

Summary of Onsite Wastewater Management Technical Advisory Committee Meetings
New Jersey Pinelands Commission
June 2007

Meeting Facilitators

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Meeting Dates: June 6th, 7th, and 19th

Survey: July 20th

Meeting Purpose and Introduction

The Pinelands Commission is working with Stone Environmental, Inc. and Elizabeth Dietzmann, Esq. to help ensure onsite decentralized waste water infrastructure management programs are implemented to protect the water resources and public health of the Pinelands Area. The ecological sensitivity of the surface waters in the Pinelands and the groundwater in the Kirkwood-Cohansey Aquifer, which underlies most of the Pinelands, coupled with large areas of unsewered development, drive concerns about onsite wastewater systems and how they can be a long term solution for wastewater management.

About seven years ago, the Pinelands Commission obtained a Clean Water Act Section 319 grant from the New Jersey Department of Environmental Protection (DEP) to implement a pilot program for installing and monitoring advanced denitrification technologies in the Pinelands. The pilot program allows residential development on lots that otherwise wouldn't meet Pinelands water quality criteria except through the use of advanced wastewater treatment. However, it is commonly understood that to remain effective, advanced technologies require maintenance in perpetuity. The pilot program requires five-year operation and maintenance contracts on these systems. To get from that five-year finite period to perpetual maintenance, the current project is helping to develop a road map that Pinelands Municipalities can use in implementing septic system management programs within their jurisdiction. The Commission envisions that these septic management programs will eventually address all onsite wastewater systems, including both conventional and advanced technologies. The Commission's vision is being bolstered by DEP's recent rule proposal (N.J.A.C. 7:15) for implementing ongoing septic system management programs.

The first two questions this project will answer are: Who is currently managing onsite wastewater in the Pinelands Area, and how is that management manifested? There are many entities with varying levels of authority: the State, various departments and commissions, the Pinelands Commission, seven counties, fifty-three townships and boroughs, and the individual system owners. Who has the authority to manage onsite systems? This first step includes both examining the existing state of the regulatory framework and contemplating new rules that the Pinelands Commission might consider adopting to facilitate septic system management. If the existing rules are deficient they can be supplemented with new rules to meet management objectives. Everything is on the table for now, including, but not limited to managing new construction and existing systems, as well as managing both alternative and conventional technologies.

The outcome of this project will be recommendations but not one single answer; it will be a range of answers that address the different conditions that prevail throughout the Pinelands Area.

The purpose of the Technical Advisory Committee (TAC) meetings was to get feedback from stakeholders as part of a bottom-up approach; to get ideas from those likely to be asked to implement a program; and to include homeowners and others in the process.

At each meeting, Bruce Douglas gave a short talk about what “management” means, and a little more detail on the project. A roundtable discussion was held, using twelve questions as starting points for discussion.

TAC Roundtable Discussion

The following twelve questions were discussed during the round table discussion portion of the meeting. Key points in the discussions are summarized in the following bullet points.

1. What are the general perceptions about living with either traditional or advanced wastewater treatment systems?

- Most people would rather be on city sewer and view septic systems as antiquated. Some realtors and builders avoid septic systems because of real or perceived problems.
- Most people don't even realize they have a septic system, particularly those moving from large/sewered suburban areas to "country" homes. Residents with septic systems don't make a connection between ground water as their potable water source coupled with discharging their wastewater to that same ground water system.
- There are still old onsite wastewater systems out there, including cesspools, and systems too close to water bodies.
- People don't understand technology, from cesspools up through advanced treatment systems. People don't want to think about it until there's a problem.
- There is no contractor certification required to install systems; no credential required for inspections.
- If real estate agents were in the loop, at the time of closing the buyer can be handed an information sheet on septic systems.
- There is a public perception, perpetuated by newspapers, that 'leaking' septic systems contribute to pollution. Septic systems are not 'holding devices'. 'Leaking' is also applied to situations where a septic tank has never been pumped and it's running out over the ground.
- The general perception of a home on a septic tank is that it's less valuable than a home that's on a sewer system.
- Health departments find that homeowners are willing to tolerate malfunctioning septic systems. Repairs made out of necessity, because the system malfunctions and the toilets don't flush. Most of the time it comes down to money, and expensive repairs are postponed, sometimes indefinitely.
- Perception is specific to the age of the community. A community with older systems in well-developed waterfront property is going to be totally different from new development. With the older systems, if the area is heavily developed, there's often a perception that 'the sewer is coming' and the government will provide it.
- The impact of advanced systems on the sale price of a home seems to be the most common complaint. To develop specific parcels, an advanced treatment system is all they can put in and costs are in the tens of thousands of dollars.

