



State of New Jersey

James E. McGreevey
Governor

Department of Environmental Protection

Bradley M. Campbell
Commissioner

New Jersey Fish & Wildlife
1255 County Road 629
P O Box 394
Lebanon, NJ 08833

June 6, 2002

Michael Miller, Chairman
Holland Township Planning Board
31 Church Road
Milford, NJ 08848

Dear Mr. Miller:

It has come to my attention that a residential subdivision project proposed for a 90-acre parcel on Shire Road (Block 10, Lot 12) has come before the Board for review. The purpose of this letter is to provide you with information regarding the sensitive and valuable fishery resources within this watershed that may be affected by this project.


This project is located within the Spring Mills Brook watershed, and this brook drains into Hakhokake Creek (a.k.a. Milford Brook). Both streams are classified as FW2-Trout Production (Category 1) under New Jersey's Surface Water Quality Standards (N.J.A.C. 7:9B-1). Enclosed for your review is data from four fish population surveys conducted by the New Jersey Division of Fish and Wildlife (NJDFW) on Spring Mills Brook on 8/7/01, 7/29/98, and 8/10/70. I conducted the two most recent surveys and was pleased to find healthy, reproducing brown trout populations where the brook crosses under Church Road and Rt. 519. The 1998 survey formed the basis for upgrading the lower section of the brook, below the Rt. 519 bridge, from Trout Maintenance to Trout production. The NJDFW also stocks catchable-sized (10.5") brook and rainbow trout in the lower reaches of Spring Mills Brook during the spring to provide additional recreational opportunities for anglers.

Reproducing trout populations often occur in northern New Jersey headwater streams like Spring Mills Brook. The two most critical factors that limit their occurrence and abundance in New Jersey streams are summer water temperatures and siltation. To survive and reproduce they require clean, cold (less than 21°C) water year round and a rocky/gravel substrate to spawn. The most sensitive stage in their life cycle is during egg incubation and hatching which occurs during the fall and winter months. During this stage they are very vulnerable to environmental change. Changes in land use can greatly affect the survival and existence of trout populations. Land use activities that result in destruction of wetlands, loss of riparian buffers vegetated with native flora, and increased impervious surfaces can affect base flows and degrade water quality. In

particular, summer runoff stored in a detention basin can become excessively warm and stress trout when released into a stream. Silt is also very damaging, causing suffocation of incubating trout eggs and aquatic insects that trout depend upon for food. The negative impacts from land disturbances are frequently gradual, and over time can impair or cause the demise of a reproducing trout population.

Trout are a highly prized game fish and provide wonderful recreational opportunities for anglers. But more importantly, trout are considered to be a biological indicator of outstanding water quality. For this reason streams having reproducing trout populations are designated as High Quality Waters - Category I and are protected from any measurable or calculable changes. I urge the Board to consider the information I have presented herein when reviewing the subdivision project that is being considered. Should you have any questions regarding the impact of this development upon the fishery resource please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Patricia L. Hamilton". The script is cursive and elegant, with the first letters of each name being capitalized and prominent.

Patricia L. Hamilton
Principal Fisheries Biologist

encs.

c: H. Carberry
Holland Twp. Environmental Commission
Friends of Holland Highlands