



MAY RIVER WATERSHED ACTION PLAN



NOVEMBER 1, 2011

The understanding and approach toward planning in the May River is both complex and challenging, but should proceed with an eye toward a cohesive and coordinated framework for implementation. An Action Plan for the May River Watershed includes a number of specific elements that must be implemented with respect to three time horizons: the short-term, the medium-term and the long-term. This watershed action plan provides a framework for implementing the many suggestions, statements, goals, objectives and visions of the people that call the May River Watershed home.

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1.0 Executive Summary

The Town of Bluffton is a coastal community with strong historical ties to its local water body, the May River. The May River is significant to the community today for a number of reasons, including:

- ✓ its historic and cultural uses;
- ✓ its aesthetics and views which add to the quality of life for its citizens;
- ✓ its numerous natural resource populations that are directly harvested and utilized by local and regional residents;
- ✓ its economic impacts, both direct and indirect, to the community; and
- ✓ its Outstanding Resource Waters (ORW) designation from the SC Department of Health & Environmental Control – Environmental Quality Control’s (SCDHEC-EQC) Bureau of Water for a high level of water quality.

In the past 20 years the Town has grown dramatically in both size and population. Due to the rapid development within the May River Watershed rising fecal coliform levels in the River’s headwaters has resulted in closing portions of the River to shellfish harvesting. Rising fecal coliform levels are a clear indicator of deterioration of the health of a watershed. The Town of Bluffton, along with Beaufort County and local citizens, will work to take action using the May River Watershed Action Plan to improve conditions in the May River prior to further deterioration.

The May River Watershed Action Plan was developed to:

- ✓ Provide a strategy for assessing problems and implementing solutions to restore shellfish harvesting in the May River.
- ✓ Provide a strategy for assessing and implementing preventative measures to protect the May River from future degradation.
- ✓ Identify opportunities for land purchase, conservation easement purchase, and public, private, and public/private opportunities for retrofit projects.
- ✓ Establish priorities, identify funding opportunities, coordinate specific partners and policies (i.e. ordinance changes), and establish timelines such that the Town can use this information as a business plan to be implemented with other Town annual Capital Improvement and Budgeting programs.
- ✓ Serve as a template for other area watershed action plans.

The Action Plan will not be successful as a static, stand-alone document. It is intended to be a living document with frequent updates and modifications. It will evolve over time so that successful recommendations and projects are highlighted and expanded on, while less successful and ineffective concepts are removed.

The Action Plan must maintain consistency and alignment with other official plans and guidance documents, with the goal of protecting the May River Watershed. In Section 3.3, policies and ordinances that are needed to promote recommended elements of the Action Plan

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were assessed, identifying areas where new or improved policies should be considered. The primary focus of the recommendations center on:

- ✓ Promotion of Low Impact Development (LID) and runoff reducing techniques
- ✓ Incentives to encourage stormwater runoff volume reduction
- ✓ Coordinate with developers and property owners to promote the Town's Transfer of Development Rights (TDR) Program, incentives, and conservation easements

Sustainable, environmentally conscious communities can be maintained using smart growth practices. The Town has used and implemented smart growth tools, such as a TDR Program, as a part of their policies and plans to protect the May River, offering incentives for sustainable development. The Town's UDO discusses the TDR Program, as well as the incentives offered. Continued promotion and use of the TDR Program will aid in maintaining development patterns that are consistent with the Town's Growth Framework Map, Map 4 in Appendix D, which was created to target desired development locations specifically selected to protect the Town's natural resources.

An important part of any watershed action plan is maintaining an inventory and analysis of its drainage area and understanding how it works as a whole. The Town has delineated the May River Watershed and is currently working on a detailed sub-basin delineation, including flow paths and drainage patterns. The Town has also completed an impervious surface analysis for the watershed. Together these two analyses will form the framework of a drainage and pollutant transport watershed model. Once created the model will provide the ability to analyze the impacts of an individual scenario or project on the entire watershed prior to implementation.

Extensive monitoring has been conducted within the May River Watershed showing an increase in fecal coliform levels since the mid to late 1990's. While the current and past monitoring has provided much needed information, more coordinated efforts between the Town and adjacent jurisdictions can be implemented that build on some of the existing programs. As a better understanding of the pollutant loadings is gained from the collected data, future monitoring efforts or research should be structured around clear and focused questions.

Monitoring efforts have indicated hot spots of higher fecal coliform concentrations. The hot spot locations are the target areas of future project recommendations. These recommendations and projects are focused around the following:

- ✓ Septic/Sewer/Reuse Programs/Project
 - ❖ Connect septic areas to sewer
 - ❖ Septic Inspection and Maintenance Program
 - ❖ Septic System Cleaning Incentive Program
 - ❖ Septic Policy/Ordinance
- ✓ Wildlife Programs/Projects
 - ❖ Conducting a wildlife survey
 - ❖ Hunting/culling
 - ❖ Create wildlife corridors
 - ❖ Installation of "pick up after pet" signs, as well as pet waste stations

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- ✓ Stormwater BMP/Retrofit Projects (shown on May 7 in Appendix D)
- ✓ Education and Ordinances

The Stormwater BMP Pilot Projects are key restorative recommendations to reduce fecal loading into the May River. While preventative measures such as ordinance or policy revisions are aimed at minimizing future fecal loadings, restorative measures are specifically for reducing current fecal loadings to the river. The Stormwater BMP pilot projects are critical to this action plan for both short-term and long-term goals in the following ways:

- ✓ Their success will have an immediate, positive impact on the river
- ✓ The results and data collected will aid in selecting and implementing future restorative projects

Specific projects have been identified near fecal hot spots and need to be ranked based on multiple factors. These projects are discussed in greater detail in Section 4.3 and shown on Map 7 in Appendix D. Some projects could require a partnership to complete, which could make them more difficult to implement. However, these projects were not excluded or lowered in priority due to the partnership requirement.

