

Private Sector Service Delivery for the  
Onsite Sewage and Water Supply Program

December 2011

A Report to the Honorable Delegates Robert D. Orrock, Sr.,  
Chairman, House, Welfare and Institutions Committee and  
Lynwood W. Lewis, Jr., House District 100.

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## Table of Contents

Purpose of the Report: .....	3
Executive Summary .....	4
Public Health Significance: Onsite Sewage and Private Well Program .....	5
Methods and Limits of Study:.....	6
Observations and Options: .....	8
Capacity and Distribution of Private Sector Service providers: .....	14
Business Model Discussion: .....	17
Figure 1.4: Some of the Services Offered by the Virginia Department of Health.....	17
Figure 1.5: Essential Services for the Health Department .....	18
Figure 1.6: Historical Regulatory Paradigm .....	19
Figure 1.7: Emerging Regulatory Paradigm .....	19
Stakeholder Concerns Regarding Fees .....	20
Stakeholder Concerns Regarding Consumer Protection:.....	22
Stakeholder Concerns on Competition in the Marketplace: .....	25
Private Sector Ambivalence Regarding Repairs:.....	26
Future considerations of transitioning services to the private sector:.....	28
Figure 6.1: Unintended Consequences with Increased Demand for Services .....	28
References:.....	29
Appendix 1: HB2185 as offered during the 2011 General Assembly session.....	30
Appendix 2: Letter from Delegate Lynwood Lewis outlining parameters of study.....	35
Appendix 3: Summary of meetings.....	36
Appendix 4: Online survey questions.....	47
Appendix 5: Online survey answers.....	88
Appendix 6: 10 Essential Services for Environmental Public Health.....	236
Appendix 7: Letters received during the study period.....	237
Appendix 8: Example legislation of setting private sector fees for services.....	243

## Purpose of the Report:

HB 2185 as offered during the 2011 Virginia General Assembly session would have required the Virginia Department of Health (VDH) to establish new procedures for requiring every application for an onsite sewage system permit, certification letter and alternative discharging system to include a site and soil evaluation report from a licensed onsite soil evaluator (OSE) or a professional engineer working in consultation with a licensed OSE (OSE/PE). The legislation sought to facilitate the transition of direct services from licensed health department staff to the private sector. The patron of HB 2185 agreed to table the bill until VDH could study the best course forward.

On May 16, 2011, Delegate Lynwood Lewis wrote to Delegate Robert D. Orrrock, Sr., Chairman of the Health, Welfare, and Institutions Committee expressing the following expectations for the study:

- Have the Virginia Department of Health (VDH) assemble a group of stakeholders to determine the best course for the Commonwealth's health and safety and also for the marketplace; and
- Have VDH and a group of stakeholders examine the best means of accomplishing the transition of onsite sewage services to the private sector.

The following report is offered in response to Delegate Lewis' request for a study on the best course forward (as outlined in his May 16, 2011 letter - see Appendix 2). The study did not consider funding levels, operation and maintenance of onsite sewage systems, or other operational aspects of changing the health department's business model. Instead, this report focused on stakeholder perceptions, concerns, and ideas for the best course forward with respect to how citizens receive services for onsite sewage and wells.

This report does not evaluate ways to improve HB 2185, nor does it offer recommendations for changes to the bill as offered. VDH communicated at the time the bill was offered that separating soil evaluations from onsite system design was impractical. Designs of onsite sewage systems and the location of future wells must be provided with soil evaluations to accomplish the bill's intent. Otherwise, there would be limited or no cost savings for the applicant. Pursuant to licensee expectations, a public sector (licensed) employee would accept the private sector licensee's work as his or her own when using the private sector's work to create a final design. As such, the program could not adequately transition to the private sector since the public sector licensee would remain accountable to the private sector licensee's work. Public sector employees would essentially "redo" the private sector's work since liability for the work performed in the private sector rested with VDH. The onsite sewage program would experience numerous inefficiencies and delays if the private sector only performed soil evaluations. Designs and well information should accompany evaluations to ensure the Commonwealth's program met citizen needs. This report assumes all designs, well locations, and soil evaluations would comprise the private sector's delivery of services.

## Executive Summary

The Division of Onsite Sewage, Water Services, Environmental Engineering, and Marina Programs, Office of Environmental Health Services (OEHS) developed a three pronged approach to collect feedback and ideas from stakeholders about the impacts of HB 2185. First, OEHS created an online survey allowing all stakeholders a chance to provide feedback. Next, OEHS visited twelve locations around the Commonwealth and invited stakeholders to share thoughts in person. Finally, OEHS conducted telephone interviews by request. In total, OEHS heard from over 350 stakeholders, including owners of sewage systems, elected officials, local county administration and staff, installers, operators, designers, realtors, builders, and VDH environmental health specialists.

Survey respondents agreed on numerous topics. Virtually all agreed VDH was an essential participant in making sure public health and groundwater supplies were protected. Many observed VDH's critical role in assuring adequate regulations and policies were in place to protect public health. Nearly every public meeting participant expressed the belief VDH should enforce requirements that protect public health. Other participants observed quality services must be provided in the private sector and that a "checks and balances" system was necessary to identify bad actors and subpar performance. Public meeting participants generally felt VDH should be the non-partisan reviewer of private sector work. All seemed to understand and recognize that sewage systems and water supplies must be properly designed, installed, inspected, operated, and maintained to protect the Commonwealth's environment and health.

Despite areas of agreement, stakeholders also voiced differing ideas about the health department's role in protecting public health and the environment. Some believed VDH should provide all onsite services, including site and soil evaluations, operation and maintenance, and designs of alternative onsite sewage systems. Others thought VDH should no longer perform any direct service. Some suggested VDH should review all work submitted by the private sector as part of the checks and balances approach. Still other stakeholders thought VDH should not perform any quality assurance or quality control evaluation of private sector work. Some participants opined health department fees for services were reasonable, while others felt they were unfair and needed change. Some service providers were willing to provide free services in limited circumstances while many were unwilling to provide any pro bono service. Mutual understanding and agreement among all stakeholders regarding how the private sector could provide all services was absent.

This report outlines five key observations and several options for protecting the Commonwealth's health and safety and finding the best means forward to transition direct service delivery. One observation and option discusses how greater flexibility in health department fees and services would counter a "one-size fits all" approach currently being used across the Commonwealth. Increased policy flexibility with respect to fees and services would allow VDH to better address localized conditions. Another observation discusses how more private sector service providers appear to be needed

in certain areas of the Commonwealth and how incentives could be considered to increase private sector participation in those areas. Another observation and option discusses how funding could be used to provide more community and decentralized sewage systems, which would likely produce savings through economies of scale while increasing private sector participation in the program.

### **Public Health Significance: Onsite Sewage and Private Well Program**

The basic tenet of public health protection is to separate and prevent contact of sewage and its various forms from humans, animals, and insects. Public health is about preventing epidemics, disease, and environmental hazards and responding to threats such as those arising from natural disasters. Public health has dramatically improved life expectancy and prevented or eliminated numerous communicable diseases since the inception of the health department.

Pathogenic organisms found in untreated or partially treated sewage pose numerous risks. Diseases are associated with the gastrointestinal tract and include dysentery diarrhea, hepatitis, cholera, epidemic viral gastro-enteritis, shigellosis, salmonellosis, and amoebiasis (Stroube, 1992 and Metcalf and Eddy, 2003). Researchers from Emory University recently discovered that norovirus in groundwater can remain infectious for at least 61 days. Human norovirus is the most common cause of acute gastroenteritis and sickens one in 15 Americans annually, causing 70,000 hospitalizations, and more than 500 deaths annually, according to the Centers for Disease Control and Prevention (Silva, 2010). The Centers for Disease Control and Prevention (CDC) has well established information on exposure to pathogens from onsite sewage systems at <http://www.cdc.gov/nceh/ehs/topics/wastewater.htm>.

High nitrate concentrations in drinking water may cause methemoglobinemia, or “blue baby’s syndrome.” Onsite sewage systems contribute nitrogen to ground water typically in the oxidized form,  $\text{NO}_3^-$  (nitrate). Nitrogen in raw wastewater exists primarily as ammonia or ammonium at a concentration of about 40 mg/l. Nitrogen is a nutrient pollutant to surface water such as the Chesapeake Bay and can create algal blooms and other eutrophic and anoxic water conditions in ponds and lakes. Onsite sewage systems also release small amounts of endocrine disruptors as medications and other personal care by-products are passed through humans to their onsite sewage systems. The Virginia Tech Extension Service conducted random sampling of private wells across Virginia and found a significant percentage were contaminated with either high concentrations of nitrate or bacteria (Ross et. al., 1994 – 2001).

VDH estimates there are about one million onsite sewage systems and two million private wells in the Commonwealth. Twenty-five to 35 percent of Virginia’s population use onsite sewage systems and private wells. Of these, about 535,000 are located within the Chesapeake Bay Watershed. VDH estimates that over 25 percent of sewage systems and water supplies (about 235,000 systems) are more than 30 years old. The effect of older systems on groundwater and health status is presently unknown. In 2011, about 21 percent of all applications received by local health

departments were to repair failing sewage systems (about 3,000 applications). These numbers confirm the need for VDH to be intimately involved in the onsite sewage and water supply program. Direct services in the program expand beyond costs and profits. Direct services protect public health by making sure pollution, contaminants, and infectious agents are effectively addressed and prevented from negatively impacting health, safety, and groundwater.

### METHODS AND LIMITS OF STUDY:

As part of the evaluation process for HB 2185, VDH revisited recommendations made during a prior evaluation of its business model in environmental health services. The Council on Virginia's Future ([www.future.virginia.gov](http://www.future.virginia.gov)) designs the roadmap for Virginia's future and provided funds to assess VDH's onsite sewage program. E.L. Hamm & Associates, a private consulting firm based in Virginia Beach, performed an extensive review of VDH's business model in 2005. In its final report, E.L. Hamm recommended VDH stop competing with private sector service providers to the extent possible and focus agency resources on risk assessment and risk management using the ten Essential Services for Environmental and Public Health (see Appendix 6). E.L. Hamm's study can be viewed at [www.vdh.virginia.gov/EnvironmentalHealth/Onsite/newsinterest/index.htm](http://www.vdh.virginia.gov/EnvironmentalHealth/Onsite/newsinterest/index.htm). The recommendations and analysis contained in the E.L. Hamm report are consistent with the intent of HB2185 to have direct services provided by the private sector. The E.L. Hamm report did not address how VDH should move away from direct service delivery only that it should do so in a slow and reasonable fashion.

VDH examined data using its statewide database and many of the figures and data below come from this database. The database provided data on the services provided across the Commonwealth and identified the number of times licensed private sector professionals or licensed VDH employees performed services. The database shows how the percentage of work performed by the private sector has changed over the last several years.

Environmental Health (EH) Managers in each of the 35 local health districts contacted stakeholders about completing an online survey and gave the option of attending an in-person interview. EH Managers were not provided direction on how to identify participants or whom to contact. Meetings were scheduled and some staff elected to hold group meetings, others chose individual interview sessions, while others elected a combination. Some EH Managers contacted a percentage of owners and customers who recently received services from the local health department. In almost all localities, staff contacted local county administration and invited elected officials and county and zoning officials. This methodology and its participant flexibility were based on understanding EH Managers in each locality knew best how to organize and invite the most interested local stakeholders.

Meetings between OEHS staff and stakeholders were scheduled as follows:

September 9—Franklin County	September 27—Accomack County
September 12—Washington County	September 28—Loudoun County
September 15—Shenandoah County	September 30—Fairfax County
September 19—Chesterfield and Powhatan County	October 5—Petersburg, Virginia
September 23—Culpeper County	October 6—Newport News, Virginia

\*All dates are 2011.

The meetings were conducted in an informal manner and VDH facilitators asked questions regarding specific issues to generate comments, concerns, and possible solutions. At times, stakeholders would have differing opinions and VDH staff guided the discussion to fully explore differences of opinion. Questions and discussion at the meetings generally followed this pattern:

1. Discuss repairs of failing onsite sewage systems. Discuss why the private sector was not handling a large percentage of this work.
2. Discuss how private sector fees and charges might change if there were a legislative mandate to use private sector work.
3. Discuss how well-only permits and well inspections would occur since most of these services have been provided at the local health department.
4. Discuss how health department fees were impacting services.
5. Discuss how important it was to have third party inspections of work performed by licensed professionals and contractors.
6. Discuss whether there were enough private sector service providers to ensure a competitive environment with sufficient choice for consumers.
7. Discuss ways to increase private sector input.

In addition to the in-person meetings, OEHS staff developed the online survey using a proprietary service called Survey Monkey ([www.surveymonkey.com](http://www.surveymonkey.com)). Questions were designed to understand the “as-is” or current reality for service providers. Questions also tried to identify what effects HB 2185 might have. Appendix 4 contains the survey questions and Appendix 5 has the results and answers.

OEHS contacted the Virginia Onsite Wastewater Recycling Association, the Sewage Handling and Disposal Advisory Committee, and the Virginia Environmental Health Association about the survey. VOWRA added a link on its website to the survey. The survey was available from September 30 through October 14, 2011. Mr. Allen Knapp, Director of DOSWSEEMP, discussed the survey at VOWRA’s fall conference in Richmond, Virginia on October 7, 2011. A few phone interviews were conducted about the survey as stakeholders contacted OEHS staff about the meetings and online surveys.

The data collected through the interviews and on-line survey has significant limitations. First, the online survey and interviews were not beta tested to screen out leading questions. Next, respondents were not randomly selected. Those who

responded to the online survey or attended one of the regional meetings were made aware of these options through a non-uniform process. Respondents were likely those who were keenly interested in the subject and who had a high amount of motivation regarding the subject being discussed and its outcome. Despite the agency's best effort to let all stakeholders know of the meetings and online survey, some stakeholders may not have known.

Because of these limitations, the data cannot be interpreted as representative of any group of stakeholders. Statistical analysis of the results would be misleading. Nevertheless, the data does provide important anecdotal information and illustrates the range of concerns among various stakeholders about the onsite sewage program as it currently exists as well as the future of the program. Each summary in Appendix 3 reflects the weight of opinion voiced during that particular public meeting. Each summary should not be read as the conclusive opinion of all stakeholders at the meeting. Summaries in Appendix 3 are not based upon specific data, but rather the overriding tenor of discussion.

### **Observations and Options:**

**Observation #1:** There is no "one-size-fits-all" solution.

The Commonwealth has extraordinary diversity. A solution in one region may not be a solution elsewhere. In the absence of a legislative mandate to use private sector services, some regions of the Commonwealth now approach 100 percent use of the private sector while other regions have a private sector utilization rate of less than five percent. Free market dynamics are already working such that the private sector is providing services where there is sufficient demand and profit. The wide range of private sector input indicates regional policies rather than one statewide policy would best increase private sector participation across the state.

#### Options:

- a. Create latitude for VDH to implement differing regional policies and fee structures to work with the strengths and needs of each region. Regional policy differences should consider a number of factors:
  1. The number of licensed private sector persons available and their willingness to provide services.
  2. The volume of work available in the region.
  3. Types of applications received within the region.
  4. The number of licensed public sector employees available to assist the community.



5. The region's median family income, median value of property, or the median value of the cost of work performed for onsite sewage services.
- b. Explore regional changes in the application process where conditions are ripe for increasing private sector input. Basic economic principles predict the private sector gravitates toward the most profitable work, which tends to be new construction and new subdivision development. In those areas where the private sector could perform additional services in new development, VDH should no longer accept "bare applications" for certification letters, designs from certification letters, voluntary upgrades, or review of existing systems. In those areas where there is not a sufficient number of private sector providers, the health department would likely need to continue providing these services until a robust private sector forms.
  - c. Create greater flexibility in the onsite sewage and private water supply programs by increasing general fund support. Presently, environmental health provides a number of services that are not supported with user fees and are not positioned for user fees (e.g., rabies and complaint investigations, enforcement activities for regulatory violations, repairs of onsite sewage systems, responding to customer questions and regulatory matters, advising local governments on planned developments, operation and maintenance, etc.). In recent years, general funding to support environmental health services has decreased while fees for specific services increased in a somewhat offsetting fashion. Increasing general fund support for environmental health services, instead of increasingly relying on a "fee for service" model would help VDH address regional differences.

With adequate general fund support, VDH could have regional fees that differed instead of one statewide fee. Regional fee differences could be used to encourage participation from the private sector. Presently, there is about a \$200.00 difference between "bare" applications—those without private sector work—and applications with supporting private sector work. This difference is effective and not a hindrance where high private sector work is already occurring. However, stakeholders in rural regions indicated at the in-person regional meetings the \$200.00 fee difference was a barrier and created an environment where only those in need of specialized or speedy service would go to the private sector. VDH could lower fees in certain areas to encourage the use of private sector work if adequate general fund support existed.

**Observation #2:** Small and rural communities lack access to a competitive private sector market place (according to stakeholders in the rural areas).

Many stakeholders believed small and rural communities lack access to private sector service providers. As such, these communities could not realize the full potential of a legislative mandate to use private sector work. As one stakeholder observed, “there is not a competitive and free market in our county. There is not enough work and the health department is the only competitor.” Unless or until a competitive free market develops in rural areas with lower volumes of work as compared to faster developing regions, a legislative mandate to only use private sector service providers would likely prove ineffective.

Options:

- a. Incentivize the relocation or expansion of the private sector in rural areas to enhance competition and availability. Incentives could include tax credits, reimbursement of education and training expenses, reduction of license fees, or other business grants. In other professions such as nursing, teaching, dental, and medical/physician, students may receive grants and funding if they are willing to work in underserved communities. Licensed professionals also receive benefits if they are willing to relocate businesses to underserved communities. Such incentive programs might increase the number of private sector service providers in rural areas lacking enough private sector service providers.

**Observation #3:** The private sector is unwilling to perform certain services 100 percent of the time according to most stakeholders.

The most profitable work for the private sector is new construction and subdivision development work. Across the Commonwealth, the private sector is already providing more than 70 percent of subdivision and new development work. However, repairing failing sewage systems presents some unique challenges-it is less profitable (or unprofitable), more prone to liability concerns, is associated with a criminal violation, and is subject to significant professional discretion.

Options:

- a. Create funding sources to assist qualified owners in receiving betterment loans or grants when they cannot afford to repair or upgrade their sewage systems. Criteria for qualification would likely include application of the Federal poverty guidelines in some fashion. Such loans or grants should be sufficient to cover the costs of private sector services. Legislation approved

in 2009 (*Va. Code* § 32.1-164.1.2) created the betterment loan eligibility program for owners to seek private lending. To date, no lender has come forward to provide betterment loans. The lack of funding options for repairs and upgrades prevents the speedy resolution of threats to public health and the environment.

- b. Create funding sources to reimburse the private sector for providing unprofitable services.

Funding could come from either private or public sources. Private sources might include creation of a foundation, a volunteer organization, or a non-profit company designed to solicit tax deductible donations. Public source funding could result from changes to the Water Quality Improvement Fund (WQIF), redirecting taxpayer funds historically used to upgrade sewage treatment plants, or the creation of a fund specific to onsite sewage and water services. Such funding would likely have the added benefit of creating community based solutions rather than single point upgrades.

- c. Create a non-profit volunteer organization to provide pro-bono work to people with failing sewage systems in need of repair.
- d. Change the licensing requirements such that licensees would be required to provide a certain amount of pro-bono work. The methods used in the legal profession could be considered as a template.

**Observation #4:** Transitioning services will likely increase the costs to owners who seek onsite sewage services.

Numerous stakeholders who attended the in-person regional meetings believed a legislative mandate to hire private sector service professionals would act against free market forces. These participants believed a mandate to use the private sector would increase the demand for private sector services, while the number of licensed service providers would remain constant. Costs would increase because demand would rise and the supply side would remain flat. Others speculated many private sector service providers would increase rates when customers were required to use them. Nearly 75 percent of septic tank contractors reported on the online survey that private sector costs would slightly increase to significantly increase. Some service providers at the in-person meetings seemed to agree that private sector fees and charges would increase with a mandate to use their services. Other services providers at the in-person meetings disagreed. More than 75 percent of (OSE) designers reported no change or a slight decrease with a legislative mandate to use their services.

When owners hire the private sector, they typically incur two types of charges: the fees charged by the private sector for service delivery and the fees charged by VDH

to process the application, issue a permit, and provide programmatic management and oversight. VDH does not charge its actual cost for providing direct services like the private sector. VDH fees are set by the General Assembly through legislation and do not represent the total cost of providing direct services or providing programmatic oversight and management. VDH offers a number of services that cannot be easily recovered with a fee for service (e.g., complaint investigations, quality checks of private sector work, record-keeping and file search, etc.).

As noted above, VDH charges about \$200.00 less for an application where the owner has previously retained private sector help. Stakeholders at the in-person meetings did not believe the \$200.00 fee difference was large enough to encourage owners to use the private sector. Participants felt customers preferentially sought VDH services because the fees VDH charged were substantially less than what the private sector charged. However, no one at the meetings suggested VDH should increase its fees to be comparable with private sector charges, which were subject to free market forces, quick fluctuations, and regional differences. Regardless of the fee difference and its impact on the use of the private sector, stakeholders who were not service providers generally thought private sector costs would increase with a legislative mandate like the one proposed with HB 2185.

Owners are not charged VDH fees to repair failing onsite sewage systems. VDH provides these services without charge. In the online survey, 60 percent of the environmental health specialists who responded to the survey reported they spent up to 16 hours per repair application. Private sector service providers at the in-person meetings acknowledged this fact by saying repair work was difficult, time-consuming, and less profitable compared to other work in new construction. Owners with failing sewage systems who could have received free services from the health department would likely see a significant increase in costs for services if the private sector were mandated to perform it.

In addition to these potential fee increases, end users of services might see other costs increase. For example, at the in-person meetings, stakeholders discussed whether owners would receive “waivers” pursuant to Va. Code [§32.1-164.1:1](#). Several private sector stakeholders noted they would not provide waivers to owners. These private sector providers were concerned about liability and protecting groundwater, which they felt would be at risk without the use of higher cost designs. This response indicates that some owners might not find private sector designers who are willing to propose repairs with waivers, which will increase repair costs.

There are various possibilities to reduce costs that service providers charge. Precedent has been established in the Code of Virginia to limit fees charged by private sector service providers. For example, vehicle inspection stations have a statutory limit for what they can charge to inspect any vehicle. Appendix 8 includes a copy of the legislation setting fees for inspecting a vehicle by private sector service providers. Private sector service providers are not compelled to accept customers or perform the specific service; but if they choose to do the work, then the fee for that service is set by

code. Many stations perform inspections knowing that additional (more profitable) work will be needed by the customer at some point.

Options:

- a. Establish fees that can be charged by licensed service providers to perform certain direct services in the onsite sewage and water supply program. There is precedent for setting fees for vehicle inspections. The vehicle inspection model could be extended to services provided in the onsite sewage program.
- b. Create regional base rates or regional subsidies to help control costs for repair work. This option could act as a cap on costs to owners in need of repairs. Any base rate or regional subsidy would be dependent on a number of unique factors as described in Option 1.a above. Setting or mandating specific VDH fees or private sector fees could be viewed as a deterrent to free market influences, which could reduce marketplace competition.
- c. Address liability and environmental impact concerns of the private sector design community so owners can be ensured access to waivers pursuant to Va. Code [§32.1-164.1:1](#). Reducing exposure to liability concerns could result in lower fees from reduced risk exposure.

**Observation #5:** The greatest opportunity for increasing private sector work lies in developing community (or decentralized) systems.

With community and decentralized sewage systems, greater need for private consulting is created with the added benefit of offering savings through economies of scale. Cost barriers for operation and maintenance and infrastructure would lessen, and likely help more people and communities with sewage system and water supply upgrades.

Options:

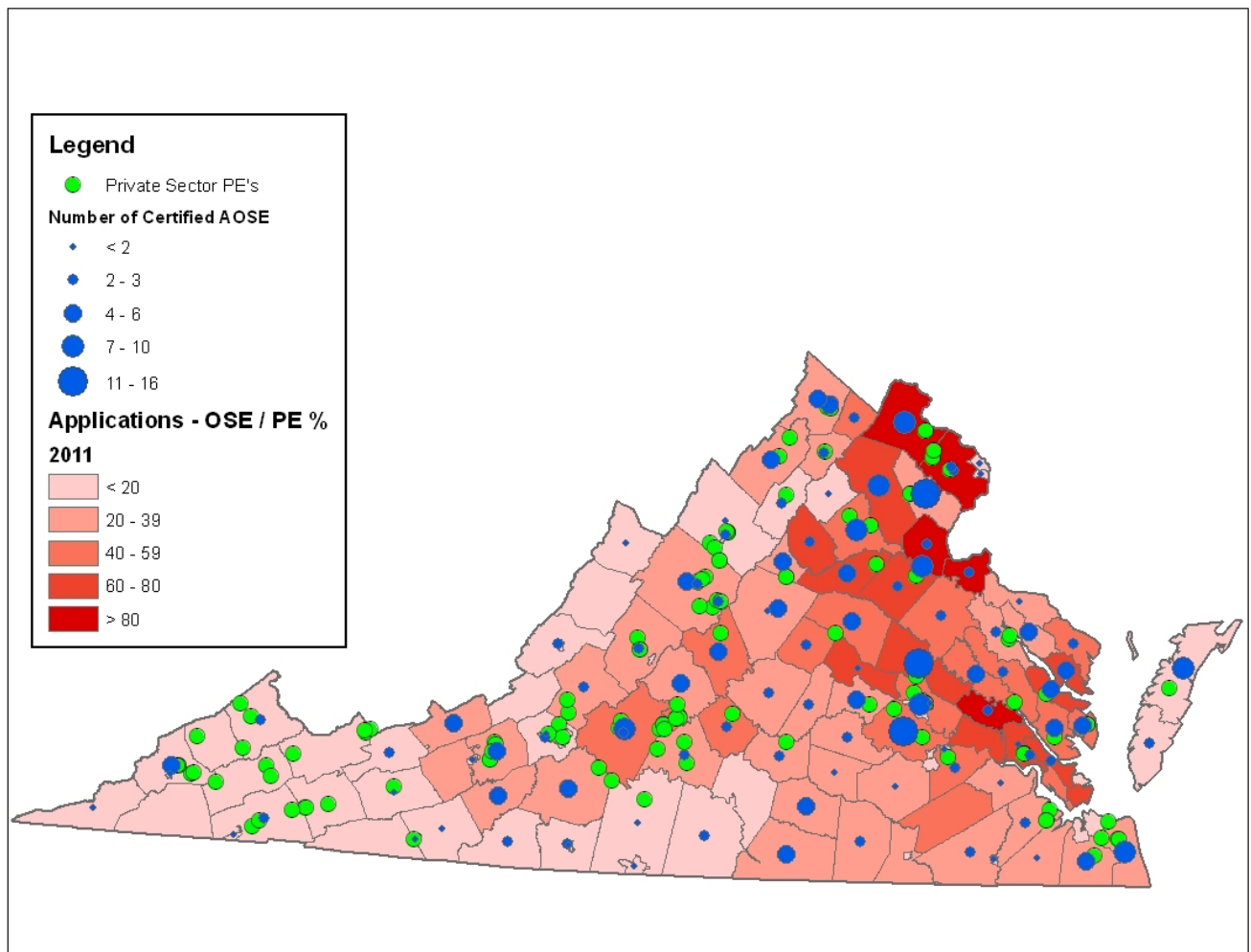
- a. Create a fund or seek grants to encourage decentralized or community systems. As noted above, funding could come from either private or public sources and would likely create an effective environment for community based solutions rather than single point upgrades.
- b. Enhance training opportunities for all stakeholders, including VDH staff, private sector designers, county planning commissions and staff, and elected officials. At the in-person meetings, several stakeholders expressed concern about VDH staff maintaining expertise and competency if they were no longer providing direct services. A few attendees at the in-person meetings opined localities and private sector designers were hesitant or reluctant to use

community systems perhaps because they were unfamiliar with the benefits or thought it was too difficult to get them approved. Increasing and enhancing understanding of community systems would help ensure expertise and competency among all stakeholder groups.

### Capacity and Distribution of Private Sector Service providers:

This section describes the capacity of the private sector to take on additional work. Significant variability of private sector input is observed across the Commonwealth. The northern and eastern regions of the Commonwealth have a relatively higher percentage of private sector input compared to southwestern Virginia, which has an extraordinarily low percentage in comparison. The majority of private sector providers live in the northern and eastern regions of the Commonwealth.

Figure 1.0: Distribution of Private Sector Service Providers and Amount of Their Work



As service providers address more rural communities, greater amounts of time and resources are usually needed as compared to more densely populated areas. More densely populated areas tend to have higher land values and smaller lot sizes, both of which increase the likelihood for alternative onsite sewage systems (AOSS) and higher-profit activities. Generally, private consultants can perform more work per day at a higher margin in more densely populated regions compared to rural counterparts. In rural areas, service providers must travel longer distances to accomplish the same amount of work. In densely populated areas with traffic delays, proximity to work can also sometimes take just as long to go from one location to the next. However, in densely populated areas, a work location may have several additional jobs in the same vicinity.

Private sector OSEs reported they routinely travel 25 to 100 miles from home base of operations to work locations. A smaller number traveled up to 150 miles. Only 7.1 percent of the private sector OSEs traveled more than 150 miles. The work location of the OSE is important because each OSE’s sphere of influence only extends a certain distance to assist potential customers.

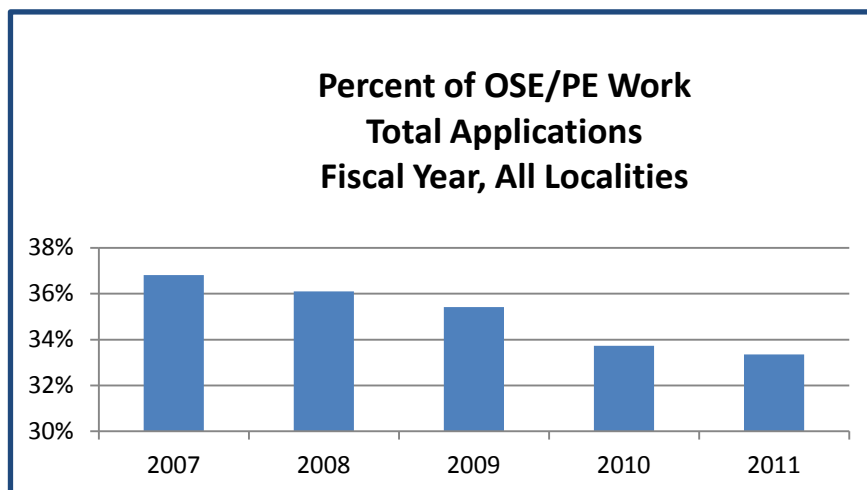
Figure 1.1: Maximum Distance Private Sector OSE Travels

What is the maximum distance that you travel from your base business location to provide O&M services?		
Answer Options	Response Percent	Response Count
Less than 25 miles	14.3%	4
25 to 100 miles	67.9%	19
101 to 150 miles	10.7%	3
151 to 200 miles	0.0%	0
More than 200 miles	7.1%	2

Presently, the Commonwealth has 208 private sector OSEs and about 145 professional engineers who perform services in the onsite sewage program. Given the limited distance an OSE or PE routinely travels from a base location, increasing the number of service providers would likely improve cost competition and capacity of the private sector.

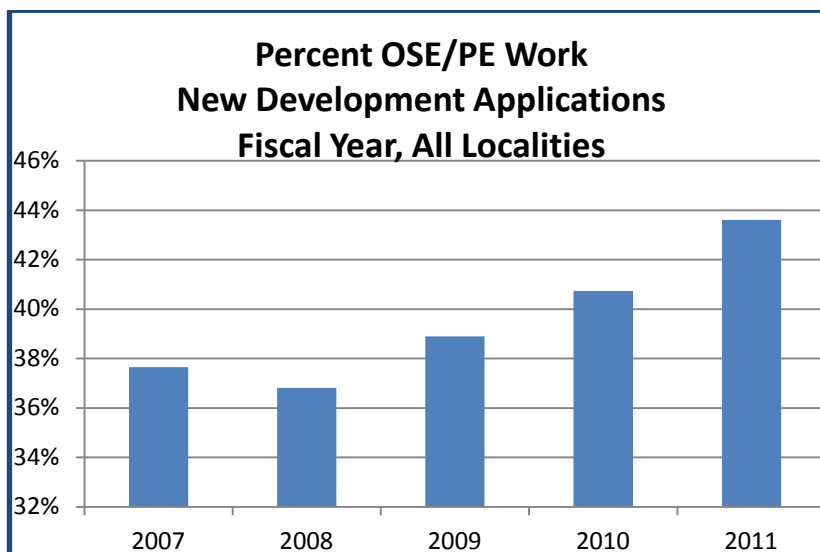
The overall percentage of private sector service delivery for all types of service categories has been declining over the past five years. This is because private sector service providers have historically concentrated services in more lucrative areas; namely new development for subdivisions and new housing development. New development, as a relative percentage of overall work, has been declining while repair and other applications remained steady.

Figure 1.2: Percent of OSE/PE Work, Total Applications



Despite the lower percentage of work over time with regard to total applications, the private sector is continuing to do a greater percentage of work in the more lucrative area of new development.

Figure 1.3: Percent of OSE/PE Work, New Development



New development services have seen dramatic declines over the past five years as building applications have fallen in the sluggish economy. The private sector is continuing to do a greater percentage of work in the more lucrative service sectors for new development. This greater percentage of work is happening naturally over time without any legislative mandate to use private sector work.



## Business Model Discussion:

VDH implements laws and regulations that protect public health via 35 health districts comprising 119 local health departments. Local health departments continue to provide important direct services to the public, especially with respect to failing onsite sewage systems and review of existing systems. Figure 1.4 lists many of the services local health departments provide to citizens of the Commonwealth. Many communities depend on their local health departments for plan review, unbiased public health advice, interpreting VDH regulation and policy, providing programmatic awareness of the sewage system program, educating communities on public health impacts from wells and sewage systems, and communicating values and priorities for environmental public health. Private sector service providers also depend on VDH for these services and sometimes direct service delivery is a joint effort, especially with respect to repairing failing sewage systems.

**Figure 1.4: Some of the Services Offered by the Virginia Department of Health**

Plan reviews for local governments	Designs of conventional onsite sewage systems
Courtesy reviews of private sector work	Complaint investigations
Engineering plan reviews	Proprietary product reviews
Inspections of wells and sewage systems	Repair evaluations and designs
Site and soil evaluations	Review of existing sewage systems
Sanitary surveys for well and sewage system installations	Quality assurance checks of private sector service providers
Voluntary upgrade evaluations	Rabies investigations
Safe, adequate and proper inspections	Well abandonment inspections
Operation and Maintenance Oversight	Total Maximum Daily Load (TMDL) program

Note: Not all services are listed.

Site and soil evaluations, septic system design, sanitary surveys for wells, and inspection services are all time consuming work and becoming more complex as technological improvements continue. With the adoption of Va. Code [§ 32.1-163.6](#), complexity in the program will advance as engineered sewage systems become more prevalent across the Commonwealth. With this complexity and no new input of resources to VDH, the agency must increasingly rely on private sector service providers to oversee and manage the onsite sewage program.

The Institute of Medicine (IOM) described three core functions for local health departments in its 1988 Report to Congress: Assessment, Policy Development, and Assurance (IOM, 1988). The three core functions were used to develop the 10 Essential Services for Environmental Public Health (see Appendix 8). The Centers for Disease Control and Prevention (CDC) offered insights and a framework for services other than site and soil evaluations and designs as more direct services are provided by the private sector ([www.cdc.gov/nphsp/essentialservices.html](http://www.cdc.gov/nphsp/essentialservices.html)):

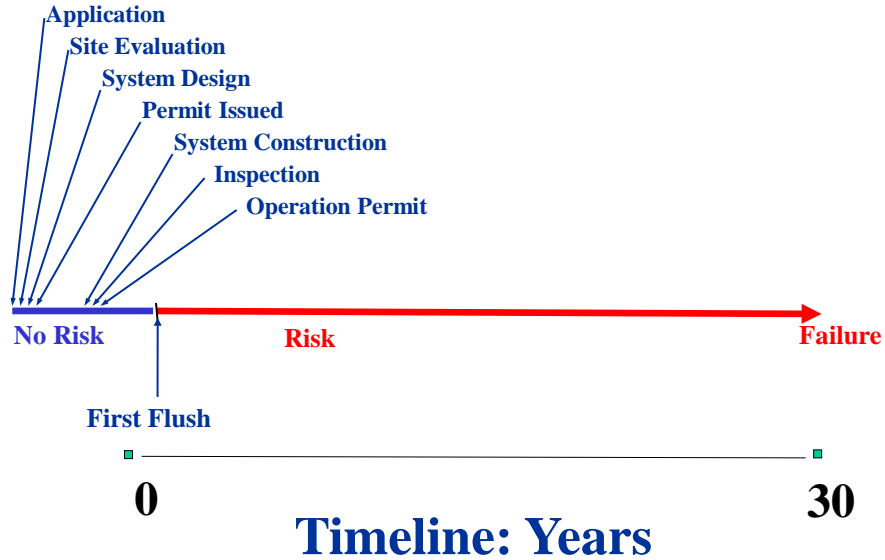
**Figure 1.5: Essential Services for the Health Department**

<b>Essential Services</b>	<b>Questions to Answer</b>
Understand health issues at the state and community levels	<i>What's going on in our state/community with respect to onsite sewage and private wells? Do we know how sewage systems are impacting public health? What's our data telling us?</i>
Identify and respond to health problems or threats	<i>Are we ready to respond to health problems or threats from onsite sewage systems? How quickly do we find out about problems with failing onsite sewage systems? How effective has our response been in correcting failing sewage systems?</i>
Keep people informed about health issues and healthy choices.	<i>How well do we keep all people informed about health issues related to onsite sewage? Where are the sewage systems and wells in the Chesapeake Bay Watershed?</i>
Engage people and organizations in health issues.	<i>How well do we get people and organizations engaged in the onsite sewage program? How can people prevent early system failures?</i>
Plan and implement sound health policies.	<i>What policies promote long-term functioning of sewage systems? How effective are we in identifying and fixing failing onsite sewage systems? What are the conditions that lead to early sewage system failure?</i>
Enforce public health laws and regulations.	<i>When we enforce regulations are we up-to-date, technically competent, fair and effective? What rules are needed and why?</i>
Make sure people receive the onsite sewage services they need.	<i>Are people receiving quality and timely services? Why not?</i>
Maintain a competent public health workforce.	<i>Do we have a competent public and private sector? How do we maintain knowledge, skills and abilities?</i>
Evaluate and improve programs.	<i>Are we doing any good? Are we doing things right? Are we doing the right things?</i>
Support innovation and identify and use best practices.	<i>Are we using new ways to get the job done? How are we innovating?</i>

Figure 1.6 depicts the historical regulatory paradigm of direct service delivery for onsite sewage systems and wells. Most of the agency's efforts and resources have been tied to events and activities before a sewage system is installed. VDH spends significant effort in planning where onsite sewage systems can be installed to prevent early system failure. Sewage is not being generated, treated, or dispersed into the environment for activities performed along the "blue" line. The work along the blue line makes sure sewage systems and wells are installed in the correct landscape position with suitable soil and sufficient horizontal offsets.

Many of the services described in Figure 1.6 are now offered by both the private and public sector. The increasing input of private sector services in the blue area of Figure 1.6 allows VDH to focus more of its resources into emerging areas focused in the red, such as operation and maintenance of sewage systems, monitoring health status from sewage system impacts, and other community assessments.

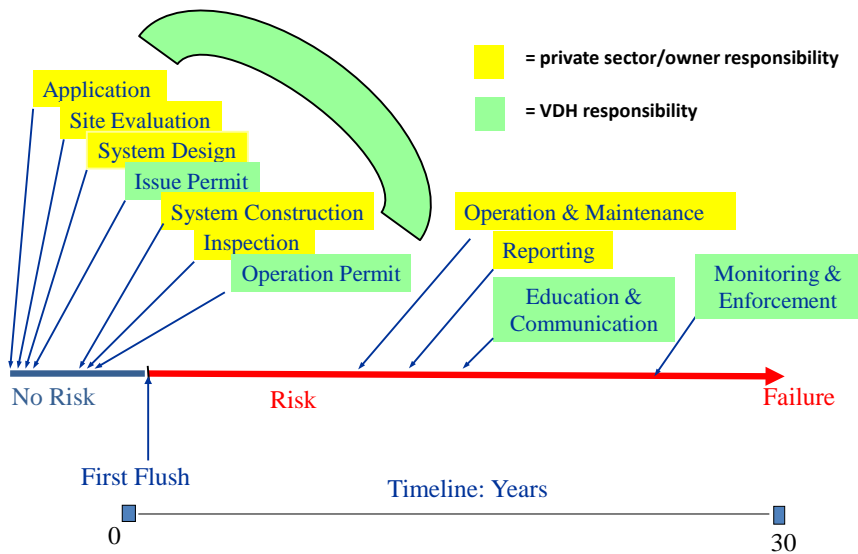
**Figure 1.6: Historical Regulatory Paradigm**



(2)

Figure 1.7 depicts the emerging regulatory paradigm for the onsite sewage and private well program.

**Figure 1.7: Emerging Regulatory Paradigm**



**Note: Owner is always legally responsible for the sewage system and private well.**

In the emerging framework, private sector service providers perform direct services for sanitary surveys, site and soil evaluations, design, and inspections. The health department, in contrast, performs quality assurance and quality control (QA/QC) checks of the private sector to ensure that bad performance is identified and appropriately addressed. VDH staff would take a more active role in monitoring, enforcement, education, and communication.

The model in Figure 1.7 is developing slowly over time and the trajectory is projecting greater collaboration and networking between VDH and the private sector. Without any legislative mandate, owners have preferentially selected and worked with private sector service providers for services in both the blue area and the red area over the past several years. Without any legislative mandate, VDH expects private sector services will continue to steadily rise over time, especially in the most profitable areas such as new development and subdivision work. VDH efforts would rise with respect to quality assurance checks of the private sector. VDH would continue to be the expert in understanding and communicating regulations that protect public health, regulatory and policy interpretations, and educating stakeholders and the community about the regulations. This paradigm would ensure a “checks and balances” system, which was deemed very important to a large percentage of responding stakeholders.

Figure 1.7 identifies possible benefits with the transition of direct services to the private sector. For example, in one urban area health district, staff reported about 11 percent of its time was used to perform direct service delivery. Staff in this district did not see a critical deficit if private sector service providers began working on all applications. This district is presently engaged in mapping failing sewage systems repaired over the past few years to assess and anticipate public health concerns. If private sector providers took over this additional 11 percent of work (usually repairs), then staff would have even more time to develop a complete inventory of sewage systems and wells. Staff could also start working with GIS mapping to identify where sewage systems were located, how old those systems were, and the failure rate of sewage systems in different regions and different age groups within the health district.

### **Stakeholder Concerns Regarding Fees**

Many stakeholders at the in-person meetings felt VDH fees for direct services were unfair to lower-income populations and provided a barrier to property development. In contrast, nearly 80 percent of the homeowners who completed the online survey thought health department fees were reasonable. Some stakeholders suggested a scalable fee structure dependent on family income or gross cost of the project instead of charging for the actual cost to provide the services. Another idea was to multiply the cost of the project by a flat percentage to determine what a property owner would pay in fees. In theory, more affluent property owners constructing larger dwellings with greater capacity systems would pay higher fees, while more modest or lower income property owners would pay less. .

Potentially, some combination of either fee structure—a fee based on income (with eligibility for assistance) or a fee based on cost of project—could be used. Property owners at or below the poverty line could qualify for fees based on income while retaining the scalable fee structure based on project cost for all other property owners. However, this idea could prove difficult to equitably implement statewide and may undermine important funding to keep health department services available. Careful planning and forecasting would be necessary to adequately predict the revenue stream generated from a scalable fee structure based on income or the size of project. Perhaps predominantly rural or low income regions could choose a different fee structure compared to more urban and affluent regions.

A majority of respondents not associated with designs and inspections thought costs would rise if the Commonwealth legislatively mandated owners use private sector services. Some respondents opined there would be an increase in demand without an equal supply increase. One person thought the health department was the market competition in certain rural areas of the Commonwealth and the cost of private sector services would rise significantly without such competition. Others thought free market forces would keep private sector prices in check after a brief initial period of uncertainty.

Stakeholders who provided direct services (operators, engineers, and onsite soil evaluators) generally felt there would be no change in costs for their services with a legislative mandate. These participants generally felt the free market would keep prices in check.

Figure 2.1: Septic Contractor Thoughts on Fees:

If all services were provided in the private sector, what do you think would happen with your fees for services?		
Answer Options	Response Percent	Response Count
No change	22.2%	4
Slight decrease	11.1%	2
Moderate decrease	0.0%	0
Significant decrease	0.0%	0
Slight increase	11.1%	2
Moderate increase	11.1%	2
Significant increase	44.4%	8

Figure 2.2: Environmental Health Specialist Thoughts on Fees:

<b>If all services were provided in the private sector, what do you think would happen with the private sector's fees for services over the next three years?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
No change	6.8%	4
Slight decrease	0.0%	0
Moderate decrease	3.4%	2
Significant decrease	1.7%	1
Slight increase	8.5%	5
Moderate increase	32.2%	19
Significant increase	47.5%	28

Figure 2.3: Homeowner Thoughts on Fees:

<b>If the health department no longer provided soil evaluations and design services, what do you think would happen with the private sector's fees for those services?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
No change	17.5%	11
Slight decrease	1.6%	1
Moderate decrease	1.6%	1
Significant decrease	6.3%	4
Slight increase	4.8%	3
Moderate increase	11.1%	7
Significant increase	57.1%	36

Figure 2.4: OSE Thoughts on Fees:

<b>If all services were provided in the private sector, what do you think would happen with your fees for services?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
No change	73.5%	36
Slight decrease	4.1%	2
Moderate decrease	8.2%	4
Significant decrease	0.0%	0
Slight increase	10.2%	5
Moderate increase	2.0%	1
Significant increase	2.0%	1

### **Stakeholder Concerns Regarding Consumer Protection:**

Many stakeholders cited concerns about ethical behavior risks. Some observed that certain private service providers wear multiple hats, and are designers, installers, operators, and product distributors. These stakeholders generally viewed the private

sector as purely profit driven and subject to poor ethical decisions when the profit motive conflicted with societal goals to protect groundwater or public health. Some of these stakeholders reported observing situations where the private consultant purposely designed unnecessary add-ons to increase profit or to develop future income streams from operation and maintenance. One person saw a multi-lot subdivision designed by the private sector with alternative technology when conventional systems were possible in many situations. This person believed additional, unnecessary design features were incorporated because the designer was also a product distributor; double dipping for profit. The local health department approved the superfluous design aspects because they were regulatory compliant, and VDH lacked any authority to deny the permits.

Those concerned about private sector ethics worried bad actors could go unidentified with a minimum 10 percent quality review—the current health department policy. To make a “checks and balances” system work, many stakeholders felt VDH should provide more spot checks of the private sector.

Figure 3.1: Homeowner Thoughts on Quality Assurance Checks

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?		
Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private sector's work because they are licensed	7.8%	5
Somewhat important, should look at a small percentage of the work	15.6%	10
Important, should look at a moderate percentage of the work	15.6%	10
Very important, should look at most of the work performed	18.8%	12
Critical and always necessary	43.8%	28
<i>answered question</i>		<b>64</b>

Figure 3.2: OSE Thoughts on Quality Assurance Checks

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?		
Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private sector's work because they are licensed	25.5%	13
Somewhat important, should look at a small percentage of the work	47.1%	24
Important, should look at a moderate percentage of the work	23.5%	12
Very important, should look at most of the work performed	3.9%	2
Critical and always necessary	3.9%	2
<i>answered question</i>		<b>51</b>

Percentage total is higher than 100% because two persons answered the question multiple ways

Figure 3.3: P.E. Thoughts on Quality Assurance Checks

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?		
Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private sector's work because they are licensed	44.4%	8
Somewhat important, should look at a small percentage of the work	22.2%	4
Important, should look at a moderate percentage of the work	16.7%	3
Very important, should look at most of the work performed	11.1%	2
Critical and always necessary	5.6%	1
<i>answered question</i>		<b>18</b>

Some contractors observed certain private sector service providers made multiple and unnecessary inspections to charge additional fees. These contractors, fearing retribution and not being selected to bid on future jobs, felt they could not file complaints as whistleblowers. VDH needed to be the identifier of bad or unethical work.

