

Agenda date: April 25, 2002

MEMORANDUM

To: Montgomery County Planning Board

Via: *A. Damiani*
Migs Damiani, South Germantown Recreational Park Project Manager

J. Zyontz
Jeff Zyontz, Chief, Countywide Planning

John E. Hench, Natural Resources Supervisor, Park Planning and
Resource Analysis Unit *J. Hench*

From: Doug Redmond, Natural Resources Specialist II, Park Planning and
Resources Analysis Unit *D. Redmond*

Subject: South Germantown Recreational Park Environmental Assessment
Monitoring Report – 2001

Recommendation:

Approve the report for transmittal to the County Council. A copy of the executive summary is attached.

Background: The Water Quality Monitoring Plan, South Germantown Recreational Park (SoccerPlex), requires that the results of each year's monitoring be reported to the County Council. The report is to be drafted by Park and Planning staff, reviewed by the Maryland Soccer Foundation and the Montgomery County Department of Environmental protection, and presented to the Planning Board prior to transmittal to the County Council. The report has been reviewed as required, and comments incorporated as appropriate.

Indices of Biological Integrity (IBI) are used to evaluate the quality of the biological community at each monitoring site. In 2001, macroinvertebrates were monitored at six sites. Two of the sites were monitored to evaluate impacts from the construction and operation of the model airpark, which was moved from the South Germantown Recreational Park to Little Seneca Stream Valley Unit 1. These sites were rated Excellent and Good. Three of the four sites within South Germantown Recreational Park were rated Fair and one was rated poor; these ratings are lower than those seen in 2000, but better than those seen in 1999.

Fish were monitored at the same six sites. Both sites at the model airpark were rated excellent for the second consecutive year. Of the four sites within the Recreational Park, one showed some improvement over 2000, one showed a slight decline, and two remained the same.

In 2001, residential wells were monitored once and on-site wells were monitored three times. Nitrates did not exceed the EPA's maximum contaminant level (MCL) in any of the residential wells, but did slightly exceed the MCL in 6 of 9 samples from the on-site wells. Coliform bacteria (but no E. coli) were found in three residential wells and all three on-site wells. No other substances exceeded MCLs in any of the wells.

IBI scores at several sites indicate that the aquatic communities are under some stress. While there are some indications that sediment, primarily from construction outside of the park, may have impacted the sites, it is likely that the ongoing drought conditions are the major stressor. As would be expected under these conditions, the smaller streams are stressed more than the larger streams. At this point, there is no indication that construction or operation of the South Germantown Recreational Park, including the SoccerPlex, is having a significant negative impact on the quality of surface or ground water.

Pc: Donald K. Cochran
Lester Straw
Gordon Rosenthal
Jim McMahon
Mike Riley
Judy Daniels
Trisha Heffelfinger

I. Executive Summary

The Maryland-National Capital Park and Planning Commission (M-NCPPC) acquired the South Germantown Recreational Park (SGRP) in the 1960's. The Park Master Plan was approved and adopted in 1995. In 1999, the Master Plan was amended to include SoccerPlex – a soccer complex to be developed as a public/private partnership between the M-NCPPC and the Maryland Soccer Foundation (MSF)

This document is the fourth report on the progress of the water quality monitoring activities associated with the development of the SGRP/SoccerPlex project. The South Germantown Recreation Park is located in the west-central portion of Montgomery County between Gaithersburg and Poolesville (Figure 1). The Park is located in two watersheds. The northern section of the park is in the Hoyles Mill Tributary sub-watershed of Little Seneca Creek. The southern section of the Little Seneca Stream Valley Unit 1 was added in 2000 due to the construction of the relocated model airport. The 2 sites monitored are located south of Schaeffer Road. The locations of the streams monitored are indicated in Figures 2 and 3.

The Hoyles Mill Tributary is a Use III-P (natural trout/public water supply) stream. The biological condition of the stream is rated Good in the Countywide Stream Protection Strategy (CSPS) document. The South Germantown sub-watershed contains approximately 15 small tributaries, two of which originate within the SGRP. All the tributaries in this sub-watershed are Use I-P (water contact recreation/public water supply) streams and their biological condition is rated Good by the CSPS. The two tributaries, which originate within the park, are designated as the Schaeffer Road Tributary (crosses Schaeffer Road and flows south-west into Seneca Creek State Park) and the Route 118 Tributary (begins south of Schaeffer Road, cross MD 118, and flows southeast then south into Seneca Creek State Park).

