

Section 4

Overview of Recommended Management Strategies

This section provides a framework for the implementation of watershed management strategies and offers a brief overview of the practices recommended for the Peachtree-Martins Creek area. These strategies are intended to restore and protect watershed function by addressing the problems and threats discussed in previous sections of this plan.

4.1 Developing a Framework for Watershed Management

The broad picture of ecological conditions described in previous sections offers both good and bad news for the Peachtree-Martins Creek area. On the positive side, about 17% of the area retains high or very high levels of ecological function. Severe degradation on the sub-watershed scale is currently limited, occurring only in the Mission Quarry area. While many individual sites in the planning area are severely impacted, at the sub-watershed level these impacts are mitigated to some degree by the areas that remain undisturbed or well-managed.

On the other hand, almost 18 square miles (45%) of the area has seen significant deterioration in ecological condition and is functioning at a low level or worse. Another 15 square miles (38% of the area) is functioning at a moderate level but is at risk of further degradation. Impacts of riparian vegetation removal, channel modification, and sedimentation are widespread.

The fact that much of the existing degradation is not severe makes the potential for successful rehabilitation more favorable than if the severest conditions were widespread. The fact that substantial areas remain in relatively good condition means that there is still much to lose if both ongoing activities and future growth are not handled well.

Because both the source activities and affected areas are widely dispersed, addressing these issues will require diverse strategies implemented over an extended period of time. A strong organizational presence, as provided by the Hiwassee River Watershed Coalition, is a major asset in pursuing both remedial and protection efforts.

An organizational framework for ongoing watershed management is essential to provide oversight over project implementation, to evaluate how current strategies are working, and to plan for the future. While state agencies can play an important role, planning is often more effectively initiated and managed at the local level. The HRWC is well-suited to perform this role. The HRWC has a track record of effective project implementation, and has established productive relationships with local governments and other stakeholders. NCEEP can implement some projects in the area but cannot effectively perform a long-term coordinating role.

4.2 Recommended Strategies

Table 4.1 summarizes the strategies recommended to address problems associated with each important stressor identified during Phase 2 of the planning process. These strategies are described in more detail in Sections 6, 7 and 8, as listed in the Table.

Table 4.1 Summary of Proposed Management Strategies

Watershed Problems		Proposed Solutions	
Stressors and Issues	Major Impacts	Management Strategy	Location in Document
<i>Lack of Riparian Vegetation</i>	Stream bank instability, poor shading, insufficient woody material in streams, limited pollution removal	<ul style="list-style-type: none"> • Revegetation of riparian areas 	Section 6.1
<i>Channel Modification</i>	Habitat degradation, incision, bank erosion, sedimentation	<ul style="list-style-type: none"> • Stream channel restoration 	Section 6.1
<i>Excess Sediment Inputs</i>	Habitat degradation-loss of riffle and pool habitat; reservoir filling	<ul style="list-style-type: none"> • Conservation tillage and other crop land measures • Livestock exclusion and other BMPs for livestock operations • Stabilization of eroding road banks and ditches; drainage and grading improvements to reduce erosion from unpaved road surfaces • Education of landowners regarding property road maintenance and design • Stabilization and revegetation of eroding areas on existing developed land • Education of landowners regarding land disturbance • Enforcement of existing regulations at Mission Quarry • Promotion of forestry BMPs • Stabilization and replanting or eroding stream banks 	Section 6.2 Section 6.2 Section 6.2 Section 6.2 Section 6.2 Sections 6.2, 8.2 Section 6.2 Section 6.2
<i>Excess Nutrient Inputs</i>	Over-enrichment of streams and reservoirs, resulting in low dissolved oxygen levels and altered aquatic communities	<ul style="list-style-type: none"> • Education of property owners and contractors regarding appropriate fertilization and lawn care practices • Removal of straight pipes; repair/replacement of faulty septic systems • Education of landowners regarding proper septic system maintenance • Livestock exclusion and other BMPs for livestock operations • Conservation tillage and other crop land measures • Replanting of riparian vegetation 	Sections 6.2, 8.2 Section 6.2 Section 6.2 Section 6.2 Section 6.2 Section 6.1
<i>Bacterial Contamination</i>	Human health risk	<ul style="list-style-type: none"> • Additional monitoring of fecal coliform bacteria • Removal of straight pipes; repair/replacement of faulty septic systems • Education of landowners regarding proper septic system maintenance • Livestock exclusion practices and other BMPs for livestock operations 	Section 6.2 Section 6.2 Section 6.2 Section 6.2
<i>Stormwater</i>	Channel erosion due to increased storm discharge; aquatic life impacts from nutrients and toxic substances	<ul style="list-style-type: none"> • Additional monitoring of stormwater impacts • Stormwater retrofits for developed areas, especially in McComb Br. area • Education of citizens regarding stormwater and pollution prevention 	Section 6.3 Section 6.3 Section 8
<i>Groundwater Contamination</i>	Human health risk (drinking water); impacts to aquatic biota	<ul style="list-style-type: none"> • Continued remediation of existing contamination in Peachtree area • Continued monitoring of organic contaminants in Peachtree area 	Section 6.5 Section 6.5
<i>Mission Quarry</i>	Sedimentation and water quality impacts	<ul style="list-style-type: none"> • Enforcement of applicable water quality, mining and health regulations 	Section 6.4
<i>New Development</i>	Future increase in sediment, nutrient and stormwater impacts	<ul style="list-style-type: none"> • Adoption of a subdivision ordinance that encourages Low Impact Development (LID) and other approaches to reduce impacts • Instituting post-construction stormwater management requirements • Developing a local erosion and sediment control program • Ongoing public education regarding watershed and stormwater issues • Evaluation of stormwater control opportunities on government properties • Adoption of hillside development standards • Expansion and revision of existing water supply and floodplain ordinances • Development of a long-term wastewater management plan • Development of a comprehensive land use plan. 	Section 8.2 Section 8.2 Section 8.2 Section 8.2 Section 8.2 Section 8.2 Section 8.2 Section 8.2
<i>Multiple Stressors</i>	Diverse future impacts	<ul style="list-style-type: none"> • Preservation of priority areas through conservation easements and proper forest management 	Section 7