Persons concerned about motivations of the service provider stressed a checks and balance system was necessary to identify those service providers who made decisions motivated by personal gain instead of customer need. Study participants who worried about the profit motive of the private sector felt licensing boards had limited authority to discover and act on the ethical issues discussed above. They believed private sector service providers were prone to act from self-interest, which would guide ethical decision-making when personal, customer, and societal interests conflicted.

The regulated community of professional engineers and onsite soil evaluators did not see as much need for quality assurance checks of their work when compared to environmental health specialists and county officials. Notably, respondents who identified themselves as operators and contractors saw inspections of private sector work as important or critical. A majority of respondents felt that cost, timeliness of services provided, motivations of the service provider, and the quality of services were important or critical. This result differed from quality assurance checks, which were viewed as somewhat important or important. Across all respondent groups, most believed that making sure sewage systems were properly operated and maintained was important or critical.

The health department does not allow its licensed employees to perform direct services outside of their employment because of conflict of interest issues. Some participants thought lifting this restriction would provide additional and cheaper options for owners and would help keep costs down. Many environmental health specialists were concerned they could not maintain sufficient expertise without actually performing the direct services, and work outside of employment would ensure a competent workforce at VDH. These persons believed the licensed work was difficult in nature and



required routine performance of the skill set to maintain expertise. Others commented they could keep their skills and abilities up to date without performing direct services on a routine basis. They might not maintain proficiency but their knowledge and skills could be kept up to date without providing direct services.

### Stakeholder Concerns on Competition in the Marketplace:

A few stakeholders opined during the public meeting sessions that the private sector and the public sector were not competing with one another. Owners who wanted or needed detailed consulting would hire the private sector. They would seek out private sector assistance to make sure their homes could be placed in the most ideal locations and that all owner wishes and options were explored. These owners could receive evening and weekend inspections and after-hours help using private sector consultants. The private sector would spend as much time as was necessary to accommodate the owner’s wishes.

In contrast, the local health department’s statewide policy is to check only two locations on a property with each application for an onsite sewage system and VDH staff does not spend multiple hours working with each owner to make sure their property preferences are realized. For those owners who did not need or want detailed consulting, the local health department staff was best suited to provide direct services.

Figure 4.1: Consumer Reasons to Choose Health Department Services

Why did you use health department services?		
Answer Options	Response Percent	Response Count
I had to use health department services	46.7%	28
I trust health department service providers	50.0%	30
I wanted a second opinion	3.3%	2
I could not find a private sector service provider willing to perform the services	1.7%	1
I could not find a private sector service provider who could perform services fast enough to meet my need	1.7%	1
I did not know private sector service providers were available or how to contact them	1.7%	1
The private sector service providers I contacted were too expensive	16.7%	10
<i>answered question</i>		<b>60</b>

Figure 4.2: Homeowner Response on Having a Health Department Option

How important is it for you to have the option of getting health department services for site and soil evaluations and designs for wells and sewage systems?		
Answer Options	Response Percent	Response Count
Not important	23.4%	15
Somewhat important	10.9%	7
Important	10.9%	7
Very important	54.7%	35
<i>answered question</i>		<b>64</b>

### Private Sector Ambivalence Regarding Repairs:

Responding to failing sewage systems is a time-critical need. Often, the initial response is by the local health department and considerable amounts of time and resources are expended working with the owner to identify solutions. In cases of failing onsite sewage systems, VDH has an expectation for staff to respond to a customer’s needs within 24 hours. This may not be possible or practical for those working in the private sector.

Figure 5.1: OSE Thoughts on providing free services for repair work:

How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?		
Answer Options	Response Percent	Response Count
Never	20.9%	10
1	46.5%	20
2	23.3%	10
3	4.7%	2
4	2.3%	1
5 or more	2.3%	1
“Depends on how busy I am” or similar response	25.1%	12
<i>answered question</i>		<b>43</b>

Note: Forty-three (43) respondents had multiple answers to this question.

Following the local health department’s initial review and evaluation, staff sometimes recommend the owner contact a service provider in the private sector because the necessary design will require additional consulting to choose among various proprietary products and services. VDH staff does not recommend or choose specific products because VDH reviews those products, and an inherent conflict of interest exists in selecting products.

Figure 5.2: OSE Work Dedicated to Repairs

What percent of your work is dedicated to repairing failing sewage systems?		
Answer Options	Response Percent	Response Count
less than 10 percent	49.0%	25
10 to less than 25 percent	33.3%	17
25 to less than 50 percent	15.7%	8
50 percent to less than 75 percent	2.0%	1
more than 75 percent	0.0%	0

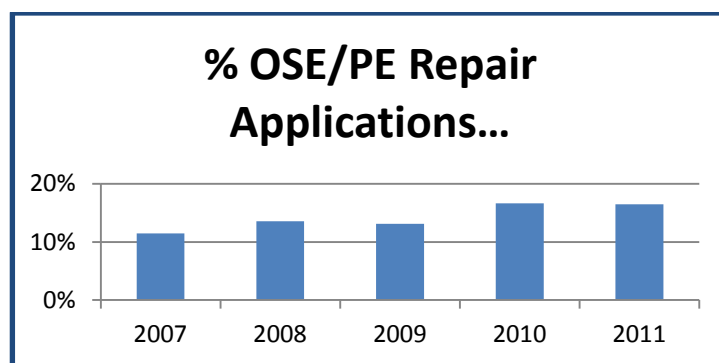
When stakeholders are asked why this amount of work is observed (and not some other number), the responses vary from “this is the kind of work for which clients hire me” to “this is the amount of work one is willing to do.”

Figure 5.3: Reasons for Providing Low Amount of Repair Work

Why do you provide this amount of service for repairing failing onsite sewage systems?		
Answer Options	Response Percent	Response Count
I do not want to do more repair work	3.2%	2
Clients only approach me if the health department can't design a repair system	52.2%	32
Clients are not willing to pay for these services because the service is done free of charge at the health department.	32.7%	20
Repairs require a significant amount of work and have a quick turn-around timeframe.	11.4%	7

Most owners do not initially choose private sector involvement for repairs. As a result, private sector input for repairing failing sewage systems has consistently fallen between 10 and 16 percent over the past five years (see Figure 5.4). Private sector work for other types of requests, such as evaluations pursuant to Va. Code § 32.1-165, is also very limited.

Figure 5.4: Percent of OSE/PE Work, Repairs

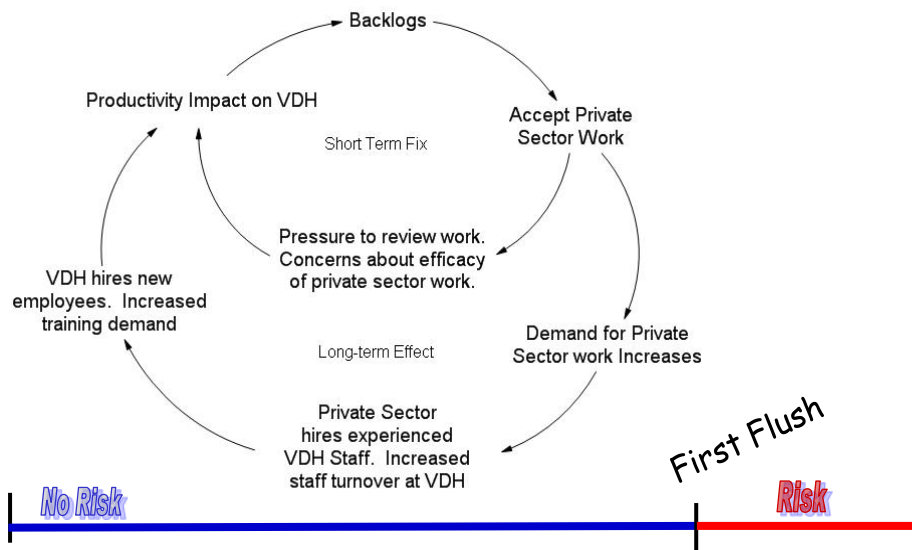


## Future considerations of transitioning services to the private sector:

Environmental health specialists who responded to the online survey identified a significant interest in continuing to provide direct services. Of the 53 who responded to the question about job satisfaction, over 95 percent reported that performing direct services was somewhat important or really important in maintaining job satisfaction. Thirty-three of 60 respondents (55%) reported they had over 10 years of experience working for VDH. The environmental health specialists who responded worried they would be stuck behind a desk if not performing direct services. These kinds of concerns must be addressed to make any transition to greater private sector service provision as smooth as possible.

Backlogs, both in the private sector and at VDH, would likely develop if the demand for all services increased. The private sector would likely focus energy and resources on the most profitable work like subdivisions and new development, and delay work less profitable and more time-consuming such as repairing sewage systems. As the backlogs increased, Figure 6.1 shows pressure would mount for increased hiring in the private sector and the best applicant pool for those jobs would likely be the experienced and licensed staff at the local health departments. As experienced health department staff left, VDH would expend additional resources training new and less experienced public health professionals. This hiring would negatively impact the speed of services offered by VDH.

Figure 6.1: Unintended Consequences with Increased Demand for Services



(7)

## References:

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5. Stroube, Robert. Health and Environmental Considerations in Evaluating Applications for Onsite Sewage Disposal Systems. *Memorandum to the Virginia Department of Health*. 1992.

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**HOUSE BILL NO. 2185**

Offered January 12, 2011

Prefiled January 12, 2011

*A BILL to amend and reenact §§ 32.1-163.5, 32.1-163.6, and 32.1-164 of the Code of Virginia, relating to submission of onsite soil evaluations for permits or letters for sewage systems.*

Patron—Lewis

Referred to Committee on Health, Welfare and Institutions

**Be it enacted by the General Assembly of Virginia:**

**1. That §§ 32.1-163.5, 32.1-163.6, and 32.1-164 of the Code of Virginia are amended and reenacted as follows:**

§ 32.1-163.5. Onsite sewage evaluations.

A. Notwithstanding other provisions of this chapter, for purposes of subdivision review, permit approval, and issuance of letters for residential development, the Board, Commissioner, and Department of Health shall accept private site evaluations and designs, in compliance with the Board's regulations for septic systems and other ~~on-site~~ onsite sewage systems, designed and certified by a licensed professional engineer, in consultation with an authorized ~~on-site~~ onsite soil evaluator, or by an authorized ~~on-site~~ onsite soil evaluator. The evaluations and designs included within such submissions shall be certified as complying with the Board's regulations implementing this chapter. *The Department shall perform a field check of private evaluations and designs prior to issuing the requested letter, permit or approval only in cases in which such review is deemed necessary to protect the public health and integrity of the Commonwealth's environment.*

B. ~~The Department shall not be required to perform a field check of private evaluations and designs prior to issuing the requested letter, permit or approval; however, the Department may conduct such review of the work and field analysis as deemed necessary to protect the public health and integrity of the Commonwealth's environment.~~ Within fifteen 15 working days from the date of written submission of a request for approval of a site evaluation and design for a single lot construction permit, and within ~~sixty~~ 60 days from the date of written submission of a request for approval of a site evaluation and design for multiple lot certification letters or subdivision review, the Department shall (i) issue the requested letter, permit or approval or (ii) set forth in writing the specific reasons for denial. If the Department fails to take action to approve or disapprove the designs, evaluations, or subdivision reviews within the time specified herein, the designs, evaluations or subdivision reviews shall be deemed approved and the appropriate letter, permit or approval shall be issued. Notwithstanding any other provision of law or the provisions of any local ordinance, counties, cities and towns shall comply with the time limits set forth in this subsection.

C. Nothing in this section shall authorize anyone other than an individual licensed as a professional engineer pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 to engage in the practice of engineering.

D. The provisions of this section shall not apply to any locality that has entered into a contract with the Board of Health in accordance with Chapter 678 of the 1994 Acts of Assembly nor to a proprietary, pre-engineered septic system deemed by the Department to comply with the Board's regulations.

§ 32.1-163.6. Professional engineering of onsite treatment works.

A. Notwithstanding other provisions of this chapter, for purposes of permit approval, the Board, Commissioner, and Department of Health shall accept treatment works designs from individuals licensed as professional engineers pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1. The designs shall (i) be compliant with standard engineering practice and performance requirements established by the Board and those horizontal setback requirements necessary to protect the public health and the environment, (ii) reflect that degree of skill and care ordinarily exercised by licensed members of the engineering profession practicing at the time of performance, (iii) be appropriate for the particular soil characteristics of the site, and (iv) ensure that the treatment works will meet or exceed the discharge, effluent, and surface and ground water quality standards for systems otherwise permitted pursuant to the regulations implementing this chapter.

B. The Department ~~may~~ shall conduct such review of the work and field analysis as *only in cases in which such review is deemed necessary to protect the public health and integrity of the Commonwealth's environment.*

C. Within 21 calendar days from the date of application for treatment works sized at 1,000 gallons per day or smaller, and within 60 calendar days from the date of application for treatment works sized

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59 at more than 1,000 gallons per day, the Department shall (i) issue the requested approval; or (ii) set  
60 forth in writing the specific reasons for denial.

61 D. The Department shall establish an engineering design review panel to review the Department's  
62 decision to disapprove an onsite sewage system design. The Commissioner shall appoint four individuals  
63 licensed as professional engineers pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 with expertise  
64 in onsite sewage systems to serve on the engineering design review panel with (i) one representing the  
65 Department of Health, (ii) one representing the Department of Environmental Quality, (iii) one  
66 representing the Virginia Society of Professional Engineers, and (iv) one representing the American  
67 Council of Engineering Companies of Virginia. If a state agency is unable to provide a representative in  
68 accordance with this subsection, the Commissioner shall appoint another individual licensed as a  
69 professional engineer pursuant to Chapter 4 (§ 54.1-400 et seq.) of Title 54.1 with expertise in onsite  
70 sewage systems. The members of the design review panel shall appoint a member to serve as Chairman.  
71 The design review panel shall be designated a subordinate, as defined in § 2.2-4001, and shall meet as  
72 necessary.

73 E. When the Department denies an application pursuant to subsection D, the owner may appeal that  
74 decision in accordance with § 32.1-164.1. Alternatively, the owner, or the professional engineer  
75 responsible for an onsite sewage system design with the owner's written consent, may request an  
76 informal fact-finding conference before the engineering design review panel established in subsection D.  
77 The request must (i) be in writing, (ii) be received by the Commissioner within 30 days of the  
78 professional engineer's receipt of the Department's denial, and (iii) cite the reason or reasons for the  
79 request. The informal fact-finding conference shall be held within 45 calendar days of the request. The  
80 proceedings of the engineering design review panel shall be governed by the provisions of the  
81 Administrative Process Act (§ 2.2-4000 et seq.). Within 30 days following its receipt of the engineering  
82 review panel's written recommendations, the Department shall consider the recommendations of the  
83 engineering design review panel and approve the application or re-affirm its denial.

84 F. When the Department denies an application following review by the engineering design review  
85 panel, the owner may appeal that decision in accordance with § 32.1-164.1.

86 G. This section shall not be construed to require an owner to seek review by the engineering design  
87 review panel before appealing a permit denial pursuant to § 32.1-164.1.

88 H. This section shall not be construed to prohibit any locality from adopting or enforcing any  
89 ordinance duly enacted pursuant to Chapter 21 (§ 15.2-2100 et seq.) of Title 15.2.

90 I. All treatment works designs permitted pursuant to this section shall comply with operation,  
91 maintenance, and monitoring requirements as set forth in regulations implementing this chapter.

92 § 32.1-164. Powers and duties of Board; regulations; fees; onsite soil evaluators; letters in lieu of  
93 permits; inspections; civil penalties.

94 A. The Board shall have supervision and control over the safe and sanitary collection, conveyance,  
95 transportation, treatment, and disposal of sewage by onsite sewage systems and alternative discharging  
96 sewage systems, and treatment works as they affect the public health and welfare. The Board shall also  
97 have supervision and control over the maintenance, inspection, and reuse of alternative onsite sewage  
98 systems as they affect the public health and welfare. In discharging the responsibility to supervise and  
99 control the safe and sanitary treatment and disposal of sewage as they affect the public health and  
100 welfare, the Board shall exercise due diligence to protect the quality of both surface water and ground  
101 water. Upon the final adoption of a general Virginia Pollutant Discharge Elimination permit by the State  
102 Water Control Board, the Board of Health shall assume the responsibility for permitting alternative  
103 discharging sewage systems as defined in § 32.1-163. All such permits shall comply with the applicable  
104 regulations of the State Water Control Board and be registered with the State Water Control Board.

105 In the exercise of its duty to supervise and control the treatment and disposal of sewage, the Board  
106 shall require and the Department shall conduct regular inspections of alternative discharging sewage  
107 systems. The Board shall also establish requirements for maintenance contracts for alternative  
108 discharging sewage systems. The Board may require, as a condition for issuing a permit to operate an  
109 alternative discharging sewage system, that the applicant present an executed maintenance contract. Such  
110 contract shall be maintained for the life of any general Virginia Pollutant Discharge Elimination System  
111 permit issued by the State Water Control Board.

112 B. The regulations of the Board shall govern the collection, conveyance, transportation, treatment and  
113 disposal of sewage by onsite sewage systems and alternative discharging sewage systems and the  
114 maintenance, inspection, and reuse of alternative onsite sewage systems. Such regulations shall be  
115 designed to protect the public health and promote the public welfare and may include, without  
116 limitation:

117 1. A requirement that the owner obtain a permit from the Commissioner prior to the construction,  
118 installation, modification or operation of a sewerage system or treatment works except in those instances  
119 where a permit is required pursuant to Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1.

120 2. Criteria for the granting or denial of such permits.

- 121 3. Standards for the design, construction, installation, modification and operation of sewerage systems  
122 and treatment works for permits issued by the Commissioner.
- 123 4. Standards governing disposal of sewage on or in soils.
- 124 5. Standards specifying the minimum distance between sewerage systems or treatment works and:
- 125 (a) a. Public and private wells supplying water for human consumption,;
- 126 (b) b. Lakes and other impounded waters,;
- 127 (c) c. Streams and rivers,;
- 128 (d) d. Shellfish waters,;
- 129 (e) e. Ground waters,;
- 130 (f) f. Areas and places of human habitation,;
- 131 (g) g. Property lines.
- 132 6. Standards as to the adequacy of an approved water supply.
- 133 7. Standards governing the transportation of sewage.
- 134 8. A prohibition against the discharge of untreated sewage onto land or into waters of the  
135 Commonwealth.
- 136 9. A requirement that such residences, buildings, structures and other places designed for human  
137 occupancy as the Board may prescribe be provided with a sewerage system or treatment works.
- 138 10. Criteria for determining the demonstrated ability of alternative onsite systems, which are not  
139 permitted through the then current sewage handling and disposal regulations, to treat and dispose of  
140 sewage as effectively as approved methods.
- 141 11. Standards for inspections of and requirements for maintenance contracts for alternative  
142 discharging sewage systems.
- 143 12. Notwithstanding the provisions of subdivision 1 above and Chapter 3.1 of Title 62.1, a  
144 requirement that the owner obtain a permit from the Commissioner prior to the construction, installation,  
145 modification, or operation of an alternative discharging sewage system as defined in § 32.1-163.
- 146 13. Criteria for granting, denying, and revoking of permits for alternative discharging sewage  
147 systems.
- 148 14. Procedures for issuing letters recognizing onsite sewage sites in lieu of issuing onsite sewage  
149 system permits.
- 150 15. Performance requirements for nitrogen discharged from alternative onsite sewage systems that  
151 protect public health and ground and surface water quality.
- 152 C. A fee of \$75 shall be charged for filing an application for an onsite sewage system or an  
153 alternative discharging sewage system permit with the Department. Funds received in payment of such  
154 charges shall be transmitted to the Comptroller for deposit. The funds from the fees shall be credited to  
155 a special fund to be appropriated by the General Assembly, as it deems necessary, to the Department for  
156 the purpose of carrying out the provisions of this title. However, \$10 of each fee shall be credited to the  
157 Onsite Sewage Indemnification Fund established pursuant to § 32.1-164.1:01.
- 158 The Board, in its regulations, shall establish a procedure for the waiver of fees for persons whose  
159 incomes are below the federal poverty guidelines established by the United States Department of Health  
160 and Human Services or when the application is for a pit privy or the repair of a failing onsite sewage  
161 system. If the Department denies the permit for land on which the applicant seeks to construct his  
162 principal place of residence, then such fee shall be refunded to the applicant.
- 163 From such funds as are appropriated to the Department from the special fund, the Board shall  
164 apportion a share to local or district health departments to be allocated in the same ratios as provided  
165 for the operation of such health departments pursuant to § 32.1-31. Such funds shall be transmitted to  
166 the local or district health departments on a quarterly basis.
- 167 D. In addition to factors related to the Board's responsibilities for the safe and sanitary treatment and  
168 disposal of sewage as they affect the public health and welfare, the Board shall, in establishing  
169 standards, give due consideration to economic costs of such standards in accordance with the applicable  
170 provisions of the Administrative Process Act (§ 2.2-4000 et seq.).
- 171 E. Further a fee of \$75 shall be charged for such installation and monitoring inspections of  
172 alternative discharging sewage systems as may be required by the Board. The funds received in payment  
173 of such fees shall be credited to a special fund to be appropriated by the General Assembly, as it deems  
174 necessary, to the Department for the purpose of carrying out the provisions of this section. However,  
175 \$10 of each fee shall be credited to the Onsite Sewage Indemnification Fund established pursuant to  
176 § 32.1-164.1:01.
- 177 The Board, in its regulations, shall establish a procedure for the waiver of fees for persons whose  
178 incomes are below the federal poverty guidelines established by the United States Department of Health  
179 and Human Services.
- 180 F. Any owner who violates any provision of this section or any regulation of the Board of Health or  
181 the State Water Control Board relating to alternative discharging sewage systems or who fails to comply



182 with any order of the Board of Health or any special final order of the State Water Control Board shall  
183 be subject to the penalties provided in §§ 32.1-27 and 62.1-44.32.

184 In the event that a county, city, or town, or its agent, is the owner, the county, city, or town, or its  
185 agent may initiate a civil action against any user or users of an alternative discharging sewage system to  
186 recover that portion of any civil penalty imposed against the owner which directly resulted from  
187 violations by the user or users of any applicable federal, state, or local laws, regulations, or ordinances.

188 G. The Board shall establish and implement procedures for issuance of letters recognizing the  
189 appropriateness of onsite sewage site conditions in lieu of issuing onsite sewage system permits. The  
190 Board may require that a survey plat be included with an application for such letter. Such letters shall  
191 state, in language determined by the Office of the Attorney General and approved by the Board, the  
192 appropriateness of the soil for an onsite sewage system; no system design shall be required for issuance  
193 of such letter. The letter may be recorded in the land records of the clerk of the circuit court in the  
194 jurisdiction where all or part of the site or proposed site of the onsite sewage system is to be located so  
195 as to be a binding notice to the public, including subsequent purchases of the land in question. Upon the  
196 sale or transfer of the land which is the subject of any letter, the letter shall be transferred with the title  
197 to the property. A permit shall be issued on the basis of such letter unless, from the date of the letter's  
198 issuance, there has been a substantial, intervening change in the soil or site conditions where the onsite  
199 sewage system is to be located. The Board, Commissioner, and the Department shall accept evaluations  
200 from licensed onsite soil evaluators for the issuance of such letters, if they are produced in accordance  
201 with the Board's established procedures for issuance of letters. *The Department shall perform a field*  
202 *check of the evaluation prior to issuing such a letter or a permit based on such letter only in cases in*  
203 *which such review is deemed necessary to protect the integrity of the Commonwealth's environment.* The  
204 Department shall issue such letters within 20 working days of the application filing date when  
205 evaluations produced by licensed onsite soil evaluators are submitted as supporting documentation. ~~The~~  
206 ~~Department shall not be required to do a field check of the evaluation prior to issuing such a letter or a~~  
207 ~~permit based on such letter; however, the Department may conduct such field analyses as deemed~~  
208 ~~necessary to protect the integrity of the Commonwealth's environment.~~ Applicants for such letters in lieu  
209 of onsite sewage system permits shall pay the fee established by the Board for the letters' issuance and,  
210 upon application for an onsite sewage system permit, shall pay the permit application fee.

211 H. The Board shall establish a program for the operation and maintenance of alternative onsite  
212 systems. The program shall require:

213 1. The owner of an alternative onsite sewage system, as defined in § 32.1-163, to have that system  
214 operated by a licensed operator, as defined in § 32.1-163, and visited by the operator as specified in the  
215 operation permit;

216 2. The licensed operator to provide a report on the results of the site visit utilizing the web-based  
217 system required by this subsection. A fee of \$1 shall be paid by the licensed operator at the time the  
218 report is filed. Such fees shall be credited to the Onsite Operation and Maintenance Fund established  
219 pursuant to § 32.1-164.8;

220 3. A statewide web-based reporting system to track the operation, monitoring, and maintenance  
221 requirements of each system, including its components. The system shall have the capability for  
222 pre-notification of operation, maintenance, or monitoring to the operator or owner. Licensed operators  
223 shall be required to enter their reports onto the system. The Department of Health shall utilize the  
224 system to provide for compliance monitoring of operation and maintenance requirements throughout the  
225 state. The Commissioner shall consider readily available commercial systems currently utilized within  
226 the Commonwealth; and

227 4. Any additional requirements deemed necessary by the Board.

228 I. The Board shall promulgate regulations governing the requirements for maintaining alternative  
229 onsite sewage systems.

230 J. The Board shall establish a uniform schedule of civil penalties for violations of regulations  
231 promulgated pursuant to subsection B that are not remedied within 30 days after service of notice from  
232 the Department. Civil penalties collected pursuant to this chapter shall be credited to the Environmental  
233 Health Education and Training Fund established pursuant to § 32.1-248.3.

234 This schedule of civil penalties shall be uniform for each type of specified violation, and the penalty  
235 for any one violation shall be not more than \$100 for the initial violation and not more than \$150 for  
236 each additional violation. Each day during which the violation is found to have existed shall constitute a  
237 separate offense. However, specified violations arising from the same operative set of facts shall not be  
238 charged more than once in any 10-day period, and a series of specified violations arising from the same  
239 operative set of facts shall not result in civil penalties exceeding a total of \$3,000. Penalties shall not  
240 apply to unoccupied structures which do not contribute to the pollution of public or private water  
241 supplies or the contraction or spread of infectious, contagious, or dangerous diseases. The Department  
242 may pursue other remedies as provided by law; however, designation of a particular violation for a civil  
243 penalty pursuant to this section shall be in lieu of criminal penalties, except for any violation that

Appendix 1

244 contributes to or is likely to contribute to the pollution of public or private water supplies or the  
245 contraction or spread of infectious, contagious, or dangerous diseases.

246 The Department may issue a civil summons ticket as provided by law for a scheduled violation. Any  
247 person summoned or issued a ticket for a scheduled violation may make an appearance in person or in  
248 writing by mail to the Department prior to the date fixed for trial in court. Any person so appearing  
249 may enter a waiver of trial, admit liability, and pay the civil penalty established for the offense charged.

250 If a person charged with a scheduled violation does not elect to enter a waiver of trial and admit  
251 liability, the violation shall be tried in the general district court with jurisdiction in the same manner and  
252 with the same right of appeal as provided for by law. In any trial for a scheduled violation, the  
253 Department shall have the burden of proving by a preponderance of the evidence the liability of the  
254 alleged violator. An admission of liability or finding of liability under this section shall not be deemed  
255 an admission at a criminal proceeding.

256 This section shall not be interpreted to allow the imposition of civil penalties for activities related to  
257 land development.

258 K. The Department shall establish procedures for requiring a survey plat as part of an application for  
259 a permit or letter for any onsite sewage or alternative discharging sewage system, and for granting  
260 waivers for such requirements. In all cases, it shall be the landowner's responsibility to ensure that the  
261 system is properly located as permitted.

262 *L. The Department shall establish procedures for requiring submission of onsite soil evaluations*  
263 *performed by a licensed onsite soil evaluator or by a professional engineer following consultation with*  
264 *a licensed onsite soil evaluator with every application for a permit or letter for any onsite sewage or*  
265 *alternative discharging sewage system. However, the Department may waive the requirement for*  
266 *submission of such onsite soil evaluations from a licensed onsite soil evaluator for applicants whose*  
267 *incomes are below the federal poverty guidelines established by the U.S. Department of Health and*  
268 *Human Services.*

Appendix 2



LYNWOOD W. LEWIS, JR.  
23391 FRONT STREET  
POST OFFICE BOX 760  
ACCOMAC, VIRGINIA 23301  
ONE HUNDRETH DISTRICT

COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

VIRGINIA DEPT OF HEALTH  
OFFICE OF ENVIRONMENTAL  
HEALTH SERVICES  
REC'D 05/20/2011

COMMITTEE ASSIGNMENTS:  
FINANCE  
AGRICULTURE, CHESAPEAKE AND  
NATURAL RESOURCES  
MILITIA, POLICE AND PUBLIC SAFETY

May 16, 2011

The Honorable Robert D. Orrock, Sr.  
P.O. Box 458  
Thornburg, VA 22565

Re: House Bill No. 2185

Dear Chairman Orrock:

As you may recall, I agreed with the Health Department, with your concurrence, to table the above referenced legislation which sought to facilitate the transitioning of the Commonwealth out of the onsite sewage evaluation business. I had numerous discussions with the Health Department and I believe that they concurred that the best means possible would be through an examination by them and an assembled group of stake holders to determine the best means of accomplishing this. To that end, I would like to follow up on my discussions during the Session and request that you consider such a directive to the Department through a "Chairman's letter," as we discussed, to the Health Department requesting that they assemble such a group of stake holders in an effort to determine the best course for the Commonwealth's health and safety and also for the marketplace.

I hope all is well and that you are enjoying the time away from Richmond.

Very Truly Yours,

A large, stylized handwritten signature in black ink, appearing to read "L. Lewis, Jr.", written over a horizontal line.

Lynwood W. Lewis, Jr.  
100<sup>th</sup> District

Cc: Robert Hicks



## Appendix 3: Meeting summaries

### **FRANKLIN COUNTY MEETING SUMMARY**

*“Make it more like getting your car inspected...”*

In Franklin County, Virginia, the private sector, local government, local health departments, and private homeowners were represented and voiced opinions regarding HB 2185. Generally, sentiment ran from adamant opposition to support for VDH maintaining vigorous oversight of the private sector conducting the initial site and soil evaluations. This group liked the status quo, whereby the private sector handled all alternative systems and occupied a consulting role, while VDH maintained hegemony over conventional repairs. Many stakeholders felt the market lacked a sufficient number of private sector service providers to ensure homeowners would receive prompt service at a reasonable cost.

Assuming the legislation did become law stakeholders felt enforcement would be vitally important for VDH. Oversight of private sector work would be needed to ‘weed out bad actors’ in the private sector who may seek to undercut legitimate professionals striving to maintain quality service. Otherwise, persons felt the general public might fall victim to unscrupulous business practices given the current state of the economy. In order to fund the oversight role VDH must perform, stakeholders speculated that an inspection fee could be charged by VDH. Operation and maintenance of all systems would be crucial moving forward and VDH was best positioned to provide the guidance and be the repository for all things dealing with operation and maintenance (O &M). Some suggested VDH could ultimately run the onsite program as the vehicle inspection program was currently administered.

Private sector stakeholders voiced concerns that repair situations were fraught with difficulty, ranging from increased liability to slim to no profit margin. Additionally, often there was a difference of opinion as to what was regulatory compliant between a private sector evaluator and VDH. This also added time and cost to repair projects and the homeowner usually felt squeezed. Another consideration was often times homeowners could not afford to repair a failing system, which also left the private sector hesitant to commit to providing services. Homeowners who could afford repairs were more likely retaining private sector consultants to design alternative system repairs. Private sector stakeholders voiced little enthusiasm for pro bono work in reference to low income repairs.

Another aspect of the current fee structure which stakeholders addressed was the small difference between a bare application submission and a new construction application accompanied by private sector work. Private sector consultants stated this gave VDH an unfair advantage as the homeowner had no cost incentive to seek out private sector service providers. To fix this, stakeholders suggested VDH could lower the AOSE application fee or raise the bare application fee in order to level the playing

field. Some stakeholders felt individual homeowners who were not interested in subdivision development were already limited and could not afford the private sector. Subdivision evaluation was already private sector driven and VDH was an option for those priced out of the market for individual lot construction permits. In reality, the housing boom provided the private sector the work in prior years, and that volume could not be replaced by the relatively low number of one lot construction permits. Stakeholders opined the legislation being considered would not have the anticipated impact of providing a flood of formerly bare applications to the private sector. Repair work would increase to a point, but would only serve to keep private sector consultants afloat at the expense of already economically stressed homeowners.

A Smith Mountain Lake homeowner compared the potential lack of oversight of private sector consultants by VDH with the recent banking/Wall Street meltdown. Lack of regulation and VDH oversight could lead to increased cost for homeowners and environmental harm, particularly in sensitive areas. This person felt homeowners should at least have the option of seeking a VDH evaluation, as is the status quo now.

### **WASHINGTON COUNTY MEETING SUMMARY**

*“We don’t need more regulations from the Eastern shore or Northern Virginia shoved down our throats...”*

After an overview of the proposed legislation was provided, various stakeholders expressed concern over the lack of licensed individuals available to take on the workload of processing bare applications, while others iterated private market forces would eventually address the need for additional service providers. However, if VDH no longer conducted any onsite evaluations, how those newly needed service providers would become trained also concerned many in attendance. The majority of stakeholders felt at best this proposed legislation would require a phased-in approach, as those few private sector evaluators available would quickly corner the market and would leverage the near monopoly market position to the detriment of local citizens. Any scenario resulting from implementation of the legislation would require strong VDH presence to provide oversight and protection of public health. Persons generally believed VDH was not profit-driven as the private sector and public health was not a business for profit.

A discussion about fees followed, with mixed responses. Many felt any increase in fees paid to the private sector as a result of this legislation would stifle an already poor market. Single lot developments were reported as the majority of new construction permits and fees were already at the maximum most property owners could afford. If the services currently provided by VDH were privatized, some thought slow development in this area would decrease even more. Those property owners who could afford private consultants were already purchasing those services anyway so only those not seeking services right now would be left out with a legislative mandate to use

private sector services. Some thought an income based sliding scale for fees would be better than the current fee structure being used.

Repairs of failing systems generated concern over liability issues. Private sector stakeholders participating in the public meetings seemed hesitant to take on jobs that generally provide low profit margin. These persons felt a mechanism was needed to ensure enforcement by VDH. Given that most repairs were for low income situations, many stakeholders felt HB 2185 would simply add another layer of cost to the homeowner. Difficulty funding repairs and bringing plumbing up to adequate levels of sanitation already existed in this area. Local officials and non-profit stakeholders emphasized VDH was currently structured to help solve difficult onsite problems. The private sector was not. By removing VDH from the equation as contemplated by HB 2185, public health in general would suffer according to some of these stakeholders. Funding for low income citizens was the overriding concern regionally, not privatizing services.

### **SHENANDOAH COUNTY MEETING SUMMARY**

*“Sewage system design is a public health issue and not just a pocketbook consideration.”*

*“The fees are a hindrance: have to pay private consultant and a fee at the health department. It’s too much.”*

The meeting was generally characterized by a cross-section of participating stakeholders who self-described themselves as ‘anti-government’ and where homeowners preferred validation from a non-government entity. However, to avoid confusion and maintain consistency, most felt VDH should continue to be the initial point of contact for onsite issues and provide a safety net for citizens. Regarding fees, many thought private sector fees could quickly escalate once VDH was no longer an option for homeowners. Many thought it was critical for VDH to maintain oversight of private sector work since public health is vital. Some thought private sector evaluators would be driven to provide clients with the best service, but not necessarily do the best thing for the overall public health and environment. Unless VDH remained in a position to review and deny permit applications, some of the stakeholders thought public health and water quality might suffer.

Local government stakeholders stated quality assurance provided by VDH was imperative as the building program illustrated. Seldom does a set of engineered plans get approved as submitted and upwards of 90 percent require additional work. The private sector often has economic ties to manufacturers and distributors which creates a conflict of interest. What is best for the client may often be at odds with what is best for a manufacturer, distributor, or installer. Stakeholders suggested some counties were being developed almost exclusively by larger developers and new construction fees

were not an issue in these areas as that cost was routinely rolled into the project. Other counties had only single lot developments. In these places, stakeholders felt property owners should be able to rely on VDH to provide those single-lot services.

Some thought rural counties would ultimately suffer from a legislative mandate to use private sector work. Citizens were already paying taxes to fund VDH. If homeowners were forced to pay for private sector direct service as well, some stakeholders asked where the benefit was for having VDH staff involved. Stakeholders raised additional concerns about the potential loss of skill sets among VDH employees if site and soil evaluations were no longer routinely conducted by them. Repeatedly, stakeholders stated the private sector may be tempted to cut corners and price gouge during slow economic times. Then, once the economy picked up again, low margin jobs such as repairs would go unaddressed as the private sector worked on the higher profit work. With a strong housing market, stakeholder felt private sector evaluators would naturally focus on subdivision development and new construction. Stakeholders suggested VDH had to maintain a position of consumer protection and oversight.

A consensus of stakeholders stressed VDH and the public would need language in HB 2185 to clearly define oversight authority. Often times, localities had local ordinances addressing review of private sector work and this legislation could undercut or by-pass local onsite review expectations. Regions across the state were different and what worked in one place may not work in others. Frederick County in particular felt strongly this legislation would make it extremely difficult to ensure proper evaluation and monitoring of private sector site and soil work. These persons thought localities could address the issue by perhaps requiring a county license and charging additional fees to cover the lost VDH funding. Additionally, well permits and proper location of wells were thought to be critical to protecting ground water quality and it was unclear to these persons how HB 2185 would affect the well permitting program.

### **POWHATAN COUNTY MEETING SUMMARY**

*“It sounds like costs will be transferred to owners and the health department will act a lot like the building department.”*

Stakeholders were concerned about increased fees for the property owner. Fees were an issue for many property owners developing one lot in this area. VDH should maintain new subdivision oversight in particular.

### **CHESTERFIELD COUNTY MEETING SUMMARY**

*“Privatizing bridge inspections now costs 4.7 million per year. Who pays that? Taxpayers...”*

*“Contractors can’t report designers, unless it’s anonymous, you get blackballed otherwise.”*

Stakeholders discussed repairs of existing onsite systems. Currently, repairs were primarily handled by VDH because there was no charge for the application and homeowners were conditioned to turn to the health department. Also, private sector evaluators were not comfortable with the liability, time, and low profit on repair jobs. Cost control was another consideration for the private sector as often times repairs were needed by low income home owners. Stakeholders opined pro bono work could be offered by the private sector but the current economy was already depressed and profit margins so slim that it probably would not work well. Release from liability when doing repair work would be a start to solving the problem as the private sector viewed it at this meeting. Even so, VDH and OSEs often have a difference of opinion on what designs comply with the regulations, and the process slows considerably to the detriment and expense of the homeowner. If VDH maintained oversight, consistency of review was needed to help the private sector provide repair services.

Many times, disagreements centered on soil interpretations. Furthermore, the decision to review and the level of scrutiny differed from locality to locality, which added another level of inconsistent application of the regulations. A stakeholder suggested a regional level VDH EHS could oversee reviews to centralize the process. Oversight by VDH was necessary and the process needed improvement according the private sector stakeholders who attended this meeting.

Fees were next addressed by the stakeholders. The current fee structure encourages homeowners to bypass the private sector and directly apply to VDH. OSE stakeholders indicated a larger difference between bare application charges and private submissions would level the playing field. Some stakeholders made comparisons to the building office fee structure and onsite fees. This comparison led some to believe that VDH fees were excessive. Most attendees felt there were enough private sector evaluators to handle bare applications.

According to some stakeholders at this meeting, privatization of well inspections would increase costs while VDH would need to remain the repository for all records. In general, stakeholders felt HB 2185 would move VDH toward more administrative functions while retaining a certain level of substantive review. Finding the right balance while addressing funding issues would be the overriding challenge. Another sentiment expressed: perhaps VDH could take on a larger role as educator if it was no longer providing direct service and ensuring compliance.

### **CULPEPER COUNTY MEETING SUMMARY**

*“Regulations are generated on the heels of a perception that a problem exists...”*

A discussion of repairs began the session. Private sector stakeholders at this meeting already performed a lot of repair work, and as they understood it, liability was the same whether they were doing new construction work or repair work. Home owners who had trouble affording their services were left to VDH to handle. And, if the economy picked up again, then stakeholders certainly foresaw the private sector



focusing on more profitable jobs and not repairs. In general, all stakeholders present felt VDH had to maintain a presence in direct service delivery to address simpler, cheaper repairs, and to provide oversight of potential fly-by-night operations doing substandard work to the detriment of all private sector evaluators.

The topic of waivers was discussed. A waiver is a temporary allowance to avoid more stringent regulatory requirements for treatment or pressure dosing until the home is sold (in certain circumstances). Currently, homeowners have the option of seeking a waiver from VDH to repair a system whenever the more stringent requirements are enforceable. Private sector evaluators at this meeting indicated waivers would not be an option they were willing to provide. Professional discretion as to design criteria often became an issue when VDH and the private sector debated public health standards and property owner preferences.

Under this proposed legislation, waivers could become either obsolete as the private sector refused to utilize them, or abused them if less scrupulous evaluators were undercutting others with inappropriate designs. Regardless, stakeholders agreed that VDH must maintain its critical role of oversight to stop 'bad apples' from taking advantage of vulnerable homeowners and conscientious designers attempting to protect public health. Realtor stakeholders voiced additional concerns regarding waivers and how homeowners currently view them. In some instances such as foreclosures, short-sells, etc., sellers are foregoing upgrading the onsite system as contemplated by the waiver statute and leaving the bank, realtor, or buyer 'holding the bag' for a malfunctioning or non-compliant system.

Well permitting was also discussed. The need for more training was stressed by the private sector, some of whom felt they were not adequately trained to perform well inspections. These persons observed that VDH did not charge for well inspections; yet, as a private sector service provider, they would have to charge for well inspections. Many stakeholders felt private sector response time could be an issue regarding well problems encountered by a homeowner. Some of the stakeholders at this meeting thought the private well program and the impacts of privatization would require more thought as to liability, responsibility, and the permitting process to ensure the homeowner and public health remained protected.

Stakeholders discussed fees and the impact of the proposed legislation. Many stakeholders felt private sector prices would remain constant, as long as market forces were strong enough to maintain competition. Local officials from more rural, slower growth areas feared the free market would not benefit property owners in rural regions, and the work formerly done by VDH would become expensive and slow. Some of the local officials also stated private sector service providers who were unable to compete in more vigorous markets would seek to fill low demand work and provide poor service at high prices as the best service providers were occupied with the more profitable work. Therefore, these persons felt VDH was needed to provide the services communities were accustomed to, including site and soil evaluation. Additionally, counties provided 40 percent funding or more for local health departments and counties

expected certain VDH services in exchange for continued funding. Otherwise, funding would need to be generated by VDH, perhaps by a design review in lieu of bare application fees.

Some stakeholders suggested a sliding scale fee structure regardless of who does the work, either based on income or project cost estimates. The current flat fee structure disparately impacted low income property owners according to these persons. Another suggestion was to create a fund to address low income homeowners, be it new construction or repair.

VDH oversight was supported by all stakeholders in attendance. Many felt onsite review was critical to any success the proposed legislation might enjoy. What percentage of private sector submissions should be reviewed was debated, with general consensus settling near 33%. The 20% of private sector evaluators doing poor work colors the other 80%, making quality assurance by VDH absolutely necessary. However, VDH personnel would be at serious risk of losing skill set needed to provide that same quality assurance if the legislation as proposed became law.

### **EASTERN SHORE MEETING SUMMARY**

*"We don't have complaints about the health department. What's broke?"*

*"This sounds like the PE Retirement Act."*

Stakeholders were divided, but the consensus concluded conventional repairs should remain with VDH. Onsite repairs that now require alternative systems often find private sector paying for temporary pump and haul as homeowners simply cannot afford to do so. This scenario could replicate if all repairs move to the private sector. However, some private sector stakeholders disagreed, and felt the free market would adjust to meet those needs. Stakeholders in general voiced support for continued VDH oversight of the onsite program, in order to protect public health and the environment. Some envisioned VDH assuming a role akin the current Building Department. A system of checks and balances must be maintained in order to prevent homeowners from being squeezed financially. Private sector stakeholders stressed that repairs would be handled in good economic times as well as now, and market forces would work to insure quality work is done in a timely fashion, at a reasonable price.

The related topic of waivers was then discussed. Private sector stakeholders urged a fund be established for repairs to avoid waivers, or allow private sector evaluators to use hold harmless agreements. Most stakeholders were unsure how waivers would work if the private sector assumed responsibility for all repairs.

Fees were discussed and private sector stakeholders felt the current structure worked to hamper the AOSE segment. They suggested VDH fees for bare application double in order to level the playing field. AOSE stakeholders opined VDH competed for business and fees were such that it placed them at a disadvantage. How a fee change

would impact the ability of VDH to provide necessary oversight was questioned, and reference was made to a home health nursing program cancelled years ago. Some stakeholders believed a similar impact was likely if VDH no longer recovered fees for bare applications.

VDH environmental health office personnel next addressed the proposed legislation. Many voiced worry positions would be cut if VDH no longer performed site and soil evaluations. Furthermore, those employees left would soon lose the skills necessary to provide the quality assurance vital to protecting public health and the environment; the overriding mission of VDH. Also, the Hamm Report which has been given so much weight was completed during the housing boom and skews reality. Many homeowners have no interest in paying private sector to perform a function that rightly lies with government: ensuring a safe infrastructure is in place to protect public health by disposing of sewage. If all localities cannot provide public sewer, then at least government should provide the same level of public health protection by assisting citizens to the greatest degree possible. VDH priorities and private sector priorities (profits) are not the same. 100% review of private sector work is not always necessary under the current system, but would be under the proposed system. VDH would need trained and experienced personnel as much as ever, but would likely have reduced resources to do so. Stakeholders stated repair situations would likely get worse with VDH in the middle to referee between home owners and the private sector once systems fail.

The meeting ended with public official stakeholders addressing HB 2185. Nearly all believed the bill as written would be a burden on property owners and would only serve the interests of a very few. Most thought the private market would be unable to control prices effectively. The legislation was described as the "PE Retirement Act." Citizens have the choice to go to the private sector already, and that freedom of choice should remain. The position was clear that the public officials present believed VDH was doing an excellent job of protecting public health while also providing effective direct service to individual property owners. If anything, more oversight of private sector work is welcomed.

### **LOUDOUN COUNTY MEETING SUMMARY**

*"People need to be bonded. Private sector needs authority to go with responsibility."*

*"Most everything goes through private sector now...minor repair thing is hornet's nest here..."*

Inspection costs and the time taken to conduct them concerned many stakeholders. Some stakeholders reported that private sector service was well developed, but the fees and resources needed for inspections were exorbitant. Contractors reported inspection fees rose during the economic downturn even though there were too many AOSEs for the amount of work available. VDH oversight was needed, and preferable to the current inspection scheme. The onsite program had

actually deteriorated in quality over the last decade according to some installers. Some of that was attributed to AOSE service providers conducting evaluations, designs, installations, and inspections. Checks and balances were missing and were badly needed when the same actor oversees every aspect of the service being provided.