- Advanced treatment systems are complicated and expensive, owners would rather avoid them...but if it allows me to build where I want it is a good thing.
- A drawback that homeowners experienced with the pilot program was that the components were supplied by the manufacturer but the homeowner had to find a local contractor and get the system installed at considerable additional cost.
- If advanced treatment systems are ‘sold’ to people as lasting longer, environmentally better, and being maintained by someone else, the educated buyer actually is much happier.
- There’s a concern that the pilot program is a ‘forced’ program, and is an expensive experiment for and on the residents.
- There's no real management mechanism for septic systems other than the initial permitting process through the county health department when a home is built or a business established. This management looks like a whole new level of bureaucratic utility authority to look at septic systems.
- I have a traditional septic system that works. Why do I need an advanced one? Is the government going to force that down my throat?

2. What is the current level of management for onsite/decentralized systems in the Pinelands?

- There is no single long term management program for systems in the Pinelands. The only systems being managed currently are the Pinelands alternate systems. Responsibilities rest with different entities, which is confusing for homeowners, realtors, and others. Sometimes health departments exist at the municipal, sometimes at the county level. There is no single place where people can get information, and a lack of information and awareness about what to do to properly operate their septic systems.
- The permitting system is basically all or nothing on replacement systems, requiring system owners to incur high repair costs with the health department oversees a repair. This encourages people to repair their systems on weekends rather than do it legitimately because of the costs.

Inspections

- In the Pinelands, some degree of management is occurring through septic system inspections at the time of a real estate transaction. These have been happening for about 20 years; the inspections may be a ‘point of intervention’ that can be utilized in future management efforts. Mortgage institutions require a septic system certification, and that can trigger the detection of a marginally operating or malfunctioning system. This aspect of management has been driven by the private sector's unwillingness to lend money for a home with a failing septic system.
- The arrangement is not perfect—people doing inspections are usually in the septic repair business, so systems often fail that are not malfunctioning per New Jersey Department of Environmental Protection’s (DEP) regulatory description of what a malfunctioning septic system is. DEP’s recently developed guidelines for inspection of existing systems are voluntary; not all inspectors follow them.
- Inspectors may be hesitant to certify systems, too, to make a judgment call only to have a system fail after a successful inspection. With this system, systems get repaired through resale whether they are malfunctioning or not.
- New Jersey has voluntary, unenforceable guidelines for inspections of existing septic systems. There are no licensing requirements; there are no training requirements in New Jersey for septic system resale inspectors. Today, there are fraudulent septic inspection companies that thrive

because they will certify anything. The good inspectors do not get work, because they justifiably point out deficiencies in systems. We need mandatory point-of-sale inspections in the state just like we have mandatory water testing.

Pump-outs

- Pinelands municipalities do not enforce pump-out requirements specified in the Pinelands CMP. Mandatory pump-outs are enforced in some areas of New Jersey but not in this part of the state.
- In Ocean County, there is a manifest system in effect for every septic hauler. Septage from pump outs is received at two of the three regional sewer plants and every load is required to come in with a manifest or multiple manifests. This multiple-part form is used to bill the septage hauler. A copy of each manifest is sent to the health department but no additional tracking or reporting is done by the Health Department.
- The New Jersey Septic Management Association (NJSMA) and the National Wastewater Transporters (NaWT) both have chapters in New Jersey. Neither association is very active. NJSMA did help develop the guidelines for conducting real estate transaction inspections, and adopted those as their own.
- Septage haulers are registered with the NJDEP solid waste program.

Repairs

- All repairs and alterations are permitted through the local (county) regulatory programs. “Repair” means replacing in like kind. In Burlington County this is not allowed/sanctioned, especially for real estate transactions. They generally require systems to come up to code (or as close to code) as possible. It’s an alteration to an existing system, not a repair (fixing a broken pipe is a repair).
- Atlantic County is one of the most liberal counties with respect to repairs. Their definition of a repair is a lifetime replacement. Even if it’s a very sub-standard system, a simple repair results in documentation of what’s there. The health department prefers that system owners attain health department approval to do a repair as opposed to an owner doing a midnight repair on a system. It keeps documentation up to date, but prevents standard or decent systems from going in the ground.

Education

- Larger developers might provide pamphlets on operating septic systems, but education is spotty and inconsistent. The state septic system regulations require municipalities to send a notification to homeowners with septic systems once every three years (in their tax bill). Burlington and Cape May Counties (at least) fulfill this requirement, but there is no tracking of whether the information is actually read. If a municipality doesn’t keep track of who’s on septic and who’s on sewer, they’re unlikely to send these notices.

Information Tracking

- DEP collects data on an annual basis from all the health departments. Information is collected for required reporting to US EPA. Information collected includes number of systems permitted, and the number of malfunctions. There are about 120 different administrative authorities dealing with septic systems in New Jersey, and there is high variability in the quality of the data collected. Right now DEP tracks approximately 350,000 to 400,000 systems. DEP is going to a web-based filing system, so they’ll be better able to separate systems by type for management needs in the future.

