

Fact Sheet

THREE MILE CREEK AREA OF CONCERN

Former Griffiss Air Force Base, Rome, New York - July 2003

Public Meeting
August 5, 2003
5:00PM
Plumley Auditorium,
MVCC,
Rome Campus

Summary of Proposed Plan

Public Comment Period July 24, 2003, to August 23, 2003

Background

Griffiss Air Force Base (AFB) is a former United States Air Force (Air Force) installation covering approximately 3,552 acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. In 1987, the United States Environmental Protection Agency (EPA) added Griffiss AFB to the National Priorities List, and in 1990 the Air Force, the New York State Department of Environmental Conservation (NYSDEC), and the EPA entered into a *Federal Facilities Agreement (FFA)*.

In 1993, Griffiss AFB was designated for realignment under the federal Defense Base Closure and Realignment Act and was subsequently deactivated. Under the terms of the FFA, the Air Force is required to identify *Areas of Concern (AOCs)* on base, conduct a Remedial Investigation (RI), and recommend remedial actions. The public participates in the process and is encouraged to comment on the remedial action proposal.

FFA - an agreement between the EPA, the NYSDEC, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Area of Concern (AOC) - a location where hazardous substances are or may have been placed or may be located.

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Three Mile Creek Description

Three Mile Creek (TMC) measures approximately 10,000 feet from its headwaters to its outfall, is up to 10 feet wide, and ranges from 2 inches to 2 feet in depth (see Figure 1). TMC receives both surface water runoff and groundwater from the surrounding watershed and storm water drainage. TMC is classified as a Class C stream. The best usage is fishing, where waters shall be suitable for fish propagation and survival.

Summary of Site Activities

Investigations to identify potential contaminants and determine the extent of contamination have been conducted at TMC, a drainage ditch called the Landfill 5 tributary, TMC pond, and the off-base portions of the creek.

Preliminary studies of TMC that included soil, sediment, surface water, groundwater, and fish tissue sampling were performed in 1981, 1987, and 1988. A remedial investigation (RI) including an aquatic survey and surface water, sediment, and fish tissue sampling was performed in 1993 through 1995. Supplemental investigations, including surface water and sediment sampling, were performed in 1997 and 1998 and a visual inspection of the habitat quality of TMC was performed in 1999. In 1999, sediment samples were collected from TMC pond.

In 2001, sediment samples were collected from TMC pond, the on-base portion of TMC, and the Landfill 5 tributary to determine the vertical and lateral extent of contamination. In total, sediment was sampled at more than 50 locations along the length of the creek.

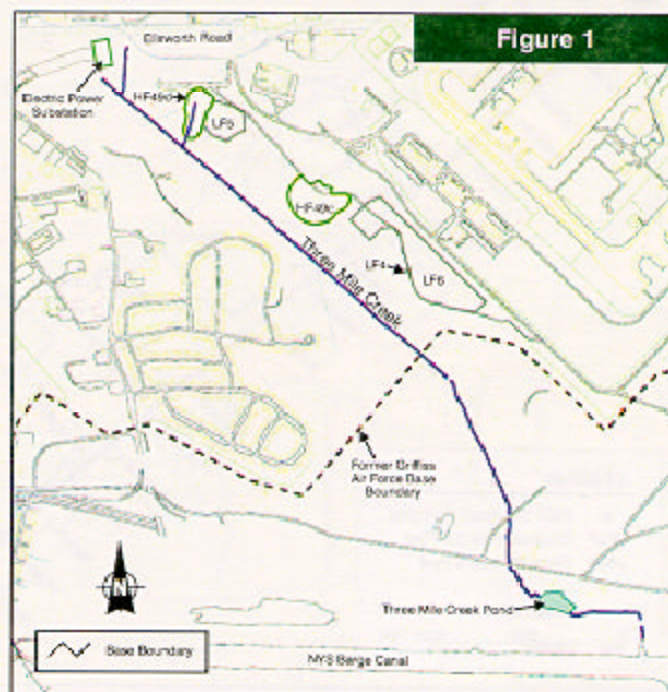
On-base TMC Channel and Landfill 5 Tributary

Fish tissue sampling indicated the presence of PCBs, pesticides, and mercury at levels exceeding ecological risk guidelines for protection of piscivorous wildlife. The fish communities were generally in poor to fair condition, which could be due to site contaminants and, in part, to the lack of quality habitat.

PCBs - A family of man-made chemicals that were used as insulating fluids in electrical equipment and in hydraulic and heat transfer fluids. In this country, most PCBs were sold as mixtures called Aroclors until their manufacture was banned in the 1970s.

The results of the surface water sampling indicated the presence of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and metals in some samples.

PCBs and pesticides were detected at various depths in sediment at all sample locations at levels exceeding ecological screening criteria, and a few samples exceeded human health risk levels. Dioxins, VOCs, SVOCs, and metals were detected above ecological screening criteria at most sample locations but below human health risk levels.



Summary of Site Activities (Cont.)