Bare applications are not an issue in this region as the private sector already handles the vast majority of applications. Repairs, especially minor repairs, will become an issue were VDH forced to abandon the field to the private sector. Costs for consumers could be expected to rise. AOSE's are not motivated by same forces as VDH. Ground water and public health need stewardship, not protection based upon market forces. Localities do not support any legislation aiming to reduce further local authority.

Generally across this region, privatization of direct service has already occurred to a great extent, and worked well for stakeholders. Most however did have concerns regarding repairs if VDH could no longer provide direct service at least in that capacity. If VDH required a property owner to address a failing system, then 'bad actors' could leverage that into higher priced repairs. If a fund available for repairing failing systems was established, then VDH could potentially administer payment and control costs on behalf of property owners. As the legislation is currently contemplated, minor repairs could become ripe for price gouging and exposing gullible homeowners to unnecessary expense.

### **FAIRFAX COUNTY MEETING SUMMARY**

*"I'm already doing pro bono work; it's called clients who don't pay their bill..."*

*"I don't mind paying for a reasonable inspection but how long does it take to review my work? VDH should be compensated for its involvement and VDH must keep out the bootleggers?"*

Generally, privatization is already well established in this region and most discussion was focused on incremental improvement to the already existing process. Most development is generated by large subdivision projects and fees are not an issue. In particular, enforcement of current regulations by VDH was stressed by the participating stakeholders. Many fears 'bad actors' and moonlighters would proliferate were repairs turned over completely to the private sector. Homeowners who have lead abatement issues have turned to using contractors who will repair and renovate despite existing lead paint concerns. Many contractors will not take jobs on pre-1978 construction given the time, cost, and aggravation associated with lead paint abatement. Stakeholders believed homeowners would seek out private sector service providers willing to cut corners and charge less for repair work once a private sector evaluation revealed an expensive repair was needed.

As a result, private sector stakeholders stressed support for strong oversight by VDH. The public in general needs protection as does private sector service providers attempting to follow the regulations and protect public health. Whether to conduct a Level II review should be a case by case basis, and not just a flat percentage of applications. Also more consistency from locality to locality would help streamline the process as to who could inspect. Many contractors felt this added unnecessary costs for the homeowner given the different requirements across counties and towns. A realtor stakeholder stated home buyers are becoming savvier and want sign-off from VDH before moving forward. The trust factor is not the same for the private sector so VDH needs to maintain a strong presence.

Inspections are often time consuming and expensive. Most stakeholders felt once again that consistency was needed across localities to speed the process and save cost. Overall, most felt a good working relationship with VDH existed and that needed to continue regardless how the onsite program moved forward. All understood this region was not facing the same issues as other areas of the state regarding fees, strong private sector participation, and slow to no development.

### **PETERSBURG MEETING SUMMARY**

*“Bust cycle has weeded out bad actors...”*

*“It’s a different world when you cross the James [river]...”*

A mixed stakeholder meeting stressed the importance of enforcement and retaining VDH oversight if the program were to change. In this region, soils are generally good and the private sector expertise is not needed. Home owners will end up subsidizing the private sector. Repairs are an area the private sector will abandon once the economy picks up as well. Many homeowners already have problems financing repairs and turn to moonlighters to fix a failing system already. This legislation could end up exacerbating the problem. When combined with DPOR’s inability to effectively police those already in the market, it would likely create even more public health concerns. VDH has the same level of training and more experience than many in the private sector. The ability to design alternative systems especially in repair situations would serve the public better than the proposed legislation.

The building officials look to VDH to provide quality assurance, and must of that could be lost with this bill. Local ordinances require working relationship with VDH, and that could be in jeopardy. The private sector is a needed and valued component of the community, but this legislation looks to shift the balance too much in one direction. Checks and balances are necessary.

## **NEWPORT NEWS MEETING SUMMARY**

*“Of course my fees will go up...”*

*“Generally poor folks are not building houses...”*

Cost to property owners was a concern to most stakeholders. In particular, repairs currently being funded or partially so by the Planning District Commission may no longer receive funding. In conjunction, waivers VDH offers to homeowners in order to ‘bridge the gap’ would transition poorly to the private sector. Waivers are often used to get a cheaper repair and not necessarily the repair most protective of public health. If used in the private sector, the best case scenario would involve a hold harmless agreement, as well as restricting application to those homeowners who cannot afford regulatory compliant systems.

Stakeholders expressed frustration with the current fee structure. Some felt VDH should concentrate on enforcement activities more, and perhaps this legislation would allow time for that aspect of agency responsibility. Monitoring failing systems and protecting the environment should be the main commitment of VDH.

A private sector AOSE commented that the cost of systems and installation was the main cost factor and not necessarily the fees associated with site and soil evaluations. If all repair work moved to the private sector then pro bono work would be considered. However, given the current economy it was unlikely. A low interest loan option or outright grant option for low income homeowners was necessary before the legislation as proposed would have the anticipated impact.

Another consideration raised by a cross-section of stakeholders for this specific area was the impact of soil drainage management plans. VDH personnel indicated additional site visits were required to address issues raised by these management plans, at considerable cost in time and resources. VDH would be expected to continue that commitment with a reduction in fee funding under the proposal.

VDH personnel participated in an afternoon session. Most felt the AOSE community, like most private sector service providers, was hurt by the slow economy and not competition from VDH. Little if any speculative development was taking place, which generally left one lot bare applications or repairs being processed. However, the number was relatively low and often from homeowners with limited funds. Most developers or property owners seeking private sector consultation were not engaging VDH anyway, and therefore no ‘real’ competition with the private sector AOSE’s truly existed. VDH ability to provide oversight and quality assurance demanded by local governments in particular would be impaired by the proposed legislation while not providing the expected boost in business for the private sector.

## Begin Survey: Contact Information and Location

**\*1. Thank you for your interest and giving us your comments and thoughts. This survey should take no more than 15 minutes to complete.**

**Please give us your contact information so we can follow-up with you if necessary.**

Name:

Address:

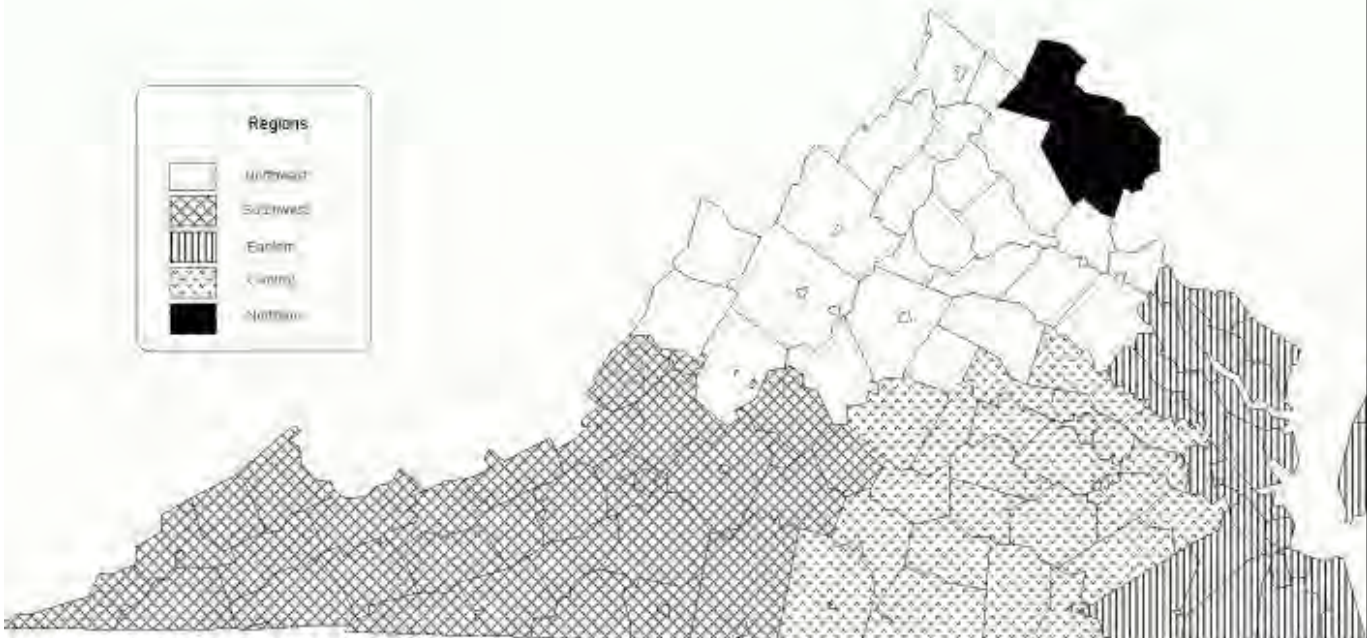
City/Town:

State:

ZIP:

Email Address:

### Health Planning Regions in Virginia



**2. Referring to the map of health planning regions, in which of the regions do you routinely provide or seek services for onsite sewage systems or water supplies?**

- Northwest
- Southwest
- Eastern
- Central
- Northern

**3. How important is it for the health department to provide the following services to your community?**

	not important	somewhat important	important	critical
rabies investigations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
complaint investigations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring owners are properly operating and maintaining sewage systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
paper review of private sector work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
field review of private sector work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sewage system and well inspections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with owners of failing sewage systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting compliance with public health violations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing site and soil evaluations and designs for repairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing site and soil evaluations and designs for new construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courtesy reviews of private sector questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subdivision reviews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Review of existing sewage systems for building permits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



**4. Exposure to untreated or partially treated sewage can cause numerous illnesses, including Salmonellosis, Shigellosis, Cholera, Viral hepatitis A, Sporadic or endemic viral gastroenteritis, and other disease.**

**When you receive services from the health department or private sector, how important are the following to you.**

	Not important	Somewhat important	important	Critical
Cost of the service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Timeliness of the service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of the work product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compliance with rules that protect public health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Third party reviews and inspections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivations of the service provider to provide you the service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impacts to public health, ground and surface water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stakeholder Group

**\*5. You might be part of multiple stakeholder groups. For example, you could be an owner of a sewage system, an installer, and an operator.**

**Please select one stakeholder category below to provide us feedback. After you finish answering the questions for one stakeholder group, you will be given a chance to select a different stakeholder category.**

**You may find some of the same questions in each stakeholder group so please consider whether your opinion changes as you wear your different hats.**

- owner of an onsite sewage system
- installer or well driller
- O&M provider
- Environmental Health Specialist (VDH employee)
- private sector onsite soil evaluator
- private sector professional engineer
- elected official
- county administration, zoning, planning & building
- professional organization or association
- product manufacturer, distributor, or realtor

## Questions for EHSs

### **6. How many years have you worked in the onsite sewage and well program with the Virginia Department of Health?**

- 0 to 2 years
- 2.1 to 5 years
- 5.1 to 10 years
- 10.1 to 20 years
- More than 20 years

### **7. In a typical 40-hour work week, what percent of your time is spent on Level 1 and Level 2 reviews of private sector work?**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

### **8. In a typical 40-hour work week, what percent of your time is spent doing sanitary surveys and site and soil evaluations for wells and sewage systems?**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

### **9. In a typical 40-hour work week, what percent of your time is spent working with owners of failing sewage systems?**

**Please include field work, office work, telephone time, and other time to perform enforcement activities.**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

**10. Consider for a moment the last 5 repair applications you have worked, which resulted in issuance of a permit.**

**What was the average amount of time you spent to move each initial application to a repair permit? Please include all field work and office work, including time on the telephone.**

- I do not process repair applications
- 0 to 4 hours
- 4.1 to 8 hours
- 8.1 to 16 hours
- 16.1 to 24 hours
- 24.1 to 32 hours
- More than 32 hours

**11. Of the repair applications you process, what percent of them include site and soil evaluations (or designs) from an OSE or OSE/PE?**

- I do not process repair applications
- 0 to 20 percent
- 21 to 40 percent
- 41 to 60 percent
- 61 to 80 percent
- 81 to 100 percent

**12. From your perspective, what are the three most important considerations for a property owner when he or she chooses to use the private sector for repairs in your area? (Please check no more than three)**

- Cost of private sector services versus the cost of health department services
- Civil liability issues for the private sector
- Professional discretion and disagreements over it
- Enforcement and the need to compel owner action
- Private sector's willingness to provide repair services
- The number of private sector service providers in the area
- Private sector only works on alternative system designs
- Health department only does conventional system designs
- The number of repair applications received

Other (please specify)

**13. In a typical 40-hour work week, what percent of your time is spent working with owners on voluntary upgrades? (Please include field work, office work, and telephone)**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

**14. In a typical 40-hour work week, what percent of your time is spent working with owners on subdivision approvals or wanting to divide property? (Please include field work, office work, and telephone)**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

**15. In a typical 40-hour work week, what percent of your time is spent working with private sector operators, designers, well drillers, and sewage system installers? (Please include field work, office work, and telephone)**

- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

**16. Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> There is not any direct service that the private sector could perform 100 percent of the time in my area. | <input type="checkbox"/> Site and soil evaluations for new construction      | <input type="checkbox"/> Abbreviated designs for certification letters   |
| <input type="checkbox"/> Voluntary upgrades  | <input type="checkbox"/> Design for repair systems                           | <input type="checkbox"/> Repair designs for wells and water supplies   |
| <input type="checkbox"/> Review of existing sewage systems for a building permit   | <input type="checkbox"/> Design for new construction systems                 | <input type="checkbox"/> Well permits for new construction   |
| <input type="checkbox"/> Site and soil evaluations for subdivisions  | <input type="checkbox"/> Design of conventional sewage systems               | <input type="checkbox"/> Inspections of sewage system and water supplies for real estate transfers                       |
| <input type="checkbox"/> Site and soil evaluations for repair permits  | <input type="checkbox"/> Site and soil evaluations for certification letters | <input type="checkbox"/> Inspections of sewage systems and water supplies for newly constructed buildings and residences |

Other (please specify)

**17. If all services were provided in the private sector, what do you think would happen with the private sector's fees for services over the next three years?**

- |  |  |
|--|--|
| <input type="radio"/> No change            | <input type="radio"/> Slight increase      |
| <input type="radio"/> Slight decrease      | <input type="radio"/> Moderate increase    |
| <input type="radio"/> Moderate decrease    | <input type="radio"/> Significant increase |
| <input type="radio"/> Significant decrease |  |

Other (please specify)

**18. If there were no more "bare applications", then how would you maintain your expertise?**

- I could not maintain my expertise.
- I would maintain my expertise through Level 1 and Level 2 reviews.
- I would maintain my expertise through continuing education.
- I would maintain my expertise by following up with private sector service providers on their projects.

Other (please specify)

**19. Regarding your job satisfaction, how important is it for you to perform site and soil evaluations and designs for onsite sewage systems and well placements?**

- Not important at all: I would still enjoy my job
- Somewhat important: I would not enjoy my job as much
- Important or Essential: I would look for another job

Other (please specify)

**20. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**\*21. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Questions for Operators (Private Sector)

**22. As a provider of operation and maintenance services to homeowners and businesses, how many clients do you serve each month?**

- 0 to 20 clients
- 21 to 50 clients
- 51 to 100 clients
- 101 to 200 clients
- 201 to 500 clients
- More than 500 clients

**23. Without hiring additional manpower, how many additional clients do you think you could serve in addition to your current client base?**

- 0 to 25
- 26 to 50
- 51 to 75
- 76 to 100
- More than 100

**24. What is the maximum distance that you travel from your base business location to provide O&M services?**

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

**25. How often do you or your company speak with the staff at the local or state health department with questions on providing O&M services to your customers?**

- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month



**26. How often do you or does your company speak with private sector designers, such as an Onsite Soil Evaluator (OSE) or professional engineer (PE), to provide O&M services?**

- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

**27. Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> There is not any direct service that the private sector could perform 100 percent of the time in my area. | <input type="checkbox"/> Site and soil evaluations for new construction      | <input type="checkbox"/> Abbreviated designs for certification letters   |
| <input type="checkbox"/> Voluntary upgrades  | <input type="checkbox"/> Design for repair systems                           | <input type="checkbox"/> Repair designs for wells and water supplies   |
| <input type="checkbox"/> Review of existing sewage systems for a building permit   | <input type="checkbox"/> Design for new construction systems                 | <input type="checkbox"/> Well permits for new construction   |
| <input type="checkbox"/> Site and soil evaluations for subdivisions  | <input type="checkbox"/> Design of conventional sewage systems               | <input type="checkbox"/> Inspections of sewage system and water supplies for real estate transfers                       |
| <input type="checkbox"/> Site and soil evaluations for repair permits  | <input type="checkbox"/> Site and soil evaluations for certification letters | <input type="checkbox"/> Inspections of sewage systems and water supplies for newly constructed buildings and residences |

Other (please specify)

**28. If ALL soil evaluations, inspections, and designs were provided by private sector service providers, what financial impact would that have on your company's ability to provide O&M services?**

- |   |   |
|---|---|
| <input type="radio"/> None                                | <input type="radio"/> Slight financial savings      |
| <input type="radio"/> Slight negative financial cost      | <input type="radio"/> Moderate financial savings    |
| <input type="radio"/> Moderate negative financial cost    | <input type="radio"/> Significant financial savings |
| <input type="radio"/> Significant negative financial cost |   |

**29. If all services were provided in the private sector, what do you think would happen with your fees for services?**

- |  |  |
|--|--|
| <input type="radio"/> No change            | <input type="radio"/> Slight increase      |
| <input type="radio"/> Slight decrease      | <input type="radio"/> Moderate increase    |
| <input type="radio"/> Moderate decrease    | <input type="radio"/> Significant increase |
| <input type="radio"/> Significant decrease |  |

Other (please specify)

**30. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**\*31. Thank you for answering the O&M provider questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Questions for Owners of Sewage Systems

### 32. What applications have you submitted to the local health department in the past?

- |  |  |
|--|--|
| <input type="checkbox"/> I did not submit any application                                  | <input type="checkbox"/> Request to review an existing sewage system for developed property based on building permit application |
| <input type="checkbox"/> Application to repair a failing or malfunctioning sewage system   | <input type="checkbox"/> Application to install a new well   |
| <input type="checkbox"/> Application for a certification letter                            | <input type="checkbox"/> Application to abandon an existing well   |
| <input type="checkbox"/> Application for a subdivision review                              | <input type="checkbox"/> Application for voluntary upgrade   |
| <input type="checkbox"/> Application to install a new sewage system for an undeveloped lot |  |

Other (please specify)

### 33. What services did you receive from the local health department when you submitted the above application(s)?

- |   |  |
|---|--|
| <input type="checkbox"/> I did not receive any direct service                     | <input type="checkbox"/> Design or abbreviated design for a sewage system              |
| <input type="checkbox"/> Sanitary survey for placement of a well or sewage system | <input type="checkbox"/> Inspection of a well or sewage system                         |
| <input type="checkbox"/> Site and soil evaluation for a sewage system             | <input type="checkbox"/> Review of private sector work submitted with your application |

Other (please specify)

### 34. Why did you use health department services?

- |  |  |
|--|--|
| <input type="checkbox"/> I did not submit any application or receive any service | <input type="checkbox"/> I could not find a private sector service provider willing to perform the services                        |
| <input type="checkbox"/> I had to use health department services                 | <input type="checkbox"/> I could not find a private sector service provider who could perform services fast enough to meet my need |
| <input type="checkbox"/> I trust health department service providers             | <input type="checkbox"/> I did not know private sector service providers were available or how to contact them                     |
| <input type="checkbox"/> I wanted a second opinion                               | <input type="checkbox"/> The private sector service providers I contacted were too expensive                                       |

Other (please specify)

### 35. How much, on average, did you pay for health department services for each application?

- |   |   |
|---|---|
| <input type="radio"/> The services I received were free | <input type="radio"/> \$401 to \$600    |
| <input type="radio"/> I did not receive services        | <input type="radio"/> \$601 to \$800    |
| <input type="radio"/> \$25 to \$200                     | <input type="radio"/> \$801 to \$1,000  |
| <input type="radio"/> \$201 to \$400                    | <input type="radio"/> More than \$1,000 |

**36. Did you feel this cost was reasonable?**

- Yes
- No

**37. How important is it for you to have the option of getting health department services for site and soil evaluations and designs for wells and sewage systems?**

- Not important
- Somewhat important
- Important
- Very important

**38. What services did you receive from private sector services providers? (Check all that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> I did not receive any service from the private sector    | <input type="checkbox"/> Inspection of a well or sewage system                       |
| <input type="checkbox"/> Sanitary survey for placement of a well or sewage system | <input type="checkbox"/> Consultation for options to install a well or sewage system |
| <input type="checkbox"/> Site and soil evaluation for a sewage system             | <input type="checkbox"/> Review of health department work                            |
| <input type="checkbox"/> Design or abbreviated design for a sewage system         |  |

Other (please specify)

**39. Why did you use private sector services? (Check all that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> I did not use private sector services  | <input type="checkbox"/> The health department would not perform the services                                |
| <input type="checkbox"/> I had to use private sector services--the health department told me that I needed to hire a consultant | <input type="checkbox"/> The health department could not perform the services quickly enough to meet my need |
| <input type="checkbox"/> I trust private service providers  | <input type="checkbox"/> I did not know health department staff were available                               |
| <input type="checkbox"/> I wanted a second opinion  | <input type="checkbox"/> The health department's charges were too expensive                                  |

Other (please specify)

**40. How much did you pay for private sector services?**

- |   |  |
|---|--|
| <input type="radio"/> I did not receive private sector services | <input type="radio"/> \$601 to \$800     |
| <input type="radio"/> The services were free                    | <input type="radio"/> \$801 to \$1,000   |
| <input type="radio"/> \$25 to \$200                             | <input type="radio"/> \$1,001 to \$1,500 |
| <input type="radio"/> \$201 to \$400                            | <input type="radio"/> \$1,501 to \$2,000 |
| <input type="radio"/> \$401 to \$600                            | <input type="radio"/> More than \$2,000  |

**41. Did you feel this cost was reasonable?**

- Yes
- No

**42. Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> There is not any direct service that the private sector could perform 100 percent of the time in my area. | <input type="checkbox"/> Site and soil evaluations for new construction      | <input type="checkbox"/> Abbreviated designs for certification letters   |
| <input type="checkbox"/> Voluntary upgrades  | <input type="checkbox"/> Design for repair systems                           | <input type="checkbox"/> Repair designs for wells and water supplies   |
| <input type="checkbox"/> Review of existing sewage systems for a building permit   | <input type="checkbox"/> Design for new construction systems                 | <input type="checkbox"/> Well permits for new construction   |
| <input type="checkbox"/> Site and soil evaluations for subdivisions  | <input type="checkbox"/> Design of conventional sewage systems               | <input type="checkbox"/> Inspections of sewage system and water supplies for real estate transfers                       |
| <input type="checkbox"/> Site and soil evaluations for repair permits  | <input type="checkbox"/> Site and soil evaluations for certification letters | <input type="checkbox"/> Inspections of sewage systems and water supplies for newly constructed buildings and residences |

Other (please specify)

**43. If the health department no longer provided soil evaluations and design services, what do you think would happen with the private sector's fees for those services?**

- |   |   |
|---|---|
| <input type="checkbox"/> No change            | <input type="checkbox"/> Slight increase      |
| <input type="checkbox"/> Slight decrease      | <input type="checkbox"/> Moderate increase    |
| <input type="checkbox"/> Moderate decrease    | <input type="checkbox"/> Significant increase |
| <input type="checkbox"/> Significant decrease |   |

Other (please specify)

**44. What incentives could be instituted to voluntarily increase private sector input in your area?**

**45. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- |   |  |
|---|--|
| <input type="checkbox"/> Not important, it is not necessary to review the private sector's work because they are licensed | <input type="checkbox"/> Very important, should look at most of the work performed |
| <input type="checkbox"/> Somewhat important, should look at a small percentage of the work                                | <input type="checkbox"/> Critical and always necessary                             |
| <input type="checkbox"/> Important, should look at a moderate percentage of the work                                      |  |

**\*46. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Questions for Installers

**47. How many customers do you serve each month?**

- 0 to 20
- 21 to 50
- 51 to 100
- 101 to 200
- 201 to 500
- More than 500

**48. How many additional customers do you think you could serve in addition to your current customer base?**

- 0 to 25
- 26 to 50
- 51 to 75
- 76 to 100
- More than 100

**49. In the past year, what was the maximum one-way distance from your base business location that you traveled to provide services?**

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

**50. In the past year, what was the average one-way distance from your base business location that you traveled to provide services to your customers?**

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

**51. How long have you been installing sewage systems or wells?**

- less than 5 years
- 5 to less than 10 years
- 10 to 15 years
- More than 15 years

**52. What type of installations do you perform for you customers?**

- Alternative Onsite Sewage System
- Conventional Onsite Sewage system
- Well

Other (please specify)

**53. What onsite sewage and water services do you routinely provide to your customers?**

- Repair work for failing sewage systems
- Replacement well installations for dry wells
- Pump, distribution box, component replacement
- Design of substituted systems
- Inspections for real estate transfers

Other (please specify)

**54. How often do you or does your company speak with staff at the local or state health department to provide services to your customers?**

- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

**55. What services have you received from the health department staff in the past?**

- Inspection for well or sewage system
- Problem-solving a permit issue (e.g., location of install, contour, plumbing elevations, etc.)
- Discuss scheduling for inspection
- Design change to the permit
- Equipment or material change
- Discuss repair options for a failing sewage system
- Locate sewage system components

Other (please specify)



**56. What does the health department provide that is most valuable to your company and its customers?**

- Unbiased advice
- Response to questions and expert knowledge of regulatory requirements
- Inspections
- Design services
- Site and soil evaluations
- Sanitary surveys

Other (please specify)

**57. If ALL soil evaluations, designs and inspections were provided by the private sector, how would that affect your costs to provide services?**

- None
- Costs would slightly decrease
- Costs would moderately decrease
- Costs would dramatically decrease
- Costs would slightly increase
- Costs would moderately increase
- Costs would dramatically increase

**58. Is there a sufficient number of private sector designers and inspectors in your area of business to get timely services?**

**In other words, if the health department no longer provided design and inspection services, would there be enough providers in the private sector to assist you in a timely manner?**

- Yes
- No

**59. If all services were provided in the private sector, what do you think would happen with your fees for services?**

- No change
- Slight decrease
- Moderate decrease
- Significant decrease
- Slight increase
- Moderate increase
- Significant increase

Other (please specify)

**60. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**61. What incentives could be instituted to voluntarily increase private sector input in your area?**

**\*62. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Questions for OSEs (Private Sector)

### 63. How many customers do you serve each month?

- 0 to 20
- 21 to 50
- 51 to 100
- 101 to 200
- 201 to 500
- More than 500

### 64. Without adding new employees, how many additional customers do you think you could serve each month?

- 0 to 25
- 26 to 50
- 51 to 75
- 76 to 100
- More than 100

### 65. In the past year, what was the longest one-way distance from your base business location that you traveled to provide services?

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

### 66. In the past year, what was the AVERAGE one-way distance from your base business location that you traveled to provide services?

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

### 67. How long have you been providing OSE services to your customers?

- less than 5 years
- 5 to less than 10 years
- 10 to 15 years
- More than 15 years

**68. What services do you provide to your clients?**

- |   |  |
|---|--|
| <input type="checkbox"/> Site and soil evaluations for certification letters and construction permits | <input type="checkbox"/> Inspections of water supplies                               |
| <input type="checkbox"/> Designs of conventional onsite sewage systems                                | <input type="checkbox"/> Subdivision proposals                                       |
| <input type="checkbox"/> Designs of alternative onsite sewage systems                                 | <input type="checkbox"/> Review of existing sewage systems for building permits      |
| <input type="checkbox"/> Designs for repair systems   | <input type="checkbox"/> Review of existing sewage systems for real estate transfers |
| <input type="checkbox"/> Inspections of sewage systems  | <input type="checkbox"/> Voluntary upgrade work                                      |

Other (please specify)

**69. What percent of your work is dedicated to subdivision and new construction work?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**70. Why do you provide this percentage of work in new construction and subdivision development (and not some other amount)?**

- I do not want to do more
- Clients only approach me when the health department does not perform the work
- Clients will pay for these services
- This type of work is most profitable compared to other types of services

Other (please specify)

**71. What percent of your work is dedicated to designing conventional onsite sewage systems?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**72. Why do you provide this percentage of conventional system work (and not some other amount)?**

- I do not want to do more
- Clients only approach me when the health department does not perform the work
- Clients only pay for these services when there is a significant time rush given the health department's charges
- This type of work is not as profitable compared to other types of services

Other (please specify)

**73. What percent of your work is dedicated to working with a professional engineer for an alternative discharging sewage system?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**74. Why do you provide this percentage of alternative discharging system work (and not more or less)?**

- Customers do not typically need this type of service
- Customers must use a P.E. for this service and my service is used as needed by the P.E.

Other (please specify)

**75. What percent of your work is dedicated to designing alternative onsite sewage systems?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**76. Why do you provide this percentage of alternative onsite sewage system work (and not more or less)?**

- |  |  |
|--|--|
| <input type="checkbox"/> Customers do not typically need this type of service        | <input type="checkbox"/> There is not much demand for this kind of work in my area   |
| <input type="checkbox"/> Customers usually work with a P.E. in my work location      | <input type="checkbox"/> There is a moderate demand for this kind of work in my area |
| <input type="checkbox"/> The health department does not provide this type of service | <input type="checkbox"/> There is a lot of demand for this kind of work in my area   |

Other (please specify)

**77. What percent of your work is dedicated to review of existing sewage systems in conjunction with a building permit pursuant to Title 32.1-165 of the Code of Virginia?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**78. What percent of your work is dedicated to voluntary upgrade work?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**79. What percent of your work is dedicated to repairing failing sewage systems?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**80. Why do you provide this amount of service for repairing failing onsite sewage systems?**

- I do not want to do more repair work
- Clients only approach me if the health department can't design a repair system
- Clients are not willing to pay for these services because the service is done free of charge at the health department.
- Repairs require a significant amount of work and has a quick turn-around timeframe.

Other (please specify)

**\*81. Would you be willing to provide pro-bono work to owners who could not afford to pay for your service but needed to repair a failing sewage system?**

- Yes
- No

**82. How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?**

- Never
- 1
- 2
- 3
- 4
- 5 or more

Other (please specify)

**83. How often do you or does your company speak with staff at the local or state health department to provide services to your customers?**

- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

**84. What services have you received from the health department staff in the past?**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Level 1 or 2 review of my work                                      | <input type="checkbox"/> Problem-solving a permit issue (e.g., location of install, contour, plumbing elevations, soil concern, etc.) | <input type="checkbox"/> Discuss repair options for a failing sewage system |
| <input type="checkbox"/> Inspection of a well or sewage system that I also inspected         | <input type="checkbox"/> Discuss scheduling for inspection  | <input type="checkbox"/> Discuss regulatory or policy interpretations       |
| <input type="checkbox"/> Courtesy review   | <input type="checkbox"/> Design change to the permit  |   |
| <input type="checkbox"/> Preliminary conference for proposed new construction or development | <input type="checkbox"/> Equipment or material change   |   |

Other (please specify)

**85. What does the health department provide that is most valuable to your company and its customers?**

- |  |  |
|--|--|
| <input type="checkbox"/> Unbiased advice   | <input type="checkbox"/> Design services           |
| <input type="checkbox"/> Response to questions and expert knowledge of regulatory requirements | <input type="checkbox"/> Site and soil evaluations |
| <input type="checkbox"/> Inspections   | <input type="checkbox"/> Sanitary surveys          |

Other (please specify)

**86. If all services were provided in the private sector, what do you think would happen with your fees for services?**

- |  |  |
|--|--|
| <input type="radio"/> No change            | <input type="radio"/> Slight increase      |
| <input type="radio"/> Slight decrease      | <input type="radio"/> Moderate increase    |
| <input type="radio"/> Moderate decrease    | <input type="radio"/> Significant increase |
| <input type="radio"/> Significant decrease |  |

Other (please specify)

**87. Is there a sufficient number of private sector designers and inspectors in your area of business to provide a competitive market place with timely services?**

- Yes
- No

**88. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- |   |  |
|---|--|
| <input type="checkbox"/> Not important, it is not necessary to review the private sector's work because they are licensed | <input type="checkbox"/> Very important, should look at most of the work performed |
| <input type="checkbox"/> Somewhat important, should look at a small percentage of the work                                | <input type="checkbox"/> Critical and always necessary                             |
| <input type="checkbox"/> Important, should look at a moderate percentage of the work                                      |  |



**89. What incentives could be instituted to voluntarily increase private sector input in your area?**

**\*90. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

Yes

No

## Questions for PEs (Private Sector)

### 91. How many customers do you serve each month?

- 0 to 20
- 21 to 50
- 51 to 100
- 101 to 200
- 201 to 500
- More than 500

### 92. Without adding new employees, how many additional customers do you think you could serve in addition to your current customer base?

- 0 to 25
- 26 to 50
- 51 to 75
- 76 to 100
- More than 100

### 93. In the past year, what was the maximum one-way distance from your base business location that you traveled to provide engineering services?

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

### 94. In the past year, what was the average one-way distance from your base business location that you traveled to provide services?

- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

### 95. How long have you been providing engineering services to your customers?

- less than 5 years
- 5 to less than 10 years
- 10 to 15 years
- More than 15 years

**96. What services as a professional engineer do you provide to your clients in the onsite sewage and water supply program?**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Site and soil evaluations for certification letters and construction permits | <input type="checkbox"/> Inspections of sewage systems                 | <input type="checkbox"/> Review of existing sewage systems for building permits      |
| <input type="checkbox"/> Designs of conventional onsite sewage systems                                | <input type="checkbox"/> Location of private wells or repairs of wells | <input type="checkbox"/> Review of existing sewage systems for real estate transfers |
| <input type="checkbox"/> Designs of alternative onsite sewage systems                                 | <input type="checkbox"/> Inspections of water supplies                 | <input type="checkbox"/> Voluntary upgrades  |
| <input type="checkbox"/> Designs for repair systems   | <input type="checkbox"/> Subdivision proposals                         |  |

Other (please specify)

**97. What percent of your work is dedicated to subdivision and new construction work?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**98. Why does your work comprise that percentage (and not more or less)?**

- I do not want to do more
- Clients approach me for this amount and type of work
- Clients will pay for these services
- This type of work is most profitable compared to other types of services

Other (please specify)

**99. What percent of your work is dedicated to designing conventional onsite sewage systems?**

- |  |  |
|--|--|
| <input type="radio"/> I do not design conventional systems | <input type="radio"/> 25 to less than 50 percent         |
| <input type="radio"/> less than 10 percent                 | <input type="radio"/> 50 percent to less than 75 percent |
| <input type="radio"/> 10 to less than 25 percent           | <input type="radio"/> more than 75 percent               |

**100. Why do you provide this percentage of conventional system work (and not more or less)?**

- Clients do not hire me or my company for this type of work
- I do not want to do more
- Clients only approach me when the health department does not perform the work
- Clients only pay for these services when there is a significant time rush given the health department's charges
- This type of work is not as profitable compared to other types of services

Other (please specify)

**101. What percent of your work is dedicated to working with a private sector OSE?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**102. What percent of your work is dedicated to designing alternative onsite sewage systems?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**103. Why do you provide this percentage of alternative onsite sewage system work?**

- This is the volume of work requested by clients
- Customers usually work with OSEs
- The health department does not provide this type of service
- There is not much demand for this kind of work in my area
- There is a moderate demand for this kind of work in my area
- There is a lot of demand for this kind of work in my area

Other (please specify)

**104. In a typical month, how often do you use site and soil evaluations prepared by a health department employee?**

- Never
- 1 to 5
- 6 to 15
- 16 to 25
- More than 25

**105. What percent of your work is dedicated to review of existing sewage systems in conjunction with a building permit pursuant to Title 32.1-165 of the Code of Virginia?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**106. What percent of your work is dedicated to voluntary upgrade work?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**107. What percent of your work is dedicated to repairing failing sewage systems?**

- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**108. Why do you provide this amount of service for repairing failing onsite sewage systems (and not more or less)? (Check all that apply)**

- I do not want to do more repair work
- Clients only approach me if the health department can't design a repair system
- Clients are not willing to pay for these services because the service is done free of charge at the health department.
- Repairs require a significant amount of work that is not billable.
- There is civil liability
- Professional disagreements are more likely with the health department
- Enforcement issues with the failing sewage system

Other (please specify)

**\*109. Would you be willing to provide pro-bono work to owners who could not afford to pay for your services?**

- Yes
- No

**110. How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?**

- Never
- 1
- 2
- 3
- 4
- 5 or more

Other (please specify)

**111. How often do you or does your company speak with staff at the local or state health department to provide services to your customers?**

- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

**112. What services have you received from the health department staff in the past?**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Level 1 or 2 review of my work                                      | <input type="checkbox"/> Problem-solving a permit issue (e.g., location of install, contour, plumbing elevations, soil concern, etc.) | <input type="checkbox"/> Discuss repair options for a failing sewage system |
| <input type="checkbox"/> Inspection of a well or sewage system that I also inspected         | <input type="checkbox"/> Discuss scheduling for inspection  | <input type="checkbox"/> Discuss regulatory or policy interpretations       |
| <input type="checkbox"/> Courtesy review   | <input type="checkbox"/> Design change to the permit  |   |
| <input type="checkbox"/> Preliminary conference for proposed new construction or development | <input type="checkbox"/> Equipment or material change   |   |

Other (please specify)

**113. What does the health department provide that is most valuable to your company and its customers?**

- |  |  |
|--|--|
| <input type="checkbox"/> Unbiased advice   | <input type="checkbox"/> Design services           |
| <input type="checkbox"/> Response to questions and expert knowledge of regulatory requirements | <input type="checkbox"/> Site and soil evaluations |
| <input type="checkbox"/> Inspections   | <input type="checkbox"/> Sanitary surveys          |

Other (please specify)

**114. If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services?**

- Yes
- No

**115. If all services were provided in the private sector, what do you think would happen with your fees for services?**

- |  |  |
|--|--|
| <input type="radio"/> No change            | <input type="radio"/> Slight increase      |
| <input type="radio"/> Slight decrease      | <input type="radio"/> Moderate increase    |
| <input type="radio"/> Moderate decrease    | <input type="radio"/> Significant increase |
| <input type="radio"/> Significant decrease |  |

Other (please specify)

**116. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**117. What incentives could be instituted to voluntarily increase private sector input in your area?**

**\*118. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No



## Questions for Elected Officials, Zoning, Building & Planning

**119. If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services in your area?**

- Yes
- No

**120. If all services were provided in the private sector, what do you think would happen with private sector fees?**

- No change
- Slight decrease
- Moderate decrease
- Significant decrease
- Slight increase
- Moderate increase
- Significant increase

Other (please specify)

**121. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**122. If all services were provided in the private sector, what do you think would happen with the health department's application fees?**

**Please assume there would be some fee to cover program administration and oversight such as records retention, customer responses, and reviews.**

- No change
- Slight decrease
- Moderate decrease
- Significant decrease
- Slight increase
- Moderate increase
- Significant increase

**123. What concerns or thoughts do you have if the health department no longer accepted "bare" applications?**

**"Bare" applications are applications that do not include private sector soil evaluations and designs.**

**124. What incentives could be instituted to voluntarily increase private sector input?**

**\*125. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

Yes

No

**Questions for Manufacturer/ Distributor**

**126. How often do you or does your company speak with staff at the local or state health department to provide services to your customers?**

- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

**127. How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?**

- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**128. If all direct services were provided in the private sector, what do you think would happen with private sector fees?**

- No change
- Slight decrease
- Moderate decrease
- Significant decrease
- Slight increase
- Moderate increase
- Significant increase

Other (please specify)

**129. What does the health department provide that is most valuable to your company and its customers?**

- Unbiased advice
- Response to questions and expert knowledge of regulatory requirements
- Inspections
- Design services
- Site and soil evaluations
- Sanitary surveys

Other (please specify)

**130. Which of the following mandates would you support to increase private sector input?  
(Check all that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> Require the health department to charge similar fees as the private sector for all services, including repair permits. | <input type="checkbox"/> Require all applications for review of existing systems for real estate transfers to be performed by the private sector |
| <input type="checkbox"/> Create a fund to help pay private sector service providers in those cases where owners cannot afford needed services.  | <input type="checkbox"/> Require all applications for subdivisions to include private sector work  |
| <input type="checkbox"/> Require private sector service providers to accept a certain amount of pro bono work.                                  | <input type="checkbox"/> Require all applications for repairs to include private sector work   |
| <input type="checkbox"/> Require all applications for voluntary upgrades to include private sector work   | <input type="checkbox"/> Require all applications for well permits to include private sector work  |
| <input type="checkbox"/> Require all applications for certification letters to include private sector work                                      |  |

Other (please specify)

**131. Without mandates, what incentives could be instituted to voluntarily increase private sector input?**

**\* 132. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Questions for Professional Organizations

**133. If the contact information for your organization was not previously offered at the beginning of the survey, then please include your professional organization's contact information below.**

**Name:**

**Company:**

**Address:**

**Address 2:**

**City/Town:**

**State:**

**ZIP:**

**Country:**

**Email Address:**

**134. What stakeholder groups are presently represented on your board of directors?**

- |   |  |
|---|--|
| <input type="radio"/> EHS                   | <input type="radio"/> Private sector Onsite Soil Evaluator               |
| <input type="radio"/> Homeowner             | <input type="radio"/> Distributor  |
| <input type="radio"/> Professional Engineer | <input type="radio"/> Manufacturer                                       |
| <input type="radio"/> Operator              | <input type="radio"/> Building/Zoning/county administration staff person |

Other (please specify)

**135. What does the health department provide that is most valuable to your organization's members?**

- |  |  |
|--|--|
| <input type="checkbox"/> Unbiased advice   | <input type="checkbox"/> Design services           |
| <input type="checkbox"/> Response to questions and expert knowledge of regulatory requirements | <input type="checkbox"/> Site and soil evaluations |
| <input type="checkbox"/> Inspections   | <input type="checkbox"/> Sanitary surveys          |

Other (please specify)

**136. Which of the following does your organization support to increase private sector input? (Check all that apply)**

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Require the health department to charge similar fees as the private sector for all services, including repair permits. | <input type="checkbox"/> Require all applications for voluntary upgrades to include private sector work  | <input type="checkbox"/> Require all applications for subdivisions to include private sector work |
| <input type="checkbox"/> Create a fund to help pay private sector service providers in those cases where owners cannot afford needed services.  | <input type="checkbox"/> Require all applications for certification letters to include private sector work                                       | <input type="checkbox"/> Require all applications for repairs to include private sector work      |
| <input type="checkbox"/> Require private sector service providers to accept a certain amount of pro bono work.                                  | <input type="checkbox"/> Require all applications for review of existing systems for real estate transfers to be performed by the private sector | <input type="checkbox"/> Require all applications for well permits to include private sector work |

Other (please specify)

**137. Without mandates, what incentives could be instituted to voluntarily increase private sector input?**

**138. If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services?**

- Yes
- No

Other (please specify)

**\*139. Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?**

- Yes
- No

## Survey Close-out Page

**140. Thank you for participating in this survey. Should you wish to provide additional information beyond the scope of this survey, then please email Dwayne Roadcap at [Dwayne.Roadcap@vdh.virginia.gov](mailto:Dwayne.Roadcap@vdh.virginia.gov) or write your additional responses in the comment below.**

## Appendix 5: All Stakeholders Responses

Thank you for your interest and giving us your comments and thoughts. This survey should take no more than 15 minutes to complete. Please give us your contact information so we can follow-up with you if necessary.

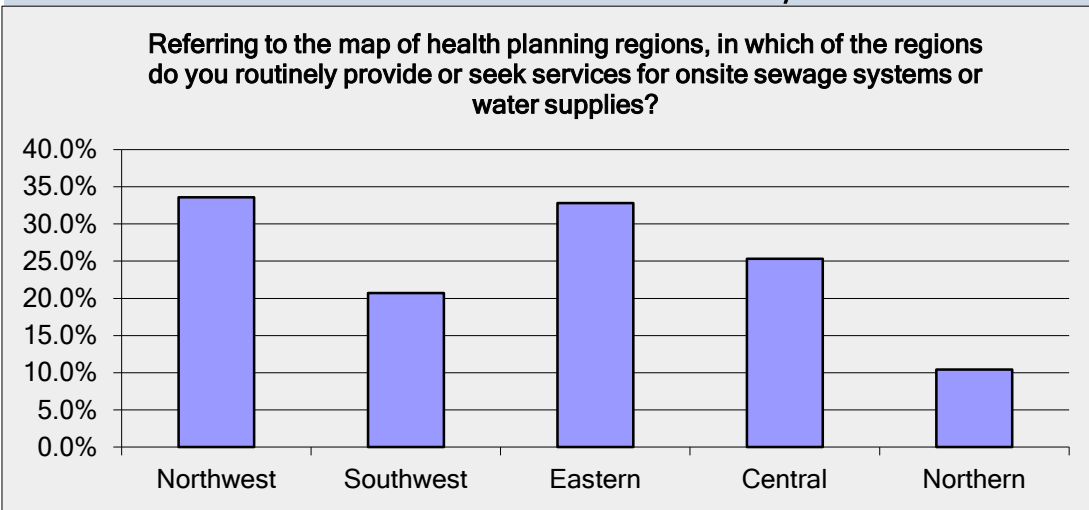
Answer Options	Response Percent	Response Count
Name:	100.0%	244
Address:	100.0%	244
City/Town:	100.0%	244
State:	100.0%	244
ZIP:	100.0%	244
Email Address:	97.1%	237
<i>answered question</i>		<b>244</b>



## Appendix 5: All Stakeholders Responses

Referring to the map of health planning regions, in which of the regions do you routinely provide or seek services for onsite sewage systems or water supplies?

Answer Options	Response Percent	Response Count
Northwest	33.6%	81
Southwest	20.7%	50
Eastern	32.8%	79
Central	25.3%	61
Northern	10.4%	25
<i>answered question</i>		<b>241</b>



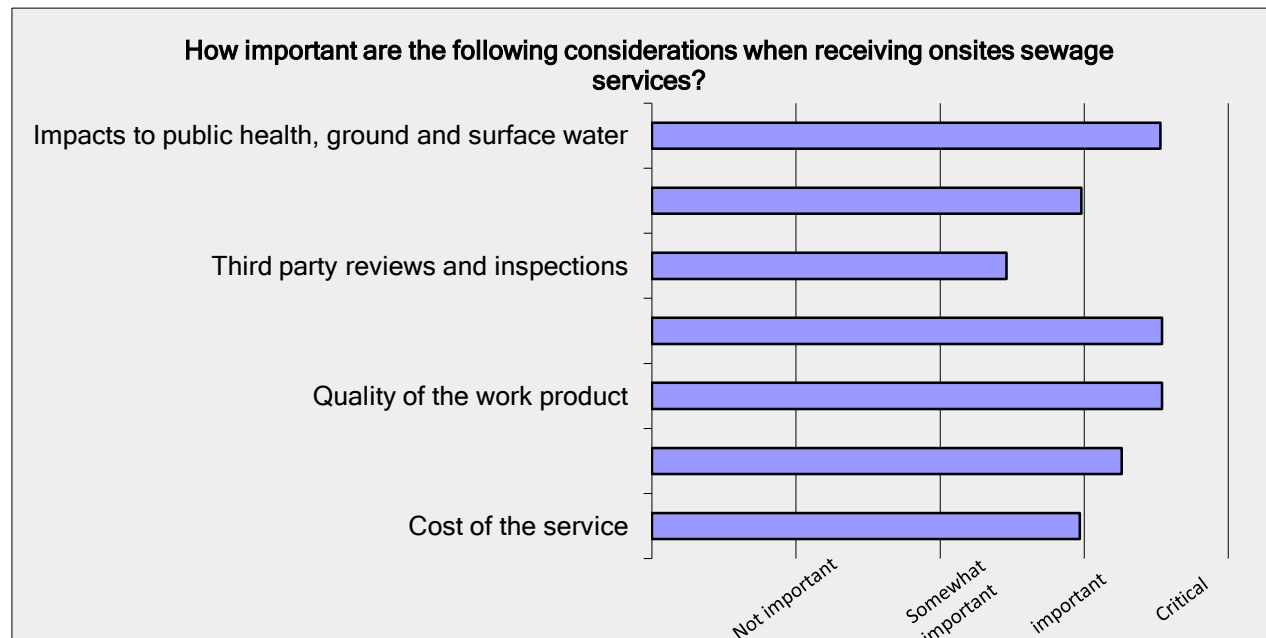
## Appendix 5: All Stakeholders

Answer Options	not important	somewhat important	important	critical	Rating Average	Response Count
rabies investigations	5	15	70	150	3.52	240
complaint investigations	3	24	131	81	3.21	239
Ensuring owners are properly operating and maintaining sewage systems	10	33	93	105	3.22	241
paper review of private sector work	23	50	94	72	2.90	239
field review of private sector work	38	54	79	68	2.74	239
sewage system and well inspections	30	44	75	91	2.95	240
Working with owners of failing sewage systems	15	32	64	130	3.28	241
Getting compliance with public health violations	2	12	87	139	3.51	240
Performing site and soil evaluations and designs for repairs	56	41	66	78	2.69	241
Performing site and soil evaluations and designs for new construction	75	48	52	66	2.45	241
Courtesy reviews of private sector questions	22	68	98	49	2.73	237
Subdivision reviews	34	55	83	62	2.74	234
Review of existing sewage systems for building permits	28	47	97	67	2.85	239
<i>answered question</i>						<b>241</b>
2.0 = Somewhat Important    3.0 = Important    4.0 = critical						

## Appendix 5: All Stakeholders

Exposure to untreated or partially treated sewage can cause numerous illnesses, including Salmonellosis, Shigellosis, Cholera, Viral hepatitis A, Sporadic or endemic viral gastroenteritis, and other disease. When you receive services from the health department or private sector, how important are the following to you.