- Burlington County has a decent database, so understanding how many systems need to be managed wouldn't be that hard. Experience is that often information is not electronic.
- Atlantic County also has a database for recent records; older records on microfiche. Information in GIS about sewered or non-sewered areas is not always accurate. Sometimes people come in with repairs for systems in areas that show up as sewered, but when they call the sewer authority to check the area it is determined not to be sewered.
- Ocean County knows where every septic system was installed, but they don't know if each system is still in operation (the street may have been sewered, etc.).

Management outside the Pinelands Area

- Montgomery Township (Somerset County, NJ) has implemented a management program which resembles the United States Environmental Protection Area (USEPA) Model 3 onsite wastewater management program. The Montgomery Township Health Department issues septic system operating permits with a licensing fee. They charge residents \$20 a year to participate in the management program. An inspector was hired to complete an initial inspection, including a walkover to check for physical failure. Every three years thereafter, homeowners must submit documentation that the system was pumped. About 1200 systems are managed in this way. Montgomery has considered implementing enhanced management, but as a local health department they determined that they could not finance the operation.

3. What is the need for improving onsite/decentralized system management in the Pinelands?

- There's a need to improve management—right now, there isn't any. The public and elected officials aren't educated on the need, and there's not much political will to do anything.
- The perception of a lot of people as to when you need management is not until there's an obvious problem, like an overflowing system. That is a missing part of what is going on right now as far as management.
- Public health may also drive need for management. People don't make the connection between overflowing septic systems and disease transmission and beach closings.
- It's financially prudent to have rudimentary management in place, but homeowners are reluctant to accept that kind of government involvement. There needs to be some kind of balancing act to get management that's palatable.
- In Burlington County, water quality is a driving force. A study of existing water resources there showed that thirteen towns along the Route 206 corridor had pockets where places served by septic systems weren't meeting the drinking water standard for nitrate of 10 parts per million in the groundwater. There are also some TMDL issues for both groundwater and streams.
- Stafford Township did a nitrogen dilution study as part of their wastewater management plan; it showed that lot sizes for unsewered areas should be increased to four acre minimum lot sizes. Some of the unsewered area is in the Pinelands Area.
- Water supply depth and quality vary greatly—from shallow well points fifteen foot deep to cased wells down to 400 feet. Rules changed in 1991 so that water supply had to come from below first/top aquiclude (minimum casing of 50 feet). In the Pinelands Area, if there's an onsite septic system, minimum casing depth is 100 feet for new construction. People with older shallow wells are drinking the water table aquifer. There is a private well testing act which requires testing, but enforcement is uneven. Like septic system inspections, it's driven by private real estate transactions.

4. What is the appropriate level of government involvement in onsite/decentralized wastewater management?

- Government is involved at the beginning, determining system type appropriate for lot size. Government also has to be involved with long term management; homeowners aren't going to do it themselves.
- The appropriate level of government involvement is whatever people are willing to accept. If they buy into the health department permitting the system, reviewing the plans, issuing the permit, certifying as-built drawings, inspecting new construction, and then having some basic regulations about maintenance, that is an appropriate management program.
- The last thing local government needs is more control (or another thing to do), but ultimately the local governments might be the best entities to manage septic systems. The county board of health is the appropriate agency to issue permits and do initial inspections, but after that it could be 'handed off' for management. Atlantic County, for example, has a terrific utilities authority.
- Management can be regulated, but the government could be standing aside from actually performing it (this might help with the negative connotations of government intrusion on private property).
- Health departments should be involved, but if the reality is thousands of systems, how can that be managed without the help of a utilities authority? Maybe a hybrid between the utility authorities and the health departments is a good idea. The utility authority could be the manager; charge rates for the management of septic tank systems and distribute money to the local health departments for enforcement. Overall management would be from the utility authority but the enforcement component would be from the health department. That way funds would be available hire an inspector to do enforcement, follow through with repairs, etc. [This idea would require regulatory change. Utility authorities right now can't levy fees against people who aren't customers.]
- If there is an MUA or a utility authority sending the homeowner a bill, homeowners who've always been on sewer may develop an expectation that the entity is also responsible for repairing/replacing infrastructure (dangerous when all they're doing is inspections/maintenance and mandating repairs that owners must then implement). Alternately, the MUA could manage and also rebuild those systems using an established fee structure. Education is a good first step, but without enforcement teeth education only gets you so far.
- Enforcement is a key role for government.
- If the local municipalities don't adopt the model ordinance to allow alternative systems on acre lots, but you revise the CMP so that alternative systems can be installed in municipalities without and implementing ordinance, the County has no enforcement power in those municipalities.
- One owner in the pilot program ended up doing two septic system designs for his house. An initial design for a pressure-dosed system was submitted to Ocean County Health; they sent it along to the Pinelands Commission who rejected it. New design with Amphidrome was submitted and eventually approved. Pinelands Commission staff were helpful about what the acceptable systems were; no one else was helpful in the process. Dealing with Manchester Township was tough.
- In Woodbine Borough, the municipal utilities authority could play a role in managing or overseeing systems; they are currently developing an educational program.
- Gloucester County Health Department prepared a draft model maintenance ordinance in coordination with DEP, but none of their municipalities were interested. The County was willing

to take on inspection and some enforcement, and report back to the municipality with the proper information.