Little Seneca Creek is a Use III-P and the Bucklodge Branch is a Use I-P. Both the Lower Little Seneca sub-watershed and the Bucklodge Branch sub-watershed are rated Good by the CSPS.

This report contains the results of monitoring conducted during 2001. The monitoring sites of the streams are specifically located to provide information for SGRP/SoccerPlex and Little Seneca SVU1. Monitoring followed the Montgomery County Department of Environmental Protection (MCDEP) protocol (Van Ness, et al. 1997) and a portion of the Maryland Biological Stream Survey (MBSS) protocol. They include fish, macroinvertebrates, habitat, and water temperature monitoring. Ground water was collected by a consultant and analyzed according to state and federal drinking water guidelines.

Changes to the monitoring protocol were made for the 2001 season and four of the six sites were renamed. Of the two sites on the Hoyles Mill Tributary the upstream site is now LSHM101a and the downstream site is LSHM101b. LSL410 is now LSL411 and LSBL303 is now LSBL305. Macroinvertebrate collection is now done with a D-net and 20 samples are taken, instead of 2 samples with a kick seine. Fish monitoring has changed from a 3 pass protocol to a 2 pass protocol. The changes in were made in an attempt come into compliance with MBSS monitoring procedures.

Indices of biological integrity (IBI) measure how closely the biological communities at specific sites resemble reference or best attainable conditions in the County. Of the four SoccerPlex sites two of the macroinvertebrate IBIs showed no change from the previous year. The biological integrity

classification for LSHM101a remains Fair but its score has dropped 2 points from the previous year. GSLS102 continues to be Poor, with a score of 12, and is not expected to improve significantly unless flow can be maintained throughout the summer months. The other two SoccerPlex sites have dropped significantly since rebounding from the drought in 1999. Both sites went from Good in 2000 down to Fair in 2001.

2001 was the second year of sampling at the Model Air Park. LSLS411 maintained its classification of Good and LSBL rose from Fair to Excellent. The score of Fair in 2000 was probably due to inadequate subsampling.

Fish IBI's for 3 of the SoccerPlex sites and both of the Model Air Park sites have remained the same since 2000. The GSLS102 site received a classification of Poor. No fish had been found in 2000 and 21 were found in 2001.