Answer Options	Not important	Somewhat important	important	Critical	Rating Average	Response Count
Cost of the service	10	35	144	48	2.97	237
Timeliness of the service	1	13	148	77	3.26	239
Quality of the work product	1	5	96	136	3.54	238
Compliance with rules that protect public health	1	5	98	135	3.54	239
Third party reviews and inspections	33	87	95	24	2.46	239
Motivations of the service provider to provide you the	11	43	123	61	2.98	238
Impacts to public health, ground and surface water	0	14	83	140	3.53	237
<i>answered question</i>						<b>240</b>



## Appendix 5: All Stakeholders

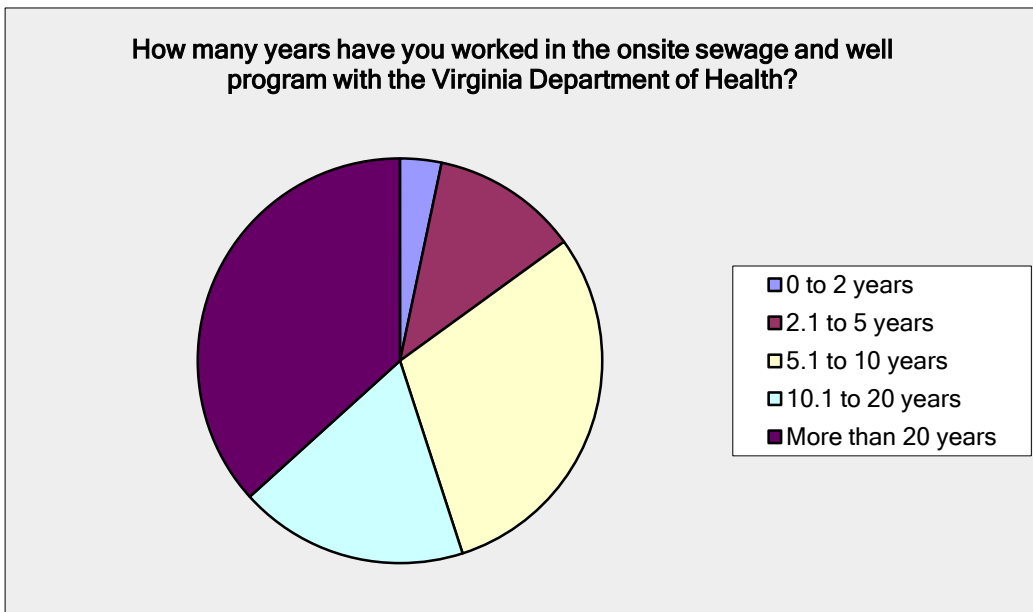
You might be part of multiple stakeholder groups. For example, you could be an owner of a sewage system, an installer, and an operator. Please select one stakeholder category below to provide us feedback. After you finish answering the questions for one stakeholder group, you will be given a chance to select a different stakeholder category. You may find some of the same questions in each stakeholder group so please consider whether your opinion changes as you wear your different hats.

Answer Options	Response Percent	Response Count
owner of an onsite sewage system	28.5%	68
installer or well driller	7.9%	19
O&M provider	8.4%	20
Environmental Health Specialist (VDH employee)	21.3%	51
private sector onsite soil evaluator	21.3%	51
private sector professional engineer	7.1%	17
elected official	1.7%	4
county administration, zoning, planning & building	18.8%	45
professional organization or association	6.3%	15
product manufacturer, distributor, or realtor	2.5%	6
<i>answered question</i>		<b>239</b>

## Appendix 5: Environmental Health Specialist Answers

How many years have you worked in the onsite sewage and well program with the Virginia Department of Health?

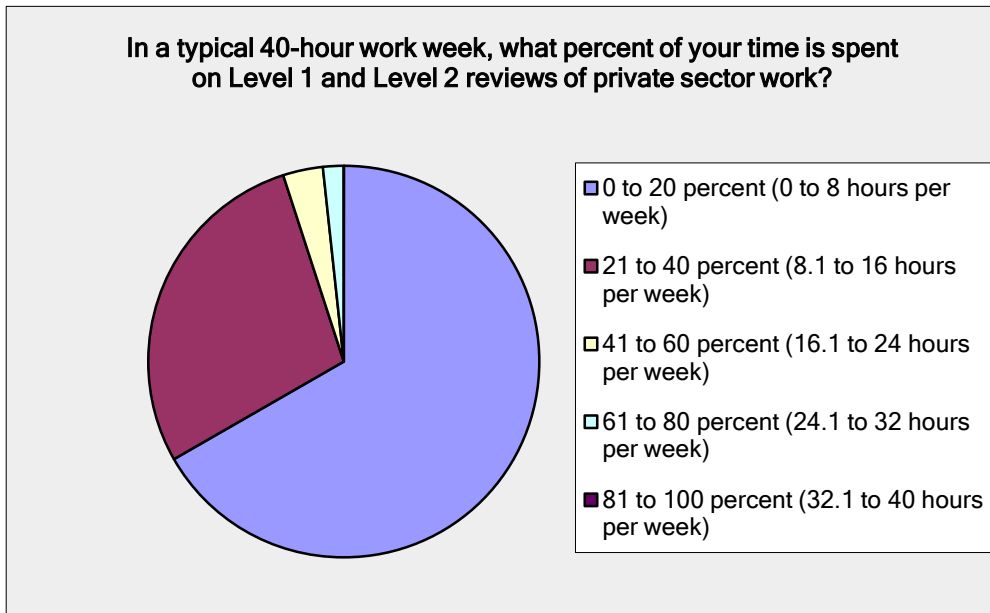
Answer Options	Response Percent	Response Count
0 to 2 years	3.3%	2
2.1 to 5 years	11.7%	7
5.1 to 10 years	30.0%	18
10.1 to 20 years	18.3%	11
More than 20 years	36.7%	22
<i>answered question</i>		<b>60</b>



## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent on Level 1 and Level 2 reviews of private sector work?

Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	66.7%	40
21 to 40 percent (8.1 to 16 hours per week)	28.3%	17
41 to 60 percent (16.1 to 24 hours per week)	3.3%	2
61 to 80 percent (24.1 to 32 hours per week)	1.7%	1
81 to 100 percent (32.1 to 40 hours per week)	0.0%	0
<i>answered question</i>		<b>60</b>

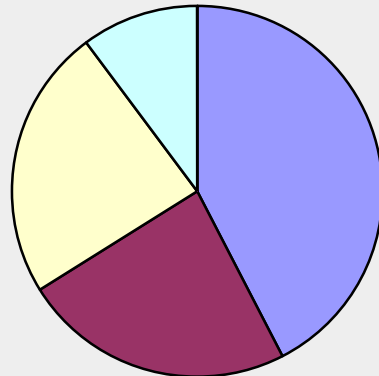


## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent doing sanitary surveys and site and soil evaluations for wells and sewage systems?

Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	42.4%	25
21 to 40 percent (8.1 to 16 hours per week)	23.7%	14
41 to 60 percent (16.1 to 24 hours per week)	23.7%	14
61 to 80 percent (24.1 to 32 hours per week)	10.2%	6
81 to 100 percent (32.1 to 40 hours per week)	0.0%	0
<i>answered question</i>		<b>59</b>

In a typical 40-hour work week, what percent of your time is spent doing sanitary surveys and site and soil evaluations for wells and sewage systems?



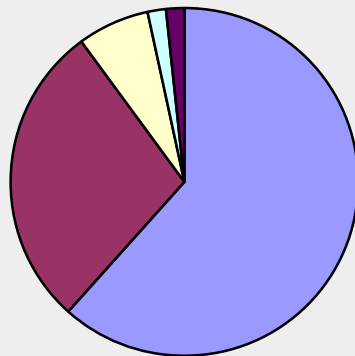
- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent working with owners of failing sewage systems? Please include field work, office work, telephone time, and other time to perform enforcement activities.

Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	61.7%	37
21 to 40 percent (8.1 to 16 hours per week)	28.3%	17
41 to 60 percent (16.1 to 24 hours per week)	6.7%	4
61 to 80 percent (24.1 to 32 hours per week)	1.7%	1
81 to 100 percent (32.1 to 40 hours per week)	1.7%	1
<i>answered question</i>		<b>60</b>

In a typical 40-hour work week, what percent of your time is spent working with owners of failing sewage systems? Please include field work, office work, telephone time, and other time to perform enforcement activities.



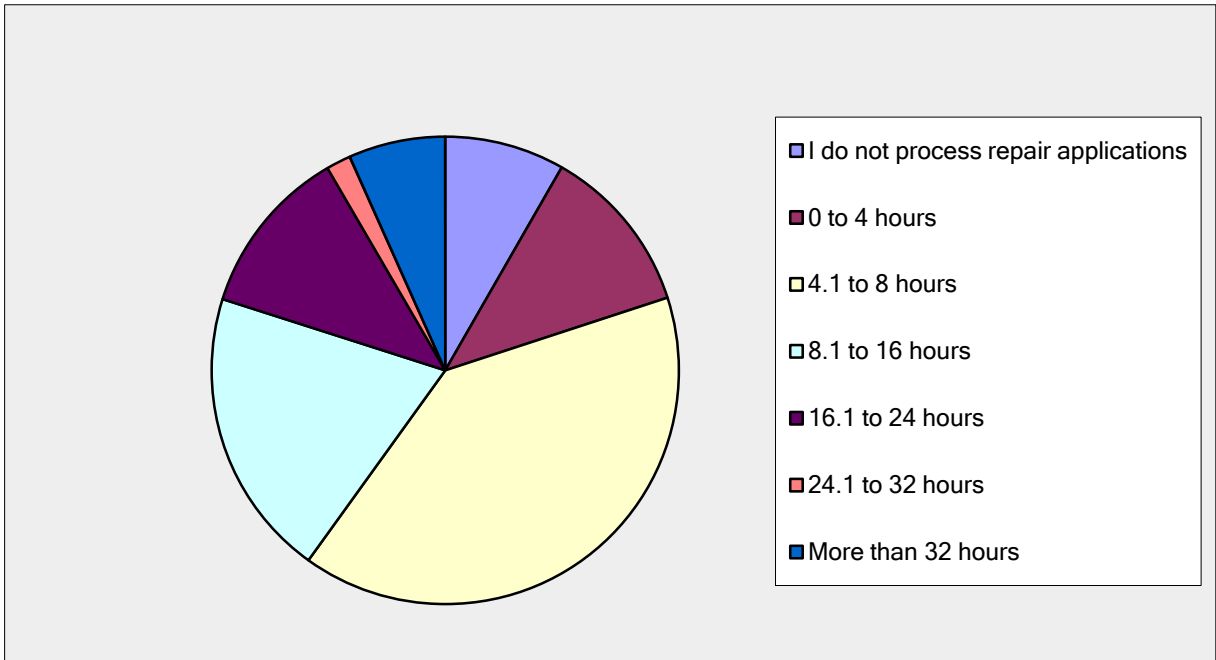
- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)



## Appendix 5: Environmental Health Specialist Answers

Consider for a moment the last 5 repair applications you have worked, which resulted in issuance of a permit. What was the average amount of time you spent to move each initial application to a repair permit? Please include all field work and office work, including time on the telephone.

Answer Options	Response Percent	Response Count
I do not process repair applications	8.3%	5
0 to 4 hours	11.7%	7
4.1 to 8 hours	40.0%	24
8.1 to 16 hours	20.0%	12
16.1 to 24 hours	11.7%	7
24.1 to 32 hours	1.7%	1
More than 32 hours	6.7%	4
<i>answered question</i>		<b>60</b>

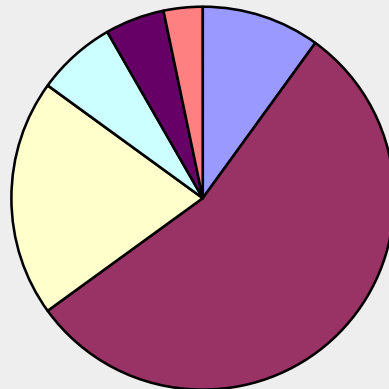


## Appendix 5: Environmental Health Specialist Answers

Of the repair applications you process, what percent of them include site and soil evaluations (or designs) from an OSE or OSE/PE?

Answer Options	Response Percent	Response Count
I do not process repair applications	10.0%	6
0 to 20 percent	55.0%	33
21 to 40 percent	20.0%	12
41 to 60 percent	6.7%	4
61 to 80 percent	5.0%	3
81 to 100 percent	3.3%	2
<i>answered question</i>		<b>60</b>

Of the repair applications you process, what percent of them include site and soil evaluations (or designs) from an OSE or OSE/PE?



- I do not process repair applications
- 0 to 20 percent
- 21 to 40 percent
- 41 to 60 percent
- 61 to 80 percent
- 81 to 100 percent

## Appendix 5: Environmental Health Specialist Answers

From your perspective, what are the three most important considerations for a property owner when he or she chooses to use the private sector for repairs in your area?  
(Please check no more than three)

Answer Options	Response Percent	Response Count
Cost of private sector services versus the cost of health	76.8%	43
Civil liability issues for the private sector	12.5%	7
Professional discretion and disagreements over it	17.9%	10
Enforcement and the need to compel owner action	26.8%	15
Private sector's willingness to provide repair services	32.1%	18
The number of private sector service providers in the	30.4%	17
Private sector only works on alternative system designs	21.4%	12
Health department only does conventional system	44.6%	25
The number of repair applications received	0.0%	0
Other (please specify)		14
<b>answered question</b>		<b>56</b>

Property owners are ignorant to the issues and necessities when repair situations occur. They simply want their system functioning and the Health Department to quite sensing Alleged Notices of Violation.

Quality, professionalism, honesty (ethical)

From my experience reviewing OSE designs and knowing the owners, it appears that owners who hire Private sector to do their repairs are either: in need of an engineered repair (which HD person cannot do), in need of a packaged alternative repair (our county ordinance won't allow us to design pre packaged alternatives, wealthy homeowner that found it more convenient to hire consultant to be their one stop shop, Owners have heard mistakenly through the grapevine that the HD has already stopped doing bare applications (AND THESE OWNERS WERE VERY ANGRY WHEN THEY FOUND THEY COULD HAVE GOTTEN THE HD TO DO REPAIR)

May not "choose" to use private sector if AOSS is the only option for repair.

lack of qualified service providers

In our area designers often choose systems based on professional affiliation, not always what is best for the client or environment.

Some owners want a second opinion (shop around), others are trying to find a way to fix problems and have someone certify the system

\*Virginia Jurisdictional Addendum for Real Estate Transfers (getting a signoff for x-fers)

not really applicable. majority of repairs are VDH in this area. limited resources where private sector is concerned

why pay private/repair apps are free with Health Dept.

Private sector is more flexible and less worried about regulations.

The only reason someone in Rural VA in my 2 districts calls a OSE is because we are forbidden to do alternative work.

Land development requires Private Sector work

Willingness for private sector person to find a good repair and not a patch or most expensive new system

## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent working with owners on voluntary upgrades? (Please include field work, office work, and telephone)

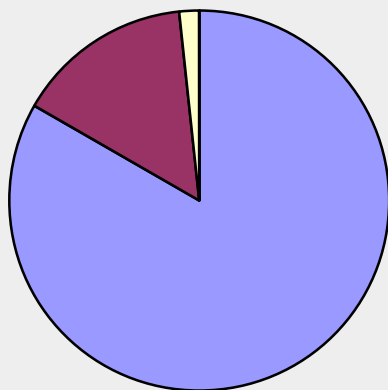
Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	98.3%	58
21 to 40 percent (8.1 to 16 hours per week)	1.7%	1
41 to 60 percent (16.1 to 24 hours per week)	0.0%	0
61 to 80 percent (24.1 to 32 hours per week)	0.0%	0
81 to 100 percent (32.1 to 40 hours per week)	0.0%	0
<i>answered question</i>		<b>59</b>

## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent working with owners on subdivision approvals or wanting to divide property? (Please include field work, office work, and telephone)

Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	83.3%	50
21 to 40 percent (8.1 to 16 hours per week)	15.0%	9
41 to 60 percent (16.1 to 24 hours per week)	1.7%	1
61 to 80 percent (24.1 to 32 hours per week)	0.0%	0
81 to 100 percent (32.1 to 40 hours per week)	0.0%	0
<i>answered question</i>		<b>60</b>

In a typical 40-hour work week, what percent of your time is spent working with owners on subdivision approvals or wanting to divide property? (Please include field work, office work, and telephone)



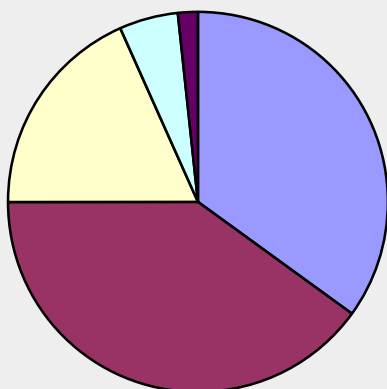
- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

## Appendix 5: Environmental Health Specialist Answers

In a typical 40-hour work week, what percent of your time is spent working with private sector operators, designers, well drillers, and sewage system installers? (Please include field work, office work, and telephone)

Answer Options	Response Percent	Response Count
0 to 20 percent (0 to 8 hours per week)	35.0%	21
21 to 40 percent (8.1 to 16 hours per week)	40.0%	24
41 to 60 percent (16.1 to 24 hours per week)	18.3%	11
61 to 80 percent (24.1 to 32 hours per week)	5.0%	3
81 to 100 percent (32.1 to 40 hours per week)	1.7%	1
<i>answered question</i>		<b>60</b>

In a typical 40-hour work week, what percent of your time is spent working with private sector operators, designers, well drillers, and sewage system installers?  
(Please include field work, office work, and telephone)



- 0 to 20 percent (0 to 8 hours per week)
- 21 to 40 percent (8.1 to 16 hours per week)
- 41 to 60 percent (16.1 to 24 hours per week)
- 61 to 80 percent (24.1 to 32 hours per week)
- 81 to 100 percent (32.1 to 40 hours per week)

## Appendix 5: Environmental Health Specialist Answers

Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?

Answer Options	Response Percent	Response Count
There is not any direct service that the private sector	31.6%	18
Voluntary upgrades	40.4%	23
Review of existing sewage systems for a building permit	19.3%	11
Site and soil evaluations for subdivisions	63.2%	36
Site and soil evaluations for repair permits	21.1%	12
Site and soil evaluations for new construction	29.8%	17
Design for repair systems	26.3%	15
Design for new construction systems	26.3%	15
Design of conventional sewage systems	24.6%	14
Site and soil evaluations for certification letters	38.6%	22
Abbreviated designs for certification letters	35.1%	20
Repair designs for wells and water supplies	19.3%	11
Well permits for new construction	19.3%	11
Inspections of sewage system and water supplies for	49.1%	28
Inspections of sewage systems and water supplies for	22.8%	13
Other (please specify)		10
<b>answered question</b>		<b>57</b>

Answers below are unaltered from what was written in the survey:

Alternative system design and permitting

Note: I would have included more if there were more qualified private sector professionals with a high ethical conduct.

Most OSE firms (not all) really prefer divisions over single lots, because they can make more money, so there seems to be enough competition and supply of OSE's to fill the subdivision needs. However they haven't been able (or are not willing to) to fill the needs of the single lot owners, as long as there are subdivisions available.

Preliminary soil evaluations for clients

Some of the listed services should NOT be responsibility of private sector.

you need to talk directly to the home owners being cheated by the private sector everyday.

\*Sub-divisions of existing properties & rabies investigations

Building permit review/approval is by code the responsibility of VDH and the code or policy may need to be amended to allow private sector input in place of VDH

Alternative Sewage Disposal Systems

Site and soil evaluations for new construction of alternative systems

## Appendix 5: Environmental Health Specialist Answers

If all services were provided in the private sector, what do you think would happen with the private sector's fees for services over the next three years?

Answer Options	Response Percent	Response Count
No change	6.8%	4
Slight decrease	0.0%	0
Moderate decrease	3.4%	2
Significant decrease	1.7%	1
Slight increase	8.5%	5
Moderate increase	32.2%	19
Significant increase	47.5%	28
Other (please specify)		6
<i>answered question</i>		<b>59</b>

**Answers below are unedited from what was input into the survey:**

Their demand would increase without an increase in supply of OSE's, and the OSE's would increase their prices, since the market could bear it.

Fees would be determined by what the market would bear.

not enough qualified service providers with real knowledge to get the job done.

I live in a very rural area and this is a HORRIBLE idea!!! It is a very good thing to have a "checks and balances" system between VDH and the private sector.

Private sector would charge max amount possible for any service provided

Increase to eliminating voluntary repairs and alike levels.



## Appendix 5: Environmental Health Specialist Answers

If there were no more "bare applications", then how would you maintain your expertise?

Answer Options	Response Percent	Response Count
I could not maintain my expertise.	27.3%	15
I would maintain my expertise through Level 1 and Level	58.2%	32
I would maintain my expertise through continuing	52.7%	29
I would maintain my expertise by following up with	38.2%	21
Other (please specify)		16
<i>answered question</i>		<b>55</b>

Suggest joint inspections

I could to Bare applications as a private sector AOSE in other districts outside of normal work hours.  
I have been working in Soil Science so long that I would be dead before I would loose my knowledge base

It would be very difficult to maintain my expertise regarding site and soil evaluations.

Since our total expertise developed as a result of designing from a bare lot, it would be impossible to maintain that level of expertise if we no longer created our own designs. Only those HD persons that work privately on the weekends could maintain the same expertise, and I think HD persons working side jobs is prohibited. You would have to surrender to the realization that HD personnel would become reviewers, who may be feared but not respected, because they no longer have true experience in the field.

working with other public/private; review of failures

home owners would be negatively affected and do not know or understand the regulations being proposed.

As a VDH employee, I need the bare applications to help maintain my knowledge and expertise along with continuing education.

Public Outreach. (Most homeowners I deal with appreciate the knowledge I instill upon them and I consequently acquire more knowledge in informing them of conditions & concerns regarding SDS.

evaluations of repair applications. Every repair applications should include a failure analysis report of the malfunctioning SDS. You can not repair something if you do not know what is wrong with it.

stupid question

We've already lost most of our expertise.

I would continue to do field reviews on all projects.

Digging several hole and describing soil will not keep you "designer" skills sharp.

There is no substitute for doing the work and making the decisions

Start my own business.

## Appendix 5: Environmental Health Specialist Answers

Regarding your job satisfaction, how important is it for you to perform site and soil evaluations and designs for onsite sewage systems and well placements?

Answer Options	Response Percent	Response Count
Not important at all: I would still enjoy my job	5.7%	3
Somewhat important: I would not enjoy my job as much	50.9%	27
Important or Essential: I would look for another job	45.3%	24
Other (please specify)		13
<i>answered question</i>		<b>53</b>

Would need to do some to maintain expertise and most private sector don't having training in wells.

It is of primary importance, I don't have full job satisfaction unless I know the job very well, and I would not know my job well if I was prohibited from doing site and soil evaluations.

Somewhat important: I would still enjoy my job

The key for most staff is not who does the job but the Quality.

i would hate to see home owners cheated by the private section. where would enforcement of health regulations go??

I love this part of the job. If I couldn't do site and soil evaluations and designs for septic systems and wells I would quit this job today!!!! This is another HORRIBLE idea!!!

An significant aspect of Environment Health is being visible in the community and demonstrating the significance of Public Health to the community. Being stuck behind a desk 40 hours a week would greatly hinder such a purpose.

apparently i take my job more seriously than OEHS does. Nothing like selling permits that don't meet regs.

It's not important at all. This job is no longer enjoyable.

I work in a poor rural county; you'd penalize the public for the greed of the engineering community.

retire

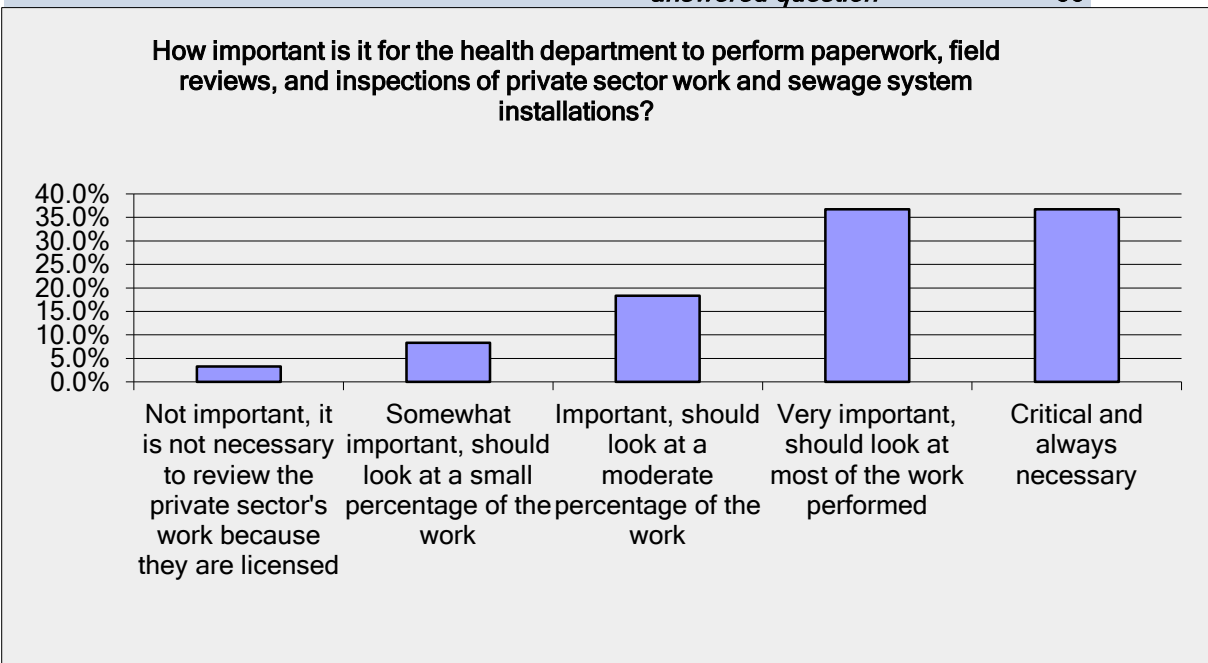
Administrator - not part of my job description

Important, but would not look for another job.

## Appendix 5: Environmental Health Specialist Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	3.3%	2
Somewhat important, should look at a small percentage	8.3%	5
Important, should look at a moderate percentage of the	18.3%	11
Very important, should look at most of the work	36.7%	22
Critical and always necessary	36.7%	22
<i>answered question</i>		<b>60</b>



### Appendix 5: Environmental Health Specialist Answers

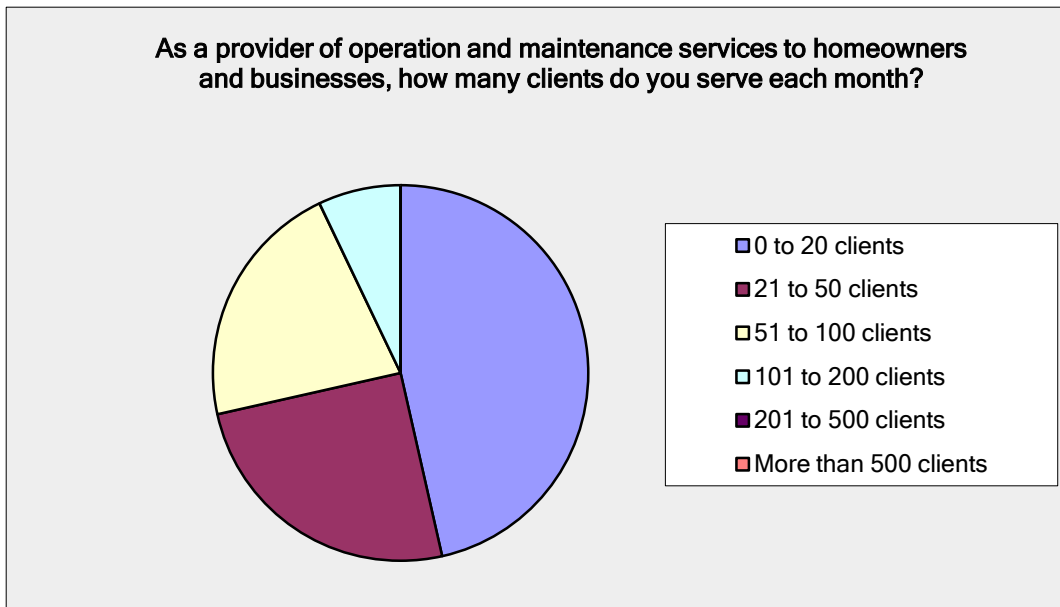
Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

Answer Options	Response Percent	Response Count
Yes	30.0%	18
No	70.0%	42
<i>answered question</i>		<b>60</b>

## Appendix 5: Operator Answers

As a provider of operation and maintenance services to homeowners and businesses, how many clients do you serve each month?

Answer Options	Response Percent	Response Count
0 to 20 clients	46.4%	13
21 to 50 clients	25.0%	7
51 to 100 clients	21.4%	6
101 to 200 clients	7.1%	2
201 to 500 clients	0.0%	0
More than 500 clients	0.0%	0
<i>answered question</i>		<b>28</b>

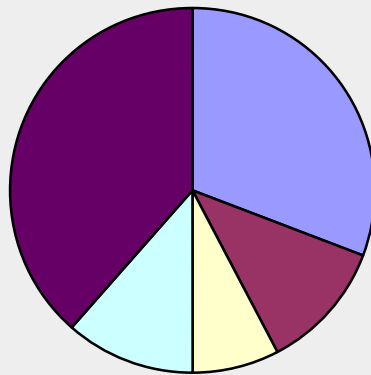


## Appendix 5: Operator Answers

Without hiring additional manpower, how many additional clients do you think you could serve in addition to your current client base?

Answer Options	Response Percent	Response Count
0 to 25	30.8%	8
26 to 50	11.5%	3
51 to 75	7.7%	2
76 to 100	11.5%	3
More than 100	38.5%	10
<i>answered question</i>		<b>26</b>

Without hiring additional manpower, how many additional clients do you think you could serve in addition to your current client base?



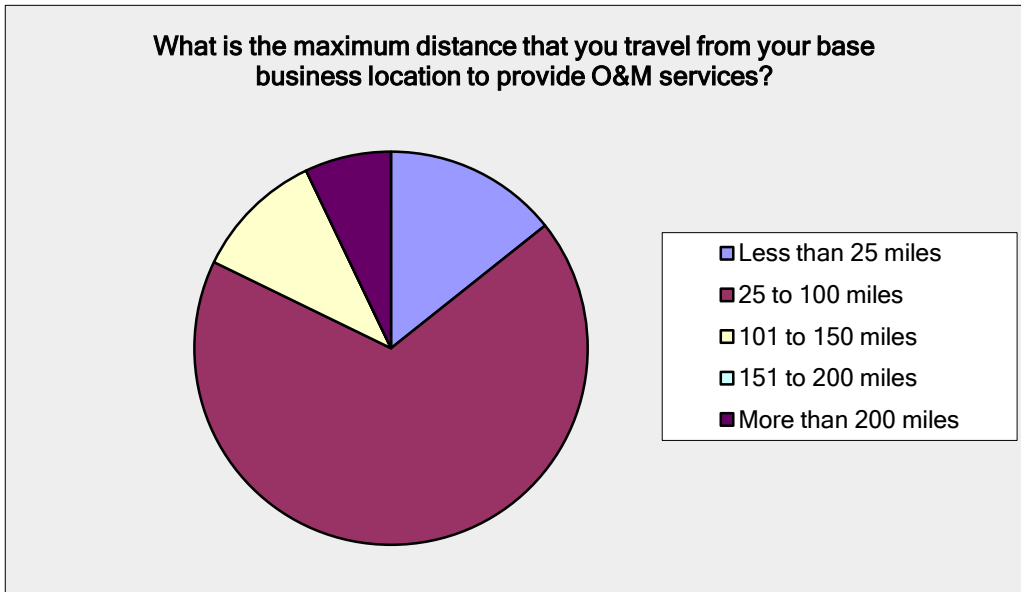
■ 0 to 25  
■ 26 to 50  
■ 51 to 75  
■ 76 to 100  
■ More than 100

## Appendix 5: Operator Answers

What is the maximum distance that you travel from your base business location to provide O&M services?

Answer Options	Response Percent	Response Count
Less than 25 miles	14.3%	4
25 to 100 miles	67.9%	19
101 to 150 miles	10.7%	3
151 to 200 miles	0.0%	0
More than 200 miles	7.1%	2

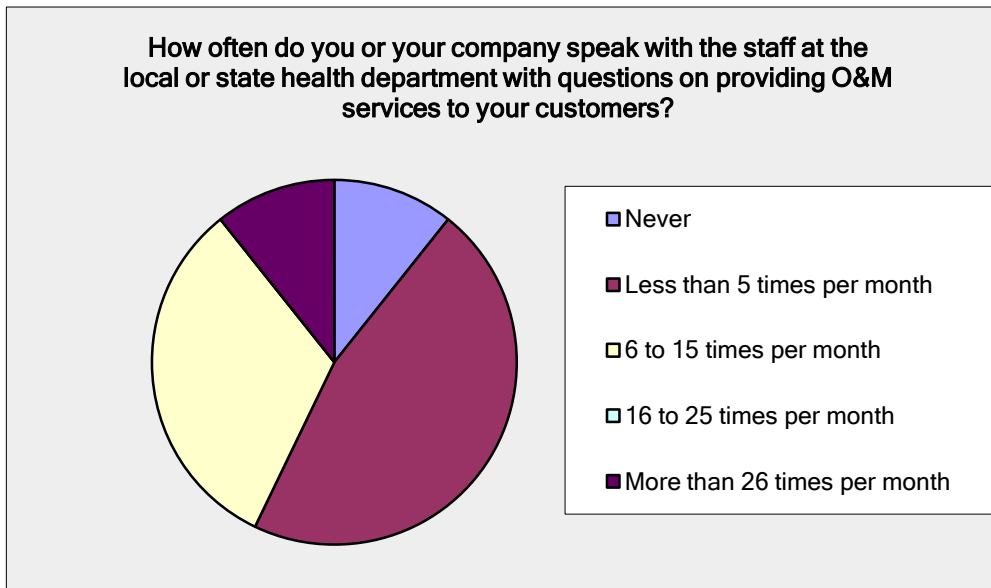
*answered question* **28**



## Appendix 5: Operator Answers

How often do you or your company speak with the staff at the local or state health department with questions on providing O&M services to your customers?

Answer Options	Response Percent	Response Count
Never	10.7%	3
Less than 5 times per month	46.4%	13
6 to 15 times per month	32.1%	9
16 to 25 times per month	0.0%	0
More than 26 times per month	10.7%	3
<i>answered question</i>		<b>28</b>

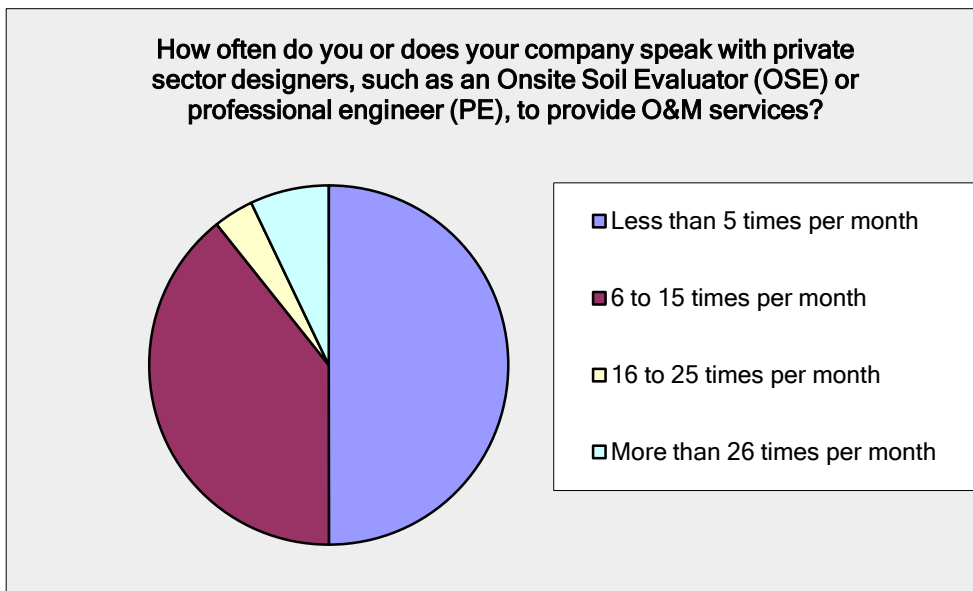




## Appendix 5: Operator Answers

How often do you or does your company speak with private sector designers, such as an Onsite Soil Evaluator (OSE) or professional engineer (PE), to provide O&M services?

Answer Options	Response Percent	Response Count
Less than 5 times per month	50.0%	14
6 to 15 times per month	39.3%	11
16 to 25 times per month	3.6%	1
More than 26 times per month	7.1%	2
<i>answered question</i>		<b>28</b>



## Appendix 5: Operator Answers

Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?

Answer Options	Response Percent	Response Count
There is not any direct service that the private sector	28.6%	8
Voluntary upgrades	53.6%	15
Review of existing sewage systems for a building permit	46.4%	13
Site and soil evaluations for subdivisions	57.1%	16
Site and soil evaluations for repair permits	46.4%	13
Site and soil evaluations for new construction	60.7%	17
Design for repair systems	50.0%	14
Design for new construction systems	64.3%	18
Design of conventional sewage systems	60.7%	17
Site and soil evaluations for certification letters	53.6%	15
Abbreviated designs for certification letters	60.7%	17
Repair designs for wells and water supplies	28.6%	8
Well permits for new construction	42.9%	12
Inspections of sewage system and water supplies for	67.9%	19
Inspections of sewage systems and water supplies for	57.1%	16
Other (please specify)		1
<i>answered question</i>		<b>28</b>

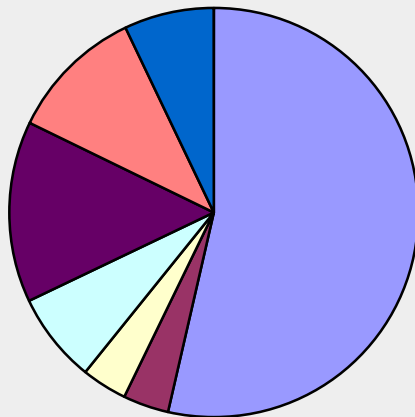
Our company has people who provide all of the services needed for AOSE work.

## Appendix 5: Operator Answers

If ALL soil evaluations, inspections, and designs were provided by private sector service providers, what financial impact would that have on your company's ability to provide O&M services?

Answer Options	Response Percent	Response Count
None	53.6%	15
Slight negative financial cost	3.6%	1
Moderate negative financial cost	3.6%	1
Significant negative financial cost	7.1%	2
Slight financial savings	14.3%	4
Moderate financial savings	10.7%	3
Significant financial savings	7.1%	2
<i>answered question</i>		<b>28</b>

If ALL soil evaluations, inspections, and designs were provided by private sector service providers, what financial impact would that have on your company's ability to provide O&M services?



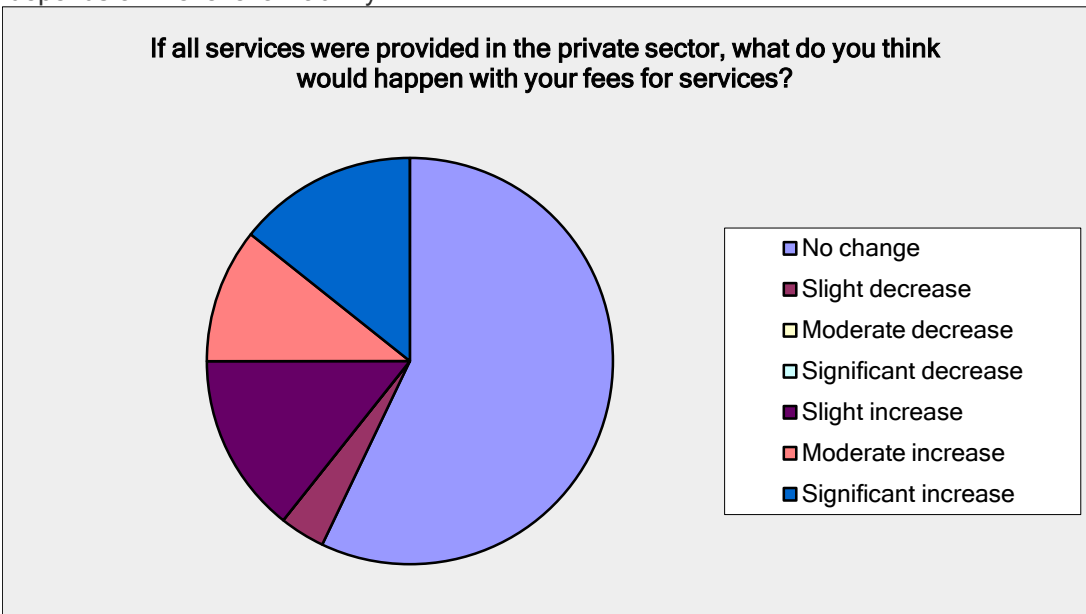
- None
- Slight negative financial cost
- Moderate negative financial cost
- Significant negative financial cost
- Slight financial savings
- Moderate financial savings
- Significant financial savings

## Appendix 5: Operator Answers

If all services were provided in the private sector, what do you think would happen with your fees for services?

Answer Options	Response Percent	Response Count
No change	57.1%	16
Slight decrease	3.6%	1
Moderate decrease	0.0%	0
Significant decrease	0.0%	0
Slight increase	14.3%	4
Moderate increase	10.7%	3
Significant increase	14.3%	4
Other (please specify)		2
<i>answered question</i>		<b>28</b>

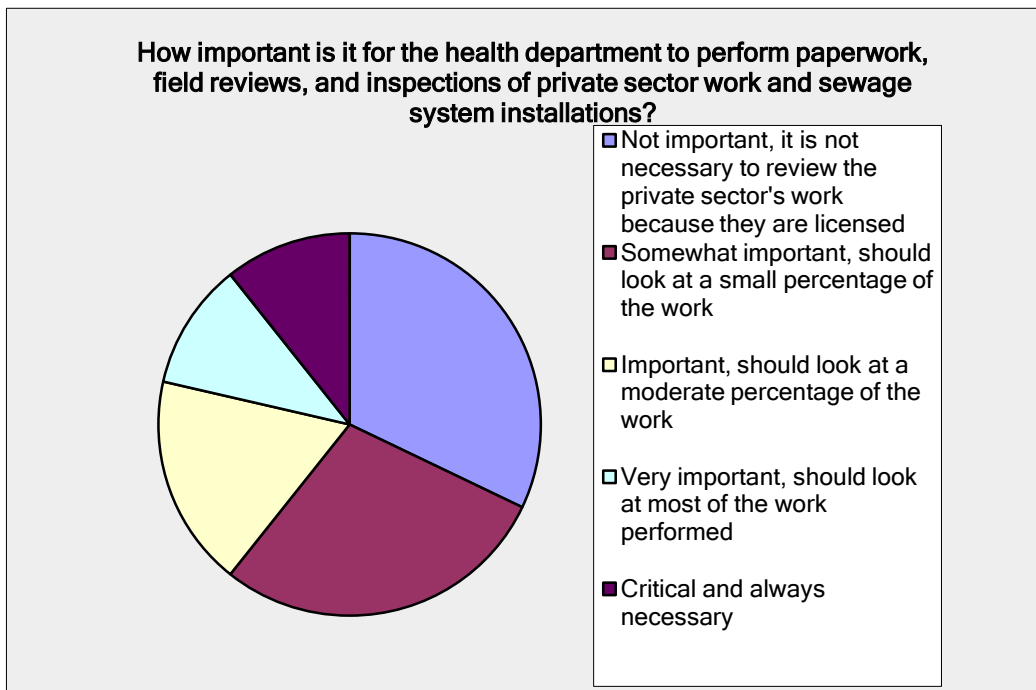
The current H. Dept fee structure for paper review is comperable to our site review & design. It is too DAMN high and is adversely effecting the private sector. depends on the level of liability



## Appendix 5: Operator Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	32.1%	9
Somewhat important, should look at a small percentage	28.6%	8
Important, should look at a moderate percentage of the	17.9%	5
Very important, should look at most of the work	10.7%	3
Critical and always necessary	10.7%	3
<i>answered question</i>		<b>28</b>



### Appendix 5: Operator Answers

Thank you for answering the O&M provider questions. Would you like to answer questions as a member of another stakeholder group?		
Answer Options	Response Percent	Response Count
Yes	64.3%	18
No	35.7%	10
<i>answered question</i>		<b>28</b>

## Appendix 5: Homeowner Answers

What applications have you submitted to the local health department in the past?

Answer Options	Response Percent	Response Count
I did not submit any application	28.3%	17
Application to repair a failing or malfunctioning sewage	13.3%	8
Application for a certification letter	8.3%	5
Application for a subdivision review	5.0%	3
Application to install a new sewage system for an	55.0%	33
Request to review an existing sewage system for	16.7%	10
Application to install a new well	36.7%	22
Application to abandon an existing well	5.0%	3
Application for voluntary upgrade	3.3%	2
Other (please specify)		5
<i>answered question</i>		<b>60</b>

none, I am an admin.clerical staff.

Requested information on a system for real estate purchase. WELL.

Application to Expand a System and Well Placement

Applications for connection into municipale STP

## Appendix 5: Homeowner Answers

What services did you receive from the local health department when you submitted the above application(s)?