- At the local level, another level of bureaucracy or permits or fees is best bundled with property transactions, as opposed to an annual event, unless there is a service contract or maintenance agreement already in place.

Enforcement

- Ocean County is a regional health department. They passed their own ordinances, and they can do enforcement administratively.
- Burlington County acts as a local health department. It's up to the towns to enact ordinances that the Health Department can then follow through on. Every municipality within Burlington County has their own board of health. Burlington County health department acts as the municipalities' authorized agent because they're under contract to handle all those duties but they don't actually have the authority of the administrative authority agent. They can levy administrative fines through the local ordinances, and if they don't pay that administrative fine, the Health Department can go to municipal court. The average person pays the fine. The Health Department might have to take one in ten to court, and then the only recourse is to go directly to municipal court. This doesn't work very well; it takes half a morning just to sign the complaint, and a cop has to come in off the street. In Burlington County, taking a violation of N.J.A.C. 7:9a (NJ Standards for Individual Subsurface Sewage Disposal Systems) septic system regulation to municipal court has never been done. They usually go under the Public Health Nuisance Code (1953), because that's what is adopted into municipal court. To go under N.J.A.C. 7:9A they'd have to go to Superior Court.
- Ocean County has a water testing and permitting ordinance (94-1) that adopts N.J.A.C. 7:9A and the water supply code, so violations of N.J.A.C. 7:9A can be pursued through complaints signed in municipal court under that ordinance. Every aspect of N.J.A.C. 7:9A is covered under that ordinance. Atlantic County is kind of a board of health and so they also have that power.
- Generally for the homeowner the public health nuisance code suffices, for things like sewage on the ground surface. N.J.A.C. 7:9A would be used for installers, for instance, who are doing something unscrupulous or against the municipal code.

5. What are apparent public concerns regarding onsite/decentralized wastewater management?

- From DEP's perspective concerns are mostly financial. Anybody who's dealt with septic systems knows that if a system has been approved and a Certificate of Occupancy has been issued, the Health Department and DEP have the authority to go back on your property to inspect that system. N.J.A.C. 7:9a-3-19 explicitly gives the local authority that right, though most property owners don't realize this.
- Some landowners don't want government on their property because they aren't having a problem. There's also the camp that tried to sell their house and found a failed system. Once the regulators get involved owners are appreciative, but that's after they have a problem and have encountered financial hardship or expenditure.
- People with systems from the 1950s-1970s (septage pits or undersized beds) are more likely to understand the need because their systems are failing at a greater rate than the newer systems. People with newer, properly sized systems may not be as supportive because their systems are functioning.

- There is a perception in some of the towns that the town doesn't have enough septic systems to warrant the development of a management program. The town sees them as a secondary issue and one not worthy of public expenditure on a management program.
- In Burlington County there are people who have reasons for not wanting government officials on their property. There are also municipal officials who, for similar reasons, don't want to manage septics, because those residents don't want it, and they have policing issues or law enforcement issues as well.
- Some sort of fee is probably necessary to do septic management; there aren't enough septic inspectors to do that level of management. What is the dollar amount attached to the management tool?
- Hopewell Township experience was that the township proposed full management similar to EPA management Model 5 with a fairly high fee (\$600-\$1000/year). The few people that supported it were the people that were on the last legs of the life of their septic system. The people that opposed it were the ones that just moved into new homes equipped with new septic systems; they were opposed to annually paying one thousand dollars to fix someone else's older septic system. So that was a public concern.
- More education is needed about the benefits of managing septic systems. The public has not heard of management; it's an alien concept (although owners of managed Pinelands systems to some extent seem to be comfortable with management). Builders are becoming more aware on their own of the need for management; builders are starting to approach engineers for maintenance plans they can pass on to the homeowners.
- For alternative/advanced systems, homeowners need to know that the system meets the expectations of the Pinelands Commission, not only now but down the road 10 years. If it doesn't, as shown by later inspections, what does the homeowner have to do? Put in *another* new system?
- A likely scenario might involve an area first having a public health issue due to failing systems, or a development issue related to Pinelands standards, followed by a political consensus in that town that management is needed. A utility authority could then do the management through an inter-local agreement. The decision is made locally. Maybe the entity is a private company, a local MUA, or a municipal MUA. At the county level, a county wide utilities authority could perform management under a fee structure determined locally, they'd submit a bid much like what is done for trash collection and recycling.
- Part of a management program should be to help people pay for repairs to failing systems. Montgomery Twp. looked at trying to get government involved in offering low-cost financing and loans for repairs. County improvement authorities (for example, the Bridge Commission in Burlington County) or community development agencies may be able to do low-interest loans for septic repairs. The New Jersey Environmental Trust would probably work with a larger agency (municipality, improvement authority, or a county utilities authority) to do a loan program. DEP may be willing to provide funding for repairs if there is a management program in place to take care of the investment. In order for a municipality to access that source of funding, they'd need a management district/program.