Contaminant concentrations in the sediment were generally highest upstream and decreased in concentration downstream and with depth.

TMC Pond

PCBs, cadmium, and lead were detected in the sediments at six sample locations up to depths of 3 feet.

Off-Base Portions of TMC

From the base boundary to the downstream edge of the pasture, VOCs, SVOCs, PCBs, metals and dioxins were detected in the sediment above screening criteria but at levels less than on-base levels. Contaminant levels were much lower from the pasture edge to TMC pond and decreased again downstream of the pond to the Barge Canal.

Summary of Site Risks

The TMC risk assessment evaluated potential exposures to recreational receptors. Carcinogenic and noncarcinogenic risks were associated with consumption of fish from the

creek due mainly to the presence of PCBs and arsenic in the fish tissue. The risks from exposures to sediment and surface water did not exceed EPA's acceptable risk levels.

Exposure Pathways - Recreational Receptors

- Incidental ingestion of surface water
- Dermal contact with surface water
- Incidental ingestion of sediment
- Dermal contact with sediment
- Ingestion of fish from Three Mile Creek

Preferred Remedial Alternative

The proposed remedial action alternative for TMC includes:

- Sediment excavation of the on-base portion of the creek to a uniform depth of 2.5 feet with additional excavation of localized areas to 4 feet (see Figure 2).
- From the base boundary through the pastureland, sediment excavation at 16 locations where contamination is localized in silt deposits (see Figure 3).
- At TMC pond, excavation of sediments to a depth of 3.5 feet across the entire pond (see Figure 4).

Following remediation, the creek and the pond will be backfilled to at least original grade with clean soil that will provide quality habitat for returning aquatic species.

Source control and remedial measures will continue to be implemented at other sites within the TMC drainage basin including floor drains, sumps, and drywells; Landfills 4, 5, and 6; Hardfills 49c and 49d; and the Electrical Power Substation.

A long-term monitoring (LTM) program, including surface water, sediment, and fish tissue sampling will be implemented following remediation and site restoration. The EPA, NYSDEC, and the New York State Department of Health will review the data generated by the LTM program. Five-year reviews will be performed by the Air Force, in conjunction with the EPA and NYSDEC, to ensure the remedy is still performing as planned and is protective of public health and the environment.

Administrative Record Available - Document file located at 153 Brooks Road, Griffiss Business and Technology Park (315) 330-2275 and Information Repository at Jervis Public Library, Rome, NY (315) 336-4570

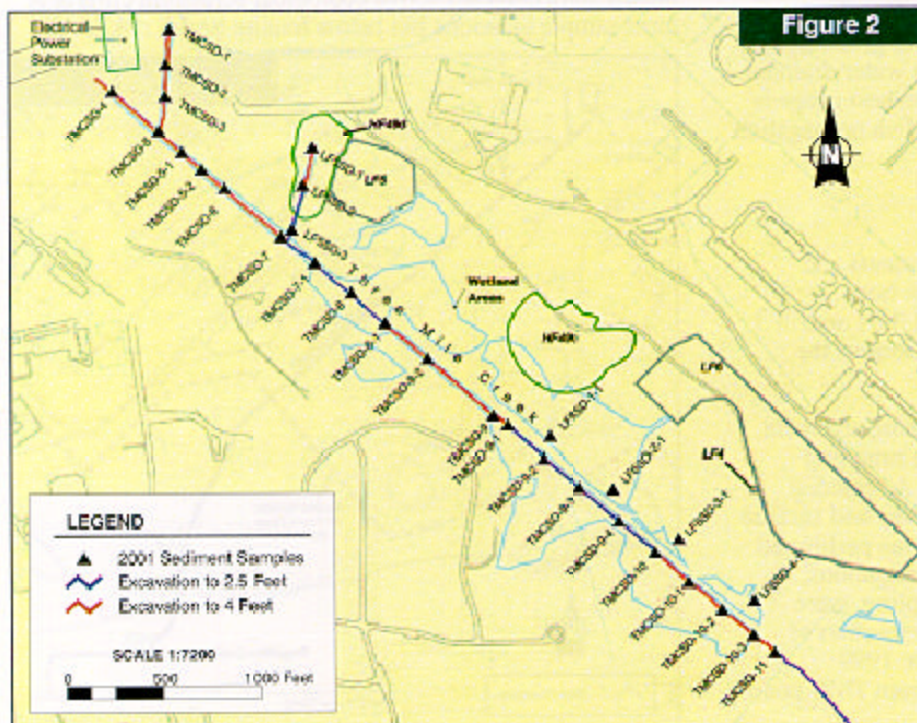


Figure 2



Figure 3

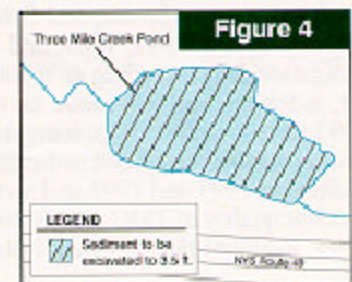


Figure 4