Answer Options	Response Percent	Response Count
I did not receive any direct service	21.1%	12
Sanitary survey for placement of a well or sewage	33.3%	19
Site and soil evaluation for a sewage system	47.4%	27
Design or abbreviated design for a sewage system	28.1%	16
Inspection of a well or sewage system	50.9%	29
Review of private sector work submitted with your	17.5%	10
Other (please specify)		7
<b>answered question</b>		<b>57</b>

I am employed as Admin.clerical staff-none submitted

Note: performed my own site & soil evaluation

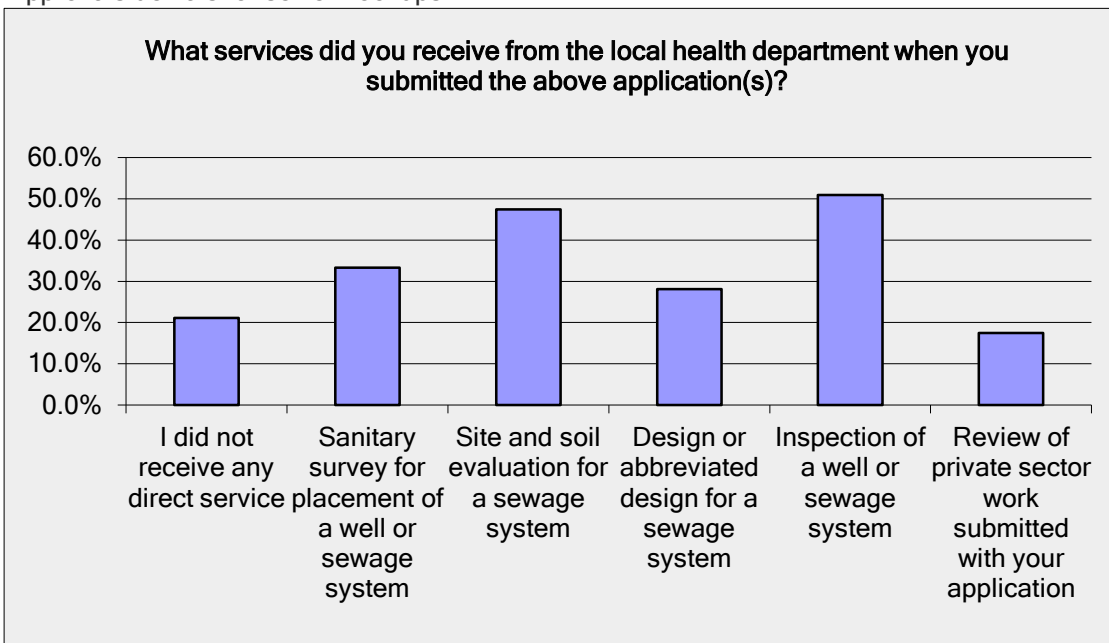
Copy of permit for approved system.

Intervene with builder for compliance

not applicable

performed pre 2000

Approvals/denials for sewer hookups





## Appendix 5: Homeowner Answers

### Why did you use health department services?

Answer Options	Response Percent	Response Count
I did not submit any application or receive any service	16.7%	10
I had to use health department services	46.7%	28
I trust health department service providers	50.0%	30
I wanted a second opinion	3.3%	2
I could not find a private sector service provider willing	1.7%	1
I could not find a private sector service provider who	1.7%	1
I did not know private sector service providers were	1.7%	1
The private sector service providers I contacted were	16.7%	10
Other (please specify)		8
<i>answered question</i>		<b>60</b>

**All answers below were not edited from their entry into the online survey:**

The Health Dept had the record I needed for type, location and design. Critical!  
private service providers are uneducated with clearstream

At the time you had to go through the Health Dept. to get eh evaluation and permit. The Dept. Sanitarian just stopped by and looked at eh test pits which had some water in them from the heavy rains about two hours before hand, and turned me down. contacted a consultant and paid fo another opinion and he spent he time needed to acually evaluate the site. He provided a report and took it to the Health Department and obtained a permit.

AOSE needs to go through the Health Dept.

It was over 20 years ago when I used health department services.

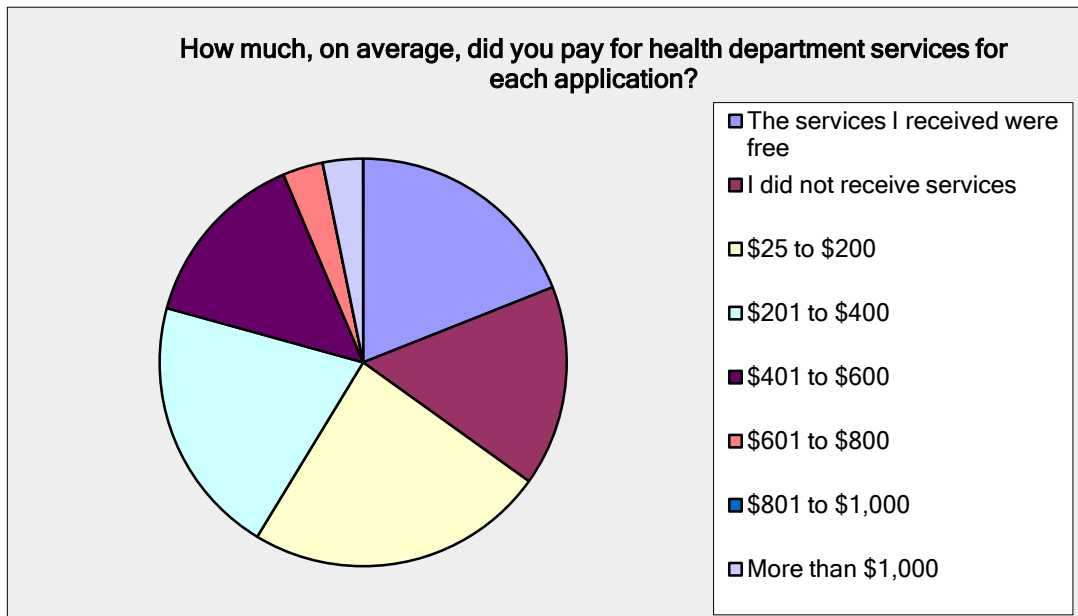
Exmore is currently under a consent order

At the time the only options were the health dept. and PEs.

## Appendix 5: Homeowner Answers

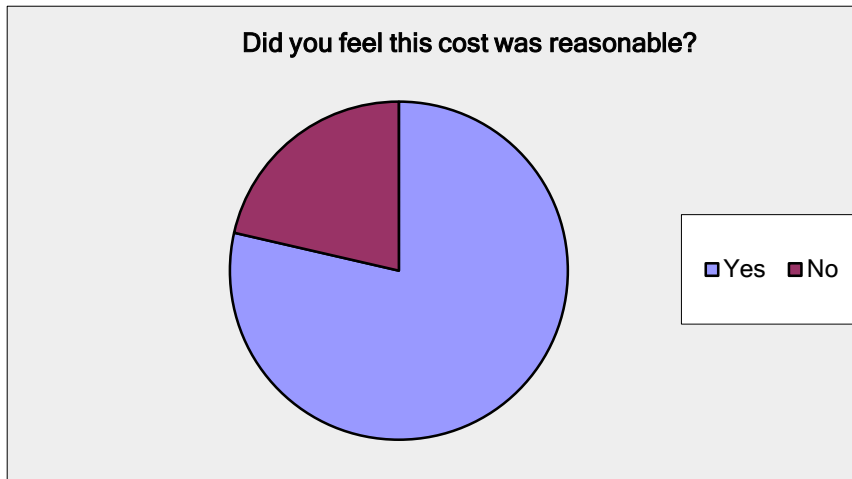
How much, on average, did you pay for health department services for each application?

Answer Options	Response Percent	Response Count
The services I received were free	19.0%	12
I did not receive services	15.9%	10
\$25 to \$200	23.8%	15
\$201 to \$400	20.6%	13
\$401 to \$600	14.3%	9
\$601 to \$800	3.2%	2
\$801 to \$1,000	0.0%	0
More than \$1,000	3.2%	2
<i>answered question</i>		<b>63</b>



### Appendix 5: Homeowner Answers

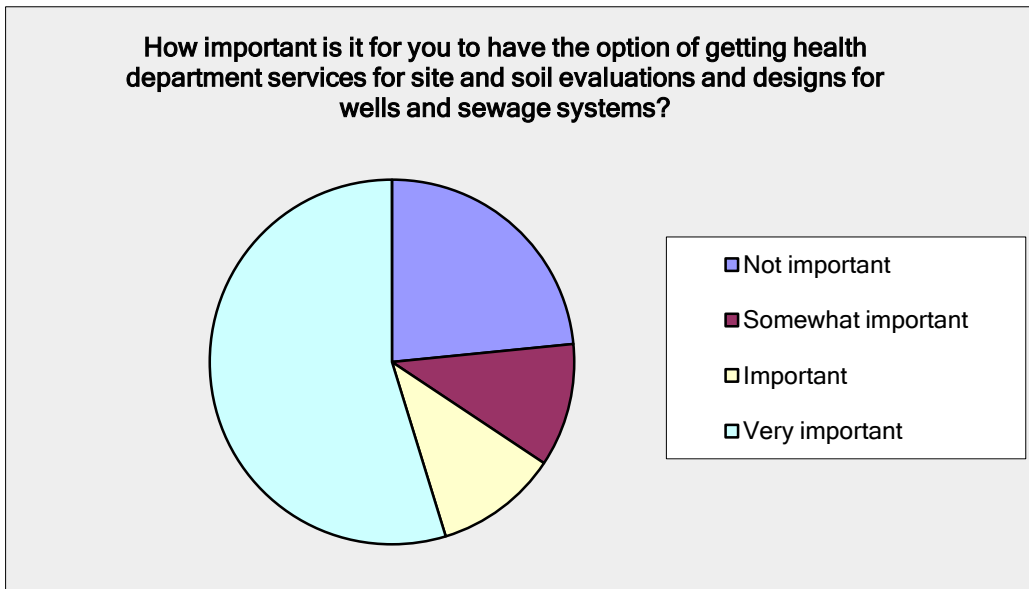
Did you feel this cost was reasonable?		
Answer Options	Response Percent	Response Count
Yes	78.6%	44
No	21.4%	12
<i>answered question</i>		<b>56</b>



## Appendix 5: Homeowner Answers

How important is it for you to have the option of getting health department services for site and soil evaluations and designs for wells and sewage systems?

Answer Options	Response Percent	Response Count
Not important	23.4%	15
Somewhat important	10.9%	7
Important	10.9%	7
Very important	54.7%	35
<i>answered question</i>		<b>64</b>



## Appendix 5: Homeowner Answers

What services did you receive from private sector services providers? (Check all that apply)

Answer Options	Response Percent	Response Count
I did not receive any service from the private sector	71.2%	42
Sanitary survey for placement of a well or sewage	8.5%	5
Site and soil evaluation for a sewage system	22.0%	13
Design or abbreviated design for a sewage system	15.3%	9
Inspection of a well or sewage system	15.3%	9
Consultation for options to install a well or sewage	13.6%	8
Review of health department work	8.5%	5
Other (please specify)		3
<i>answered question</i>		<b>59</b>

Answers below were not changed from the online entries:

I prepared a site survey ,using a plane table, to demonstrate to the VA HD that the site design I initially proposed was feasible. It was different from the plan prepared by the HD, in that it relied on gravity flow, and did not require a sewage pump, as the HD plan would have. For two days work, 300 miles travel, etc. I was happy to pay the HD for a "redraw", and get on with construction

Pump repair inspection

before 2000

## Appendix 5: Homeowner Answers

Why did you use private sector services? (Check all that apply)

Answer Options	Response Percent	Response Count
I did not use private sector services	69.5%	41
I had to use private sector services--the health	13.6%	8
I trust private service providers	13.6%	8
I wanted a second opinion	5.1%	3
The health department would not perform the services	3.4%	2
The health department could not perform the services	1.7%	1
I did not know health department staff were available	3.4%	2
The health department's charges were too expensive	1.7%	1
Other (please specify)		3
<i>answered question</i>		<b>59</b>

**Answers below were not changed from the online entries:**

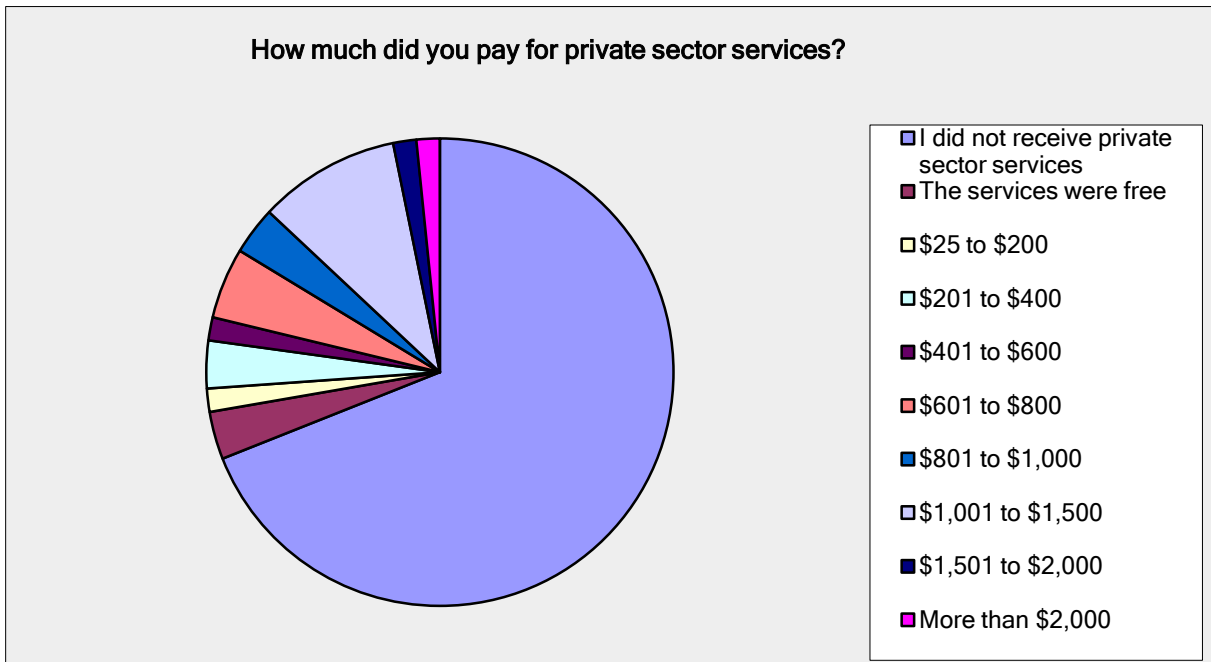
Previous soil work done at Subdivision level

Note that I consider myself the private sector for this question before 2000

## Appendix 5: Homeowner Answers

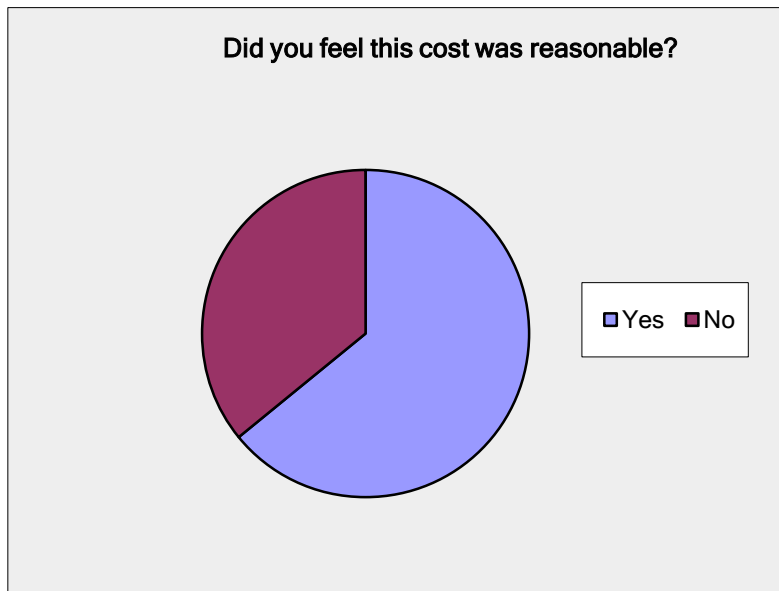
How much did you pay for private sector services?

Answer Options	Response Percent	Response Count
I did not receive private sector services	68.9%	42
The services were free	3.3%	2
\$25 to \$200	1.6%	1
\$201 to \$400	3.3%	2
\$401 to \$600	1.6%	1
\$601 to \$800	4.9%	3
\$801 to \$1,000	3.3%	2
\$1,001 to \$1,500	9.8%	6
\$1,501 to \$2,000	1.6%	1
More than \$2,000	1.6%	1
<i>answered question</i>		<b>61</b>



## Appendix 5: Homeowner Answers

Did you feel this cost was reasonable?		
Answer Options	Response Percent	Response Count
Yes	64.1%	25
No	35.9%	14
<i>answered question</i>		<b>39</b>





## Appendix 5: Homeowner Answers

Given the number of private sector persons currently in your area, which of the following direct services do you think private sector service providers could perform 100 percent of the time?

Answer Options	Response Percent	Response Count
There is not any direct service that the private sector	33.3%	20
Voluntary upgrades	38.3%	23
Review of existing sewage systems for a building permit	31.7%	19
Site and soil evaluations for subdivisions	53.3%	32
Site and soil evaluations for repair permits	30.0%	18
Site and soil evaluations for new construction	43.3%	26
Design for repair systems	35.0%	21
Design for new construction systems	43.3%	26
Design of conventional sewage systems	36.7%	22
Site and soil evaluations for certification letters	48.3%	29
Abbreviated designs for certification letters	41.7%	25
Repair designs for wells and water supplies	26.7%	16
Well permits for new construction	30.0%	18
Inspections of sewage system and water supplies for	53.3%	32
Inspections of sewage systems and water supplies for	33.3%	20
Other (please specify)		7
<i>answered question</i>		<b>60</b>

### Answers below were unedited from the online entry

none. clients should have a choice

unsure of this

Inspections and Permits should be done by an independent authority - the Health Dept.

Most OSE firms (not all) really prefer divisions over single lots, because they can make more money, so there seems to be enough competition and supply of OSE's to fill the subdivision needs. However they haven't been able (or are not willing to) to fill the needs of the single lot owners, as long as there are subdivisions available.

clearstream uneducated providers visits no resolution cut wires no response

Timeliness short to mid-range problem then should be ok

There is not a direct service that the private sector SHOULD do 100% of the time because private sector should not be involved in legalities or government functions like issuing permits. Evaluating soils -- OK. Designing system -- OK. Issuing permit -- not OK.

## Appendix 5: Homeowner Answers

If the health department no longer provided soil evaluations and design services, what do you think would happen with the private sector's fees for those services?

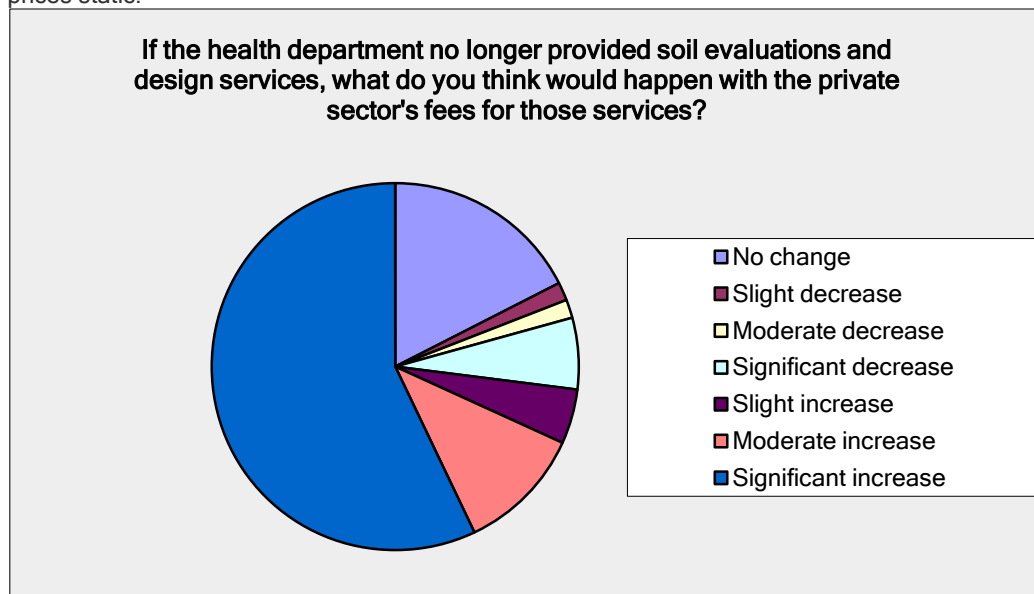
Answer Options	Response Percent	Response Count
No change	17.5%	11
Slight decrease	1.6%	1
Moderate decrease	1.6%	1
Significant decrease	6.3%	4
Slight increase	4.8%	3
Moderate increase	11.1%	7
Significant increase	57.1%	36
Other (please specify)		4
<i>answered question</i>		<b>63</b>

As a Health Department EHS/OSE reviewing OSE designs, I have received many complaints from homeowners, regarding Private OSE pricing and customer treatment. During the building boom, I got alot of complaints mostly from single lot owners stating the OSE's couldn't get to them for 3 months, because they had large high paying jobs involving subdivisions, and the customer could take it or leave it, the OSE really didn't need the work from their little single lot. So my experience is that the single lot owner would be mistreated and hurt the most by a Private OSE requirement.

time frame for services would increase darmtically

whatever the market will bear, unless they are capped by DPOR

Most people would say the price would increase, but the reality is that the market forces will keep prices static.



## Appendix 5: Homeowner Answers

Answer Options	Response Count
	27
<i>answered question</i>	<b>27</b>

### Answers below were not edited from the online entry:

Health Dept. concentrate on regulatory review and allow AOSE's/PEs to do most of the soils work.

Give the health dept permission to continue with the jobs they use to do and did it well.

cost assistance with fees

No permit fee

I do not see any incentives in voluntarily increasing private sector input in my area. The question should be what incentives would increasing PUBLIC sector input in your area. With the increasing populations in the areas around northern Virginia VDH will play a key role in managing and regulating septic and water related issues. Relying on private individual companies to provide the same role as VDH will not work.

Not sure what "private sector input" is.

educated the owner to do simple repairs inspections and submit samples

require them by mandate

VDH should not be involved in Certifying proposed footprints for Subdivision or Cert letters.

None, I think the state should continue with business as usual. They owe it to citizens as a fail-safe. I think a total private sector planning and inspections will spread corruption in the system, and added cost.

Why would I do that as long as the county can provide it at a reasonable price, although that price is high.

Reduce VDH application fees for sites when consultant work is provided. Say, a processing/submission fee. Setup a system where the application can be submitted electronically to approved consultants and cut out the additional review by the sanitarian.

submit under Code of VA 32.1-163.6 for all systems that involves engineering. or require all ssystem to be done by an engineer.

Limit Health Dept Services

None. The private sector is only concerned with making a profit. There would not be any checks and balances to protect the environment or the people. The only incentive for the private sector would be to have public competition for all services.

No incentives necessary.

lessen VDH permit fees when hiring a private consultant - at least make affordable to hire a consultant

Remove VDH from the sewage program.

Reasonable fees, Honest work 100% of the time, stand behind there work when needed.

If the HD were to not provide the service, and only be responsible for oversight and record keeping, staff could be reduced and this staff would be available to then work in the private sector, either with existing AOSE's or individually.

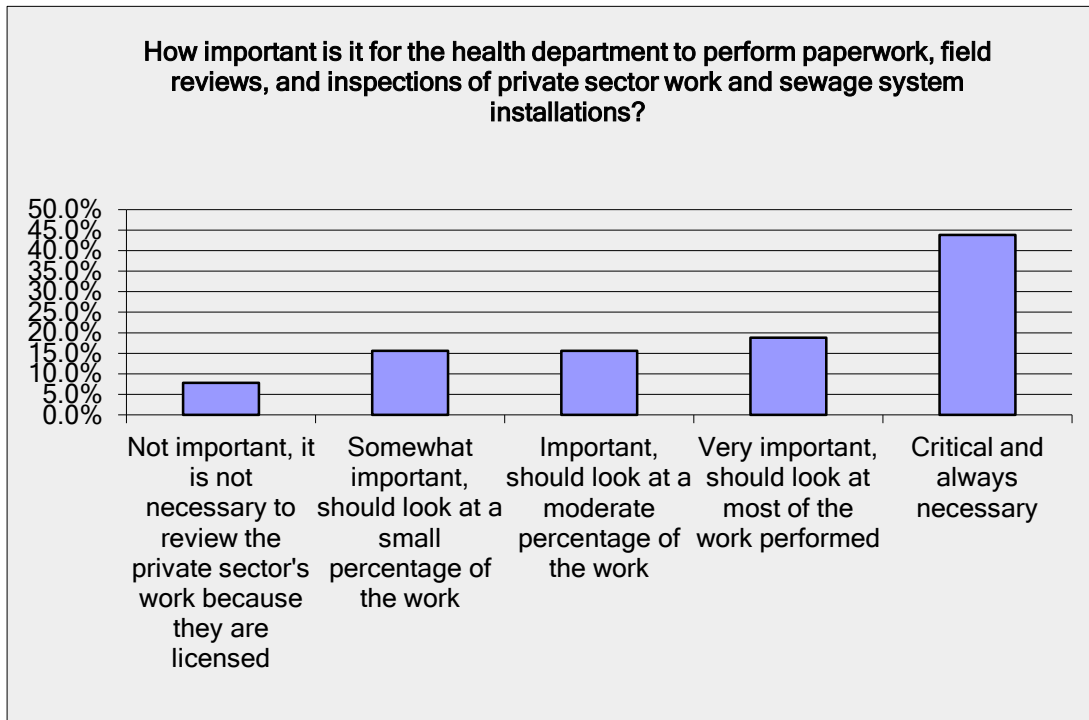
It should not be privatized.

The only way to increase private sector input is for VDH to stop competing in the marketplace for services that are offered by the private sector.

## Appendix 5: Homeowner Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	7.8%	5
Somewhat important, should look at a small percentage	15.6%	10
Important, should look at a moderate percentage of the	15.6%	10
Very important, should look at most of the work	18.8%	12
Critical and always necessary	43.8%	28
<i>answered question</i>		<b>64</b>



### Appendix 5: Homeowner Answers

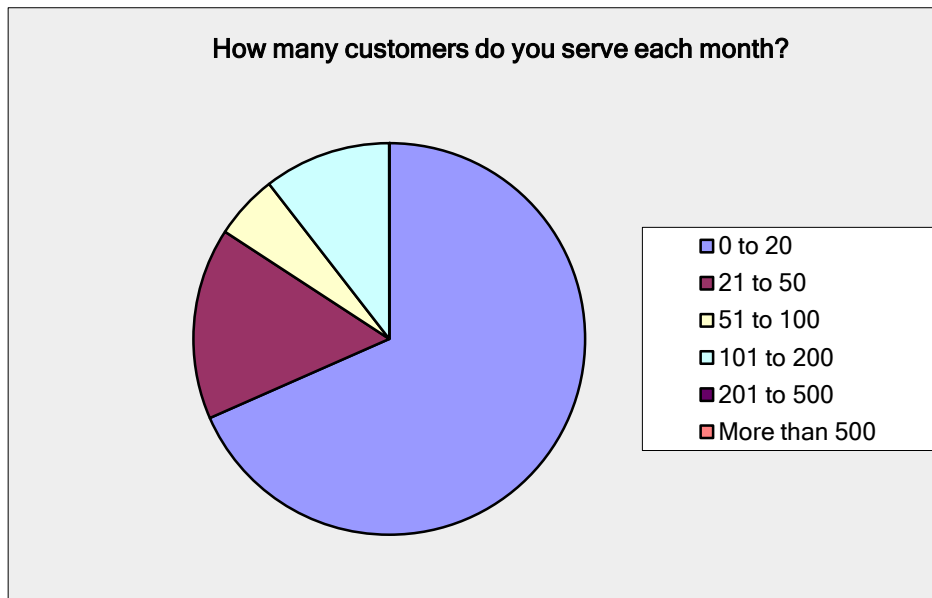
Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

Answer Options	Response Percent	Response Count
Yes	40.3%	27
No	59.7%	40
<i>answered question</i>		<b>67</b>

### Appendix 5: Septic Contractor and Well Driller Answers:

How many customers do you serve each month?

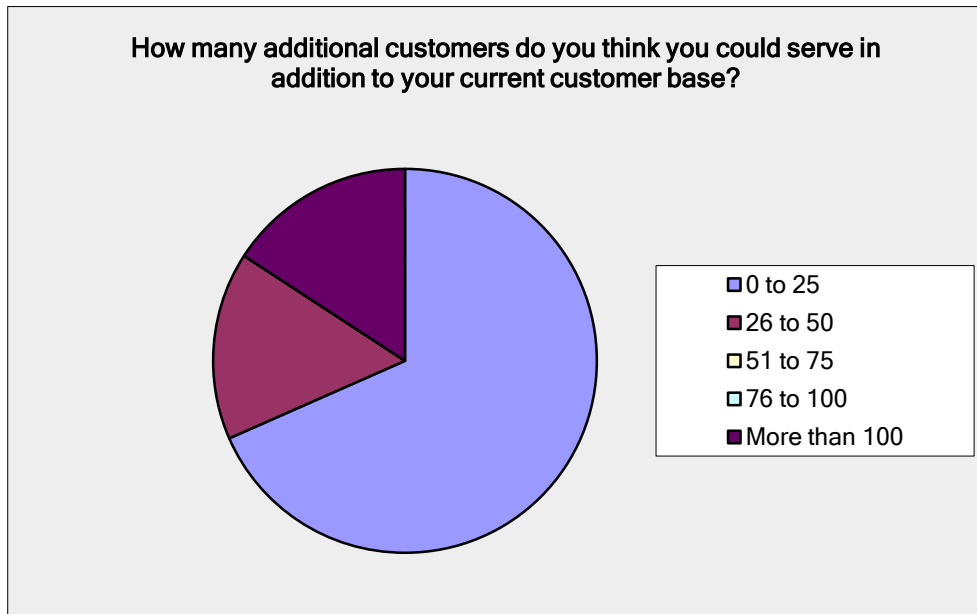
Answer Options	Response Percent	Response Count
0 to 20	68.4%	13
21 to 50	15.8%	3
51 to 100	5.3%	1
101 to 200	10.5%	2
201 to 500	0.0%	0
More than 500	0.0%	0
<i>answered question</i>		<b>19</b>



### Appendix 5: Septic Contractor and Well Driller Answers:

How many additional customers do you think you could serve in addition to your current customer base?

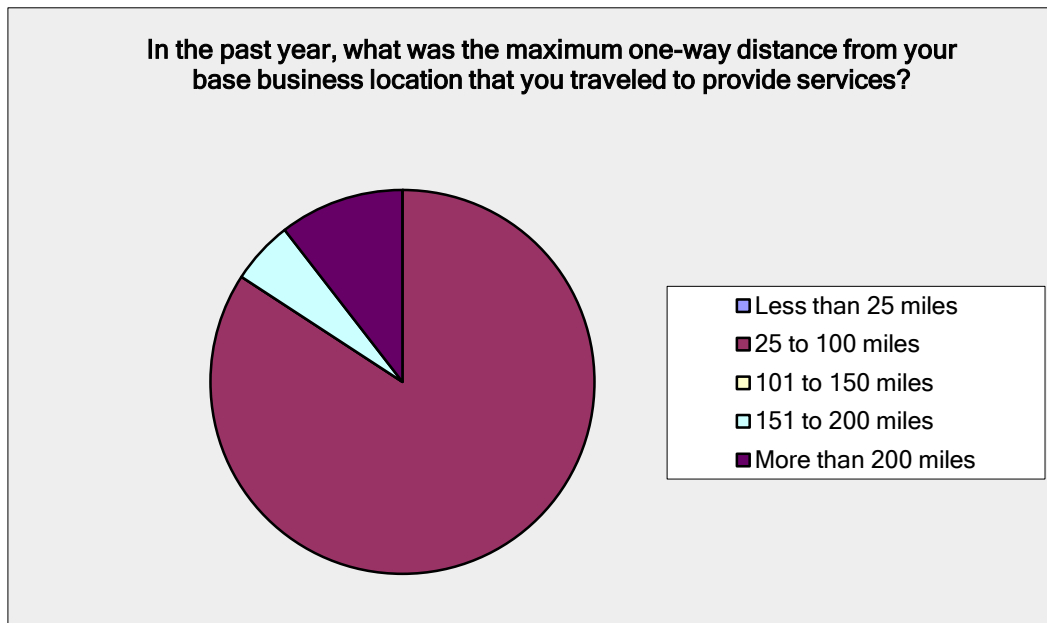
Answer Options	Response Percent	Response Count
0 to 25	68.4%	13
26 to 50	15.8%	3
51 to 75	0.0%	0
76 to 100	0.0%	0
More than 100	15.8%	3
<i>answered question</i>		<b>19</b>



### Appendix 5: Septic Contractor and Well Driller Answers:

In the past year, what was the maximum one-way distance from your base business location that you traveled to provide services?

Answer Options	Response Percent	Response Count
Less than 25 miles	0.0%	0
25 to 100 miles	84.2%	16
101 to 150 miles	0.0%	0
151 to 200 miles	5.3%	1
More than 200 miles	10.5%	2
<i>answered question</i>		<b>19</b>

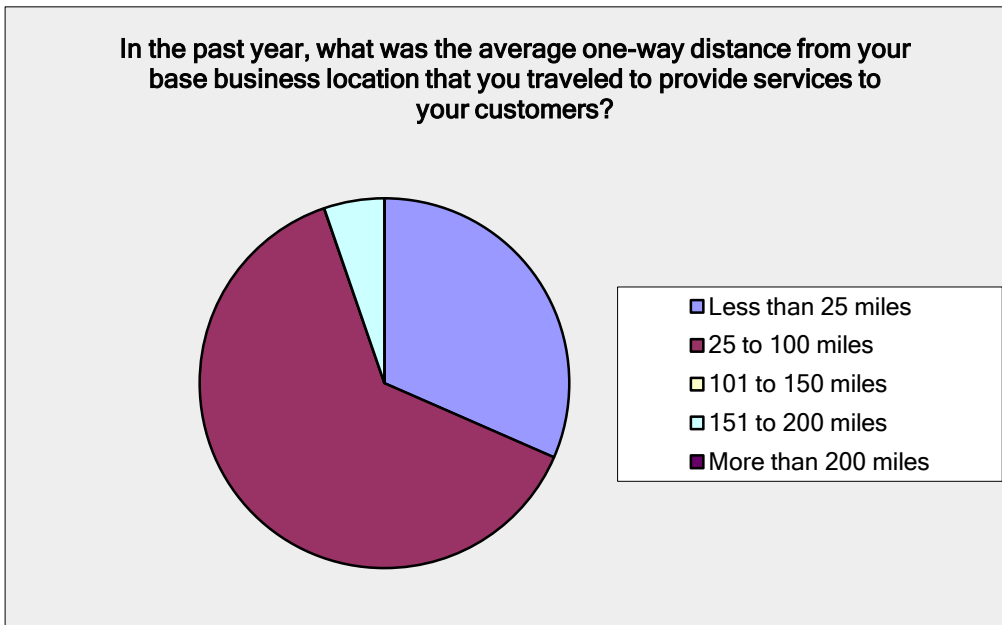




### Appendix 5: Septic Contractor and Well Driller Answers:

In the past year, what was the average one-way distance from your base business location that you traveled to provide services to your customers?

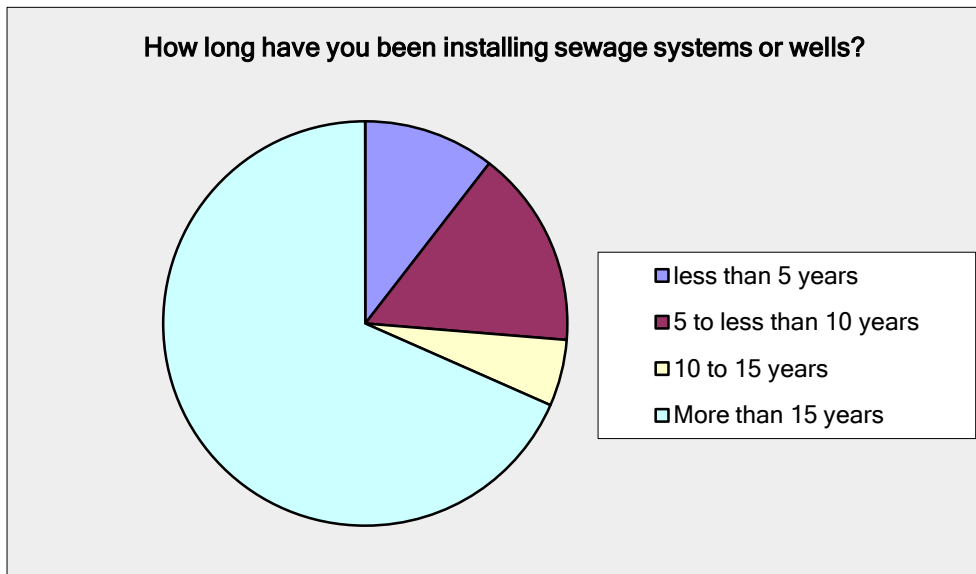
Answer Options	Response Percent	Response Count
Less than 25 miles	31.6%	6
25 to 100 miles	63.2%	12
101 to 150 miles	0.0%	0
151 to 200 miles	5.3%	1
More than 200 miles	0.0%	0
<i>answered question</i>		<b>19</b>



### Appendix 5: Septic Contractor and Well Driller Answers:

How long have you been installing sewage systems or wells?

Answer Options	Response Percent	Response Count
less than 5 years	10.5%	2
5 to less than 10 years	15.8%	3
10 to 15 years	5.3%	1
More than 15 years	68.4%	13
<i>answered question</i>		<b>19</b>



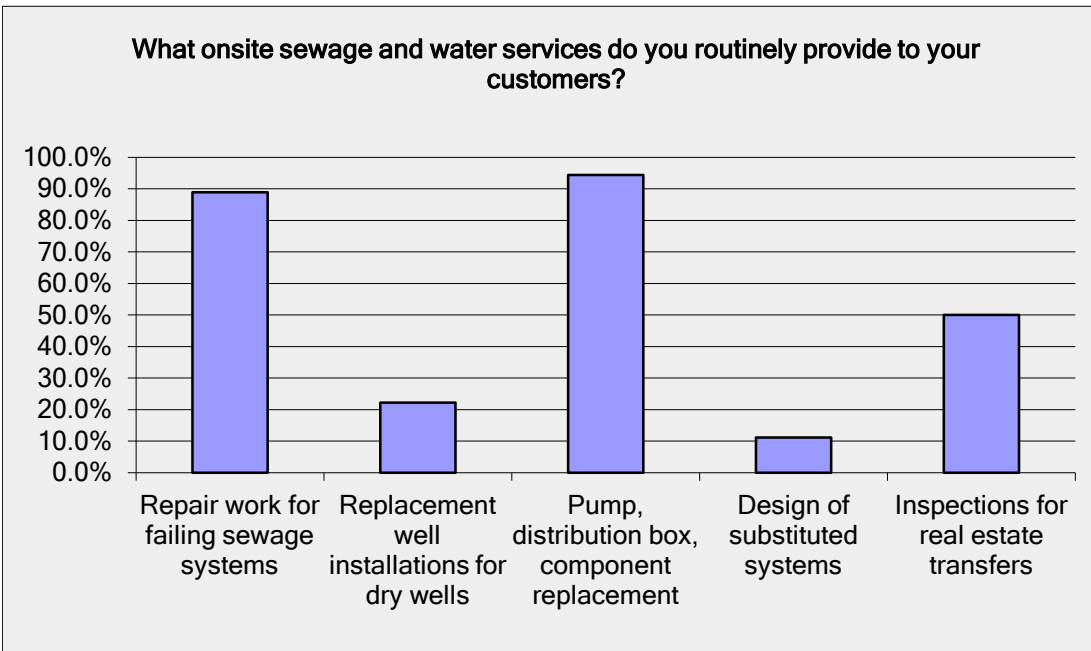
### Appendix 5: Septic Contractor and Well Driller Answers:

What type of installations do you perform for you customers?		
Answer Options	Response Percent	Response Count
Alternative Onsite Sewage System	84.2%	16
Conventional Onsite Sewage system	78.9%	15
Well	15.8%	3
Other (please specify)		1
<i>answered question</i>		<b>19</b>
Discharge System		

## Appendix 5: Septic Contractor and Well Driller Answers:

What onsite sewage and water services do you routinely provide to your customers?

Answer Options	Response Percent	Response Count
Repair work for failing sewage systems	88.9%	16
Replacement well installations for dry wells	22.2%	4
Pump, distribution box, component replacement	94.4%	17
Design of substituted systems	11.1%	2
Inspections for real estate transfers	50.0%	9
<i>answered question</i>		<b>18</b>

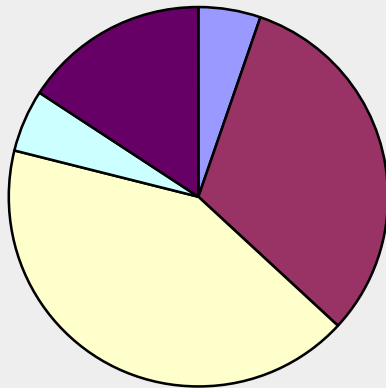


**Appendix 5: Septic Contractor and Well Driller Answers:**

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?

Answer Options	Response Percent	Response Count
Never	5.3%	1
Less than 5 times per month	31.6%	6
6 to 15 times per month	42.1%	8
16 to 25 times per month	5.3%	1
More than 26 times per month	15.8%	3
<i>answered question</i>		<b>19</b>

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?



- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

### Appendix 5: Septic Contractor and Well Driller Answers:

What services have you received from the health department staff in the past?

Answer Options	Response Percent	Response Count
Inspection for well or sewage system	100.0%	18
Problem-solving a permit issue (e.g., location of install,	88.9%	16
Discuss scheduling for inspection	100.0%	18
Design change to the permit	72.2%	13
Equipment or material change	66.7%	12
Discuss repair options for a failing sewage system	83.3%	15
Locate sewage system components	72.2%	13
Other (please specify)		2
<i>answered question</i>		<b>18</b>

Discuss recordation

**Appendix 5: Septic Contractor and Well Driller Answers:**

<b>What does the health department provide that is most valuable to your company and its customers?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Unbiased advice	64.7%	11
Response to questions and expert knowledge of	76.5%	13
Inspections	76.5%	13
Design services	35.3%	6
Site and soil evaluations	35.3%	6
Sanitary surveys	17.6%	3
Other (please specify)		2
<i>answered question</i>		<b>17</b>

looking up old permits  
 none - since I only do new construction

### Appendix 5: Septic Contractor and Well Driller Answers:

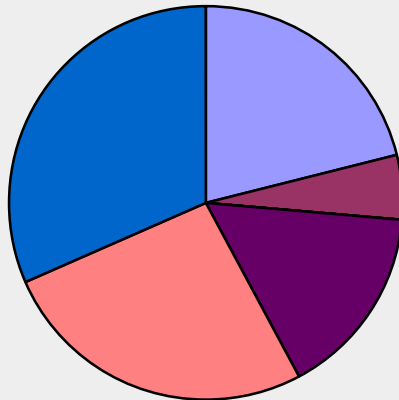
If ALL soil evaluations, designs and inspections were provided by the private sector, how would that affect your costs to provide services?

Answer Options	Response Percent	Response Count
None	21.1%	4
Costs would slightly decrease	5.3%	1
Costs would moderately decrease	0.0%	0
Costs would dramatically decrease	0.0%	0
Costs would slightly increase	15.8%	3
Costs would moderately increase	26.3%	5
Costs would dramatically increase	31.6%	6

*answered question*

19

If ALL soil evaluations, designs and inspections were provided by the private sector, how would that affect your costs to provide services?



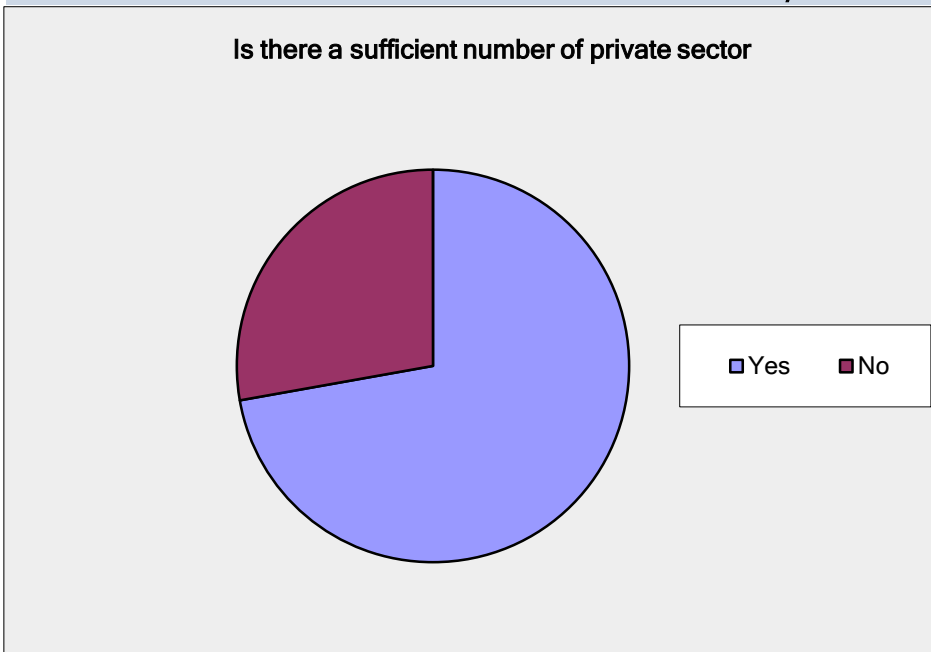
- None
- Costs would slightly decrease
- Costs would moderately decrease
- Costs would dramatically decrease
- Costs would slightly increase
- Costs would moderately increase
- Costs would dramatically increase



### Appendix 5: Septic Contractor and Well Driller Answers:

Is there a sufficient number of private sector designers and inspectors in your area of business to get timely services? In other words, if the health department no longer provided design and inspection services, would there be enough providers in the private sector to assist you in a timely manner?

Answer Options	Response Percent	Response Count
Yes	72.2%	13
No	27.8%	5
<i>answered question</i>		<b>18</b>

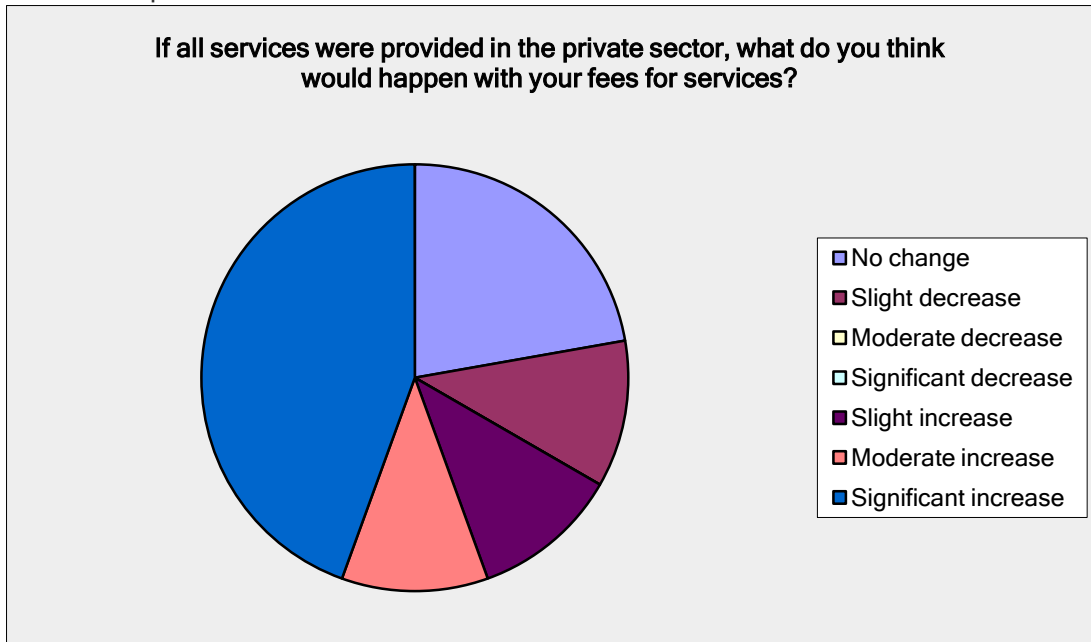


## Appendix 5: Septic Contractor and Well Driller Answers:

If all services were provided in the private sector, what do you think would happen with your fees for services?