6. Is there a perceived value to onsite/decentralized wastewater management?

- The public doesn't perceive value because they don't perceive need.
- There is value in wastewater management, doing it right protects environmental quality and property value in the long run.

- Management could catch mis-representations of system design capacity at time of sale; addition of garbage grinders that weren't permitted. If systems were managed, current conditions could be compared to what was actually permitted.
- Environmentalists often see septic management as a growth management tool.
- If management can result in a perception that septic systems are not something to fear, then that's value in a management program.
- Maintaining a septic system preserves the value of the house. Engineers want to see the systems they design get maintained because it reduces their liability associated with malfunctioning systems.
- Management increases the lifespan of the system. Problems can be addressed before catastrophic malfunction happens. Management would help with point-of-sale issues regarding septic systems. A track record of maintenance will make people more comfortable purchasing a house.
- The perceived value of management will need to be balanced with affordability.
- People with newer systems are more likely to see the value of managing that investment. Those with older systems that may be failing are more likely to resist, especially if they think repairs are going to be expensive.

7. What would be necessary to create public support for the implementation of onsite/decentralized system management programs?

- If there was a documented water quality problem, managing septic systems could help solve the problem. Management could also help real estate agents sell houses on septic systems better; they can say these things are managed. It takes the mystery out of the septic system as a means to help them sell those homes.
- Continue to build local understanding of the issues and processes by holding more meetings like these. This sort of forum for information and to get an exchange of ideas also needs to happen at the local level. All the topics being discussed here need to be addressed. Cost is a big one to the homeowner. If they're actually going to benefit in the long term, there's still something to entice them into getting involved, even if they could care less about the environment.
- Do free workshop meetings at the township level, go and let people know what's going on, get their input and make them part of it. Get them involved. It's an easy way to do it, it takes work. Somebody's got to go around and sell it.
- In some respects management could be like licensing programs that municipalities use for assuring that pets are inoculated for rabies. People don't question the fact that the Town collects an annual license fee for your dog, and there are public health protections that derive from that inoculation. Similarly, you could pay a license fee to have your septic system certified to operate for another year, and there's the implication that the system has been deemed to not pose a public health hazard.
- There are different levels that management could take--licensing inspections, point of sale inspections, etc. You could also just have soft sell, promoting safe and clean septic systems through promotional pamphlets, online information, or through web sites like the Pinelands Commission's web site.
- Put out literature for children in the schools. Change perceptions generationally, like with recycling in the 1980s.

- Mandatory point-of-sale inspections have been happening in Massachusetts, for 11 years. The process has increased consumer awareness and knowledge of what's in the ground and has increased demand for more services related to that.

8. What strategies exist that will confirm that the operation and maintenance are occurring?

- In the Pinelands Area, and throughout New Jersey, there is mandatory operation and maintenance (O&M) on systems greater than 2,000 gpd through the NJPDES program. There are mandatory maintenance contracts on pilot systems under the Pinelands program.
- A number of towns outside the Pinelands Area have management ordinances in place, where, for example, every 3 years you have to send a copy of your pump out receipt.
- At least one hauler in Burlington County sends reminder notices. Most of them likely keep records for their customers...not a strategy yet, but a baseline or a way to confirm that maintenance is happening. There is currently no local entity that requires a homeowner or a septic pumper to get a permit in order to do pump-outs.
- In Atlantic County, there are problems with records at the county vs. local level. Municipalities have tie-ins with the tax office and sewer authority so they can eliminate owners on sewer connection, so they know who to send things to. Because the county is not tied in to the individual tax lists, it would be very hard to update information in order to send reminders, etc.
- There are a lot of different strategies that can be used to get systems into management. The program could start with new construction or anything that's been done in the past x-number of years. In Montgomery, whenever a repair or an alteration permit is issued, that's when the system comes under management.
- In Montgomery and Princeton, there's no permit required for pumpouts. In Montgomery, they require documentation that a system is pumped once every three years.
- Since health departments are just starting to understand the alternative technologies, they need a lot of documentation and information detailing what maintenance occurred and if the system was operating correctly.
- Every piece of paper that comes in to a government office has a cost associated with it. Any confirming strategy needs a self-sufficient source of funding to maintain that confirming strategy in the long run. Centralized electronic reporting of maintenance, etc. (by tax parcel number or another strategy) where every user of the information (pumpers, owners, townships, etc.) pays a small fee may be a way to make recording the information sustainable and also makes it accessible.

