This could include financial assistance or recognition programs.				
2-7	Coordinate buffer improvements with floodplain protection, utility easements, and trail programs	Mid-Long	**Asheboro**, Randolph County, Randleman, PTRC, PLC, PCC, PLT, MST, NCDOT, Duke, PNG, NCORR	Staff time	N/A
	Note:				

4.3 Objective 3: Preserve Existing Open Space

While restoration efforts play an important role in improving water quality, it can be far more cost effective to prevent impacts before they happen. A large portion of the Haskett Creek watershed has already been developed, but there are still several pristine forests and pastures that provide valuable ecological services. Vegetated open spaces help protect water quality by slowing down stormwater runoff, filtering pollutants, preventing erosion and flooding, and recharging groundwater. They also provide critical wildlife habitat and opportunities for outdoor recreation and tourism. Preserving existing open space will help prevent future degradation while protecting forests, farmland, and other lands that enhance the natural beauty of Randolph County.

Objective 3: Preserve existing open space to provide water quality benefits

Action #	Specific Action	Timeframe	Partners	Resources Needed	Evaluation Criteria
3-1	Work with Piedmont Land Conservancy, Wildlife Resources Commission, recreation departments, and other partners to prioritize and acquire land for conservation	Short-Mid	Asheboro, Randolph County, Randleman, PLC, WRC, PCC, RCSW, RCCE, **PTRC**, NCDWR, CWMTF, private landowners	Technical assistance, staff time, & willing property owners	Acres of land conserved, stormwater reduced, water quality data, value added ($/ft/year)
	Note: Prioritize land in critical areas that provides multiple benefits. Aim for ≤10% impervious cover in each catchment.				
3-2	Establish a maximum built upon area limit for new development within the watershed	Short	**Asheboro**, Randolph County, Randleman, PTRC	Technical assistance, staff time, & elected official buy-in	Acres of land conserved, stormwater reduced, water quality data, value added ($/ft/year)
	Note: The Center for Watershed Protection recommends maintaining a balance of ≤10% impervious cover throughout the watershed.				
3-3	Use Code & Ordinance Worksheet to identify other opportunities to improve open space protections in City/County ordinances	Short	**Asheboro**, **Randolph County**, Randleman, PTRC, WRC	Staff time	# of strengthened policies
	Note: Utilize the Green Growth Toolbox and trainings offered by WRC.				
3-4	Identify potential incentives to encourage open space preservation	Short	**Asheboro**, Randolph County, Randleman, PTRC, WRC	Technical assistance & staff time	Acres of land conserved, stormwater reduced, water quality data, value added ($/ft/year)
	Note: Utilize Green Growth Toolbox and Code & Ordinance Worksheet.				
3-5	Align conservation goals with Future Land Development Plan	Short	**Asheboro**, Randolph County, Randleman, PTRC	Staff time	N/A
	Note:				

3-6	Explore floodplain protection and trail opportunities to meet conservation goals	Mid-Long	**Asheboro**, Randolph County, Randleman, PTRC, PLC, PCC, PLT, MST, NCDOT, NCORR	Funding, technical assistance, & staff time	Acres of land conserved, miles of trail constructed
	Note: Identify floodplain buyout opportunities. Work with Piedmont Legacy Trails, MST, and other trail groups to expand trail access.				

4.4 Objective 4: Continue and Expand Public Outreach and Education

Public outreach and education is an essential part of any plan to reduce stormwater pollution, because the daily activities of thousands of people contribute significantly to non-point source pollution. As citizens learn about the impacts of their actions on local water resources, they become more likely to change their behaviors. Since 2004, the City of Asheboro, Randolph County, and City of Randleman have been active members of Stormwater SMART, which is a regional stormwater education program which was developed to help local governments meet MS4 permit requirements. The North Carolina Zoo and Keep Randolph County Beautiful also have extensive environmental education programs to protect wildlife and reduce litter. Objective 4 outlines how local and regional stakeholders can continue to strengthen these outreach and education programs through new program offerings, technology, and partnerships.

Objective 4: Continue and expand public outreach and education

Action #	Specific Action	Timeframe	Partners	Resources Needed	Evaluation Criteria
4-1	Establish active Watershed Group to implement and monitor plan	Short	Asheboro, Randolph County, Randleman, PTRC, KRCB, PLC, PCC, WRC, NCDWR, **SSMART**, etc.	Staff time & stakeholder buy-in	# of milestones met
	Note: Determine organizational responsibilities and meeting frequency.				
4-2	Organize Stream Watch & Adopt a Stream volunteer groups	Short-Mid	Asheboro, Randolph County, Randleman, **SSMART**, KRCB, NC Zoo, NCDWR, afterschool programs, scouts, etc.	Technical assistance, staff time, & willing volunteers	# of volunteers, level of interest in program, # of streams monitored, citizen science data
	Note: Connect Stormwater SMART with local scout, afterschool, or other similar programs.				

4-3	Install educational signage at SCM project sites and stream crossings	Short-Mid	**Asheboro**, Randolph County, Randleman, PTRC, PTRPO, SSMART, NCDOT, NCDWR	Funding, technical assistance, & staff time	# of signs installed
	Note: 319 funding can be used for educational signage.				
4-4	Continue and expand direct education programs in coordination with Stormwater SMART and other partners	Ongoing	Asheboro, Randolph County, Randleman, **SSMART**, RCSW, RCCE, KRCB, schools	Technical assistance & staff time	# of programs/events, # of people reached, public buy-in
	Note:				
4-5	Tailor messaging and explore other forms of media to reach diverse audiences	Short	Asheboro, Randolph County, Randleman, **SSMART**, RCSW, RCCE, KRCB, schools	Technical assistance & staff time	# of new people reached
	Note:				
4-6	Work with Keep Randolph County Beautiful and other partners to reduce litter, pet waste, and pesticide/fertilizer use in watershed	Ongoing	Asheboro, Randolph County, Randleman, SSMART, **KRCB**	Technical assistance & staff time	Lbs of litter reduced, fecal coliform data, public buy-in
	Note:				
4-7	Increase stewardship of creeks through passive recreation opportunities	Mid-Long	**Asheboro**, Randolph County, Randleman, PTRC, PLC, PCC, PLT, MST	Funding, technical assistance, & staff time	# of new parks/trails
	Note:				
4-8	Schedule good housekeeping training/workshops	Short	**Asheboro**, Randolph County, Randleman, PTRC, NCDWR	Staff time & training	# of trainings/workshops, # of staff trained
	Note:				
4-9	Promote online StoryMap and watershed applications	Short	Asheboro, Randolph County, Randleman, **PTRC**, NCDWR	Technical assistance & staff time	# of website visits, use of watershed applications
	Note:				