Answer Options	Response Percent	Response Count
No change	22.2%	4
Slight decrease	11.1%	2
Moderate decrease	0.0%	0
Significant decrease	0.0%	0
Slight increase	11.1%	2
Moderate increase	11.1%	2
Significant increase	44.4%	8
Other (please specify)		1
<i>answered question</i>		<b>18</b>

Become a rip-off worse than now

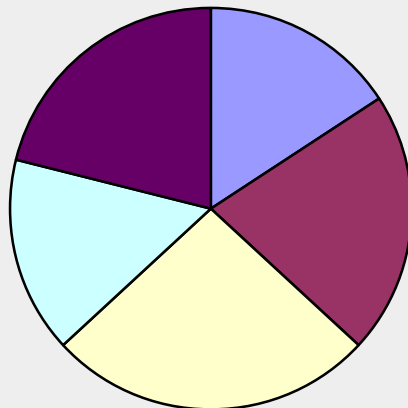


## Appendix 5: Septic Contractor and Well Driller Answers:

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	15.8%	3
Somewhat important, should look at a small percentage	21.1%	4
Important, should look at a moderate percentage of the	26.3%	5
Very important, should look at most of the work	15.8%	3
Critical and always necessary	21.1%	4
<i>answered question</i>		<b>19</b>

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?



- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

### Appendix 5: Septic Contractor and Well Driller Answers:

What incentives could be instituted to voluntarily increase private sector input in your area?

Answer Options	Response Count
	2

you will never get me or my company to agree to anymore private sector services as stated, they are a rip-off in this area! We do not have problems with the health dept's in this area  
Assigned regions with base rate for service providers.

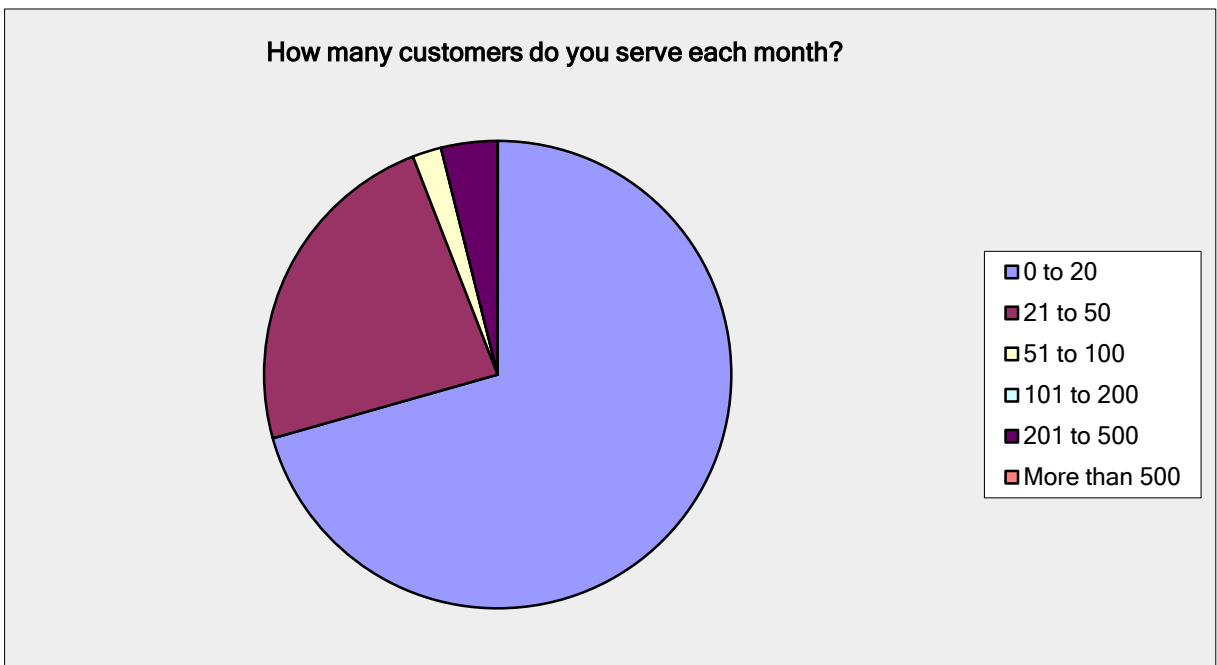
**Appendix 5: Septic Contractor and Well Driller Answers:**

Answer Options	Response Percent	Response Count
Yes	36.8%	7
No	63.2%	12
<i>answered question</i>		<b>19</b>

### Appendix 5: Onsite Soil Evaluator Answers:

How many customers do you serve each month?

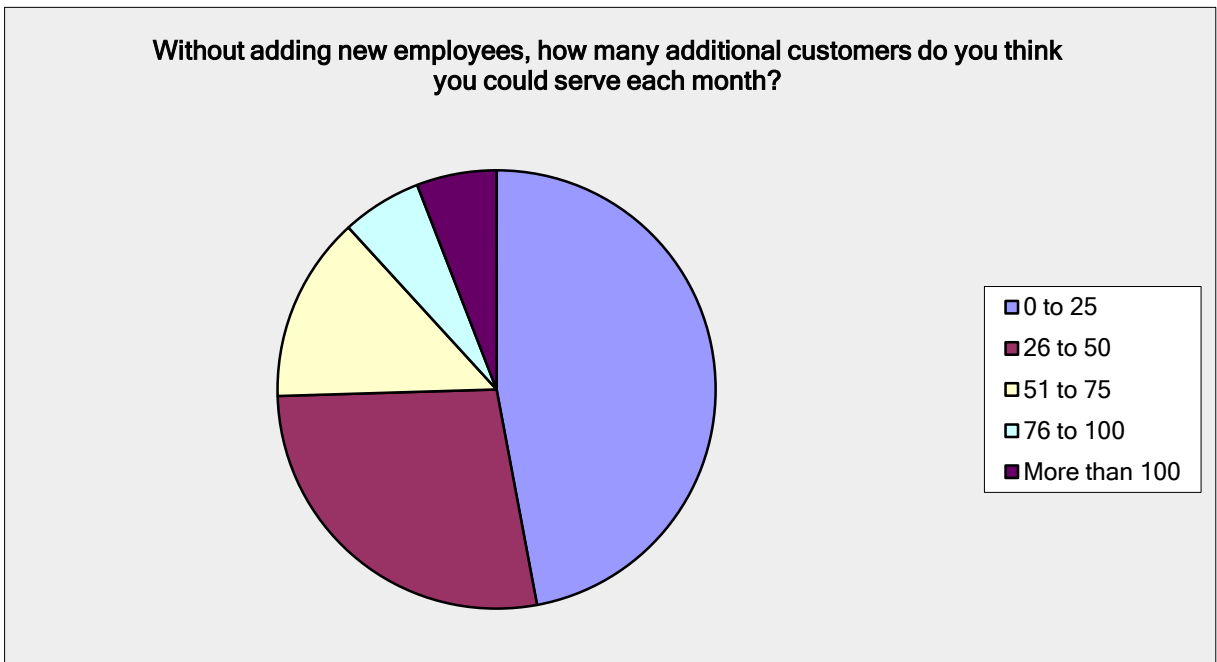
Answer Options	Response Percent	Response Count
0 to 20	70.6%	36
21 to 50	23.5%	12
51 to 100	2.0%	1
101 to 200	0.0%	0
201 to 500	3.9%	2
More than 500	0.0%	0
<i>answered question</i>		<b>51</b>



### Appendix 5: Onsite Soil Evaluator Answers:

Without adding new employees, how many additional customers do you think you could serve each month?

Answer Options	Response Percent	Response Count
0 to 25	47.1%	24
26 to 50	27.5%	14
51 to 75	13.7%	7
76 to 100	5.9%	3
More than 100	5.9%	3
<i>answered question</i>		<b>51</b>

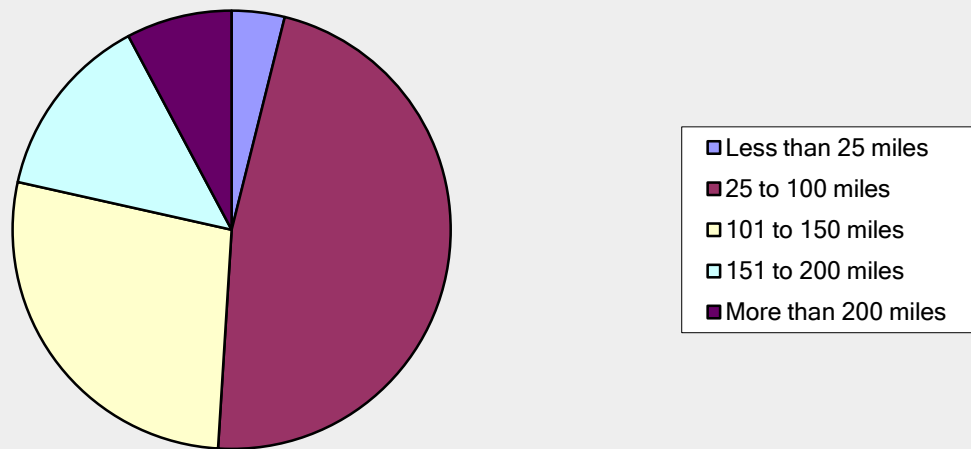


### Appendix 5: Onsite Soil Evaluator Answers:

In the past year, what was the longest one-way distance from your base business location that you traveled to provide services?

Answer Options	Response Percent	Response Count
Less than 25 miles	3.9%	2
25 to 100 miles	47.1%	24
101 to 150 miles	27.5%	14
151 to 200 miles	13.7%	7
More than 200 miles	7.8%	4
<i>answered question</i>		<b>51</b>

In the past year, what was the longest one-way distance from your base business location that you traveled to provide services?



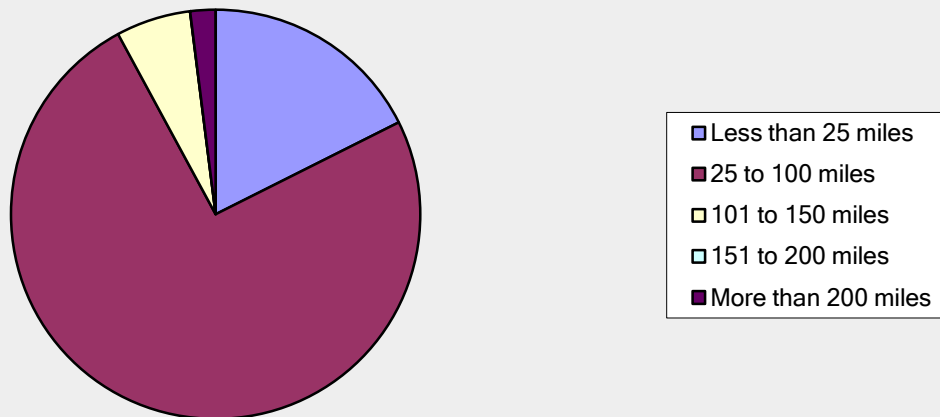


### Appendix 5: Onsite Soil Evaluator Answers:

In the past year, what was the AVERAGE one-way distance from your base business location that you traveled to provide services?

Answer Options	Response Percent	Response Count
Less than 25 miles	17.6%	9
25 to 100 miles	74.5%	38
101 to 150 miles	5.9%	3
151 to 200 miles	0.0%	0
More than 200 miles	2.0%	1
<i>answered question</i>		<b>51</b>

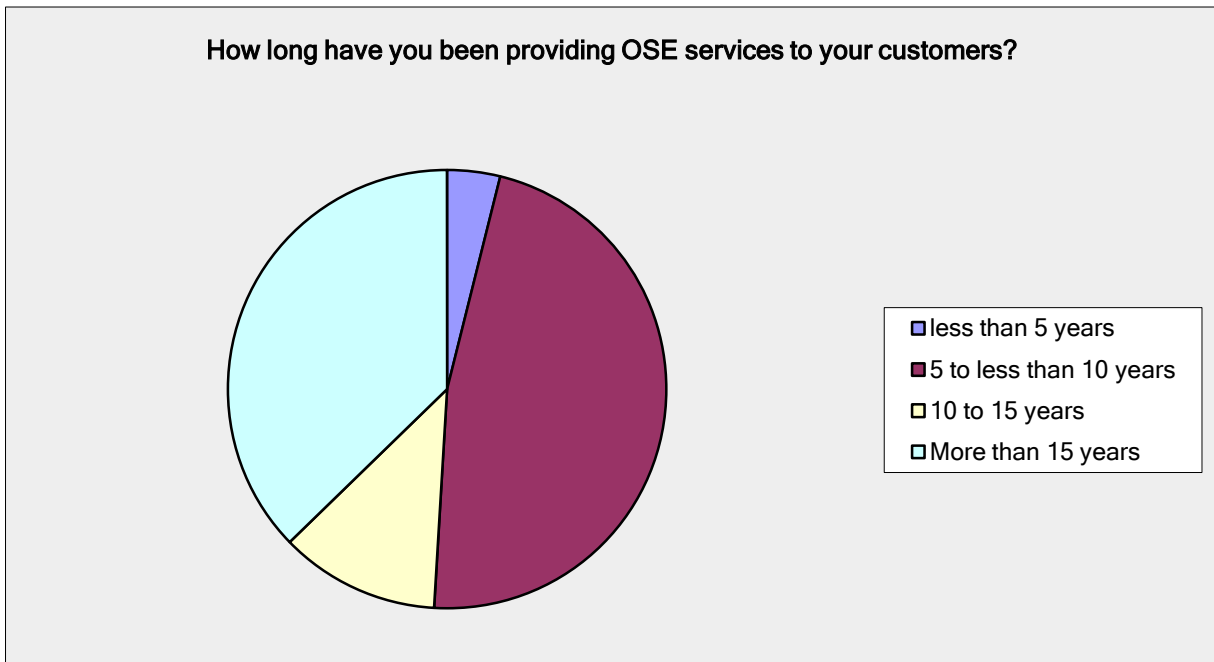
In the past year, what was the AVERAGE one-way distance from your base business location that you traveled to provide services?



### Appendix 5: Onsite Soil Evaluator Answers:

How long have you been providing OSE services to your customers?

Answer Options	Response Percent	Response Count
less than 5 years	3.9%	2
5 to less than 10 years	47.1%	24
10 to 15 years	11.8%	6
More than 15 years	37.3%	19
<i>answered question</i>		<b>51</b>



## Appendix 5: Onsite Soil Evaluator Answers:

What services do you provide to your clients?		
Answer Options	Response Percent	Response Count
Site and soil evaluations for certification letters and	98.0%	50
Designs of conventional onsite sewage systems	94.1%	48
Designs of alternative onsite sewage systems	90.2%	46
Designs for repair systems	94.1%	48
Inspections of sewage systems	92.2%	47
Inspections of water supplies	56.9%	29
Subdivision proposals	92.2%	47
Review of existing sewage systems for building permits	52.9%	27
Review of existing sewage systems for real estate	56.9%	29
Voluntary upgrade work	64.7%	33
Other (please specify)		8
<i>answered question</i>		<b>51</b>

Feasibility Studies, Land Use Planning, Civil Engineering, Project Management, Bidding, Water Mound Analysis, ,

Note: I was once a private consultant; I am answering based upon my experiences 7 years ago. wetland delineations

Free review of the proposal, subdivision or home site

Maintenance of alternative systems

provide advice and/or consulting

Feasibility Studies

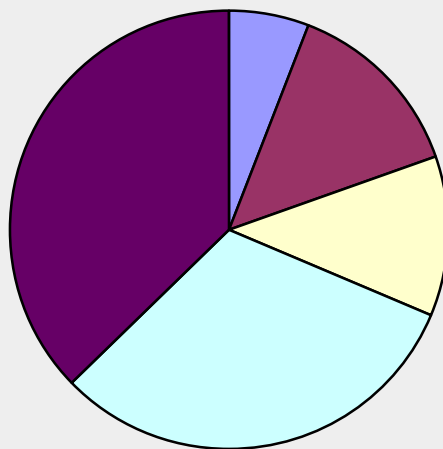
wetland delineations

**Appendix 5: Onsite Soil Evaluator Answers:**

**What percent of your work is dedicated to subdivision and new construction work?**

Answer Options	Response Percent	Response Count
less than 10 percent	5.9%	3
10 to less than 25 percent	13.7%	7
25 to less than 50 percent	11.8%	6
50 percent to less than 75 percent	31.4%	16
more than 75 percent	37.3%	19
<i>answered question</i>		<b>51</b>

**What percent of your work is dedicated to subdivision and new construction work?**



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

Why do you provide this percentage of work in new construction and subdivision development (and not some other amount)?

Answer Options	Response Percent	Response Count
I do not want to do more	0.0%	0
Clients only approach me when the health department	58.5%	24
Clients will pay for these services	58.5%	24
This type of work is most profitable compared to other	9.8%	4
Other (please specify)		14
<i>answered question</i>		<b>41</b>

**Answers below are unedited from the online survey entry:**

Client prefers private sector quality of work

New construction and subdivision development was 90% of the work we performed until the housing market decline 2008-present.

The economy now dictates that few new clients request work

Most all work done is related to new construction. The only other work would be feasibility studies and work for conservation easements, bank loans etc.

clients call and I perform the work when needed

This percentage is the work that comes to me I don't control it...

Suits the need of most clients

subdivision work has declined, little new construction

Clients have no other option

New construction and development numbers are way down in this economy. Prefer new construction and development but at this time repairs and site with existing environmental problems are more abundant.

In the counties I work in the health departments generally require the private sector to complete new construction and they concentrate on repair permits

Market is slow, so that is all that is currently needed

The percentage between new services and other services is dependent on the economy and level of service varies in other counties

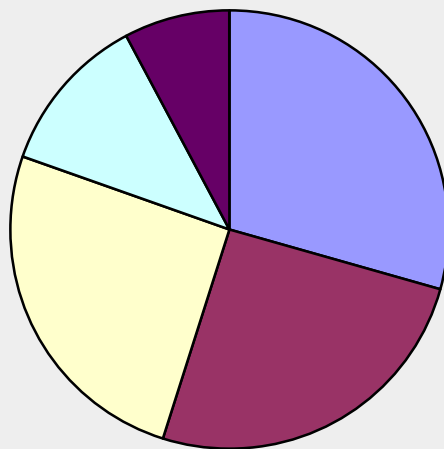
Am dedicated to O&M - Repair Permits only.

## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to designing conventional onsite sewage systems?

Answer Options	Response Percent	Response Count
less than 10 percent	29.4%	15
10 to less than 25 percent	25.5%	13
25 to less than 50 percent	25.5%	13
50 percent to less than 75 percent	11.8%	6
more than 75 percent	7.8%	4
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to designing conventional onsite sewage systems?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

Why do you provide this percentage of conventional system work (and not some other amount)?

Answer Options	Response Percent	Response Count
I do not want to do more	0.0%	0
Clients only approach me when the health department	83.3%	25
Clients only pay for these services when there is a	50.0%	15
This type of work is not as profitable compared to other	0.0%	0
Other (please specify)		24
<i>answered question</i>		<b>30</b>

Soils limitations

Not that many conv. soils available

I just respond to demand.

Too expensive for an Alternative System; few lots are of that value in this area.

Soils in are generally do not support conventional systems under current regulations.

clients want a more thorough review of property

determined by type of soil encountered on site

We do what the client request

This amount is normal, i always try to use a conventional SDS and many sites that need Alternative Systems are permitted. Generally, conventional sites work in the areas that i serve.

Soils are generally good in areas where I work

clients call and I proform the work when needed

75-80% of our designs are conventional in our area the rest are are advanced systems or mass drainfields

This percentage is the work that comes to me I don't control it...

Health Dept. still does most of the designs for conventional systems in my area.

general soil conditions will not allow conventional system installations

Local HD requires PE designs only

Depends on soil conditions

Majority of land and soil characterstics existing on these land determines the site suitability for the type of onsite sewage disposal systems.

Site and soil conditions dictate whether the system is conventional. The client typically has no knowledge of a previous soil evaluation.

Conventional systems are hard to delineate with the soils in my region

That is the current demand.

Would do more if HD didnt do any

Questions 30 and 31 might appear to be related to each other, but they refer to distinctly different scopes of work. Question 30 relates to "designing" conventional systems and question 31 relates to all work associated with conventional systems. I will try to answer both. Generally, 60% of all systems our firm is involved with are conventional. However, we will typically do design work on 50 to 60% of all the lots where we have previously located a potential conventional system area. I would guess that a small percentage (10%) will never see any system built on them in the foreseeable future due to changes in circumstances on the part of the client. The remaining 30 to 40% we will not do designs on due to VDH completing the designs based on our soil and site evaluation. As a percentage of revenue and workload related to "designing" the system it is estimated at 10 to 25% because we also do soil and site evaluations, inspections, mappings, alternative system designs, and subdivision approval work in addition to conventional system designs. Speaking directly to Question 31: Our firm can and will do more conventional designs if the demand was there from clients. In our opinion, a major factor in decreasing this volume is that many potential clients take our soils work (done in the form of certification letters or subdivision approvals) to VDH when conventional designs have been preliminarily called for on their lot. We believe that cost is major concern for the client in making his decision. This is not necessarily our firm's fee for designing the system, but is more related to the entire cost born by the customer. For example, our firm requires a site plan produced by a surveyor so that we can adequately design certain components such as a simple pump. Since VDH does not require this additional information, clients often will seek the "lower cost" design although the lack of this information can lead to many problems at later stages. The only time this is mitigated is when the local government requires a site grading plan due to the building permit or other local requirement. In those instances, the client has no additional cost for the additional information so they typically prefer to utilize our firm for their design in order to streamline and simplify the approval process. Dedicated to O&M - specifically Alternative treatment systems.

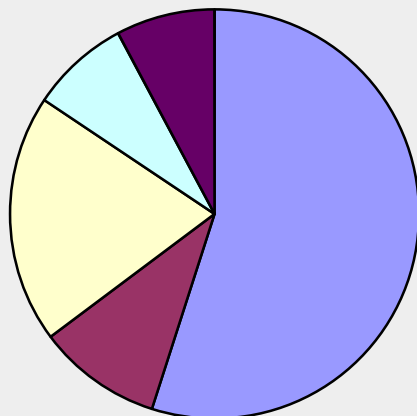


## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to working with a professional engineer for an alternative discharging sewage system?

Answer Options	Response Percent	Response Count
less than 10 percent	54.9%	28
10 to less than 25 percent	9.8%	5
25 to less than 50 percent	19.6%	10
50 percent to less than 75 percent	7.8%	4
more than 75 percent	7.8%	4
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to working with a professional engineer for an alternative discharging sewage system?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

**Appendix 5: Onsite Soil Evaluator Answers**

**Why do you provide this percentage of alternative discharging system work (and not more or less)?**

Answer Options	Response Percent	Response Count
Customers do not typically need this type of service	38.1%	16
Customers must use a P.E. for this service and my	71.4%	30
Other (please specify)		14
<i>answered question</i>		<b>42</b>

**Answers below have not been edited and represent what was written on the online survey**

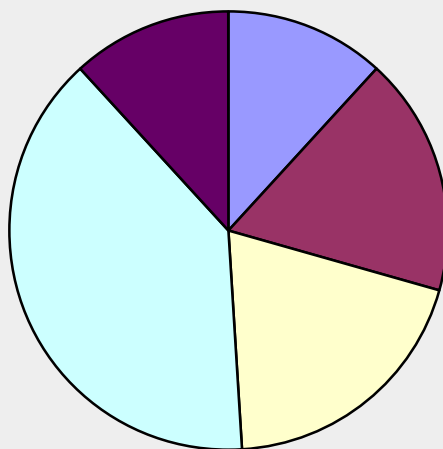
determine no onsite available & possibility of discharge  
 I have Engineers on staff so we are capable of these types of designs. They do not come up very frequently.  
 Work is referred by HD to PE's in lieu of referral to OSE's  
 we have an inhouse PE and design team  
 determined by type of soil encountered on site  
 I am an engineer also  
 clients call and I proform the work when needed  
 only use a P.E. when required by Health Dept. Would not use one if I didn't have to.  
 Shellfish waters prevent discharges  
 Stricter regulations require these types of system given existing site and soil conditions.  
 I utilize the services of a P.E. as needed based upon site and soil conditions.  
 Not usally permitted in the Coastal Plains region  
 The volume of alternative discharging system work we do is directly related to the demand from our clients. It is fairly low simply due to local ordinances that make them more difficult to get approved than onsite systems. (I would make the observation that Question 32 talks about % of work dedicated to working with a P.E... while Question 33 seems to be talking about the percentage of discharging work done overall.)  
 I work with a PE

## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to designing alternative onsite sewage systems?

Answer Options	Response Percent	Response Count
less than 10 percent	11.8%	6
10 to less than 25 percent	17.6%	9
25 to less than 50 percent	19.6%	10
50 percent to less than 75 percent	39.2%	20
more than 75 percent	11.8%	6
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to designing alternative onsite sewage systems?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

Why do you provide this percentage of alternative onsite sewage system work (and not more or less)?

Answer Options	Response Percent	Response Count
Customers do not typically need this type of service	11.1%	5
Customers usually work with a P.E. in my work location	15.6%	7
The health department does not provide this type of	64.4%	29
There is not much demand for this kind of work in my	6.7%	3
There is a moderate demand for this kind of work in my	31.1%	14
There is a lot of demand for this kind of work in my area	31.1%	14
Other (please specify)		9
<i>answered question</i>		<b>45</b>

Answers below were not edited from what was written on the online survey:

Soils dictate it

We specialize in alternative designs so around 50% of our projects require alternative systems.

I am an engineer also

Once again I would provide more if I had customers calling me. The Health Dept. is competing against me and taking work from me.

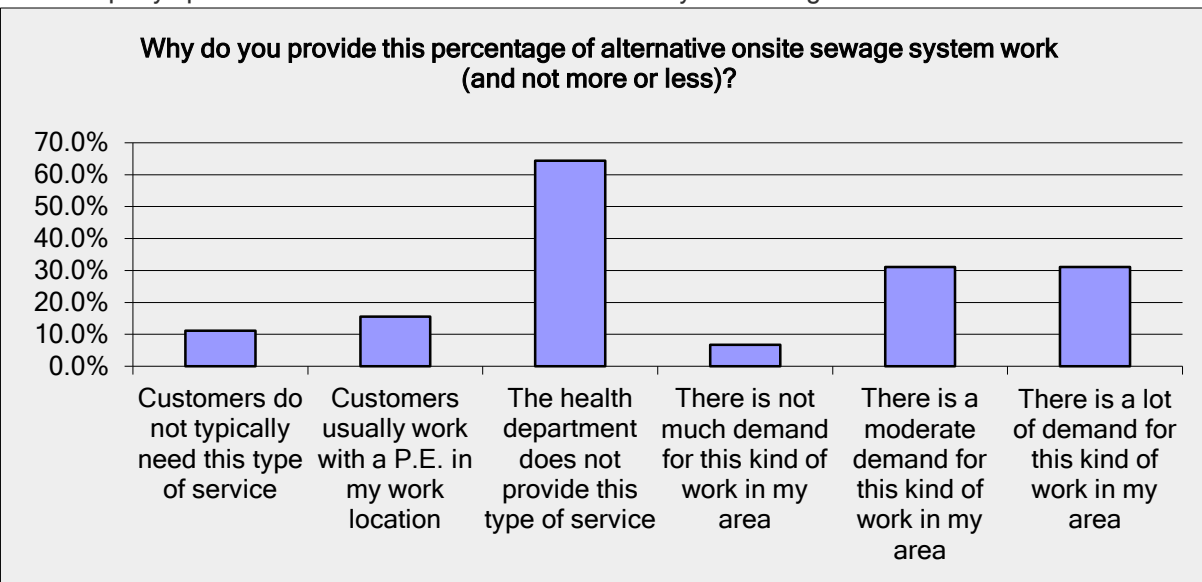
dictated by the general soil conditions

Stricter regulations require these types of system given existing site and soil conditions.

The amount is purely driven by the demand for the service from clients.

Dedicated to O&M - Repair of damaged / failing alternative systems.

Our company specializes in alternative and commercial system design.

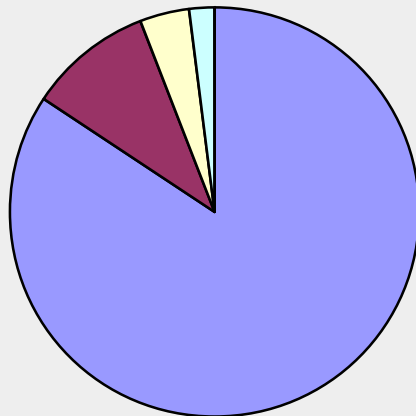


## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to review of existing sewage systems in conjunction with a building permit pursuant to Title 32.1-165 of the Code of Virginia?

Answer Options	Response Percent	Response Count
less than 10 percent	84.3%	43
10 to less than 25 percent	9.8%	5
25 to less than 50 percent	3.9%	2
50 percent to less than 75 percent	2.0%	1
more than 75 percent	0.0%	0
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to review of existing sewage systems in conjunction with a building permit pursuant to Title 32.1-165 of the Code of Virginia?



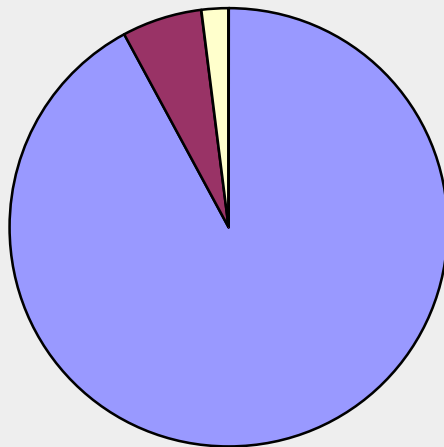
- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to voluntary upgrade work?

Answer Options	Response Percent	Response Count
less than 10 percent	92.2%	47
10 to less than 25 percent	5.9%	3
25 to less than 50 percent	2.0%	1
50 percent to less than 75 percent	0.0%	0
more than 75 percent	0.0%	0
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to voluntary upgrade work?



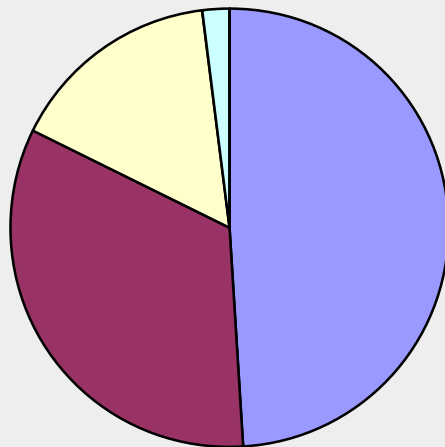
- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

What percent of your work is dedicated to repairing failing sewage systems?

Answer Options	Response Percent	Response Count
less than 10 percent	49.0%	25
10 to less than 25 percent	33.3%	17
25 to less than 50 percent	15.7%	8
50 percent to less than 75 percent	2.0%	1
more than 75 percent	0.0%	0
<i>answered question</i>		<b>51</b>

What percent of your work is dedicated to repairing failing sewage systems?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Onsite Soil Evaluator Answers

Why do you provide this amount of service for repairing failing onsite sewage systems?

Answer Options	Response Percent	Response Count
I do not want to do more repair work	3.2%	2
Clients only approach me if the health department can't	52.2%	32
Clients are not willing to pay for these services because	32.7%	20
Repairs require a significant amount of work and has a	11.4%	7
Other (please specify)		8
<b><i>answered question</i></b>		<b>45</b>

Answers are unedited from what was written on the online survey:

Few failures. Clients call and I perform the work when needed

Because there is a need

in most cases the failing systems are in default and no \$ so the system is not fixed as soon as it should be. NOV from HD are largely ignored or lawyer stops HD threats.

Typically clients only use my services for repairing failing systems if the site and soil conditions require an alternative system that the local health department will not design and if the clients choose not to pursue a waiver to the alternative sewage system requirement and instead have the health department design them a conventional sewage system.

Has 2 b an OSE design

That is the current demand in this area

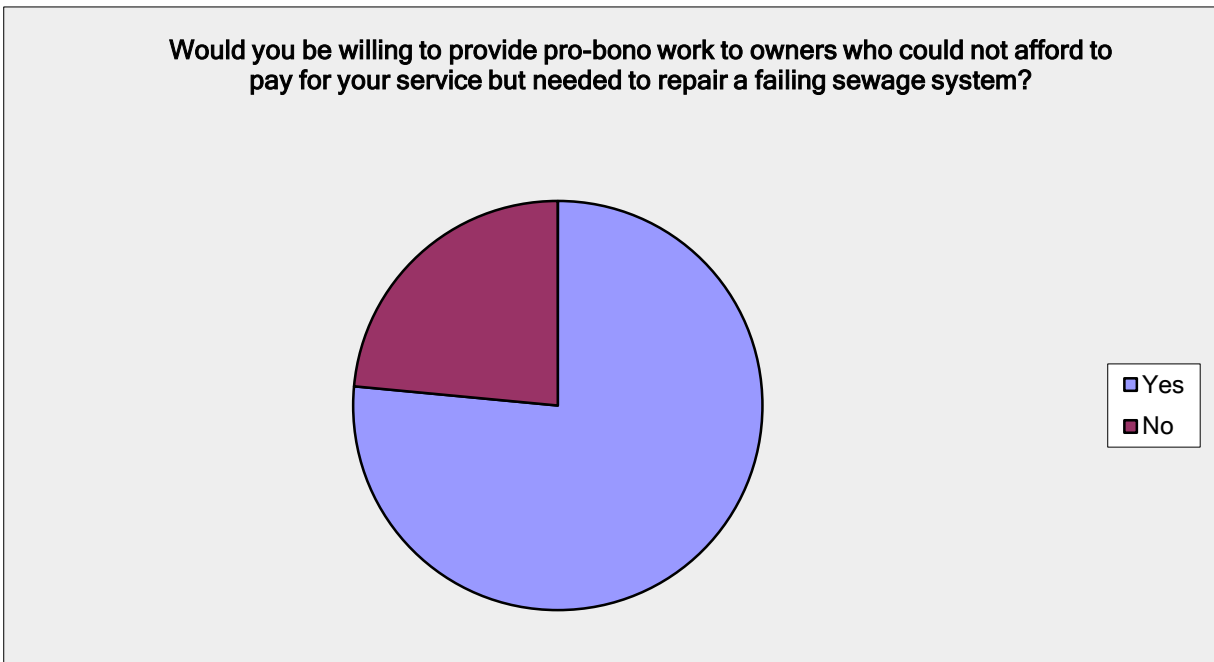
If the system is being maintained properly, most repair permits are for repair of storm damage of some sort.



### Appendix 5: Onsite Soil Evaluator Answers

Would you be willing to provide pro-bono work to owners who could not afford to pay for your service but needed to repair a failing sewage system?

Answer Options	Response Percent	Response Count
Yes	76.5%	39
No	23.5%	12
<i>answered question</i>		<b>51</b>



## Appendix 5: Onsite Soil Evaluator Answers

How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?

Answer Options	Response Percent	Response Count
Never	20.9%	10
1	46.5%	20
2	23.3%	10
3	4.7%	2
4	2.3%	1
5 or more	2.3%	1
Depends on how busy I am	25.1%	12
<i>answered question</i>		<b>43</b>

**Answers below are unedited from what was written on the online survey:**

I could not afford to provide this service.

I did this for habitat for humanity, but it would depend upon how busy I was at the time.

Dependent upon amount of paying work i Had to do. For instance if complete privatization then probably 2 or 3 times per month if I am getting 20 or 30 jobs but not if I am only getting the current 1-2 jobs per month and then having free work referred to me by HD.

case by case

We can provide a limited amount of this type of work -- 2 - 3 per year

Unsure, This would depend on my relationship with the person and their specific situation.

we always work with low income clients regardless

twice a year

case by case

"no good deed goes unpunished"

i am already doing this

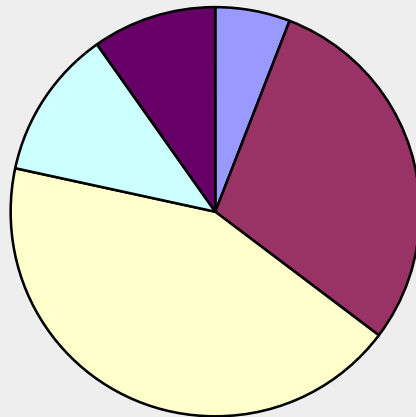
Cannot afford the time for major Pro-Bono work. We do provide some pro-bono consulting. But evaluation, design and inspections are time consuming.

## Appendix 5: Onsite Soil Evaluator Answers

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?

Answer Options	Response Percent	Response Count
Never	5.9%	3
Less than 5 times per month	29.4%	15
6 to 15 times per month	43.1%	22
16 to 25 times per month	11.8%	6
More than 26 times per month	9.8%	5
<i>answered question</i>		<b>51</b>

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?



- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month

## Appendix 5: Onsite Soil Evaluator Answers

What services have you received from the health department staff in the past?		
Answer Options	Response Percent	Response Count
Level 1 or 2 review of my work	98.0%	50
Inspection of a well or sewage system that I also	54.9%	28
Courtesy review	56.9%	29
Preliminary conference for proposed new construction or	66.7%	34
Problem-solving a permit issue (e.g., location of install,	47.1%	24
Discuss scheduling for inspection	25.5%	13
Design change to the permit	62.7%	32
Equipment or material change	35.3%	18
Discuss repair options for a failing sewage system	66.7%	34
Discuss regulatory or policy interpretations	94.1%	48
Other (please specify)		3
<i>answered question</i>		<b>51</b>

get old permits

Record retrieval

Only because they have a role now. If they didnt exist I wouldnt have to talk to them

## Appendix 5: Onsite Soil Evaluator Answers

What does the health department provide that is most valuable to your company and its customers?

Answer Options	Response Percent	Response Count
Unbiased advice	36.6%	15
Response to questions and expert knowledge of Inspections	82.9%	34
Design services	0.0%	0
Site and soil evaluations	2.4%	1
Sanitary surveys	4.9%	2
Other (please specify)	14.6%	6
<b><i>answered question</i></b>		<b>41</b>

Approval Letters

Well inspections for AOSE permits

Current explanation of policies as interpretation of reg/gmp's change

nothing

The quick review and approval of OSE septic and well permits.

Record Searches and Keeping

none

Record keeping

Looking up old permits

Advice, but I wouldnt call it unbiased. It is always biased towards complete compliance withoiut regard to economical impact or phased approaches.

1) Enforcement of the regulatory rules on to create a level playing field to operate under; 2) Record keeping

records of existing systems and wells

Regulatory interpretations of local ordinances

**Appendix 5: Onsite Soil Evaluator Answers**

<b>If all services were provided in the private sector, what do you think would happen with your fees for services?</b>		
<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
No change	73.5%	36
Slight decrease	4.1%	2
Moderate decrease	8.2%	4
Significant decrease	0.0%	0
Slight increase	10.2%	5
Moderate increase	2.0%	1
Significant increase	2.0%	1
Other (please specify)		6
<i>answered question</i>		<b>49</b>

**Answers below were unedited from the online survey entry:**

What the market will bare and be fair  
 We charge per hour for serevices rendered.  
 Fees are already competitively priced  
 may charge a fee if for services not now required  
 I believe competition among private sector OSE providers would keep service fees cost effective and as more job opportunities became available you would see an increasing number of OSEs entering the private sector which could result in service fees being decreased in order to stay competitive with one another.

Our fees would not change, but the free market will ultimately determine the fees. In underserved regions, you may have a few individuals that take advantage of the situation for a short period by increasing prices, but competition will eventually drive costs to the appropriate level.

### Appendix 5: Onsite Soil Evaluator Answers

Is there a sufficient number of private sector designers and inspectors in your area of business to provide a competitive market place with timely services?

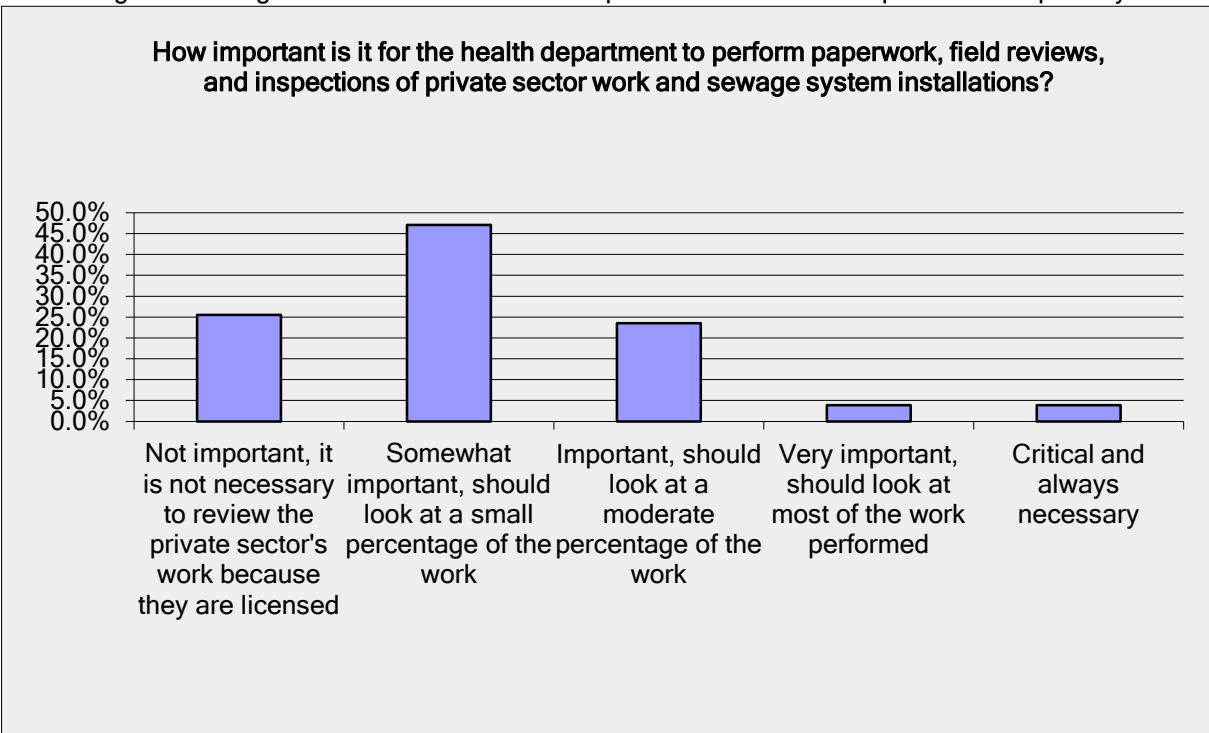
Answer Options	Response Percent	Response Count
Yes	96.1%	49
No	3.9%	2
<i>answered question</i>		<b>51</b>

## Appendix 5: Onsite Soil Evaluator Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	25.5%	13
Somewhat important, should look at a small percentage	47.1%	24
Important, should look at a moderate percentage of the	23.5%	12
Very important, should look at most of the work	3.9%	2
Critical and always necessary	3.9%	2
<i>answered question</i>		<b>51</b>

Percentage total is higher than 100% because two persons answered the question multiple ways





## Appendix 5: Onsite Soil Evaluator Answers

What incentives could be instituted to voluntarily increase private sector input in your area?

Answer Options	Response Count
	24
<i>answered question</i>	<b>24</b>

**Answers below are unedited from what was written into the online survey:**

Reduce AOSE application fees! Health Dept. let AOSEs do new division work.

Health Department should conduct level one reviews only

reduce permit fees

Decrease fees for private submittals

Privitization would increase demand for services that would attract more licensed individuals into the profession.

1. Increase VDH bare application cost significantly 2. VDH at a minimum should cease performing site and soil evaluations for subdivisions.

The OSE's and Engineers are available in our area to do the work and in other parts of the Commonwealth as well. Leave the work to the private sector who are Licensed and Insured.

VDH does not need to be involved with any level reviews for experienced Licensed people.

DPOR will deal with Licensed violators as they do with all other Licensed Professionals.

Eliminate VDH in the Soil/Design field, this will be an incentive to persons to set up private business in every part of the Commonwealth and create new jobs. With VDH out of the picture our firm could add additional Engineers and OSE's to our staff. The reason would be, our work load will increase. VDH is an alternative for them now. Leave VDH to other issues. Take them away from being police officers.

Just privatize and the free market system will take care of it.

quarterly meetings with HD staff and private sector OSE's as needed for problem solving and to keep updated on changes and solutions to particular situations

More work and less control of this area by the Health Department

all on site permitting; repairs be done by private sector

Increase Health Department Application Fees and Reduce Private Sector Application Fees to reflect the actual cost of business.

Don't understand the question

remove VDH from the on-site sewage and water programs

lower vdh fee rates for OSE/PE apps.

knowledge of what we can do

less health department work, cheaper review fees would increase private sector work

Allow repairs to be provided by private sector, reduce review time

The current VDH sewage and well application fees tend to stack the deck in favor of the Department as opposed to the private sector as it is more cost effective for clients to use the local Health Department as opposed to hiring a private sector OSE who has to charge his/her service fee and the client is still forced to pay an exorbitant application fee only slightly reduced from that of a bare application. It is therefore understandable why clients tend to gravitate to the local health department and pursue a bare application as opposed to working through a private sector OSE. Under the current system the local health department operates as both a regulator as well as a direct competitor for services with the private sector. Short of VDH getting out of onsite soil evaluation and sewage system design, the only other option to create a more fair and equitable marketplace would be for VDH to actually charge realistic application fees for bare applications based upon actual private sector OSE fees and at the same time drastically reduce application fees for private sector OSE submitted applications. The fees should be set so that VDH doesn't have an unfair price advantage over the private sector.

i think the economy just needs to come back

Have the health department stop acting as a consultant and only act as a regulator

1) The best incentive is for VDH to get out of the evaluation business and trust that the private sector will fill the void. (VDH may consider offering the service to low income individuals, but that should be the extent of their services.) 2) The next best incentive would be to change the application fee structure so that the differential between applications without supporting information is so much higher (1,000+) than those with supporting information that the private sector has a significant advantage in the marketplace. Unfortunately, the amount of the fees might have to be adjusted frequently and possibly regionally to achieve the desired outcome of driving business to the private sector. My belief is this solution might be, at best, a short term solution.

Health Department Referrals to the private sector--increase the demand and the supply will follow.