9. What are onsite/decentralized wastewater management success stories?

- No failed alternative systems in the Pinelands is a success story for management.
- The advanced treatment system installed on a homeowner's property through the pilot program works. Crystal clear water comes out. To the owner that's a success story; the system does what it's supposed to do.
- Pinelands alternative wastewater pilot is a success from the builders'/developers' perspective—they are still selling homes. In Pemberton Township there are 46 new homes that were possible as a result of the advanced septic systems. When people want to buy a home, often they aren't looking at the septic system. Maybe five years from now they'll pay attention, when they start having to pay a bill for an O&M contract.

- One of the biggest shortcomings of the Pinelands program was failure to include a requirement in the model ordinances to maintain the maintenance contracts in perpetuity, that they be renewable for the life of the system, and that they had to submit evidence to the local administrative authority that they're being maintained.
- In West Windsor there is some impetus for septic system management among the residents, and it comes down to how it benefits the owners. The costs of systems keep rising, even for conventional systems, and homeowners are realizing that management is cost-effective in the long term.
- Montgomery Township has been managing septic tank systems for about 15 years. It works fairly well but is a limited program (USEPA model 3). They do pump outs and allow advanced technology to go in. Rutgers is heavily involved in the Montgomery Township management program.
- A number of other communities, mostly up in the northern areas of the State, have ordinances in place to do management, more and more they are also passing enabling ordinances to implement the use of advanced technologies.

10. What are the questions that need to be answered when a municipality considers onsite/decentralized wastewater management options?

- The biggest issue for rural communities is cost. Liability will also be a big issue for any community.
- Is it an election year? Even necessary new programs are going to get a lot of opposition. People aren't ready for change.
- How many lots are on septic systems or have been switched to sewers? What's the status of the local or county files? Until a municipality knows what is in the ground, they can't know what kind of management is needed. In Princeton Township, for example, an increasingly smaller number of properties are on septic systems. It's important to characterize the magnitude of the program.
- What are the unintended consequences of implementing management? In Freehold Township the Pinelands Commission Program was perceived as providing an opportunity for people to use advanced technologies on lots that were otherwise not developable. Zoning and septic system rules are not entirely consistent with each other; some areas still might use septic rules as de facto zoning/growth control.
- Understanding the ultimate cost to the homeowner is critically important--not only the imposition of that level of government but how to pay for it. New costs to the municipality will need to be balanced with fees to the system owners. A fee-based permit program might work, as long as the fee offsets the additional work load or the cost to the municipality. (The problem is that fees never seem to keep up to the actual costs of operations.)
- Who performs inspections is on the table for discussion. It could be a part-time inspector, like in Montgomery. It could be a public works department. It could be a wastewater utility; it could be an engineering firm.
- Inspection without pump out provides some value and can be done more cost-effectively. There's value to a stepped approach as opposed to requiring pump outs on a set frequency.
- New Jersey requires pretty sophisticated management for 2,000 gallon per day systems and anything below that threshold is currently unmanaged. This creates a certain incentive for developers to break up their projects to stay below that threshold. That amplifies the potential for

problems because there's no licensed operator or entity responsible for management. The proposed regulations will eliminate this loophole. The proposed septic regulations do not address residential construction but the new water quality planning rules may do this. It's likely that any project proposing more than 5 individual homes or anything generating more than 2,000 gallons is going to have management under the new water quality management planning rules.

- Southampton Township, NJ did a ground water study and determined that in order to protect water quality, development density needed to be reduced or advanced treatment systems would need to be used to meet our ground water quality standards outside of the Pinelands Area in addition to within the Pinelands. However, in a lawsuit challenging the Town's denial of a project, a judge ruled that the ground water quality study and the municipal master plan did not provide enough defense to substantiate the Town's ordinance.