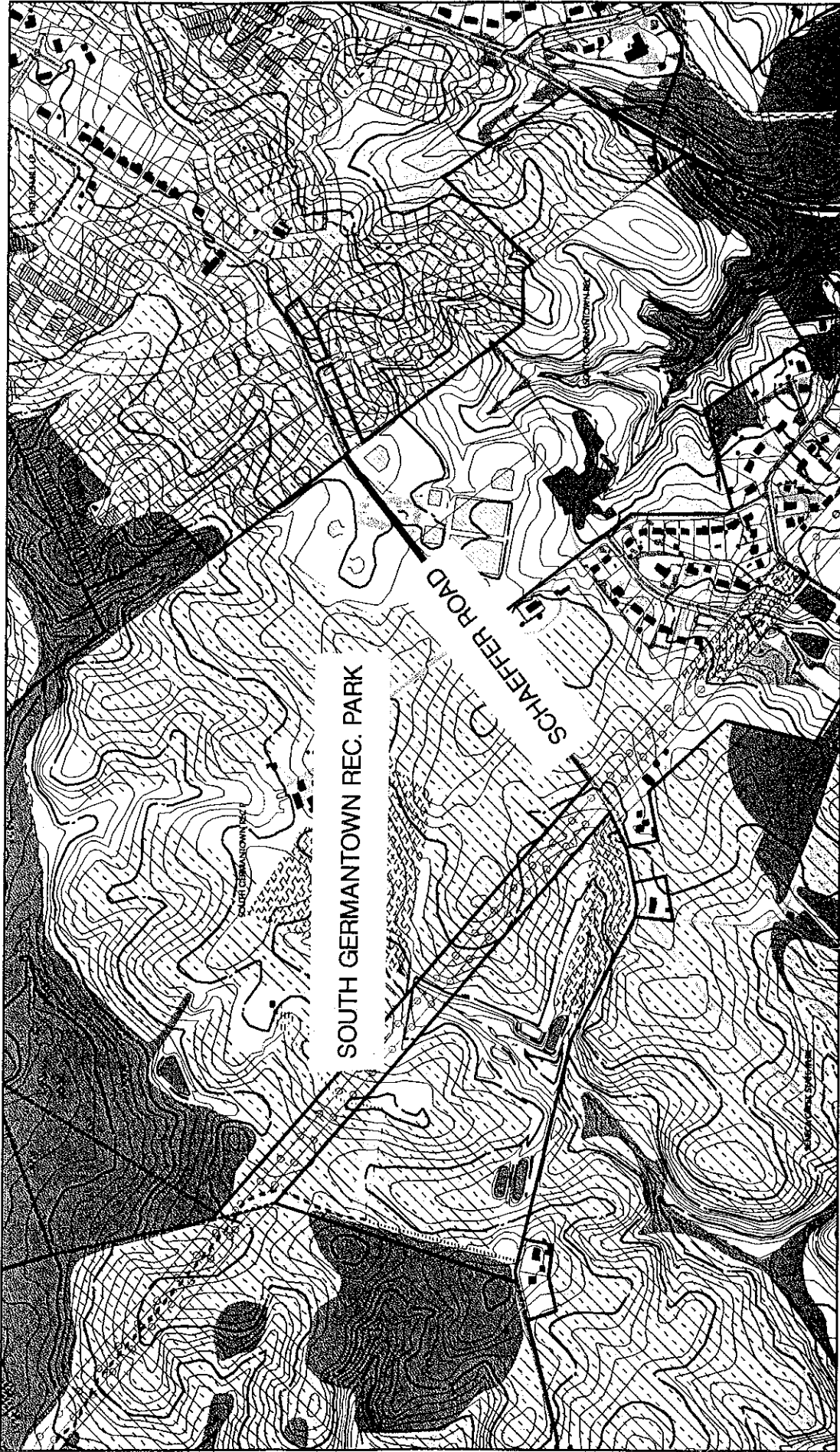
The results of ground water sampling in 2001 were very similar to those from 2000. No new substances were found. While coliform bacteria were found in three of the five residential wells, none of the samples contained fecal coliforms; fecal coliforms were found in one of nine samples from the on-site wells. Chloride and nitrates were detected in all samples from 2001 (as well as from all previous samples); on sample from one on-site well exceeded drinking water standards for nitrates. There is no indication that groundwater quality is changing from pre-construction conditions.

Water temperatures were higher over all in 2001 than in 2000. The LSLS411 site experienced four periods of sudden temperature drops. These temperature changes coincide with WSSC water releases from the dam at Black Hill Regional Park.

Comparisons of habitat data for the SoccerPlex sites from 1998 through 2001 show little or no change in stream cross sections and only minor changes in the median substrate size. 2001 was the first year of habitat monitoring at the Model Air Park and the first year a pebble count has been done at GSLS102.

Overall, the 2001 monitoring data indicate little change in the conditions of the two sites located in Little Seneca. There does appear to be a minor decrease in the quality of the macroinvertebrate habitat at the sites in the Recreational Park. However, thus far there do not seem to be any significant negative environmental impacts from either the operation or construction of the SoccerPlex.