### Appendix 5: Onsite Soil Evaluator Answers

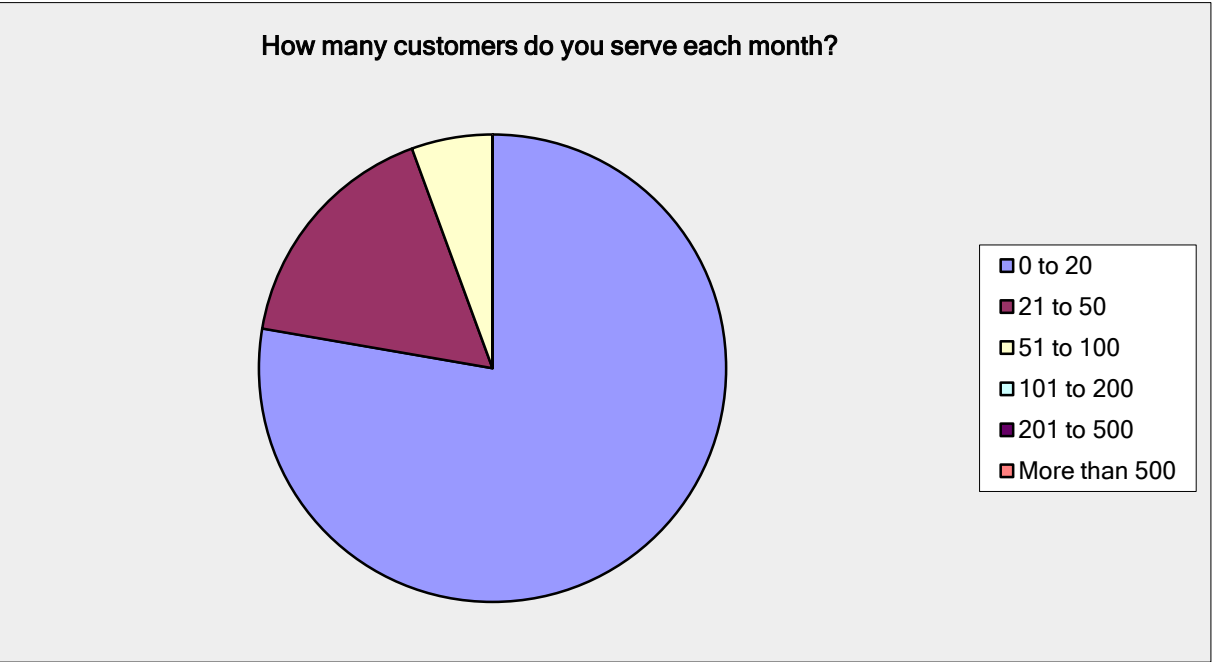
Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

Answer Options	Response Percent	Response Count
Yes	31.4%	16
No	68.6%	35
<i>answered question</i>		<b>51</b>

**Appendix 5: Professional Engineer Answers**

**How many customers do you serve each month?**

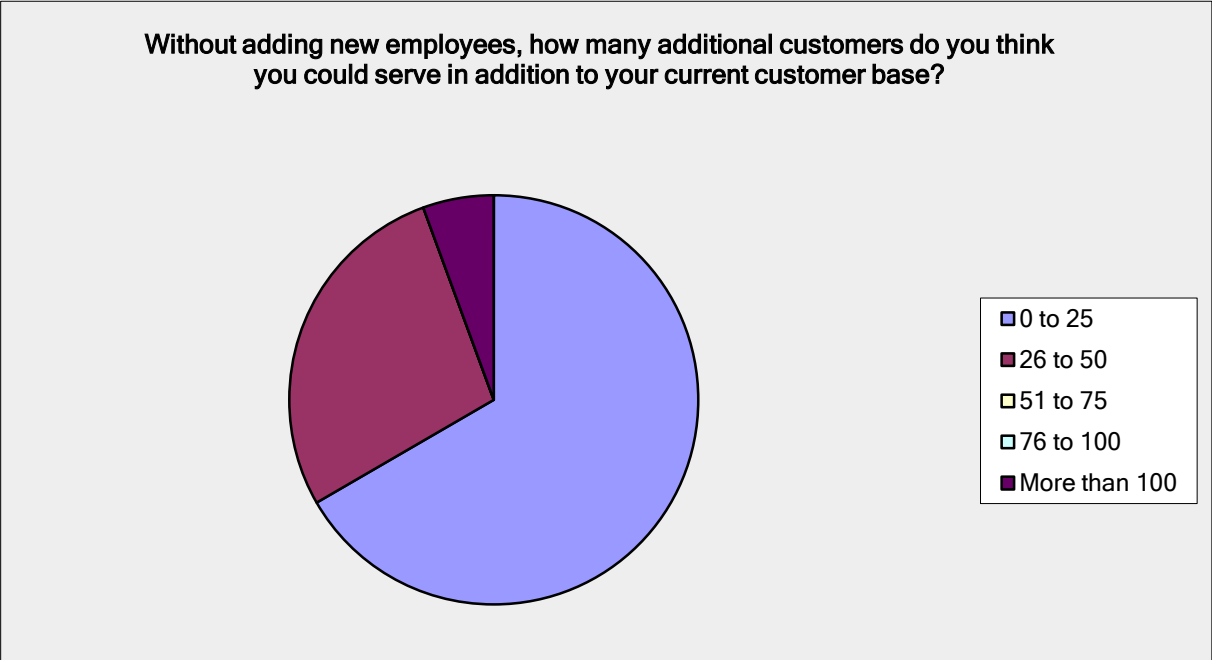
Answer Options	Response Percent	Response Count
0 to 20	77.8%	14
21 to 50	16.7%	3
51 to 100	5.6%	1
101 to 200	0.0%	0
201 to 500	0.0%	0
More than 500	0.0%	0
<i>answered question</i>		<b>18</b>



### Appendix 5: Professional Engineer Answers

**Without adding new employees, how many additional customers do you think you could serve in addition to your current customer base?**

Answer Options	Response Percent	Response Count
0 to 25	66.7%	12
26 to 50	27.8%	5
51 to 75	0.0%	0
76 to 100	0.0%	0
More than 100	5.6%	1
<i>answered question</i>		<b>18</b>

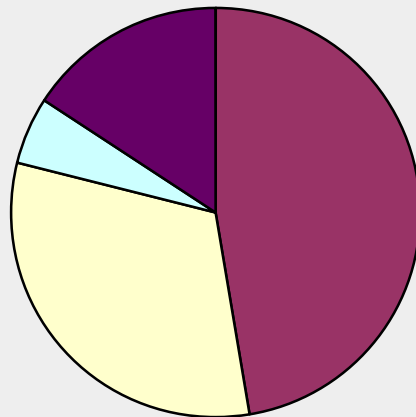


## Appendix 5: Professional Engineer Answers

In the past year, what was the maximum one-way distance from your base business location that you traveled to provide engineering services?

Answer Options	Response Percent	Response Count
Less than 25 miles	0.0%	0
25 to 100 miles	47.4%	9
101 to 150 miles	31.6%	6
151 to 200 miles	5.3%	1
More than 200 miles	15.8%	3
<i>answered question</i>		<b>19</b>

In the past year, what was the maximum one-way distance from your base business location that you traveled to provide engineering services?



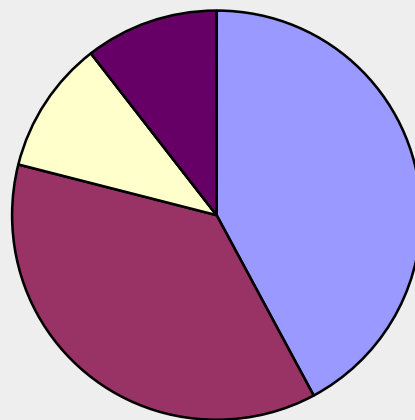
- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

## Appendix 5: Professional Engineer Answers

In the past year, what was the average one-way distance from your base business location that you traveled to provide services?

Answer Options	Response Percent	Response Count
Less than 25 miles	42.1%	8
25 to 100 miles	36.8%	7
101 to 150 miles	10.5%	2
151 to 200 miles	0.0%	0
More than 200 miles	10.5%	2
<i>answered question</i>		<b>19</b>

In the past year, what was the average one-way distance from your base business location that you traveled to provide services?



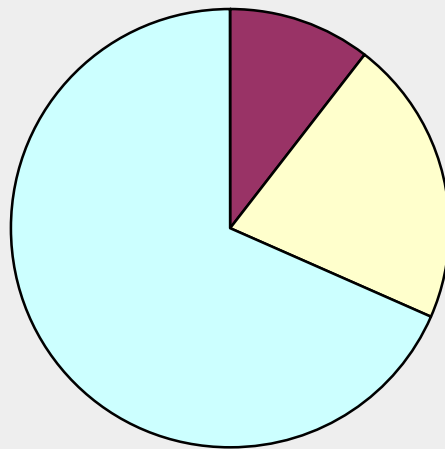
- Less than 25 miles
- 25 to 100 miles
- 101 to 150 miles
- 151 to 200 miles
- More than 200 miles

## Appendix 5: Professional Engineer Answers

How long have you been providing engineering services to your customers?

Answer Options	Response Percent	Response Count
less than 5 years	0.0%	0
5 to less than 10 years	10.5%	2
10 to 15 years	21.1%	4
More than 15 years	68.4%	13
<i>answered question</i>		<b>19</b>

How long have you been providing engineering services to your customers?



- less than 5 years
- 5 to less than 10 years
- 10 to 15 years
- More than 15 years



## Appendix 5: Professional Engineer Answers

What services as a professional engineer do you provide to your clients in the onsite sewage and water supply program?

Answer Options	Response Percent	Response Count
Site and soil evaluations for certification letters and	42.1%	8
Designs of conventional onsite sewage systems	63.2%	12
Designs of alternative onsite sewage systems	89.5%	17
Designs for repair systems	84.2%	16
Inspections of sewage systems	73.7%	14
Location of private wells or repairs of wells	57.9%	11
Inspections of water supplies	52.6%	10
Subdivision proposals	89.5%	17
Review of existing sewage systems for building permits	57.9%	11
Review of existing sewage systems for real estate	47.4%	9
Voluntary upgrades	42.1%	8
Other (please specify)		2
<i>answered question</i>		<b>19</b>

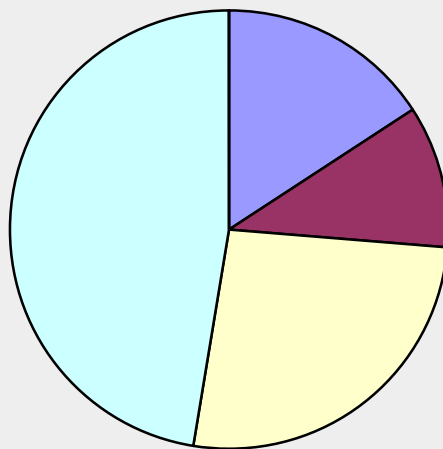
Surveying, subdivision & approvals  
mass drainfield design

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to subdivision and new construction work?

Answer Options	Response Percent	Response Count
less than 10 percent	15.8%	3
10 to less than 25 percent	10.5%	2
25 to less than 50 percent	26.3%	5
50 percent to less than 75 percent	47.4%	9
more than 75 percent	0.0%	0
<i>answered question</i>		<b>19</b>

What percent of your work is dedicated to subdivision and new construction work?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Professional Engineer Answers

Why does your work comprise that percentage (and not more or less)?		
Answer Options	Response Percent	Response Count
I do not want to do more	6.7%	1
Clients approach me for this amount and type of work	86.7%	13
Clients will pay for these services	0.0%	0
This type of work is most profitable compared to other	13.3%	2
Other (please specify)		4
<i>answered question</i>		<b>15</b>

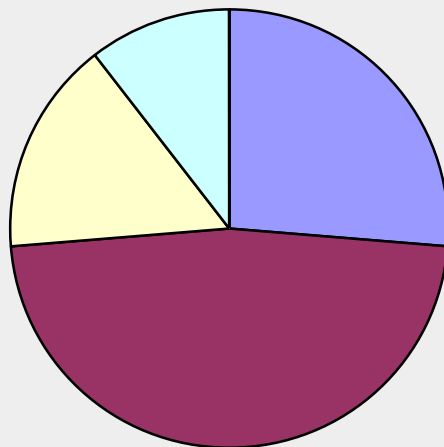
the poor economy  
 Economy  
 downturn in the market has limited this type of work  
 I operate systems as well as design/build them

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to designing conventional onsite sewage systems?

Answer Options	Response Percent	Response Count
I do not design conventional systems	26.3%	5
less than 10 percent	47.4%	9
10 to less than 25 percent	15.8%	3
25 to less than 50 percent	10.5%	2
50 percent to less than 75 percent	0.0%	0
more than 75 percent	0.0%	0
<i>answered question</i>		<b>19</b>

What percent of your work is dedicated to designing conventional onsite sewage systems?



- I do not design conventional systems
- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Professional Engineer Answers

Why do you provide this percentage of conventional system work (and not more or less)?		
Answer Options	Response Percent	Response Count
Clients do not hire me or my company for this type of	60.0%	9
I do not want to do more	0.0%	0
Clients only approach me when the health department	33.3%	5
Clients only pay for these services when there is a	13.3%	2
This type of work is not as profitable compared to other	0.0%	0
Other (please specify)		4
<i>answered question</i>		<b>15</b>

### Answers below were not edited and reflect the entries into the online survey:

Our clients feel they are better represented by the private sector. They do oppose paying a fee to VDH for a septic and well permit. Our clients feel this should also be left up to the Licensed individuals who carry E&O Insurance and can provide them with speedy service. The private sector knows the importance of projects time lines and the money that delays can cost.

Combination of client wants our service & some cases because health department did not provide the service. This is the percentage of type overall.

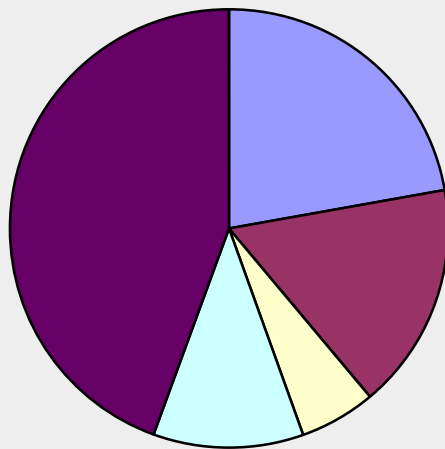
conventional systems can be designed by others(AOSE)

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to working with a private sector OSE?

Answer Options	Response Percent	Response Count
less than 10 percent	22.2%	4
10 to less than 25 percent	16.7%	3
25 to less than 50 percent	5.6%	1
50 percent to less than 75 percent	11.1%	2
more than 75 percent	44.4%	8
<i>answered question</i>		<b>18</b>

What percent of your work is dedicated to working with a private sector OSE?

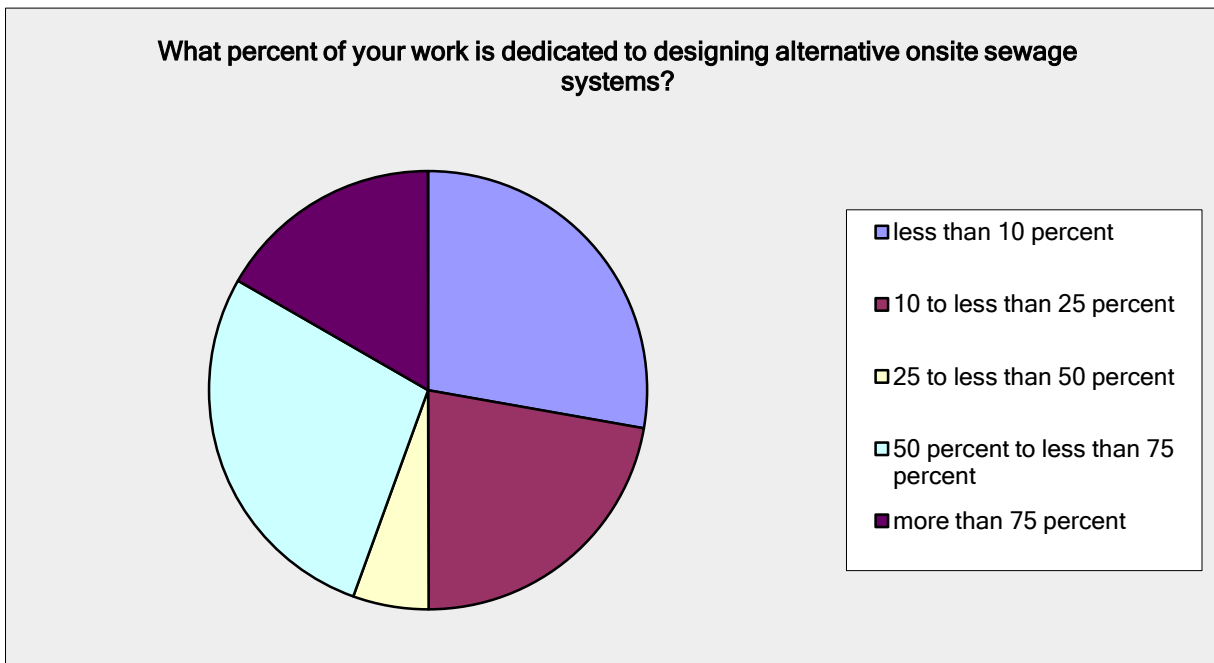


- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to designing alternative onsite sewage systems?

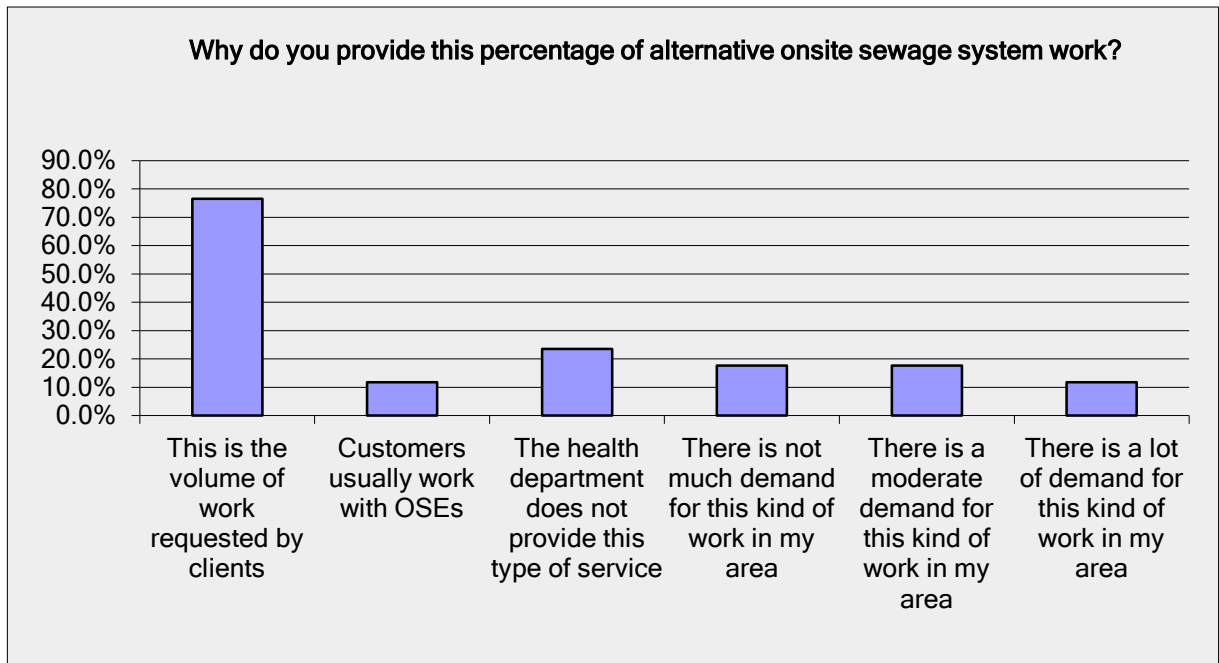
Answer Options	Response Percent	Response Count
less than 10 percent	27.8%	5
10 to less than 25 percent	22.2%	4
25 to less than 50 percent	5.6%	1
50 percent to less than 75 percent	27.8%	5
more than 75 percent	16.7%	3
<i>answered question</i>		<b>18</b>



## Appendix 5: Professional Engineer Answers

Why do you provide this percentage of alternative onsite sewage system work?

Answer Options	Response Percent	Response Count
This is the volume of work requested by clients	76.5%	13
Customers usually work with OSEs	11.8%	2
The health department does not provide this type of	23.5%	4
There is not much demand for this kind of work in my	17.6%	3
There is a moderate demand for this kind of work in my	17.6%	3
There is a lot of demand for this kind of work in my area	11.8%	2
Other (please specify)		1
<i>answered question</i>		<b>17</b>



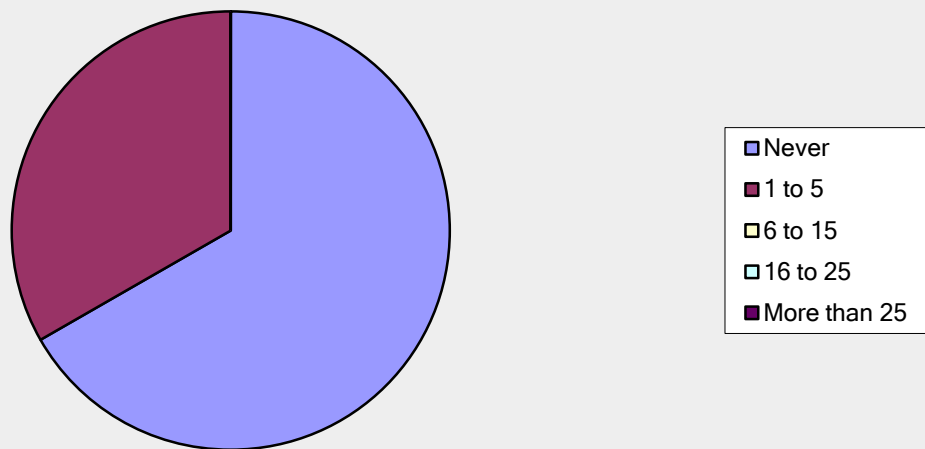


## Appendix 5: Professional Engineer Answers

In a typical month, how often do you use site and soil evaluations prepared by a health department employee?

Answer Options	Response Percent	Response Count
Never	66.7%	12
1 to 5	33.3%	6
6 to 15	0.0%	0
16 to 25	0.0%	0
More than 25	0.0%	0
<i>answered question</i>		<b>18</b>

In a typical month, how often do you use site and soil evaluations prepared by a health department employee?



## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to review of existing sewage systems in conjunction with a building permit pursuant to Title 32.1-165 of the Code of Virginia?

Answer Options	Response Percent	Response Count
less than 10 percent	83.3%	15
10 to less than 25 percent	11.1%	2
25 to less than 50 percent	5.6%	1
50 percent to less than 75 percent	0.0%	0
more than 75 percent	0.0%	0
<i>answered question</i>		<b>18</b>

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to voluntary upgrade work?

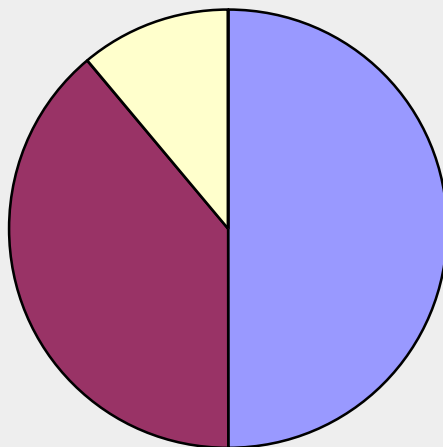
Answer Options	Response Percent	Response Count
less than 10 percent	94.4%	17
10 to less than 25 percent	0.0%	0
25 to less than 50 percent	5.6%	1
50 percent to less than 75 percent	0.0%	0
more than 75 percent	0.0%	0
<i>answered question</i>		<b>18</b>

## Appendix 5: Professional Engineer Answers

What percent of your work is dedicated to repairing failing sewage systems?

Answer Options	Response Percent	Response Count
less than 10 percent	50.0%	9
10 to less than 25 percent	38.9%	7
25 to less than 50 percent	11.1%	2
50 percent to less than 75 percent	0.0%	0
more than 75 percent	0.0%	0
<i>answered question</i>		<b>18</b>

What percent of your work is dedicated to repairing failing sewage systems?



- less than 10 percent
- 10 to less than 25 percent
- 25 to less than 50 percent
- 50 percent to less than 75 percent
- more than 75 percent

## Appendix 5: Professional Engineer Answers

Why do you provide this amount of service for repairing failing onsite sewage systems (and not more or less)? (Check all that apply)

Answer Options	Response Percent	Response Count
I do not want to do more repair work	13.3%	2
Clients only approach me if the health department can't	86.7%	13
Clients are not willing to pay for these services because	40.0%	6
Repairs require a significant amount of work that is not	6.7%	1
There is civil liability	13.3%	2
Professional disagreements are more likely with the	0.0%	0
Enforcement issues with the failing sewage system	6.7%	1
Other (please specify)		3
<i>answered question</i>		<b>15</b>

**Answers below were not edited from online entries:**

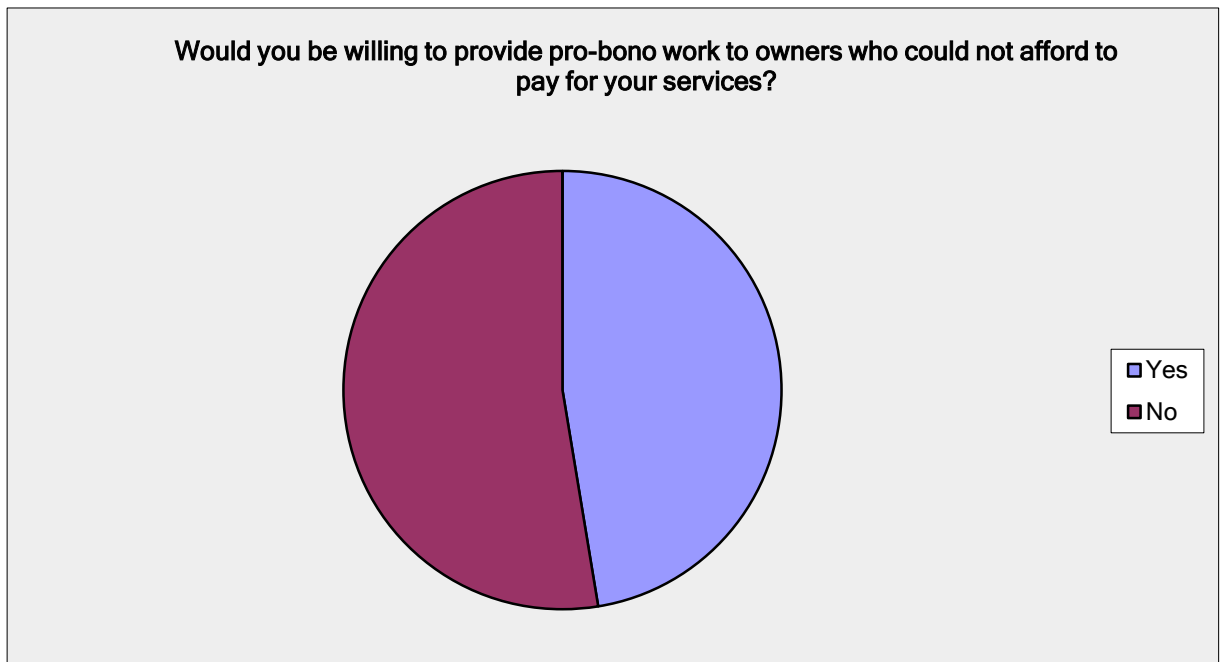
that is the demand

Repair work limited to commercial, institutional and industrial clients as requested by owners

### Appendix 5: Professional Engineer Answers

Would you be willing to provide pro-bono work to owners who could not afford to pay for your services?

Answer Options	Response Percent	Response Count
Yes	47.4%	9
No	52.6%	10
<i>answered question</i>		19



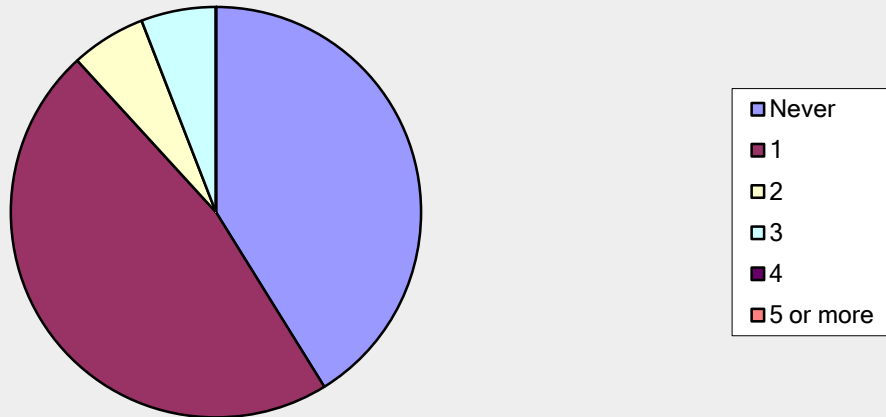
## Appendix 5: Professional Engineer Answers

How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?

Answer Options	Response Percent	Response Count
Never	41.2%	7
1	47.1%	8
2	5.9%	1
3	5.9%	1
4	0.0%	0
5 or more	0.0%	0
Other (please specify)		1
<i>answered question</i>		<b>17</b>

The issue is liability - I'm not going to be liable for something I don't get paid for.

How often per month would you be willing to provide free services to those who needed to repair a failing sewage system but could not afford your services?

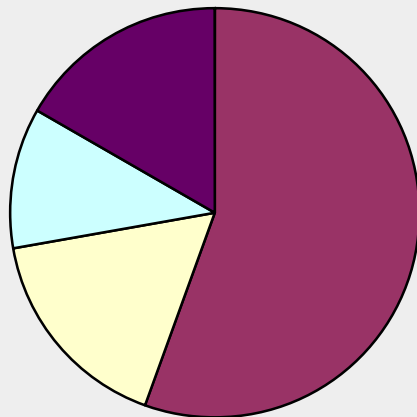


## Appendix 5: Professional Engineer Answers

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?

Answer Options	Response Percent	Response Count
Never	0.0%	0
Less than 5 times per month	55.6%	10
6 to 15 times per month	16.7%	3
16 to 25 times per month	11.1%	2
More than 26 times per month	16.7%	3
<i>answered question</i>		<b>18</b>

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?



- Never
- Less than 5 times per month
- 6 to 15 times per month
- 16 to 25 times per month
- More than 26 times per month



## Appendix 5: Professional Engineer Answers

What services have you received from the health department staff in the past?

Answer Options	Response Percent	Response Count
Level 1 or 2 review of my work	58.8%	10
Inspection of a well or sewage system that I also	35.3%	6
Courtesy review	47.1%	8
Preliminary conference for proposed new construction or	82.4%	14
Problem-solving a permit issue (e.g., location of install,	52.9%	9
Discuss scheduling for inspection	11.8%	2
Design change to the permit	52.9%	9
Equipment or material change	23.5%	4
Discuss repair options for a failing sewage system	58.8%	10
Discuss regulatory or policy interpretations	88.2%	15
Other (please specify)		1
<i>answered question</i>		<b>17</b>
Review and approval of subdivisions with AOSE		

## Appendix 5: Professional Engineer Answers

What does the health department provide that is most valuable to your company and its customers?

Answer Options	Response Percent	Response Count
Unbiased advice	33.3%	4
Response to questions and expert knowledge of Inspections	83.3%	10
Design services	25.0%	3
Site and soil evaluations	0.0%	0
Sanitary surveys	0.0%	0
Other (please specify)	8.3%	1
<i>answered question</i>		<b>12</b>

### Answers below are not edited from the online survey entries:

As Engineers, Surveyors, Planners, Licensed Authorized Onsite Soil Evaluators, Licensed Onsite Sewage System Operators and Licensed Contractors we have our profession covered. VDH issues construction permits and certification letters. Our contact with VDH is covers failed systems and complaints against EHS persons.

Update on current interpretations of Reg/GMPS

Record Searches and Keeping

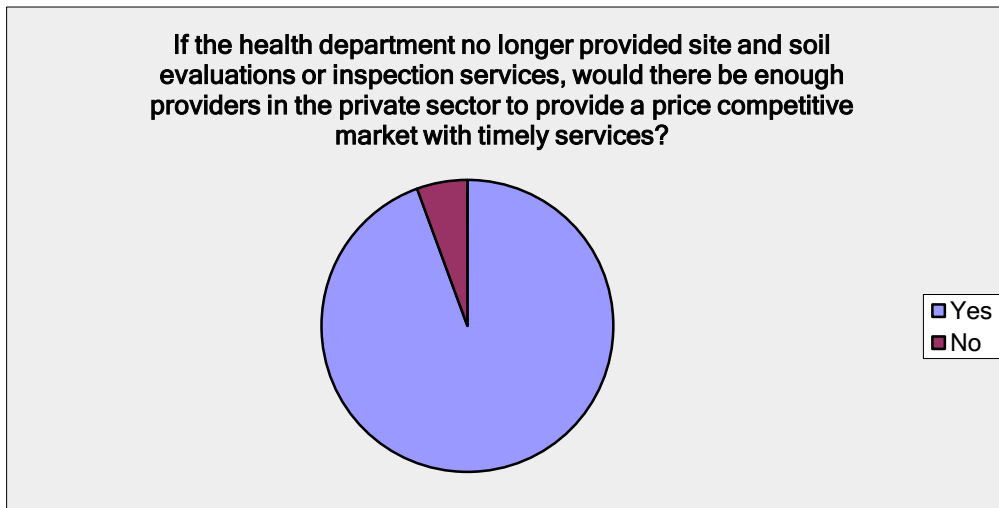
Slow service and poor uncooperative attitude.

QA/QC review of projects. Regulatory compliance review. Archived records of existing systems.

## Appendix 5: Professional Engineer Answers

If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services?

Answer Options	Response Percent	Response Count
Yes	94.4%	17
No	5.6%	1
<i>answered question</i>		<b>18</b>

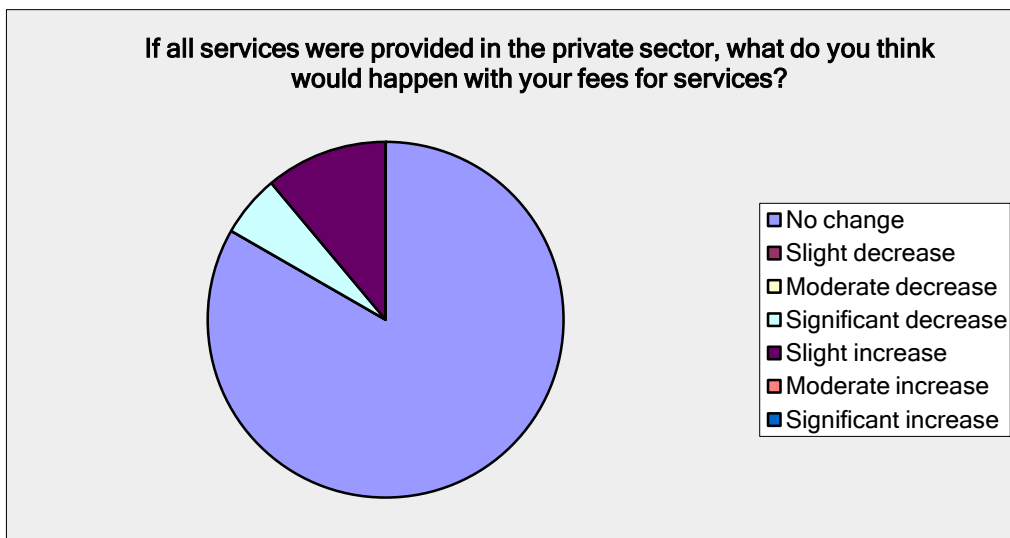


## Appendix 5: Professional Engineer Answers

If all services were provided in the private sector, what do you think would happen with your fees for services?

Answer Options	Response Percent	Response Count
No change	83.3%	15
Slight decrease	0.0%	0
Moderate decrease	0.0%	0
Significant decrease	5.6%	1
Slight increase	11.1%	2
Moderate increase	0.0%	0
Significant increase	0.0%	0
Other (please specify)		2
<i>answered question</i>		<b>18</b>

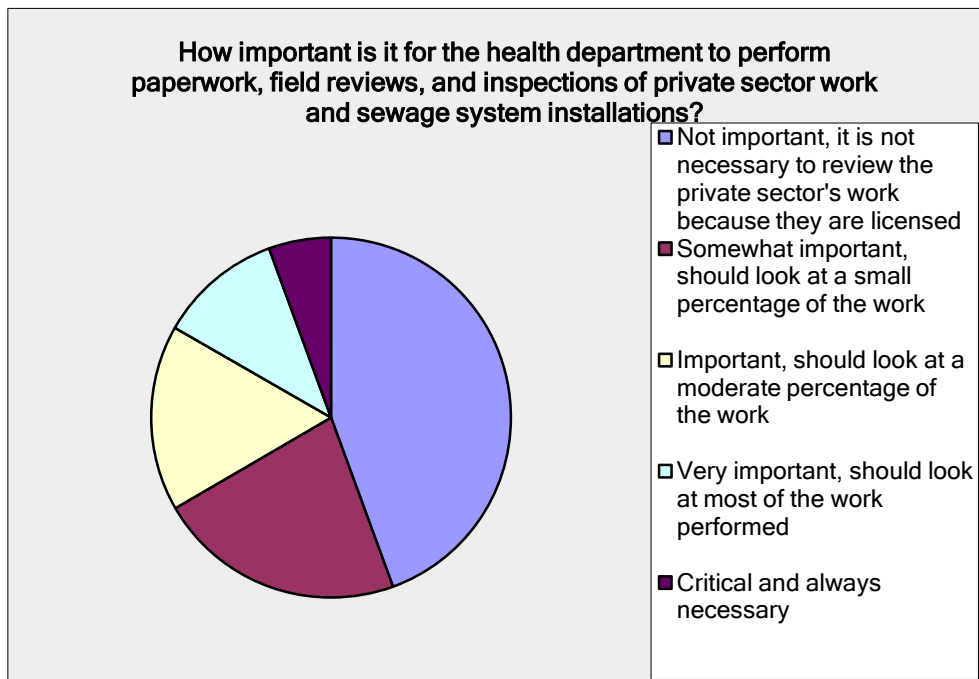
My Clients would save money and their projects would not be delayed by VDH level 1 & 2 reviews. But the speed and attitude of the providers would improve.



## Appendix 5: Professional Engineer Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	44.4%	8
Somewhat important, should look at a small percentage	22.2%	4
Important, should look at a moderate percentage of the	16.7%	3
Very important, should look at most of the work	11.1%	2
Critical and always necessary	5.6%	1
<i>answered question</i>		<b>18</b>



## Appendix 5: Professional Engineer Answers

What incentives could be instituted to voluntarily increase private sector input in your area?

Answer Options	Response Count
	8

**Answers below were not edited from the online survey entries:**

the health dept. could stop competing with the private sector

The constutction permit and well permit fee by VDH should be eliminated when a Licensed AOSE or Licensed Engineer who is properly insured is involved and signing the project plans. I don't think that individuals can afford to pay both private sector rates and high VDH fees. Fees must be based upon time/effort expended and liability (responsibility) for the project. If design work is handed to private sector, VDH fee for review should be minimal (zero).

Raise the Health Department Fees and reduce the Private Sector fees to reflect the actual cost of work. It is impossible to compete with the Health Department if they are subsidized by taxes other than the fees.

RFP's for annual services

take vdh out of this portion of business and keep them in doing other vdh business

Allow private entities to review and approve systems when they are qualified.

Nothing is voluntary in this regulatory environment.

### Appendix 5: Professional Engineer Answers

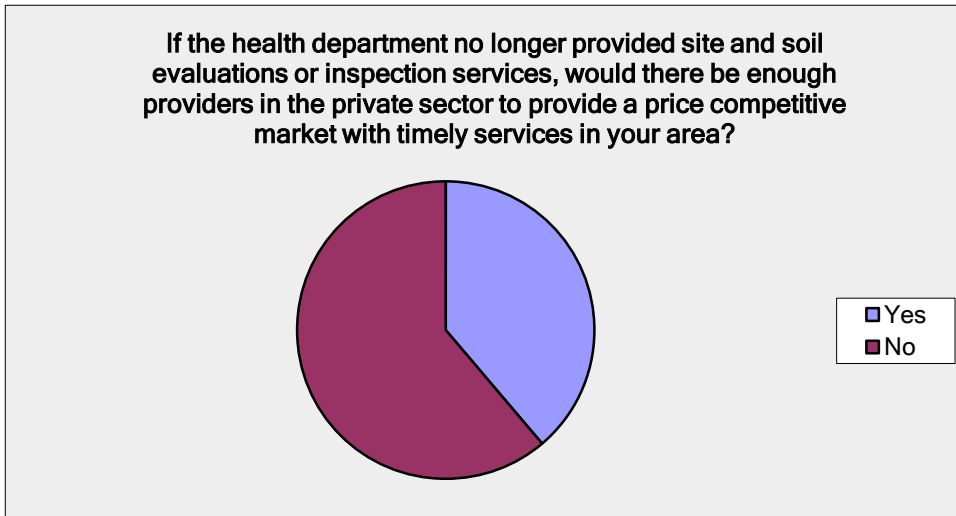
Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

Answer Options	Response Percent	Response Count
Yes	36.8%	7
No	63.2%	12
<i>answered question</i>		<b>19</b>

### Appendix 5: Local Government and Elected Officials Answers

If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services in your area?

Answer Options	Response Percent	Response Count
Yes	38.8%	19
No	61.2%	30
<i>answered question</i>		
<b>49</b>		





## Appendix 5: Local Government and Elected Officials Answers

If all services were provided in the private sector, what do you think would happen with private sector fees?

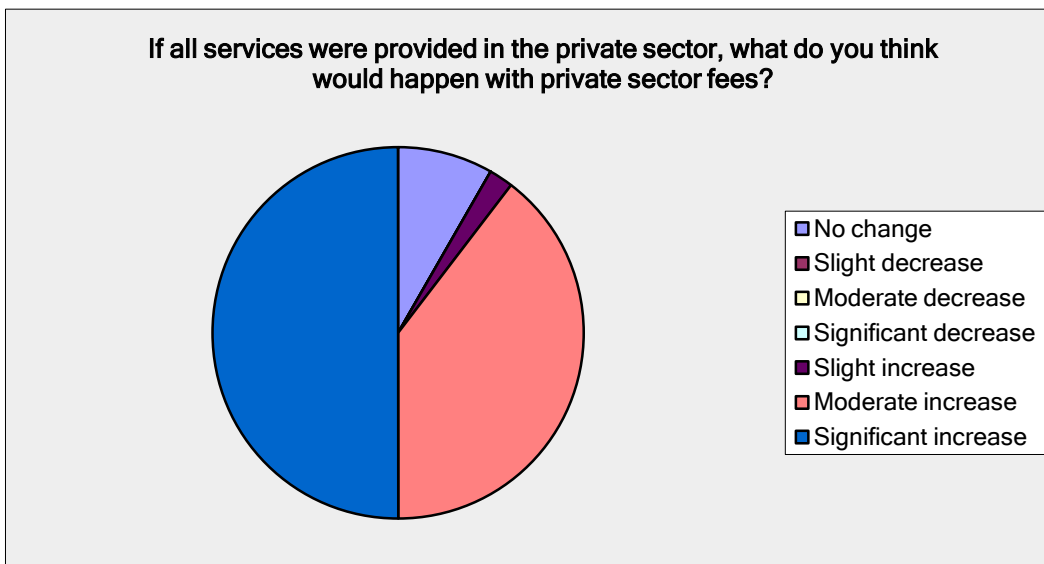
Answer Options	Response Percent	Response Count
No change	8.3%	4
Slight decrease	0.0%	0
Moderate decrease	0.0%	0
Significant decrease	0.0%	0
Slight increase	2.1%	1
Moderate increase	39.6%	19
Significant increase	50.0%	24
Other (please specify)		3
<i>answered question</i>		<b>48</b>

Answers below were not edited from the online survey entries:

The cost would go through the roof on "Joe" homeowner!

Increase if they were required by law.

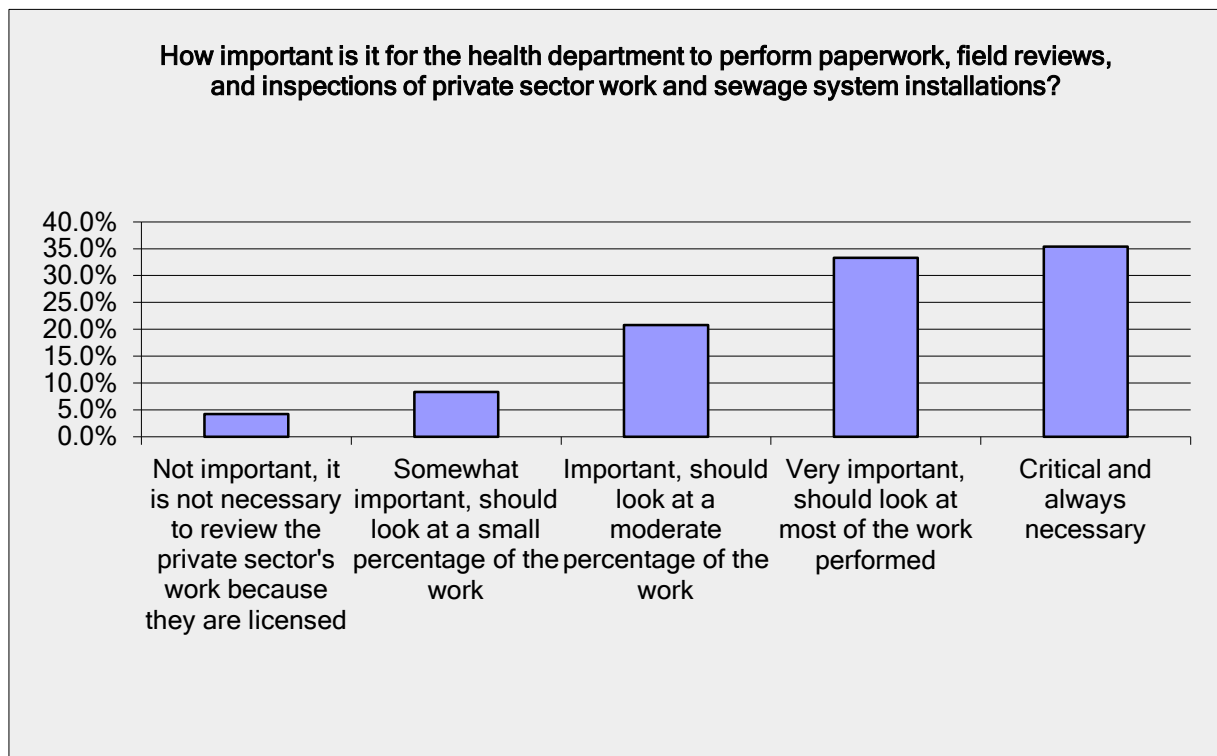
The demand will be to great for the private sector causing significant delays and price increase



## Appendix 5: Local Government and Elected Officials Answers

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

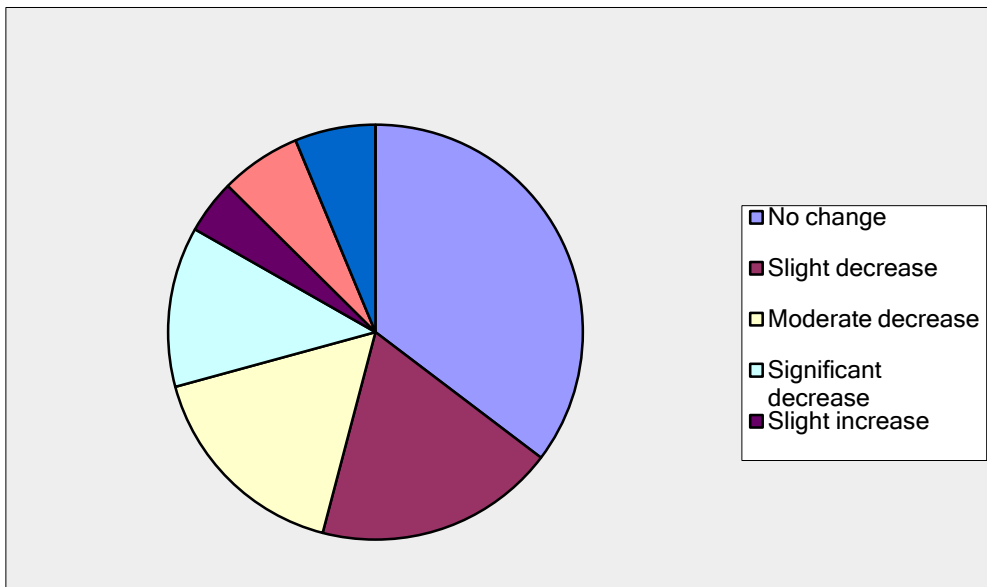
Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	4.2%	2
Somewhat important, should look at a small percentage	8.3%	4
Important, should look at a moderate percentage of the	20.8%	10
Very important, should look at most of the work	33.3%	16
Critical and always necessary	35.4%	17
<i>answered question</i>		<b>48</b>



## Appendix 5: Local Government and Elected Officials Answers

If all services were provided in the private sector, what do you think would happen with the health department's application fees? Please assume there would be some fee to cover program administration and oversight such as records retention, customer responses, and reviews.

