



# **Indian Lake Borough**

Addendum

Act 537 Plan

November 2011

## Background

DEP regulations, and this Indian Lake Borough Act 537 Plan, provide for on-lot and alternate systems for treating sewage where access to public sewerage does not exist. Selection of a system depends on soil characteristics and topology. In the event soil conditions are such that these traditional systems cannot be used, DEP regulations provide for individually permitted Small Flow Treatment Facilities (SFTF), or raw sewage Holding Tanks.

SFTFs are intended for direct stream, dry stream channel, lake or surface discharge. SFTFs are typically permitted by DEP for new development or correction of failing on-lot systems. Due to concerns with eutrophication of the lake (weed and algae growth caused by excessive nutrients not considered a health risk), SFTFs will **not** be endorsed by the Borough for new construction since stream, dry stream or surface discharge within the Borough will ultimately add to the nutrient loading of the lake. SFTFs may be permitted and endorsed by the Borough, for remediation only, lacking other options.

Raw sewage Holding Tanks are a last resort for correction of failing systems and are typically only permitted by DEP for new development for short periods and where firm, timely plans for public sewerage exist. Raw sewage Holding Tanks will **not** be endorsed by the Borough for new construction and will only be permitted for remediation in extreme situations, and for short duration pending more permanent solutions.

As a result of these unique restrictions, sewage options available to other Pennsylvanians are not available to property owners at Indian Lake. To provide for new development of properties within the Borough, as required by Act 537, a hybrid Small Flow Treatment Facility-Holding Tank (SFTF-HT) system, is endorsed by the Borough and permissible within the Borough as outlined below:

## System Components and Description

**Primary and Secondary Treatment (via SFTF)** - Primary Treatment is performed by a two-compartment septic tank fed by gravity or an in-home grinder pump. Secondary Treatment (advanced) is provided by either an EcoFlo Peat Filtration System (gravity fed or dosed), available from Premier Tech Inc. (PTI) or by an Ashco RFS-III Recirculating Sand Filter, available from the Somerset Rural Electric Cooperative (Somerset-REC). Other manufacturers may also be acceptable, as DEP may add to the approved SFTF components list from time to time. SFTF components will be under ground or at-grade.

**Tertiary Treatment (Disinfection)** - Tertiary Treatment is provided by chlorination. Chlorination versus Ultra-violet (UV) disinfection is required due to subsequent storage rather than immediate discharge. Chlorine levels will be controlled to ~ 1-3 parts per million (PPM) going into storage. The Borough, or their contractor, will control chlorination and perform chlorinator upkeep so as to provide sufficient assurances that both SFTFE in storage is adequately disinfected and that requirements/limits at the ultimate discharge site or facility are met.

**Small Flow Treatment Facility Effluent (SFTFE) Storage** - SFTFE must be stored in a holding tank for routine pick-up and transport to a permitted discharge site. This treated, chlorinated effluent poses no health or safety risk and nearly meets potable water requirements. Though potentially harmful to the Lake due to eutrophication, it poses no risk to humans as stored and transported (unlike raw sewage). SFTFE holding tanks should provide for at least 5-7 days nominal storage; 2000 gallons is the minimum

for a single 3-bedroom home and 500 gallons minimum for each additional bedroom. Standard tanks of up to 3500 gallons are readily available locally.

**Disposal** - SFTFE must be disposed of or discharged at/by a DEP permitted Disposal or Discharge Facility (DDF), under contract or agreement with Indian Lake Borough.

## **Design and Quality Assurance**

**Design and Installation** - Manufacturers' requirements, guidelines and recommendations must be followed. Adherence to the DEP Alternate Systems Guidance and Small Flow Treatment Facility Manual is required as applicable for each component. Overall system design must be endorsed by a knowledgeable and certified Sewage Enforcement Officer (SEO). Installation and initial operation is the responsibility of the developer or property owner. The Borough or the DDF may oversee the installation.

**Operation, Monitoring and Maintenance** - The homeowner and the Borough jointly, via a transferable long-term contract with the manufacturer or manufacturer's representative, is responsible for operation and maintenance of Primary and Secondary (on-lot SFTF) components. Such a transferable long-term maintenance contract must be in force at all times and compliance with its terms is the joint responsibility of the developer/homeowner and the Borough. Such contract may be subject to review and approval by the ultimate discharge or disposal facility (DDF). The DDF, the Borough, or their contractor(s) may inspect and monitor the on-lot SFTF components for compliance and may request test data confirming compliance at any time, within reason. Required monthly, quarterly and yearly monitoring of major components will be done by the manufacturer or their representative under this contract. Chlorination and Chlorinator upkeep will be controlled and monitored by the Borough or their contractor. Pick-up, transport, and disposal of SFTFE will be controlled by the Borough or their contractor. The DDF will maintain the permits associated with ultimate treatment/discharge of the SFTFE.

**All associated Indian Lake Borough and DDF costs will be paid using proceeds from a general SFTF Development Fund, discussed below.**

**SFTF Development Fund (Operating and Surety Funding)** - Protected funding to ensure continued viable operation and maintenance is a matter of assurance. To provide this assurance, the **developer or property owner** will pay the Borough a per-dwelling service connection (i.e., tap-in) fee of **\$5000** (or as revised and published by the Borough from time to time). **Each homeowner** will be charged, initially **\$100-\$125** per month, to cover the Borough and DDF costs associated with monitoring, maintenance, pick-up, transport and discharge as described herein. The monthly charge will be adjusted yearly based on actual return costs, and to include established DDF treatment/discharge fees/rates for the following year, so as to maintain the Fund at approximately \$5000 per served dwelling. At such time as public sewerage or a better approved option is available at Indian Lake Borough, this Fund will be dispersed on a pro-rated, per-dwelling basis to the current owner(s) to offset the Indian Lake public sewerage assessment and tap-in fee. From time to time the Borough may elect to use these funds for major items of maintenance to related individual or sub-community components with scheduled repayment provisions exclusively by impacted/benefited individuals.

**At no time is it expected that the Fund be subsidized by the community at large (property owners not served by this SFTF-HT plan).**

From time to time the Borough may borrow from these funds, to be reimbursed without interest, for efforts to explore or develop more viable or comprehensive public sewerage options benefiting the community at large.

**Compliance** - The DDF, the Borough, or their contractor(s) may inspect and monitor the on-lot SFTF components for compliance and may request test data confirming compliance at any time. Compliance with all of the above provisions is expected and non-compliance cannot be tolerated as public health and welfare may be impacted, as well as the health of the Lake. Any non-compliance, **including non-payment**, not promptly addressed, will be addressed directly by the Borough or their contractor, drawing from the SFTF Development Fund if and as necessary, and the individual property owner(s) served held responsible for reparation. Lacking evidence and documentation of hardship, cessation of public water supply by Indian Lake Borough may be the ultimate remedy for willful or persistent non-compliance.

Permitting - Permits will be granted by the Indian Lake Borough Sewage Enforcement Officer with oversight provided by the Borough Water and Sewer Committee, under the authority of Council.

Reference Documents:

I) Sample/Model SFTF-HT Operations and Maintenance Agreement

II) Sample/Model Septage Hauling Agreement

Attachment 1 SFTFE Limits

Attachment 2 DEP Handbook 3800-BK-DEP2784

Attachment 3 Registration for Transporting Residential Septage, form FM-WSWM0252

III) Sample/Model SFTF Maintenance Agreement