VICINITY MAP FOR SOUTH GERMANTOWN MONITORING



Map compiled on April 18, 2002 at 10:29 AM | Site located on base sheet no. - 224NWF5

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5277 Georgia Avenue - Silver Spring, Maryland 20910-1700



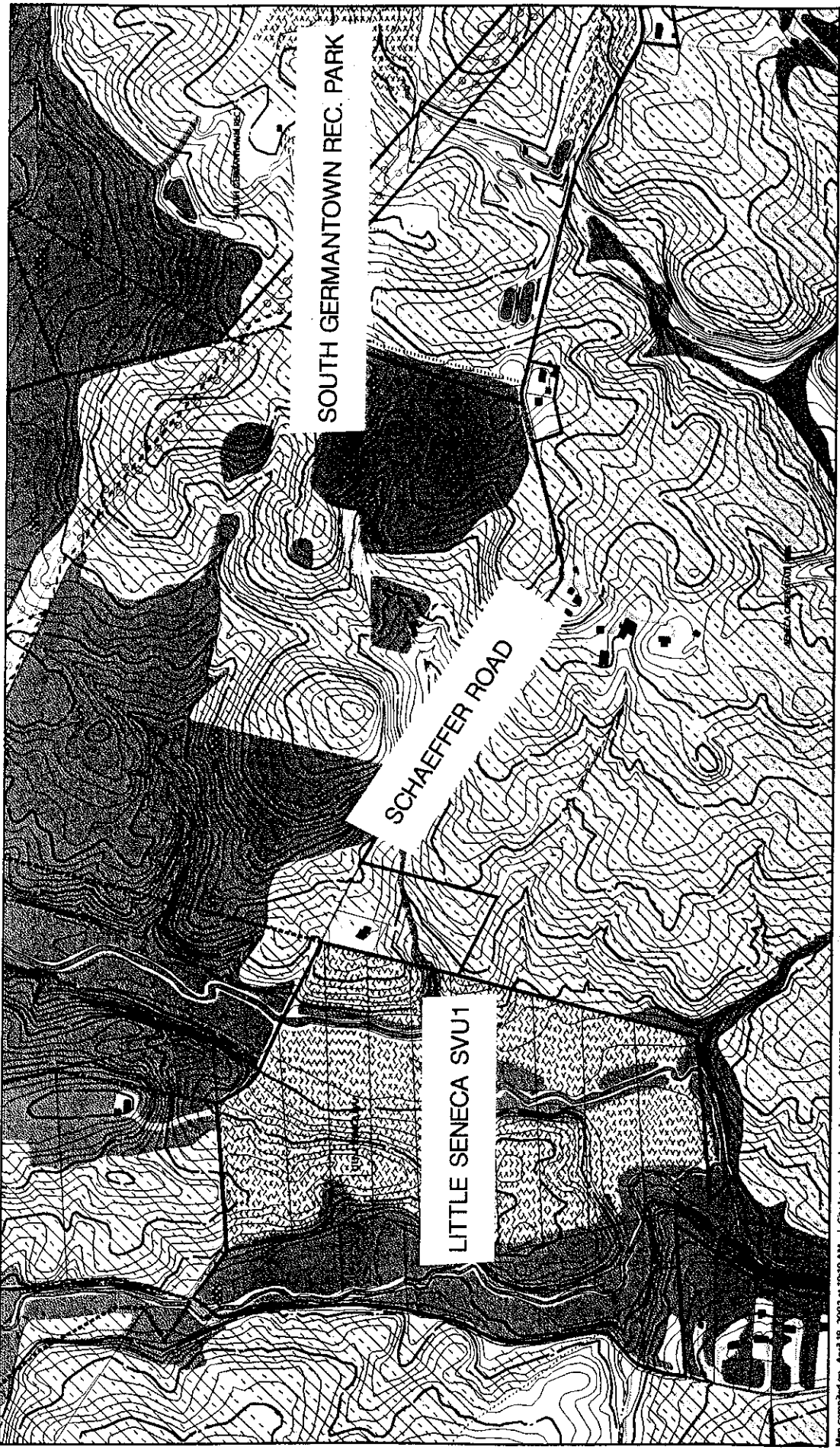
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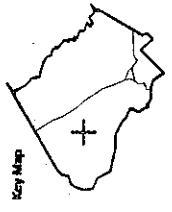
VICINITY MAP FOR
SOUTH GERMANTOWN MONITORING



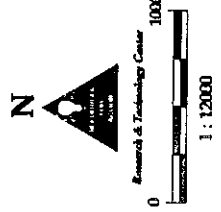
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Key Map



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 THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
 8787 Georgia Avenue, Silver Spring, Maryland 20910-2700