11. How can we finance onsite/decentralized wastewater management programs?

- Charging pumpers a fee for the right to pump in that town probably won't work in New Jersey.
- Budgetarily, it's going to be very difficult for health departments or utility authorities to implement management programs (with the governor's requirement of not increasing the budgets more than four percent in coming years). For local management programs, a fee structure to support that activity will be a necessity.
- Franklin Township and some other areas in the Pinelands are rural and there are a lot of poor people residing there. Their limitations and perspective must be considered. People on fixed incomes have similar limitations.
- A level of protection should be available to help people who can't afford to make repairs. Some money is available from DEP but only if a municipality has adopted a septic system management plan. The money would go to individual systems via the municipality provided that a management plan is in place.
- Financing should be offered to the homeowners, but not at the municipal level. The Bridge Commission in Burlington County is a source of financing for municipalities, but it could also make financing or tax benefits available to the homeowner, as is done for energy efficiency.
- Individuals are getting involved in solar energy because of government financing/tax benefit incentives. Managing systems benefits the environment too; maybe state and federal governments should be looking at allowing the individuals involved in these programs some type of tax relief.

Funding in other states

- Pennsylvania D.E.P. gave municipalities an incentive of 85% refund to implement maintenance management programs including administration, education, and investigation.
- Massachusetts has a similar program for moving state revolving fund (S.R.F.) money to the communities. The community signs a bond with the water pollution maintenance trust which administers the S.R.F. moneys. They get an initial amount. They get a grant to help develop their management program and then they get an additional bond of \$200,000 that they can loan out in a revolving loan program to residents. The loan repayment is added to the resident's tax bill.
- A county in Central New York had grant money for disadvantaged property owners for some of the more sophisticated systems that require long term attention. One thing the community has learned is that you should never give anything away for totally free. Owner buy-in is necessary because people are more apt to take care of something when their own personal money is

invested. If you're going to give money away, you want to make sure that the community's investment is protected.

12. What information or support would be most helpful to municipalities and owners of traditional or alternative systems as they consider management options?

- One hurdle right now with the alternate systems is understanding how the whole process works. A lot of the initial paper work and organization was put on the technology provider, there comes a point in the process the homeowner has to submit paper work somehow, as do the builder and developer, and it's not very clear how that path works for them. The Pinelands Commission needs to provide a complete time line from front to tail to give the homeowners a better feel for what's happening.
- Is management going to be county driven or municipality driven?
- Is there a conflict between what the Pinelands Commission is doing and DEP's program to speak to municipalities? If municipalities approach engineers about management, those engineers have been told to send the municipality directly to DEP.
- Public education is vitally important—developing public literature, pamphlets, or videos, or actually educating the public to help them understand why managing systems is important and needs to be done. Unless you can truly convince them that it is a worthwhile benefit you're just going to meet resistance.
- It needs to be clear to the homeowners and the towns why they need to manage their systems. Benefits should be explained in terms of expense in addition to environmental and health. It's not just feel good stuff, it's to protect an investment. Maintaining systems is like fixing your roof or painting your house.
- Tax relief might be a good way to support the idea of management. That way, municipalities can bring something to the table for the residents.
- There are two tapes available from Small Flows Clearinghouse, *Options for Small Communities* and *Management into the new Millennium*, that are great for educating people about management.

What's the appropriate level of jurisdiction for management to occur?

- Ocean County has the right power with its regional health department. Burlington County doesn't; there it's going to be townships. The right entity will vary from region to region.
- Ocean County Sewage Authority has legal jurisdiction over the county boundary; the sewer franchise area includes part of Monmouth County. The franchise area may be bigger than the sewer community in anticipation of future growth, possibly the 208 water quality management area.
- In an ideal world Ocean County Utilities Authority would step forward and become a water pollution control agency for Ocean County. There is already a billing infrastructure in place for an agency like that to send bills to users of the facility and for all that to be tracked. If we had a utility willing to take on the role of collecting fees and doing management, it's a model that people understand already. However, the utility authority in Ocean County does not bill homeowners. They bill municipalities or sewer franchise areas, so they are one step away from the homeowner. A water resources board that has control over the wastewater and the water supply, stormwater and the surface water might be a better choice.
- In Atlantic County, municipalities have better local information (tax assessor info, who is on sewer vs. septic, a Certificate of Occupancy program for home resale, etc.) Most of the needed infrastructure for septic management services exists at the local level. The county health department has copies of original plans and permits, but doesn't know which ones are still valid.

Once sewer is hooked up the plumbing inspector should be making sure that the septic tank is pumped out and filled with inert material. A municipality would have more system tools in place to put those kind of programs into action.

- If the proposed water quality management rules get adopted, the County becomes the wastewater planning agency, and then there is more basis for adopting county wide management.

