

# Yerkes STANDARD

## In The Spotlight

### A Yerkes/Next Level Mapping Technology Update

#### MUNICIPAL INFORMATION SYSTEMS

Three years ago Yerkes Associates, Inc. acquired a subsidiary company called Next Level Mapping, LLC to meet the needs of our changing, growing and technology driven Municipal clients. Prior to that acquisition, we learned that many of our municipal clients were reluctant to get involved with traditional Geographic Information Systems (GIS) because they were expensive, complex and the follow up support was almost totally non-existent. Many of the systems that were purchased at that time sit today in hidden corners of municipal back rooms collecting dust, or if they are being used at all, it is by one or two specially trained staff members.

Next Level has developed a Municipal Information System (NLMS) that is Internet based, affordable and most importantly, easy to use. It has been designed for the non-GIS user and because it is web browser based, anyone who can surf the web can sit down and use it efficiently. Any computer with an Internet connection can access the information from any location in the world. Secure login allows administrative control of specific user access level. It is a modular system that can be expanded as a municipality's needs grow.

The NLMS core system is made specifically for municipalities and is totally integrated with maps and Universal Parcel numbers. The user can search, auto locate and view tax listings for any properties in their municipality. Property management allows the user to attach pictures, link and store documents and drawings, and link to the subdivision plan from which the lot was created. Site and Subdivision Management is also in the core system. This feature allows linking of parcels to approved final subdivision plans and will also track the approval process for new subdivision and land development applications. Zoning applications and decisions can also be tracked and linked to the parcels. The system can be easily linked to other database driven software like Permitting or Financial software.

Features unique to our system are: easy to use map editing, redlining, saving map views, adding annotation and notes directly to the maps, linking parcels to plans and documents, red flagging a parcel to hold new permits and the exclusive property report. This report shows all tax data, issued permits, attached documents, pictures, plans, notes and more. One of our system's most popular features is a surrounding owner or distance radius mailing list and mail merge generation. Public notices have never been faster or easier to create!

The core system is expandable with additional modules when and if the need arises. They currently include "Permitting" which our most requested add-on, "Public Works, Sanitary Sewer Management, Storm Sewer Management and Document Management".

Municipalities who have chosen the system find it to be a huge time saver because it is a single source of all municipal information. No longer do they have to dig through paper files to retrieve information. They can now respond to inquiries from residents, staff or consultants immediately. Access to central information has no departmental boundaries and multiple users can access the information simultaneously from any location. It gets everyone on the same page using the most current information, which in itself, eliminates potential problems.

## articles

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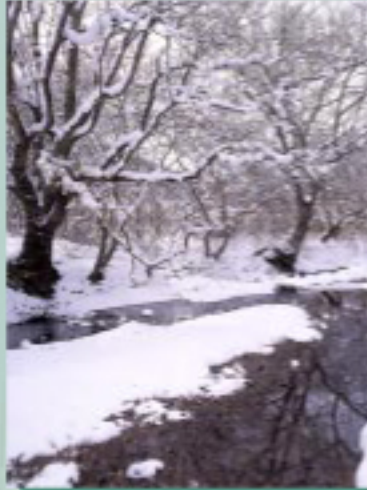
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# EVOLVING REQUIREMENTS

*inspire evolving services*

If you are a Municipality that has been assigned MS4 status (Municipal Separate Storm Sewer Systems), you are probably already familiar with some of the tasks that lay before you to implement compliance. In the ever-changing world of



regulations and requirements for Municipalities, one of the key considerations is when and where to assign support responsibilities. If you have come to the realization that a good portion of the tasks outlined could and should

be directed to others, this article may very well cover exactly what you've been looking for.

As the tertiary phases of the N.P.D.E.S. Phase II permit requirements kick in, municipalities must implement an Illicit Discharge Detections and Elimination (IDD&E) program. This piece of the N.P.D.E.S. puzzle is creating a perceived nightmare for most Municipalities, because they are faced with the responsibility to perform "Outfall Tracking and Testing" for stormwater quality and contamination. In Chester County alone, no fewer than sixty-nine Municipalities have to educate themselves, create acceptable procedures of collection and acceptable methods of reporting and tracking to achieve compliance.

In reviewing the requirements for N.P.D.E.S. Phase II compliance, you quickly realize that the scope of

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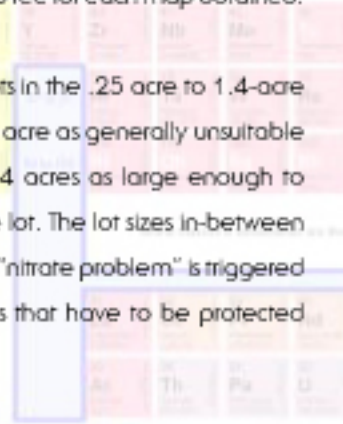
## The Nitrate Issue

### What Impact?

Dramatic change has recently occurred in Chester County in the enforcement of statewide regulations controlling nitrate concentrations in groundwater where subdivision and land development is proposed. Any development requiring a subsurface sewage treatment system that must be approved by the County or DEP, must have a preliminary hydrogeologic evaluation done if there are any wells within one-quarter mile of the proposed site that have documented nitrate-nitrogen levels that exceed five parts per million.

