

# PLANNING AND PARTNERSHIPS: A MODEL FOR SUCCESSFUL SECTION 319(h) PROJECTS

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**Abstract.** Restoration of Georgia's water quality requires many elements and players. From developing a plan, to deciding on the appropriate implementation actions, to finding the right organization to coordinate these efforts, trying to restore water quality in a given stream, lake, or estuary presents many challenges. However, when all of the necessary elements and players do come together, the results are well worth the challenges. One of the most important aspects of restoring waters is partnerships, and the partnerships forged by the Soque River Watershed Association (SRWA) have proven extremely effective. The Soque Partnership (SP) was formed by SRWA and the City of Clarkesville to develop a watershed management plan (WMP) and engage many diverse stakeholders in its many partnerships and implementation actions. The SP has demonstrated what a model Section 319(h) Grant funded project can look like. The SRWA continues to utilize their partnerships in the most effective manner, which has resulted in several rounds of funding under Section 319(h) to implement their WMP. The result of this work will be a segment of the Soque River that has been moved from Not Supporting is designated use to Supporting on the Draft 2012 3035(b)/303(d) List of Waters. The SRWA hopes to continue this model to further their restoration effort and to being teaching others in an attempt to export this successful model of planning and implementation to other in the hopes of seeing more of Georgia's waters restored.

## INTRODUCTION

Watershed planning can be a critical step in restoring or protecting water quality. Planning activities can help identify sources of pollution, determine appropriate activities to address those sources, create timelines for implementation, and establish a framework for determining successful implementation. Beyond the actual plan itself, the planning process can be of equal or more importance.

The process allows for collaboration amongst many different stakeholders and can help build consensus throughout a watershed. The planning process can also allow local groups to better detail, challenge, and/or revise assumptions made by state and federal agencies. A well-developed planning process also has the benefit of giving

legitimacy to and creating space for differing opinions on what actions are needed within a watershed. That process will lead to an actionable plan, which in-turn creates opportunities for funding, implementation, and further collaboration amongst many stakeholders.

Initiation and participation in a watershed planning process does come with costs. Participants must not only invest time to develop a plan, but in many cases must also acquire financial resources to help collect data, educate participants, develop local capacity, and other activities. This ignores the additional costs of implementation, which will not be discussed here, but can range in cost from few dollars to millions. It can also be difficult to get many different interests in a room with a common goal and maintain focus on that goal. However, if the costs and challenges can be overcome, the benefits are many.

Participation in a planning process can provide opportunities to develop trust and build relationships across many different interests and perspectives (Ryan & Klug, 2005). Through the planning process and its associated partnership building, the watershed's social and human capital can increase which can also lead to realized benefits for future efforts (Leach, et. al., 2002). In developing trust and building relationships, a sustainable structure for future planning and implementation efforts may be gained. In addition, the planning process can also allow for addressing environmental problems at the local level, often ahead of regulations or government intervention within a regulatory context (Lubell, 2004). By engaging in proactive activities aimed at addressing pollutants, particularly nonpoint sources, local stakeholders can be more self-deterministic about how their watershed responds to pollution. This also has the added benefit of evading increased regulations and permits that can often times be even more costly than upfront planning and implementation.

The Soque Partnership, led by the Soque River Watershed Association (SRWA), has developed a model for planning and implementation which has resulted in the a portion of the Soque River being listed as supporting on Georgia 303(d) / 305(b) List of Waters for 2012. This restoration of water quality is one of the main indicators of a process's success from an environmental perspective (Leach, et. al., 2002).

## WATERSHED BACKGROUND

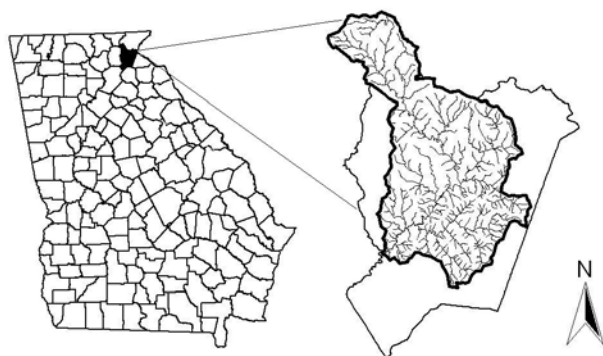
The Soque River is the northeastern-most tributary of the Chattahoochee River and has a number of beneficial uses both locally and regionally within the State (e.g. drinking water supplies, recreation). Monitoring by the Georgia Environmental Protection Division (GAEPD) and the United States Environmental Protection Agency (USEPA) identified stream segments in the watershed that do not meet State water quality standards for fecal coliform bacteria and aquatic life use impairment attributed to excessive sedimentation (Table 1). These stream segments have subsequently been placed on the State's 303(d) list of impaired waters (GAEPD 2010).