One of the biggest threats to any watershed improvement/protection plan is taking early meaningful steps. Often the full list of projects needed to completely restore/protect a watershed can overwhelm the decision making process and prevent improvement from taking place. Therefore, recognizing that all priority projects have been identified as such due to their anticipated performance, their rate of implementation becomes an important factor as the cumulative loading reductions will be higher due to earlier implementation of projects.

A timeline for all projects and programs has been identified in Section 4.4, to allow for the proper policies, partnerships and funding mechanisms to be developed for successful implementation. The projects and programs have been categorized as follows:

- ✓ Short-term projects/programs in Phase I (year 1-3 of plan implementation)
- ✓ Medium-term projects/programs in Phase II (years 3 – 5), and
- ✓ Long-term projects/programs in Phases III and IV (years 5+).

The Action Plan has been developed so that immediate and effective actions can be taken to improve water quality within the May River and its watershed. Some of these include:

- ✓ Rain Barrel/Rain Garden Program
- ✓ 319 Program Septic System Inspections/Pump Outs
- ✓ Pet Waste Stations
- ✓ Social Marketing Campaign
- ✓ TDR Program
- ✓ Stormwater BMP Pilot Project

The Action Plan and its recommendations will require support and understanding from the local public and the development community. The current 319 Program grant's social marketing

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campaign should be the first step in increasing awareness among residents that their activities and behavioral changes can impact the water quality of the May River.

In addition to the 319 Program social marketing campaign, an education program should be implemented as well. When used in conjunction with the Action Plan projects, it can raise awareness and encourage stakeholders to take action to improve water quality in the May River.

In order to be economically viable and successful the Action Plan will require a wide variety of funding mechanisms. It is not feasible that a single funding source will provide adequate support for implementing all aspects of the Action Plan. Therefore, the broad range of potential funding sources must be understood within the context of the Action Plan. This will allow decision makers to properly pursue and allocate capital for projects in the most efficient manner possible. There are a multitude of opportunities that are discussed in Table 5-3 to evaluate and consider, including, but not limited to:

- ✓ Municipal programs and funds, including the local Capital Improvement Program
- ✓ Local Authorities/Opportunities
- ✓ State Authorities/Opportunities
- ✓ Federal Authorities/Opportunities
- ✓ Non-governmental Organization Funding
- ✓ Donated in-kind services, supplies, or property from private sector/non-profit organizations
- ✓ Partnerships

Partnering is a critical element of this Action Plan, and has been responsible for much of the progress that the Town has made to date on the May River. All of the project and program types will require some form of partnering, whether it's land acquisition/access, funding or in-kind services, or general support to commit Town funds. Each specific project should have partnerships and responsibilities identified during the feasibility study to insure that that they can be properly planned and assessed. Partners can then be notified and included during the preliminary stages so that they fully understand their roles and responsibilities. Table 5-6 identifies potential partners and responsibilities for a variety of projects recommended throughout the Action Plan.

The May River Watershed Action Plan provides the Town of Bluffton with strategies to restore the May River to full shellfish harvesting status, while also implementing preventative measures to protect the river from future degradation. Past experience has shown that immediate and present action is among the best recommendations to improve water quality within a watershed. Therefore, it is critical to implement projects early on to achieve positive short-term results. This in turn should aid in developing community supported long-term strategies to restore and protect the river, as well as future partnerships and funding opportunities. The Action Plan must be used as a business plan so that the Town can monitor progress continually. The Plan can serve as an example and starting point for other watersheds, to facilitate future action plans and ensure improved water quality throughout the Town and its surrounding areas.

2.0 Purpose and Scope

The May River Watershed Action Plan was developed to:

- ✓ Provide a strategy for assessing problems and implementing solutions to restore shellfish harvesting in the May River.
- ✓ Provide a strategy for assessing and implementing preventative measures to protect the May River from future degradation.
- ✓ Identify opportunities for land purchase, conservation easement purchase, and public, private, and public/private opportunities for retrofit projects.
- ✓ Establish priorities, identify funding opportunities, coordinate specific partners and policies (i.e. ordinance changes), and establish timelines such that the Town can use this information as a business plan to be implemented with other Town annual Capital Improvement and Budgeting programs.
- ✓ Serve as a template for other area watershed action plans.

The May River Watershed Action Plan utilizes the significant amount of available information regarding the watershed and the May River itself, as well as lessons learned from previously implemented actions and BMPs within this watershed and similar watersheds, to develop a strategy with specific short, medium-, and long-term actions for measurable water quality improvement. The May River Watershed Action Plan will allow the Town of Bluffton to have earlier implementation of projects for short term results and develop community-supported long-term strategies to return the May River Watershed to full shellfish harvesting status.

How to Use This Action Plan:

This action plan has been developed to serve several purposes as described above. It is a living document, and is expected to be updated annually as the identified strategies and tactics become implemented and further developed. It should be noted that as this living document is updated, additional studies and other work products are expected. These work products will be added as appendices or may be included as references to external updates (e.g. monitoring databases, websites). This ensures that future work products will be incorporated in this Action Plan and can be properly utilized, that interested parties can see the technical basis for the recommended strategies and tactics, and will prevent the document from becoming overly cumbersome to the point that it is no longer user friendly.