Chapter 71 legislation has existed since 1997 requiring such evaluations. The trigger for the recent increase in the enforcement of this requirement was the posting of the last three years of well test data on the County GIS System by the Health Department. DEP now has "documented" data on which to base its requirement for additional groundwater testing. Any applicant proposing construction of a new system or modification to an existing system must make application to the Health Department on a "Nitrate Map Request" form and pay a \$75.00 fee for each map obtained.

The impact will be felt for proposals with lots in the .25 acre to 1.4-acre range. DEP considers lots smaller than a .25 acre as generally unsuitable for on-lot systems and those larger than 1.4 acres as large enough to dilute nitrates to acceptable levels within the lot. The lot sizes in-between will need additional costly studies done if the "nitrate problem" is triggered to identify areas beyond the lot boundaries that have to be protected from future well installation.





Even the long-standing 100-foot isolation distance between the bed of a subsurface system and a potable water source is expandable where nitrate levels are high. If an analysis indicates that a system's dispersion plume (the direction, distance and soil area through which the water tends to flow past the bottom of the bed), is greater than 100 feet before the nitrate is diluted to acceptable levels, the 100-foot distance is extended to any length required to achieve acceptable dilution. DEP may then require easements, deed restrictions or other forms of permanent land management to prevent well installation for future human consumption of the affected groundwater.

The impact to municipalities will be an increase in applications proposing smaller community systems where dispersion plumes can be determined more accurately. Municipalities are under no obligation to alert applicants of the impact that the nitrate issue could have, other than to process the Planning Modules as they normally do.

Chapter 71 allows for pretreatment of effluent before it enters an in-ground bed. But, at the present time, DEP has not determined which types of treatment systems give consistent results that can be permitted with a degree of confidence. For more information about this issue, search the DEP website for document 362-2207-004.pdf - "Impact of the Use of Subsurface Disposal Systems on Groundwater Nitrate Nitrogen Levels".

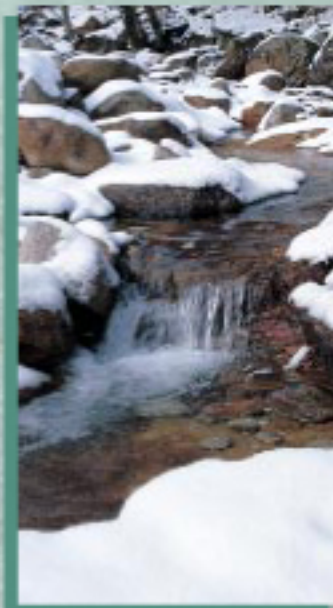
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## Evolving Requirements

(continued)

the program is enormous and unless broken down into pieces, has a high probability of overwhelming any Municipality. At this point in time, the entire program which is enforced by DEP, seems somewhat forgiving as the program is in its' infancy and not yet clearly defined. As each municipality moves closer to the final year of its five-year permit term, however, we expect that regulators will strictly enforce the program. The realization that each Municipality will have to wade through and understand all parts of the program is similar to asking a Municipal employee to understand all aspects of building a bridge from design to final construction.

Yerkes Associates, Inc. has identified this as a real problem for Municipalities and is now offering help to alleviate the burden of outfall tracking, sampling and testing. Yerkes services can assist in identifying outfalls, mapping of structures, scheduling, sample collection, monitoring, testing, result reporting and assistance in actions to eliminate potential illicit discharges. We can provide these services on an as-needed basis for individual outfalls or as a complete Township-wide package.



If you are interested in finding out more about these new services designed to help your Municipality meet the new Phase 2 permitting requirements, please contact: Joe Hunt, P.E.

1444 Phoenixville Pike, P.O. Box 1568  
West Chester, PA 19380-0078  
610.644.4254

*"Leading the way Since 1874  
in Engineering, Land Planning, and Surveying Services."*

- John B. Yerkes, Jr.  
Chairman of Yerkes Associates, Inc.

# Yerkes

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## Chairman Announces Promotions

John Yerkes, P.E., Chairman of Yerkes Associates, announced the appointment of four key employees as new officers of Yerkes Associates:



**D**avid V. Linahan, P.E. -  
Manager of our Sanitary Engineering Group will become Senior Vice-President.

**J**oseph H. Hunt, P.E. -  
Manager of Land Development Services will become Vice-President.

**M**ichael R. Conrad, P.E. -  
Manager of Municipal Engineering Services will become Vice-President.

**R**ussell Yerkes -  
Manager of Municipal Inspection Services will become Vice-President.

The four new officers will continue to assist the Company in providing our clients with the high degree of professional services they have received in the past.

## additional offices

rosemont business campus  
919 canestoga road, bldg 3, ste 110  
rosemont, pa 19010  
t.610.525.6200 f.610.525.0248

3504 main street  
p.o. box 767  
morgantown, pa 19543  
t.610.913.7342 f.610.913.7343

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