**Table 1. 303(d) listed stream segments**

Waterbody	Length	Designated Use	Criterion Violated	Potential Causes
Soque River	29 miles	Fishing	FC, Bio Fish	NPS
Soque River	5 miles	Fishing	FC	UR
Hazel Creek	4 miles	Fishing	Bio Fish	NPS
Hazel Creek	5 miles	Fishing	Bio Macro	NPS

FC = fecal coliform; NPS = non-point source; UR = urban runoff

While these water quality impairments and threats are ubiquitous across Georgia, the fact that the watershed rests wholly within Habersham County (Figure 1) does present a unique opportunity for watershed protection and management while avoiding potential jurisdictional conflicts.



**Figure 1. Location of Habersham County and the Soque River Watershed**

In recognition of these water quality impairments from NPS pollution, a local watershed partnership was formed and applied for and received CWA §319 funding from the USEPA and administered by GAEPD. The initial funding was to complete a comprehensive watershed assessment to document current biological, chemical, and physical conditions in the watershed and to gather data and information needed to draft a science-based watershed

protection plan for use by stakeholders. Subsequent rounds of funding supported development and implementation of a watershed protection plan.

## PARTNERSHIP FORMATION

The Soque Partnership (SP) was formed to take advantage of the opportunity for local protection of water resources and in response to water quality concerns and the anticipated impacts of rapid growth in the watershed. The Partnership is comprised of numerous local and state agencies and organizations and is guided by a Steering Committee of stakeholders. Members of the Partnership include the City of Clarkesville and all other municipalities in Habersham County, the Soque River Watershed Association, North Georgia Technical College and the Habersham Cooperative Extension, among others. The purpose of the Partnership is to provide stakeholders with data and information necessary (via a watershed plan) to make informed decisions about the future use and protection of water resources in the watershed.

One of the central aims of developing a watershed plan is to identify sources of pollutants and prioritize activities to address those sources. Going through a planning process and involving multiple stakeholders can help better facilitate the identification of both. Having different opinions and perspectives can result in each stakeholder group feeling empowered and legitimized in their perspective as well as lead to a more robust plan for addressing pollution. Using many different stakeholders to build a partnership can also lead to identification of unknown sources of impairment or threats to water quality. This may also lead to the development of creative solutions to address these sources and threats.

Top-down planning and/or implementation does not always yield the best results. However, to realize the maximum benefits of bottom-up planning and implementation solid partnerships must be built. Neither planning nor implementation can occur in a vacuum, and having a well-developed planning process, as stated earlier, can facilitate this. During the process, stakeholders will have the opportunity to come together to build relationships, share information, and learn from one another. This can go a long way towards forging partnerships that last, and forming structures that are responsible for implementing the plan over many years.

Building of partnerships at the local level can also result in a more sustainable structure that takes on the responsibility for implementation and future planning. Often times, state and federal level organizations underestimate the resources needed to for successful implementation, which includes time, funding, and technical capacity (Ryan & King, 2005). Local planning efforts can help avoid these mistakes by creating a tailored framework based on local resources and needs. These locally driven

plans should contain timelines for implementation, but the timelines should also be based on local realities and input from stakeholders rather than being dictated from “above”.

The formation of any effective partnership requires the inclusion of key local stakeholders. Identification of these key stakeholders requires extensive knowledge of the watershed. Evaluation of land use can help guide this process. Due to agricultural and urbanizing land uses in the Soque Watershed, it was evident that agricultural (e.g. NRCS, Cooperative Extension, and farmers) and municipal partners (cities and county) must be engaged early. Aside from the consideration of dominant land use practices, the inclusion of other local community organizations and leaders is crucial. For example, North Georgia Technical College (NGTC) has a long history of community support and involvement. Engaging NGTC as a major partner enhances the credibility of the project, and facilitates trust among potential collaborators. While many local partners are not familiar with 319(h) grant guidelines and goals, they are intimately aware of NGTC’s tradition of community support. The inclusion of such educational partners (to include local colleges and school systems) also provides a built in mechanism to leverage community educational programs.

Building local partnerships can also help avoid the trap that befalls many planning efforts which is to see a plan just “sit on the shelf.” By building partnerships and allowing the planning process to be driven at the local level it further helps to get past a long held assumption at the state and federal level of if the plan is developed at their level the implementation will occur (Lubell, 2004). However, anyone who has spent any time within the area of watershed (or any other) planning, knows this is not true. Driving implementation at the local level is vital, as they are the end-users of natural resources (Lubell, 2004).

