

LeTort Spring Run Watershed Conservation Plan

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EXECUTIVE SUMMARY

The LeTort Spring Run and its watershed are important and revered resources to local inhabitants, sporting enthusiasts and the environmental community. The quest for the stream's protection has led to a portion of the stream acquiring special water quality designation by the State and the entire stream receiving Scenic River's designation.

The LeTort Regional Authority, formed over twenty-five years ago to preserve and protect the stream, commissioned the subject study to document past and present conditions and to present management options to strengthen and broaden the stream's preservation.

The watershed's evaluation included physical observations of the stream's entire length by environmental specialists and engineers, by boat and on foot, during the years 1999 and 2000. Existing historical documents, technical reports and mapping were studied to glean pertinent information. Ordinances of the local municipalities were scrutinized for their relationship to the stream and its watershed. Specific problem areas, as well as outstanding watershed features and cultural and recreational resources were identified. All features were located on a set of maps, as were existing land uses, significant resources and existing municipal zoning districts.

In order to acquire additional information and the views of local landowners, a Landowner Survey was conducted, with 160 survey questionnaires mailed. The information received from the 42 respondents was very helpful in acquiring physical data and the local landowners' listing of watershed issues and problems.

To further the Authority's public outreach effort, a public meeting was held on the draft report, followed a few months later, by a formal public hearing in September 2000. These newspaper advertised meetings resulted in valuable comments and suggestions, most of which were incorporated into the final report.

The study identified issues, concerns, constraints and opportunities from which the consultants, the Authority's Steering Committee and the Executive Director could formulate Management Options, that is, a listing of potential projects which could be implemented in the future to enhance, preserve and protect the stream and watershed. These options can be prioritized by the Authority and selectively carried out as funds and other resources become available.

These Management Options, provided on the following pages, include but are not limited to improvements to the stability of stream banks via wall repair and plantings, removal of trash and manmade dams, the purchase of land to expand nature trails and greenway corridors, the update of local ordinances to protect and enhance uses along the banks and petitions to DEP for additional HQ or EV designations.

Management Options

The management options are in list format and grouped into Restoration, Maintenance and Enhancement sections. It should be noted the options are not listed in order of priority.

These options merely represent potential projects and not policy. The LeTort Regional Authority may decide to implement any of these options during future meetings. Many of these options must be examined more completely to determine their feasibility.

A. Restoration

1. Repair damaged sections of wall from LeTort Park to Carlisle Barracks within the Borough of Carlisle. Wall restoration should attempt, when possible, to increase mean velocities within the channel and to incorporate fish habitat structures.
2. Contract with a consultant for the design of a stream restoration project in the Shady Lane section of the stream. If successful, the restoration techniques developed could be utilized on future projects on other sections of the stream.
3. Implement a public education initiative for identified agricultural operations within the watershed. Promote Best Management Practices including limiting access of livestock to the stream, the establishment, enlarging and / or enhancement of buffer zones and improving erosion controls.
4. Evaluate the feasibility of restoration of previously drained wetlands within the watershed (drained wetlands identified on upper watershed).
5. Promote plantings along the riparian zone, primarily within the borough, to minimize increases in stream temperature.
6. Removal of trash and other debris from stream. Limit access to stream in remote areas where dumping is a problem (See Table A).
7. Remove dams (mostly in the upper watershed) and other obstructions that are detrimental to the stream. (See Table A).

B. Maintenance

1. Updating all municipal stormwater management ordinances to require implementation of Best Management Practices to reduce stormwater peak runoff and to improve water quality of the runoff and to promote the concept of Transfer of Development Rights and Clustering.
2. Contract with a consultant to conduct a study of groundwater additions and subtractions along the stream in order to analyze the impacts that the quarrying operation may have on the stream and to possibly identify sinkholes and springs.

3. Contract with a consultant to conduct an analysis of the on-lot disposal systems / community systems within the mobile home parks along Bonny Brook Road to determine the presence and impact of contamination, biologic and nutrient, on the stream.
4. Contract with a consultant to conduct a feasibility study to determine the options and costs of connecting the mobile home park to the South Middleton Township sewer system.
5. Contract with a consultant to conduct an analysis of local sewer systems to determine availability/existence of emergency backup power and automated notification devices.
6. Update all municipal ordinances to protect natural springs that feed to the LeTort. Protection should include limiting water withdrawal and development near the spring or within its recharge zone.
7. Contract with a consultant for the preparation of a Natural Resource Valuation Report. This report should identify the monetary and aesthetic value of the stream to the local area.
8. Survey the Nature Trail and map all easements, properties and rights-of-ways along trail.
9. Purchase land in full or interest free in order to retain land in open space or developed for recreation. e.g.: for the Nature Trail extension projects.
10. Purchase conservation easements, when necessary, for the purpose of acquiring development rights.
11. Petition DEP for High Quality designation for section downstream of the Carlisle Barracks.
12. Review the PADEP permit issued to the composting facility on Post Road to determine if it provides adequate protection of the stream. Recommend necessary site improvements and Best Management Practices.
13. Conduct a study of area bridges to determine potential for exacerbating stream flooding.
14. Continue participating in the USGS stream flow-monitoring program.
15. Evaluate storm drains within borough near major outfalls to determine if trash netting and/or water quality inlets are warranted.
16. Post information signs in areas with public access to stream (i.e. Public Parks, Camp Grounds, Residential Areas, etc.) describing sensitive nature of stream and watershed and promoting conservation practice.

C. Enhancement

1. Installation of Water Quality Inlets on stormwater systems near all pipe discharge locations.
2. Contract with consultant for the design of the remaining restoration plans for the Mully Grub tributary.
3. Contract for the construction of the remaining restoration plans for the Mully Grub tributary.
4. Extension of the Nature Trail south in South Middleton Township to connect with existing trails in South Middleton Township. The LeTort Spring Run Hiker/Biker Trail is consistent with the recently adopted Cumberland County Greenway Plan. The Greenway Plan identified the LeTort Nature Trail as a high priority for expansion.
5. Extension of the Nature Trail north through the Borough of Carlisle, Carlisle Barracks, North Middleton Township and Middlesex Township to potentially connect with the Appalachian Trail.
6. Creation of an access and parking lot on the Dickinson College tract along Post Road in North Middleton Township.
7. Design and construction of rerouting the Nature Trail across the stream in order to avoid Highland Avenue.
8. Contract for design and construction of improvements to parking area along Bonny Brook Road for access to the Nature Trail.
9. Contract with a consultant to promote a conservation easement program and the concept of a conservation corridor for the stream.
10. Promote a greenway corridor as a potential conservation zone through revision to municipal ordinances.
11. Review Erosion and Sedimentation measures at Union Quarry and suggest any needed implementation measures.
12. Continue to promote and participate in public education programs and field trips to the LeTort.
13. Conduct a study of the local municipalities and Penn DOT's winter road maintenance procedures. Explore possibility of lessening or eliminating use of harmful de-icing agents.