Next steps:

- Outreach, including a website, and more local outreach to Pinelands communities over the next six months
- Complete a draft of the legal basis and the regulatory framework report
- Assemble information and begin the first draft of the best management practices manual

Meeting Attendees

June 6, 2007:

Gina Berg, Burlington County Water Resources Coordinator
Rick Brown, Ocean County Health Department, senior inspector
Linda DiCicco, Planning Assistant, Pinelands Commission
Patrick Dillon, Atlantic County Health Department
Warren Gager, Southampton Township Environmental Commission
John Graham, Ocean County Health Department, Senior Sanitary Inspector
Carol Guizio, Atlantic County (principal over the septic program)
Kurt Hendricks, Burlington County Health Department, senior inspector
Richard Kunze, Ocean County Utilities Authority, Director of Technical Services
Mark Miller, New Jersey Department of Environmental Protection, Principal Environmental Specialist
Ken Wenrich, Ocean County Health Department, Principal Inspector

June 7, 2007:

Timothy Baranyay, homeowner with alternate system from Whiting, NJ
Paul Dietrich, Municipal Engineer, Upper Township (Cape May County)
Linda DiCicco, Planning Assistant, Pinelands Commission
Rick Dovey, President, Atlantic County Utilities Authority
Tom Ganard, Deputy Chief Engineer, Atlantic County Utilities Authority
Kathy Gandy, Cumberland County Health Department (interviewed by Bruce Douglas after the meeting)
David Henry, resident of Jackson; health officer for the Princeton Regional health department.
(Previously health officer at Montgomery Township)
David Patriarca, Mayor, Pemberton Township
Paul Shives, Township Administrator and Director of the Water and Sewer Utility, Stafford Township

June 19, 2007:

Allison Blodig, Regulatory Affairs Manager, BioMicrobics
Chuck Chiarello, Mayor, Buena Vista Township (Chairman, Pinelands Municipal Council)
Doug Davidson, Onsite Wastewater Program, West Windsor Township Health Department (Mercer County)
Elizabeth Dietzmann, attorney, Fairfax, VA
Eugene Kobryn, Little Egg Harbor
Eric Martin, NEHA conference attendee, from Bermuda
Dave McKeon, Planning Director, Ocean County
Sandy Mersky, South Jersey Engineers (Pinelands septic designs)

Mark Noga, Knight Treatment Systems
William Pikolycky, Mayor, Woodbine Borough (Vice-Chair, Pinelands Municipal Council)
Brent Reagor, local regulator from Massachusetts
Eric Smith, F.R. Mahoney & Associates
Joe Speese, Site Specific Design
Chuck Waddy, Septic Management Associates LLC (operate and maintain sewage systems)

Recipients of Followup Survey

Francis and Catherina Alvira
Frank Bason, Cromaglass
David Beach, Franklin Township
Kim Bell, Cumberland County, Health Department
Gina Berg, Burlington County Resource Cons.
Richard Bethea, Bass River Township
Richard Bizub, Pinelands Preserve Alliance
Allison Blodig, BioMicrobics
Dr. Fred Bowers, NJ DEP
Chuck Chiarello, Pinelands Municipal Council
Fred and Jennifer Clayton
Anne Culligan
Doug Davidson, West Windsor Township, Health Department
Paul Dietrick, Upper Township
Patrick Dillon, Atlantic County Health Department
Donna Drewes, The College of New Jersey
Luke and Nicole Eckart
Kathy Gandy, Cumberland County, Health Department
Michael Garardi, Cromaglass
Michael Gavio, Burlington County Health Department, Environmental and Consumer Health
John Graham, Ocean County, Health Department
Ray and Christine Groatman
Carol Guizio, Atlantic County, Environmental Health Department
Ed and Tammy Haines
Kurt W. Hendricks, Burlington County, Health Department
David Henry, Princeton Regional Health Department
Lou Kircher, Cromaglass
Eugene Kobryn, Little Egg Harbor Township Environmental Commission
Andy Kricun, Camden County Municipal Utilities Authority
Eleanor Krukowski, NJ DEP
Richard Kunz, Ocean County Utilities Authority
Paul and Kathleen Ladd
Donald Lippincott, Jr., Ocean Township Environmental Commission
Eric Martin, Dept. of Health (Bermuda)
John Maxvitat, Camden County, Health Department
Edward J. McGlinchey, Winslow Township Public Works
Dave McKeon, Ocean County Department of Planning
Noble McNaughton, Tabernacle
Sandy Mersley, South Jersey Engineers LLC
Mark Miller, NJ DEP
David Moore, Barnegat Environmental Commission
Mark Noga, Knight Treatment Systems

David Patriarca, Permberton Township
William Pikolycky, Pinelands Municipal Council
Brent Reagor, Town of Acton, MA
Hippolito Reyes
John Roe, American Water - Applied Water Management
Paul Shives, Stafford Township
Eric Smith, F.R. Mahony and Associates
Horace Somes, Washington Township
Joe Speese, BioMicrobics
Chuck Waddy, Septic Management Assoc. LLC
Kenneth J. Wenrich, Ocean County, Health Department
Linda Wilde, Cape May County Environmental Health

Respondents to Followup Survey

Kurt W. Hendricks, Burlington County, Health Department
Joe Speese, BioMicrobics
Linda Wilde, Cape May County Environmental Health