#### SOQUE PARTNERSHIP ASSESSMENT, PLANNING, & IMPLEMENTATION

In 2003, a CWA §319(h) grant was awarded to the partnership under the leadership of the City of Clarkesville, North Georgia Technical College, and the SRWA. The 2003 grant funded a baseline assessment of the biological, chemical and physical health of the watershed from 2004-2008. The goal was to identify contributors of NPS pollutants (particularly fecal coliform bacteria and sediment). Sampling was conducted by sub-watershed, thus limiting spatial and temporal variation among samples, while providing a mechanism to rank pollutant hot-spot locations throughout the Soque. With pollutant hot spots and potential sources identified, data from the assessment (and continued monitoring) were then used to prioritize locations for corrective actions.

In 2007, the Soque River Watershed Partnership

(SRWP) utilized the results of the comprehensive assessment to complete the *Soque River Watershed Protection Plan*, based on the EPA’s Nine Elements for Watershed Plans and guidance from EPA’s *Handbook for Developing Watershed Plans to Restore and Protect Our Waters* (USEPA 2008). The plan outlined pollutant sources and causes as well as the steps required to achieve pollutant load reductions needed to attain water quality standards and support aquatic life (SP 2008). The plan serves as the basis upon which to make management decisions about watershed protection and restoration in order to implement practices to document improved water quality

The strategy is simple (though are not necessarily easy to implement): monitor to identify pollutant hot spots; prioritize locations for corrective action best management practices (BMPs); implement prescribed BMPs to reduce or eliminate pollutant sources; and monitor to document water quality improvements. This strategy works well with pollutants like bacteria. There is an almost immediate water quality response (decreased bacterial levels) when sources are controlled. Sediment, and the habitat alteration and decreased biotic integrity that accompany it, is more difficult to address. Recovery from severe sedimentation may take years, but the strategy (identify sources, prioritize BMPs, implement, and monitor) remains the same.

The end goal of all of these activities was to implement management strategies to meet water quality standards and support designated uses of impaired stream segments. In 2010, a third 319(h) grant allowed for additional implementation of the watershed plan, with continued monitoring to document any changes in water quality. Based on decreased bacterial levels noted during routine hot spot bacterial sampling, the Partnership began a 305(b)/303(d) listing assessment monitoring program. The initial targeted stream was the 29 mile Soque River segment (upstream of the City of Clarkesville). All sampling and laboratory analyses were conducted under an approved Sampling Quality Assurance Plan (SQAP) (SP 2010). Fecal coliform samples were collected by SP staff and analyzed by certified personnel at the City of Clarkesville’s wastewater treatment facility. Results that documented attainment of water quality standards were submitted as a final report to GAEPD. The 29 mile segment of the Soque River was subsequently removed from the list of waters “not supporting designated uses.” (GAEPD 2012). It is expected that future management and protection activities will also lead to fecal coliform reductions in the six mile listed segment of the Soque River (downstream of the City of Clarkesville).

The strong collaboration of local partners coupled with extensive data on sources of watershed impairment have contributed to considerable buy-in and support from all communities and local stakeholders. Efforts by the partnership to make watershed data foundational to the

implementation strategy to restore water quality has been instrumental in expanding the partnership, building trust, identifying strategic delisting activities, and communicating the need for and the benefit of SP activities.

## CONCLUSIONS

Watersheds, partnership dynamics, needs, resources, and other elements are never in a state of non-flux. This makes have the continuity of a well-grounded partnership vital to long-term viability of planning and implementation activities. The Soque Partnership and their process is one model that other groups can look to for guidance and a framework for how planning and implementation can be carried out. Because of the continuous work by the SP, this model is proving to be a very sustainable one.

As of 2012, the SRWA (through its partnership with the City of Clarkesville) has received three (3) phases of funding to implement the Soque River Watershed Protection Plan. This has resulted in approximately \$1.5 million getting to the watershed to assist with planning and implementation since 2001. As resources continue to shrink, these types of partnerships will be needed to ensure reasonable levels of funding find their way towards planning and implementation projects. A central piece to that will be structures like SRWA and their partnership (the SP) to ensure watershed priorities are implemented and opportunities are leveraged. Currently, data collected by the SP shows another segment of the Soque River may listed as supporting its designated use by 2014. These kinds of successes do not occur without many different stakeholders committed to a common vision and process.

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