Answer Options	Response Percent	Response Count
No change	35.4%	17
Slight decrease	18.8%	9
Moderate decrease	16.7%	8
Significant decrease	12.5%	6
Slight increase	4.2%	2
Moderate increase	6.3%	3
Significant increase	6.3%	3
<i>answered question</i>		<b>48</b>



## Appendix 5: Local Government and Elected Officials Answers

What concerns or thoughts do you have if the health department no longer accepted "bare" applications? "Bare" applications are applications that do not include private sector soil evaluations and designs.

Answer Options	Response Count
	39
<i>answered question</i>	<b>39</b>

### Answers below were not edited from the online survey entries:

Acceptable systems have been changing it seems almost yearl and I am concerned about the private sector having adequate training of newest technology. Consistency would be a major concen with onsite soil evaluations if VDH is no longer involved.

I don't understand the definition and application process well enough to provide a reasonable answer.

Bare application acceptance provides a choice to the public. It provides a check and balance to private evaluations and designs. It maintains working relationships with the local jurisdiction's enforcement and construction inspection personnel.

Hopefully applications could be processed quickly.

There may be an increase in cost to the applicant for hiring a soil evaluator but it would save the health department some field time.

May require the contracting out of such services

Cost would be a problem for low income citizens

none

I am unfamiliar with this type application

1. The intent of HB2185 is to privatize soil evaluations and designs for onsite sewage systems. This would remove the VDH from the role of providing this service and move them to a monitoring role. There is concern

that this change will significantly reduce the revenue stream that is coming into the VDH because the fees currently charged by the VDH for this service would go to a private individual. With this drop in revenue how will the VDH pay for the new monitoring responsibilities? Will their staff be cut because of this loss of funding?

2. Frederick County has a large number of alternative onsite systems and discharge systems (1,200+ alternative, 200 discharge, 158 P&H), how will these systems be monitored if VHD staff is reduced? Are the localities within the health district expected to pick up the loss in revenue to keep their level of service? 3. Frederick County in many areas has shallow soils and therefore must be evaluated by a backhoe (not by auger as with other localities). Therefore the local VDH can rarely see the OSE's work because currently the OSE will fill in the pits before the VDH has a chance to look at them. In order for the VDH to properly monitor OSE's in Frederick County under HB2185 there must be a way for the VDH to evaluate the backhoe pits. The state doesn't allow additional costs to be incurred by the property owner and therefore VDH can't require pits to be dug up to verify the OSE's work (auger is not useful). How will Frederick County get proper monitoring and protection under HB2185 (if VDH isn't doing the soil evaluation)? 4. The VDH should not be excluded from this process, localities have a level of assurance with these offices and that the work they performed is accurate. Also, localities can be assured that the local VDH's has not only the property owners, but also the localities best interest in mind when reviewing applications. 5. This bill proposes to privatize the onsite process, but doesn't appear to properly give the local VDH the ability to be a proper watchdog for the monitoring process. 6. How will HB2185 work with local ordinances that are already in place? Frederick County's Chapter 161 gives the local VDH the responsibility of ensuring that all onsite systems are properly installed and designed. How will the implementation of local ordinances be impacted? 7. Will OSE's be responsible when systems fail? The OSE should be the contact between the VDH and the property owner when their systems fail. 8. If VDH goes to a monitoring role, will they be providing training to OSE's? The VDH should train OSE's on different local ordinances within their districts. 9. As with the recent state code change that stated localities could not prohibit alternative onsite systems, will this proposed change lead to additional mandates and prohibitions for the localities again? 10. If HB2185 is passed and the state does not provide additional funding to make up the difference (and the locality becomes responsible) the locality should be able to charge a local fee to make up the difference (to fund the monitoring requirements). Additional state code changes shouldn't be implemented that preclude this. 11. Will localities be able to license OSE's in their localities? Thus if the OSE is doing poor work will we be able to revoke their County license and prohibit them from doing soil evaluations in our community? 12. How will this proposed change protect wells? Groundwater is important and it is unclear whether the VDH will be responsible for well permits (which is an onsite issue). Will an OSE be responsible for the permits and are they going to give the same level of scrutiny that the local VDH office does?

It would hurt the average person and potentially help larger developers.

Bare applications should only apply to cases where a repair is required.

A result of the local VDH no longer accepting "bare" applications would initially result in property owners getting frustrated at perceived delays due to their failure to budget the time for that information to be provided through the private sector [realizing that a "bare" application needs the substance of soil evaluations and designs]. There would also be the inherent frustration of additional expense presumed from the private sector fee schedule.

AS long as the VDH is sufficiently funded, they should offer the design service in those areas where private sources are unavailable.

I think that the quality of the work would suffer greatly and that the cost of getting a well and septic permit would sky-rocket!

No oversight is going to lead to a lot of drainfield failures in the future. The problems associated with these decisions are going to surface in 10 years when it is too late to do much about it. The State is going to have to act to correct failing drainfields; therefore, they should remain a presence in the permitting process. The backlash from this is going to be huge. I can see without oversight, that anyone with a backhoe will become an installer; but by the time the system fails the installer is no longer in business and the homeowner is left to deal with the problem on his own.

It would place an unnecessary financial burden on the average property owner.

The cost to the private citizen would increase significantly and the approval process would become very slow. some increased cost to home owner. more critical that VDH review and confirm validity of third party work. Don't know.

I do not have great concerns in this area provided that the health department conducted an independent review of the application to ensure that the private sector work was done correctly.

It takes away the choice people have to use the local Health Dept. instead of paying for a private soil consultant.

VDH resources would be stretched and response times would significantly increase. Additional staff would have to be hired.

Quality of systems will drop

Concerning #9- What "would happen"...who knows. And if all services were provided by by the private sector, why is there even a VDH application or fee? Poorly worded question.

I believe many of the applicants would not obtain private sector soil evaluations and designs. None.

All applications should include a professional evaluation which is then subject to review by VDH.

Create a backlog in the private sector and a price increase because of the demand

The increased cost of private sector designs and evaluations would become an additional barrier to development. Property owners would shop for the least expensive private sector soil scientist and there would be competition for who can do the studies cheapest, easiest and least thorough evaluation. Localities would be left with trying to address any resulting problems

The Health Dept currently does not have enough resources to design onsite sewage disposal systems. vdh is now so slow and holds up the private sector. get vdh out of the business and lett the licensed AOSE so their job

How would the implementation of the Indemnification Fund be handled if a mistake is made by a private OSE? It is imperative that the property owner is not left responsible for costs if a VDH permit is issued and there is system failure.

Folks in our area may not be able to afford to hire an OSE. The Health Department fees are presently cheaper than hiring an OSE. I fear that many will simply contine to allow their system to backup and fail due to the expense.

A private owner should be able to submit their application to the Health Dept for this soils work to be done. This service, in the private sector could take months to complete, given the lack of professionals in this field. Also, there needs to remain a check of the private sector soils work. There is no other entity that could provide this check.

The cost of private sector services would be prohibitive for many of the residents of this region.

Based on my experience, the private sector engineers make mistakes like everyone else. Particularly in our County where we have enhanced standards that need to be paid attention to.

None, as long as VDH has a very active review role then private sector evaluation and design is a good thing. Left unregulated it is not.

For documentation purposes, it would be difficult for the public or others to track down supporting information if it was needed or if compliance needed to be verified.

## Appendix 5: Local Government and Elected Officials Answers

What incentives could be instituted to voluntarily increase private sector input?	
Answer Options	Response Count
	22
<i>answered question</i>	<b>22</b>

### Answers below were not edited from the online entries:

Not sure.

Professional Engineers should be allowed to obtain soil examiner certification with education and professional licence accepted in lieu of field experience.

I do not know.

don't know

Not sure

?- are we really lacking input from the private sector? They are the ones behind this bill and the reason we are taking this survey, right?

not sure

I don't think that you will have to provide incentives. Without oversight by the health department after awhile installers will realize that nobody is watching them and more will enter the business.

More timely and cost effective processes.

speed review. for example 30 days if private work is provided and 60 days if not provided.

Don't know.

Quicker review/approval times

None. Cost would be the driving force as supply and demand would force an increase in costs.

Raise fees

We are a very rural County and do not have a significant base from which to draw in the private sector locally. Private sector input would likely have to come from Bristol or even Roanoke, very expensive and not timely. I don't really see any workable incentives.

None.

No incentives.

In a rural area I doubt if you can provide incentives without significantly increasing the cost to person requiring the service.

Maintain vendor listings and consider sliding scale pricing to charge higher state fees for more complicated projects in order to hold down the cost for smaller developments where septic reviews are a greater percentage of the overall project.

Have the private sector design, install and maintain the systems and have the Health Dept approve the designs and monitor the operation and maintenance of the systems to protect public health.

Have the local Health Departments send out mailers to their local private sectors. Not really sure.

A tiered fee structure that reflected the level of service provided by VDH.

### Appendix 5: Local Government and Elected Officials Answers

Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

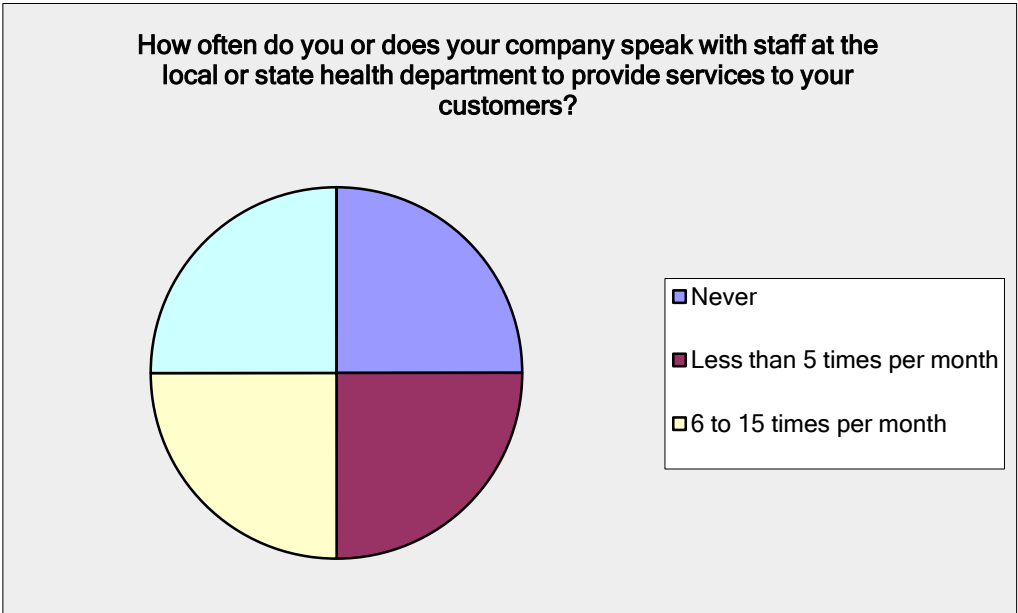
Answer Options	Response Percent	Response Count
Yes	8.0%	4
No	92.0%	46
<i>answered question</i>		<b>50</b>



**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

How often do you or does your company speak with staff at the local or state health department to provide services to your customers?

Answer Options	Response Percent	Response Count
Never	25.0%	1
Less than 5 times per month	25.0%	1
6 to 15 times per month	25.0%	1
16 to 25 times per month	25.0%	1
More than 26 times per month	0.0%	0
<i>answered question</i>		<b>4</b>

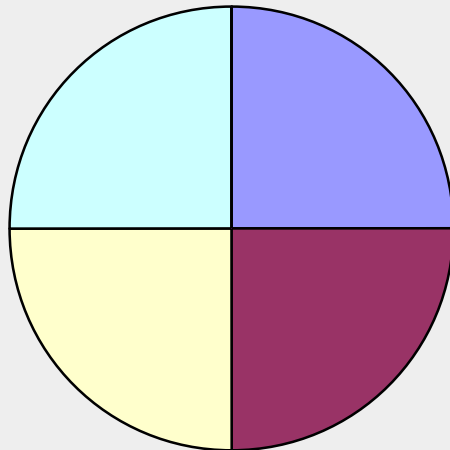


**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

Answer Options	Response Percent	Response Count
Not important, it is not necessary to review the private	25.0%	1
Somewhat important, should look at a small percentage	25.0%	1
Important, should look at a moderate percentage of the	25.0%	1
Very important, should look at most of the work	25.0%	1
Critical and always necessary	0.0%	0
<i>answered question</i>		<b>4</b>

How important is it for the health department to perform paperwork, field reviews, and inspections of private sector work and sewage system installations?

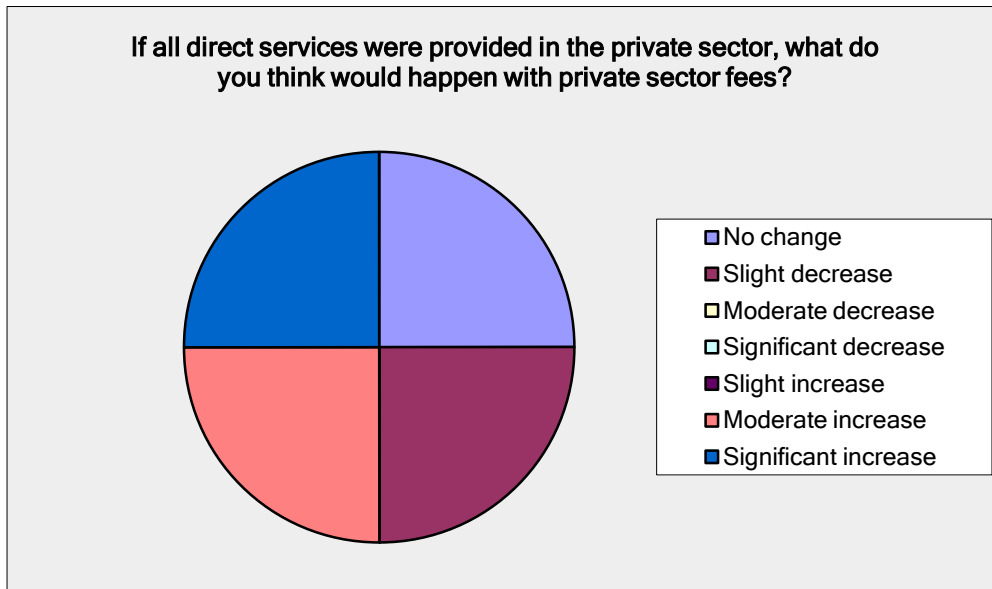


- Not important, it is not necessary to review the private sector's work because they are licensed
- Somewhat important, should look at a small percentage of the work
- Important, should look at a moderate percentage of the work
- Very important, should look at most of the work performed
- Critical and always necessary

**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

**If all direct services were provided in the private sector, what do you think would happen with private sector fees?**

Answer Options	Response Percent	Response Count
No change	25.0%	1
Slight decrease	25.0%	1
Moderate decrease	0.0%	0
Significant decrease	0.0%	0
Slight increase	0.0%	0
Moderate increase	25.0%	1
Significant increase	25.0%	1
<i>answered question</i>		<b>4</b>



**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

What does the health department provide that is most valuable to your company and its customers?

Answer Options	Response Percent	Response Count
Unbiased advice	0.0%	0
Response to questions and expert knowledge of	0.0%	0
Inspections	100.0%	2
Design services	0.0%	0
Site and soil evaluations	0.0%	0
Sanitary surveys	0.0%	0
Other (please specify)		1
<i>answered question</i>		<b>2</b>
Don't know		

**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

Which of the following mandates would you support to increase private sector input?  
(Check all that apply)

Answer Options	Response Percent	Response Count
Require the health department to charge similar fees as	0.0%	0
Create a fund to help pay private sector service	25.0%	1
Require private sector service providers to accept a	25.0%	1
Require all applications for voluntary upgrades to	50.0%	2
Require all applications for certification letters to include	25.0%	1
Require all applications for review of existing systems	50.0%	2
Require all applications for subdivisions to include	75.0%	3
Require all applications for repairs to include private	50.0%	2
Require all applications for well permits to include	25.0%	1
<i>answered question</i>		<b>4</b>

**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

Without mandates, what incentives could be instituted to voluntarily increase private sector input?

Answer Options	Response Count
	3

- Simply completely privatize.
- don't know
- don't let health department do anything but inspecitons

**Appendix 5: Distributor, Manufacturer, Realtor Answers:**

Thank you for answering these questions. Would you like to answer questions as a member of another stakeholder group?

Answer Options	Response Percent	Response Count
Yes	33.3%	2
No	66.7%	4
<i>answered question</i>		<b>6</b>

### Appendix 5: Professional Organization or Professional Association Answers:

If the contact information for your organization was not previously offered at the beginning of the survey, then please include your professional organization's contact information below.

Answer Options	Response Percent	Response Count
Name:	100.0%	8
Company:	75.0%	6
Address:	87.5%	7
Address 2:	12.5%	1
City/Town:	87.5%	7
State:	100.0%	8
ZIP:	87.5%	7
Country:	75.0%	6
Email Address:	87.5%	7
<i>answered question</i>		<b>8</b>



## Appendix 5: Professional Organization or Professional Association Answers

What stakeholder groups are presently represented on your board of directors?

Answer Options	Response Percent	Response Count
EHS	0.0%	0
Homeowner	14.3%	1
Professional Engineer	14.3%	1
Operator	28.6%	2
Private sector Onsite Soil Evaluator	28.6%	2
Distributor	0.0%	0
Manufacturer	0.0%	0
Building/Zoning/county administration staff person	14.3%	1
Other (please specify)		6
<i>answered question</i>		<b>7</b>

**Answers below were not edited from the online survey entries:**

Certified Professional Soil Scientist (CPSS)

County administrators, environmental groups, County Supervisors

all of the above

Elected Officials and Appointed Officials of Local Governments

real estate brokers and land development coordinators

none

## Appendix 5: Professional Organization or Professional Association Answers

What does the health department provide that is most valuable to your organization's members?

Answer Options	Response Percent	Response Count
Unbiased advice	63.6%	7
Response to questions and expert knowledge of Inspections	90.9%	10
Design services	45.5%	5
Site and soil evaluations	27.3%	3
Sanitary surveys	36.4%	4
Other (please specify)	45.5%	5
<i>answered question</i>		<b>11</b>

Respond to complaints. Protect Public Health. Education.

## Appendix 5: Professional Organization or Professional Association Answers

Which of the following does your organization support to increase private sector input?  
(Check all that apply)

Answer Options	Response Percent	Response Count
Require the health department to charge similar fees as	50.0%	4
Create a fund to help pay private sector service	50.0%	4
Require private sector service providers to accept a	25.0%	2
Require all applications for voluntary upgrades to	37.5%	3
Require all applications for certification letters to include	37.5%	3
Require all applications for review of existing systems	62.5%	5
Require all applications for subdivisions to include	50.0%	4
Require all applications for repairs to include private	25.0%	2
Require all applications for well permits to include	12.5%	1
Other (please specify)		2
<i>answered question</i>		<b>8</b>

## Appendix 5: Professional Organization or Professional Association Answers

Without mandates, what incentives could be instituted to voluntarily increase private sector input?	
Answer Options	Response Count
	4
<i>answered question</i>	<b>4</b>

The entries below were not edited from what was entered onto the online survey:

Increase cost for bare applications to greater than levels documented in EL Hamm report.

None

Create a fee scale for VDH inspections that is floating fees based on owners ability to pay. Increase fees to somewhat close to market values. Encourage private engineers and other contractors to get licensed as an inspector and let owners know that they can hire the private sector to do inspections and designs if the VDH cannot get it done in time.

Insure that all private sector operators, etc., are certified prior to performance of work.

## Appendix 5: Professional Organization or Professional Association Answers

If the health department no longer provided site and soil evaluations or inspection services, would there be enough providers in the private sector to provide a price competitive market with timely services?

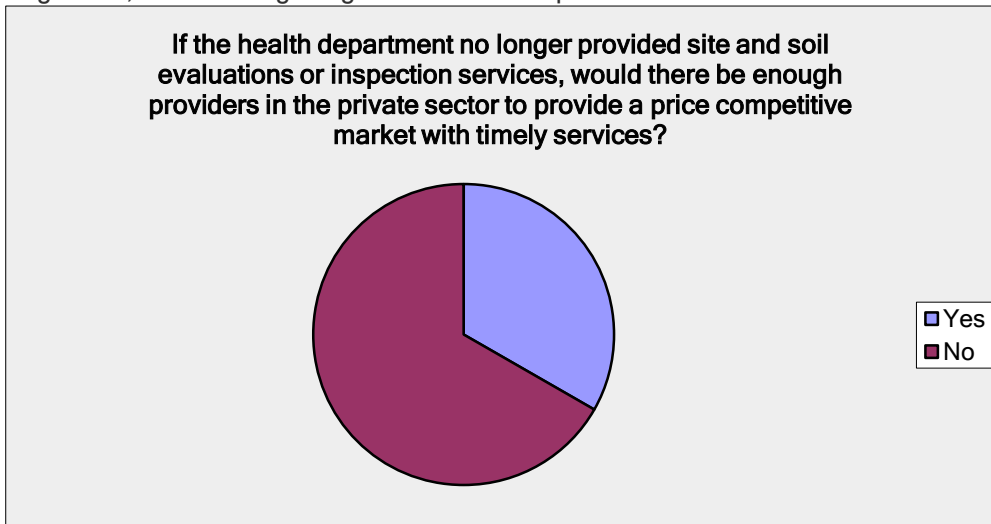
Answer Options	Response Percent	Response Count
Yes	33.3%	3
No	66.7%	6
Other (please specify)		3
<i>answered question</i>		<b>9</b>

Responses below were not edited from the online survey entries:

perhaps, in time a cadre of private sector professionals would grow to meet demands. They might even give better service to the public in areas where the present HD folks are not fully competent, or knowledgeable.

I do not know how many inspectors the VDH has or how many private sector companies can provide this service.

In general, the word is getting out about the requirements at this time.



### Appendix 5: Professional Organization or Professional Association Answers

Answer Options	Response Percent	Response Count
Yes	8.3%	1
No	91.7%	11
<i>answered question</i>		<b>12</b>

## Appendix 5: All Stakeholder Answers

Thank you for participating in this survey. Should you wish to provide additional information beyond the scope of this survey, then please email Dwayne Roadcap at [Dwayne.Roadcap@vdh.virginia.gov](mailto:Dwayne.Roadcap@vdh.virginia.gov) or write your additional responses in the comment below.

Answer Options	Response Count
	42

**Responses from the online survey were not edited and are contained below:**

Lance did a very good job.

Thank you for considering my input Dwayne. If you have any questions or would like additional information regarding private sector soil evaluations or engineering designs, please feel free to contact me . 804-908-4158 - David Hogan

Dwayne, please don't take our jobs away. The people who come into our ofc.wants us to do these. We are much cheaper and do a very good job. we still have to watch over the private sector when they do it so we should do it all.

I feel that the private sector tries to "do what they want" now. What will happen is consumers only have one choice? The consumer looses the chance and right to choose who performs their service. The Health Department provides a system of checks and balances. Without that critical function, the private sector is left with no supervision. DPOR does little to those who have complaints filed against them. The consumer is left without a voice.

I am in favor of the concept of privatization. However, as we are currently "setup" in VA, I don't think it is a good idea primarily due to the poorly trained and often immoral nature of many of the private sector OSEs. This program was doomed once soil science was left out of the equation (AOSE program). This semi professional group is much like asking EMTs to perform heart surgery. Most of the OSEs I know couldn't care less about soils or learning about them. It is just a job to them and they would rather take a pump class. Only two consultants in our area (Central VA) know what they are doing. The rest either don't know or they lie about their findings. It is very frustrating from both the private sector and public sector knowing that this is true. I worked as a consultant for twenty-five years and this always concerned me. I never minded competition by competent competitors, but to have your work taken from you by someone that had no idea about what they were doing was very frustrating. Most of the private OSEs have had very brief training maybe as an EHS for a couple of years or from an under-trained person in a private company; there is no mentorship and support, they essentially operate alone. VDH personnel have a hierarchy of mentoring and support throughout a person's career. Peers, supervisors, managers, state contract soil scientists and the Health Dept Engineers. Private persons are usually totally alone. They slip off base after a time period and begin to think of the Health Dept as an entity to get around or even as an enemy. They often need to be calibrated. The only way to do this is by denials of inaccurate work, which is a conflict embedded system. I just denied two lots because the consultant essentially lied. I had very good data to backup the denial (shallow to bedrock), yet he felt the need to complain to the manager. How does that help? The reason this is done is because the private sector considers this as a personal attack. It doesn't matter why the site is denied, it is humiliating for them. So in that sense, our system is to blame for the conflict. Until these issues can be improved upon and poor work ethic can be addressed, I do not believe total privatization will do anything but harm the environment, the pocket books and the public health of the citizens of VA.

In reference to question 20. Private sector has no enforcement authority so having the VDH staff involved as an inspector and/or regulator would be important. Most of them also have no well training.

i love VDH

you need to reconsider changing to private sector-too much greed, businesses owning alternative dealerships and designing systems to use their products and are not needed--see north 29 near New Baltimore VA--every house using pur-flow sustems and most were not needed! This has been going on for some time and needs to be stopped and you can not do this using all private sector people. Just another way for the public to get screwed depper with no policing action as it is NOW

The work of the Health Dept is a critical component in design review of private systems. There must be an accepted standard overseen by a dedicated agency. I don't think the private sector can also regulate itself.

My concern for some of the new legislation is that it gives too much power to private sector engineers to develop systems on soils that may not work for the long term. When developing properties that will not be on public sewer it is important that the system will function correctly for a very long time. Although I would like to believe that every developer will only develop appropriate property, many are only out to make a buck and are not concerned with the sustainability of the development.

VDH has a responsibility to ensure good quality work to the citizens of the Commonwealth. I am a 20 year plus employee and do not see the privatization as it has progressed satisfying that. In fact in some cases the quality of work is edging backwards and I have multiple personal experiences of witnessing agents for the department avoid the role of educator or enforcer. Please feel free to contact me Gary Gilliam EH Supervisor Central Virginia Health District. Speaking for myself I am much more worried about the quality of product that who does the work. The details of design and review often present customer service challenges for the department. We need good work to be done by others so we may better engage other programs that are absolutely ignored such as discharge systems, AOSS O + M monitoring, general enforcement, and the well program.

Most of private sector OSE's have been trained by VDH as previous employee's. When they age out of field work where is the next generation of OSE's going to come from if VDH is no longer involved in the on-site program.

Allowing the complete privatization of septic design and permitting would be a huge mistake in my opinion. If private companies were allowed to design and permit septic systems with no government review, there would likely be many conflicts of interest in the design of septic systems. In general, private soil consultants make thorough and comprehensive evaluations. But there are times when their judgment can become clouded by their allegiance to their client and the goal of turning a profit. Having VDH act as an alternative to a private company, allows for a much cheaper, un-biased option for the owner.

Does this process address the design submittals for systems in proximity to the Chesapeake Bay Resource Protection Areas? Local government often sees submittals for systems 70-feet from the resource feature when the property has sufficient area for an alternative, albeit more expensive, system outside the resource protection area. With the present emphasis on the TMDL process- all efforts to minimize nutrient presence through groundwater should be evaluated.

I am a manager in EH. Our elected officials are very concerned about the impact of privatation on home owners who do not know or understand the regulations and proposed regulations that directly affect them. they are also concerned about who will protect public health.

I do not spend as much time on septic evaluations in the past 2 years, but am very familiar with cost and the services provided in our area. I live in a small county that the only AOSE's are me and another person that works with me. We have one engineering firm in our county and they have do not have any interest any designing septic systems. Our county is small, rural, and poor. The program if turned over to the private sector the cost would be prohibitive. I also believe that having worked for a coal company that letting the stakeholder have control over their sewage systems would be like"letting the fox in the hen house."The private sector would be more easily by those paying for their services. The health Department has got to maintain some kind of control or face water and ground pollution.



I feel that giving the private sector more control (power) would be a very bad thing. It not only would drive up application costs, but I feel the overall quality of the work would suffer greatly.

If the EPA agreement is implemented to the point that only alternative type systems are permitted in the bay watershed, then most EHS's would not be able to do sds designs anyway.

looks like the only people that will maintain their AOSE license with the VDH will be OEHS and when was the last time they did a site, much less keep up their expertise. Way to promote public health!

Poorly written survey, no option for 'I don't know' or 'I don't understand' or 'other', in many questions. I am a 'committee' member and did not know what stakeholder group that was....

I see no issue with allowing the Health Department to continue to do Level 1 reviews. But as a licensed onsite soil evaluator I see NO need to verify my soil determinations. Right now the only VDH employees who can legally do permits are licensed COSE's and AOSE's. Yet their permits are held to a much lower standard than the private sector COSE/AOSE. VDH needs to get out of the permitting/certifying business and stick to the reviewing business. You don't see city engineers designing private residential homesites, however they do review private sector engineers plans.

Dwayne, I have always enjoyed designing drainfields and providing that service to the citizens of the county I serve. And I have been given feedback from those same citizens who appreciate my work and effort. I also make it a habit to check back on those citizens to ensure they are happy with the product I helped them get. When the work was available, I do not think for a second I interferred with any private sector soil consultant, and did not take work away from any either. They were able to maintain and thrive their business regardless of the number of drainfield permits I issued. Many citizens conveyed to me they "trusted" the Health Department performing the evaluations more than a private business because they felt it was out job to ensure it was right, and not dirven by finance. Even on the lots which did not meet regulations for a conventional system, the citizens felt they were given a fair opinion of their property and knew better what to expect when going to the private sector for assistance. This is a public health program, no metter what is being said by others. I understand the hard economic times we are currently existing under, but I do not feel transferring this work entirely over to the private sector will give the citizens of our Commonwealth the best services available; and I also do not think it will save any private soil consultants business. I do not make these comments in anger or frustration, but only in concern for what I see citizens dealing with after receiving improper soil evaluations due to the lack of Health Department involvement. I should say, I also support 100% Level II review of private soil consultants evaluations as well.

Owners can't get the quality of work from private sector they need to protect the environment. Too many are NOT held liable for their unsatisfactory work, court will not protect the environment, the cost of saving the environment is manageable, fixing it is NOT.

Less oversight by the Health Department will lead to greater sewage treatment and health problems. Local governments are not able to remediate these problems.

I believe the HD provides a vital service of oversight. I believe the private sector is very capable and for the most part ethical. I am very concerned with the emergence of the "one stop shop" organizations that I believe could lead to "cover up" mentalities that are not the best for the unsuspecting public. Example; We do not provide O&M for systems we install, I believe it is best to have multiple eyes on a system, I think it keeps all of us in check. I would appreciate the opportunity to make any repairs or replacements deemed necessary by the O&M provider or at the least the opportunity to talk them through prior to someone else taking any action. The process can be very effective if we do not let any one organization handle these systems "soup to nuts" so that inherent checks and balances are in place with the HD filling in the voids.

Dwayne: If the private sector provides all of the direct services I would recommend 50-100% level 2 reviews. The temptation for aose to misreport information to get their clients a permit or a conventional system vs. Alt is all to real and I have seen it 1st hand (not anyone that I worked with). A 10% review policy is just not enough oversite to protect public health or enough to keep the most seasoned EHS's skills honed.

I now work in the Federal sector but worked for VDH for 7 years. I can tell you without hesitation that the private sector can not be trusted. Even ex VDH employees started lying to make a dollar.

Hi, Dwayne. On the Shore, the AOSE's are suffering from, of course, the wretched economy, the horrible fee schedule set up by the HD, and direct competition of the HD. I answered all questions in terms of today's workload and not the workload of four years ago during boom times. My "help" had to find other work and I work by myself now. JIM

The attempt to stop providing the services discussed above is not acceptable to me as a tax payer in Virginia. The General Assembly will have to hash this out.

The vast body of OSE's do not have deep experience in repairs nor do they want to do that work.

Although it didn't appear to be addressed in the survey, besides the obvious economic interests private sector OSEs would have in wanting to see the onsite soil evaluation and design services phased over to the private sector, it is just as important to note the benefits that the private sector is able to offer to clients over the services provided by the local health department. Unlike the public sector, the private sector can consult with clients and discuss particular proprietary products and solutions that may benefit their particular onsite sewage needs. Also, the department is often under both manpower and time constraints which often translates into limited available field time to evaluate the client's property for onsite sewage, especially where larger tracts of land are concerned. The private sector on the other hand can devote more time to the client and offer more thorough site and soil evaluations of their property. Finally, many in the private sector are often better equipped than the public sector with technologies that both benefit the client as well as drastically increase sewage system design layout accuracy through the use of GPS technology and CAD services. As a licensed AOSE working in the private sector I fully understand the importance of protecting public health and the environment and keep these valued principles in mind each and every day when working with clients. I also feel that I am able to offer them a level of service that the department is just not set up to be able to offer them due to the department's wide range of responsibilities in Environmental Health. When I worked for VDH, my daily duties not only included onsite sewage and water, but also rabies, environmental complaints, food , and TES. As a private sector AOSE, I can devote full-time to my clients to meet their onsite sewage and water needs.

I will provide you with additional information by email. Thanks for the opportunity to provide input.

What kind of time frame are we looking at for the change over to private sector? Will remaining VDH staff be allowed to conduct soil evaluations and design as secondary employment if all evaluation and design is taken over by the private sector?

It will be a mistake to change the system, local people rely on the Health Dept for the services provided.

I think that going to all private sector work will result in a increased risk to public health by increased development of soils/sites which should not be utilized for on-site sewage systems.

I believe that a review of an OSE's pr the private sectors work is not necessary (if licensed). However, I fear that cost may play a huge role in compliance and maintenance. If the Health Department can still accept "bare" applications and not review the licensed private sector. That would be a happy medium.

Since local governments provide funding to the local Health Depts., I'm very disappointed that we were not consulted as to what our opinion was as to the potential impact of such a move.

I'm not sure what the impetus for this study is but VDH plays, and should continue to play, a critical role in the development process and with the ongoing maintenance of wastewater systems throughout the community. This function should not be diminished or replaced by the private sector.

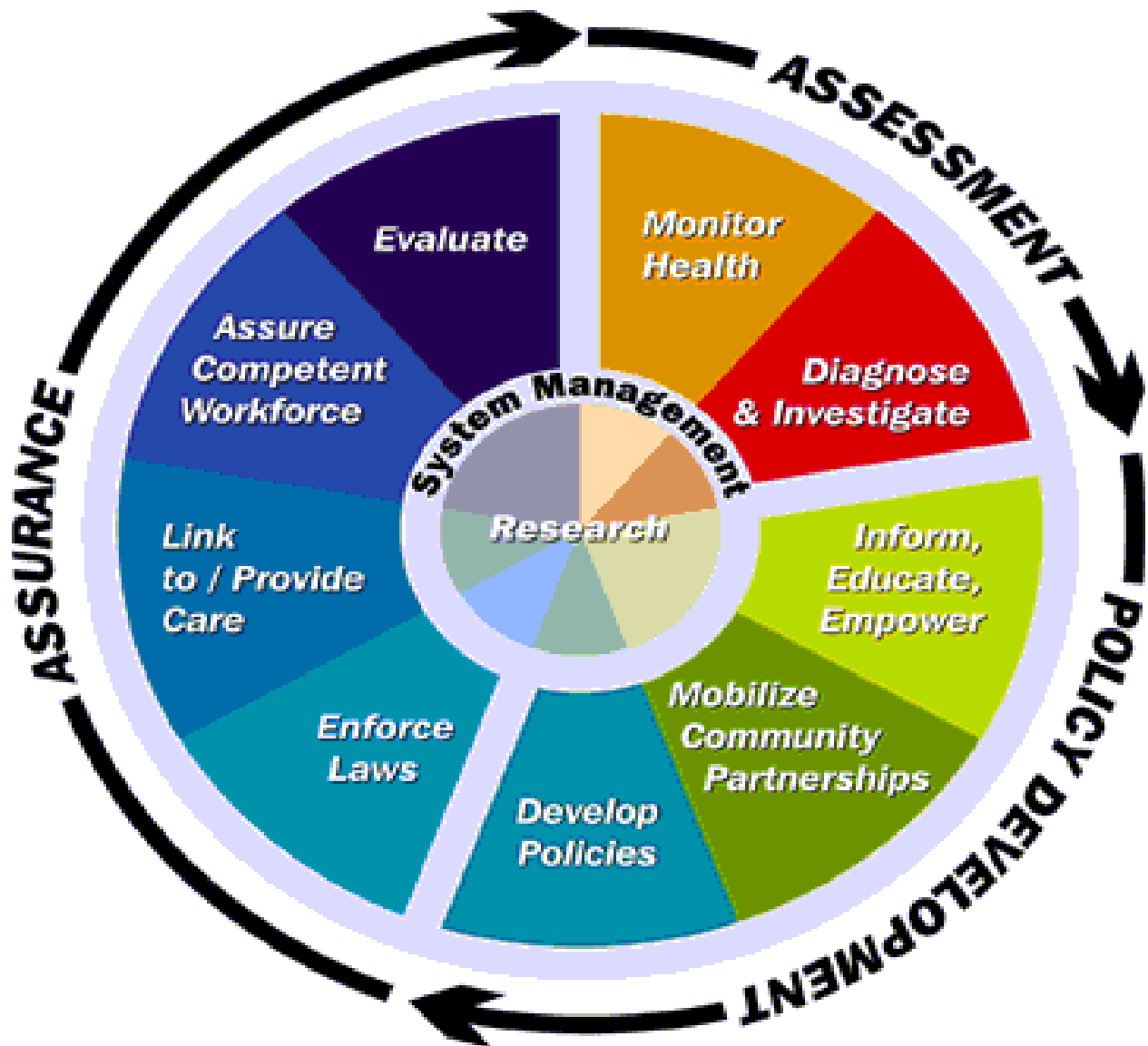
I have I have seen significant errors in AOSE's work. Some examples include simple thing like missing rock outcrops in overgrown fields to proposing drainfields next to active water sources (both springs and wells). At least 20% of applications reviewed critical errors. Secondly, and more importantly the loose of experience in VDH would be irreversible.

Dwayne: I am not sure the way the questions about speaking with the health department are worded very well. I definitely think the HD has a role. I think the way the DEQ program for underground stroage tanks works is reeally good. I think the local HDs should go away for onsite sewge and water and regional offices that miminc DEQ can handle all the paperwork and review as well as the required necessary field checks and enforcement. My 2 cents Let me know if I can help

The Health Dept should get out of the business of design of systems and let the privare sector provide these services. I get upset when Health Dept. employees , who are not P. E.'s review and disagree with my designs. I am the one that is sealing the drawings and taking the legal responsibility!!! If a lawsuit is ever brought against me and the Health Dept. required me to change the design to obtain approval, I would include them in the lawsuit!! Since I have been licensed in 18 state plus D.C. I have seen many government agencies stop doing design and reviews of designs sealed by a P. E. because it has been redudiant and a waste of tax payers money. It is time that the Va. Health Dept. get with the rest of the country and move in to the 21st century.

I'm 100% in favor of transferring all site evaluation and design services to the private sector. The client has the option of getting an insured provider in the private sector - not so with the health department. Also - government should not compete with the private sector for any "services" - ever. The health department should focus on administrative record keeping and enforcement. Enforcement is especially critical for operation and maintenance of both discharging and onsite systems. This is an area that has been long neglected and there needs to be significant focus on getting older systems inspected and repair (if needed). Getting out of the evaluation and design "business" will allow the health department to prioritize their efforts on operation and maintenance.

Appendix 6: 10 Essential Services for Environmental Public Health





Ronald L. Newman  
Subdivision Agent

*Office of the Subdivision Agent*  
605-1 Pine Street  
Hillsville, VA 24343

September 12, 2011

Mr. Allen Knapp  
Division of Onsite Sewage & Water Services  
Virginia Department of Health

Re: HB 2185

Dear Mr. Knapp:

It is my understanding that the Virginia Department of Health has been asked to make recommendations to the Committee on Health Welfare and Institutions on how best to transition the Virginia Department of Health from direct service deliveries. More specific, House Bill 2185 would require all applications for onsite sewage system permits would require a soil report from an authorized onsite soil evaluator.

If HB 2185 is passed, this will place an extreme financial burden on the citizens of Southwest Virginia who are already faced with a region that is far above most of the State in job loss. There are relatively few private soil consultants in Southwest Virginia and increasing the work opportunities has the potential to create more demand than there is supply which will increase the cost the citizen will have to pay. I can also envision that there could be the potential for charges for all aspects of the permit process, including a different charge for items such as design, inspection, and corrections. The citizen receives these services for one fee as now structured through the Virginia Department of Health.

If HB 2185 is passed, there is the potential to increase a time delay between when the citizen needs the service and when they are worked into the soil consultant's schedule. This potential delay could also cost the citizen with things such as not being able to lock in lower finance rates and having to contract for additional appraisals.

(276) 730-3008

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[www.CarrollCountyVA.org](http://www.CarrollCountyVA.org)

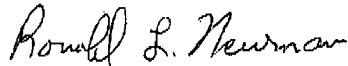
## Appendix 7

My office works very closely with our local Virginia Department of Health Environmental Scientist and our Building Official's Office to insure that the citizen is receiving prompt attention while making sure all aspects of the building process is done according to regulations. Our offices are open and staffed and therefore afford the citizen the opportunity to come to our offices to discuss their situation and issues. I feel that to transition this to the private industry will inhibit our ability to provide service in such a prompt, efficient manner.

As you can see from the above, I do not think transitioning the onsite sewage system permit process to include a required soil evaluation report from an authorized onsite soil evaluator is in the best interest of our citizens. If it is not in the best interest of our citizens, it is not in the best interest of the Commonwealth of Virginia.

If you have any questions concerning the above thoughts or would like to discuss this issue further, please do not hesitate to contact me.

Sincerely,



Ronald L. Newman  
Assistant Administrator for Land Use & Planning  
Carroll County Subdivision Agent

(276) 730-3008

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Appendix 7

## COUNTY OF WASHINGTON, VIRGINIA

COUNTY ADMINISTRATION BUILDING  
205 ACADEMY DRIVE  
ABINGDON, VIRGINIA 24210

CATHIE E. FREEMAN CZO  
COUNTY ZONING & SUBDIVISION  
OFFICIAL

### DEPARTMENT OF ZONING ADMINISTRATION

September 12, 2011

Mr. L. Scott Honaker III  
Environmental Health Manager  
Mount Rogers Health Department  
Washington County Environmental Health  
15068 Lee Highway, Suite 1000  
Bristol, Virginia 24202

Dear Scott:

Thank you for the invitation to attend a meeting at the Washington County Health Department on September 12, 2011 in regard to HB 2185. It is my understanding the meeting will allow the Virginia Department of Health the opportunity to submit very important guidance to the General Assembly with the recommendations to HB 2185.

I would like to stress to your office the importance of a continued close partnership in regard to the review and approval process of the local VDH in regard to the installation of septic tanks or private wastewater disposal systems. In my position it is very important to have the ability to retrieve documents from your office necessary to make a determination whether to allow for future development of parcels located within Washington County. It is also necessary to know that we are able to receive in writing from the local health department statements that confirm compliance with local and state health department regulations.

I would respectfully request that consideration be given to allow the Virginia Department of Health to stay in a direct service delivery format and to continue to perform field checks, site evaluations and consult with the local (OSE) or professional engineers as necessary.

If I may assist further or provide additional comments please do not hesitate to contact me at the above address or phone number.

Sincerely,

Cathie Freeman  
Zoning and Subdivision Official  
County of Washington  
276-525-1390

276-525-1390 OR 276-669-0877 -TELEPHONE 276-525-1309 -TELEFACSIMILE cfreeman@washcova.com-E-MAIL  
WWW.WASHCOVA.COM

Appendix 7



October 20, 2011

Robert Hicks, Director  
Office of Environmental Health Services  
Virginia Department of Health  
109 Governor Street, 5<sup>th</sup> Floor  
Richmond, Virginia 23219

RE: Input to the Virginia Department of Health Assessment of Implementation of Virginia House Bill 2185.

Gentlemen:

We understand your office, as requested by the *House Committee on Health, Welfare and Institutions*, is currently evaluating the merits and impact of privatization of all on site soil evaluation work, as specified in Virginia House Bill 2185.

In an effort to assist the Health Department with this effort and provide additional information from national sources, we shared the house bill and committee request with our parent organization, the National On Site Wastewater Recycling Association (NOWRA). Specifically, our organization asked them for input on the issue.

The NOWRA perspective on the subject matter is attached. We hope you find the information useful.

We appreciate your time and efforts in this matter. Should you have any questions or wish to discuss the issue, please contact me on (703) 594-2425, extension 107 or on (703) 932-7255. I am usually available from 8:00 am through 5:00 pm, Monday through Friday.

Sincerely,

Pamela M. Pruett, AOSE, AOSSO  
VOWRA President

cc: Allen Knapp, Director  
On Site Sewage & Water Services

VIRGINIA ONSITE WASTEWATER RECYCLING ASSOCIATION  
PO Box 155, Star Tannery, VA 22654  
Tel: 540.465.9623 Fax: 540.465.9625  
[www.vowra.org](http://www.vowra.org)





October 11, 2011

Ms Pam Pruett, President  
Virginia Onsite Wastewater Recycling Association  
P.O. Box 155  
Star Tannery, VA 22654

RE: VDH Privatization of Onsite Sewage System Site Evaluation, Design and Installation  
Inspection

Dear Ms Pruett,

NOWRA applauds the initiative that the Virginia Department of Health has taken to evaluate and consider removing itself from providing site and soil evaluations, system design and system installation certification services and instead allowing only private-sector professionals to offer these services. However, VDH is apparently intending to reserve the right to provide these services where a homeowner's income is below the federal poverty guidelines. While NOWRA understands the concerns that VDH has in ensuring appropriate systems are properly sited, designed and installed where property owners might be unable to afford such systems unless the costs are subsidized, we believe that there are more appropriate approaches than using department staff to assist low income families with siting and design of suitable onsite systems. We fully agree with VOWRA's position to encourage VDH to privatize site evaluation, design, and installation inspection of onsite sewage systems.

If onsite rules are to be respected, their enforcement must be timely and equitable. Everyone must be equal under the rules. This implies that compliance cannot be deferred because property owners face financial hardships to do so. If the rules are important then compliance must be enforced regardless of individual circumstances. This may mean establishing assistance programs to help families finance repairs and replacements just as the Clean Water Act does for municipal facilities.

NOWRA urges VDH to redirect its resources that are intended to be set aside for subsidizing siting and design services performed by its staff to assist low income households. Instead VDH should focus on onsite system maintenance and compliance to assure public health and Virginia's water resources are protected. Department oversight to ensure that existing systems are operated and maintained properly needs significantly more attention than relying on complaints-based enforcement to ensure compliance.

The primary role of the regulatory community is to administer the onsite sewage program fairly and consistently for the benefit of the public. For any state to permit their staff to provide siting, design and installation inspection services is inappropriate. Regulators are given the authority and responsibility to establish performance expectations of systems, to verify that the owner operates and maintains the system in accordance with the permitted performance expectations, and to verify that all practitioners are competent to perform the necessary services. To provide siting and design services to individual property owners VDH creates competition with the private sector, which reduces the capacity of the private sector to provide these services because they must compete with subsidized services provided by state or local departments. Additionally, and more importantly, significant conflicts of interest are created by this practice. By providing and approving these services themselves, the regulators usurp the authority of the property owners who received these services to site and design their own system (through a private

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National Onsite Wastewater Recycling Association – 601 Wythe St., Alexandria, VA 22314  
Phone: 800-966-2942; 703-535-5265 – Fax: 703-535-5263 – email: [info@NOWRA.org](mailto:info@NOWRA.org) – Website: [www.NOWRA.org](http://www.NOWRA.org)

People Caring About Water

Appendix 7

licensed agent) yet the responsibility to ensure the systems comply with the requirements remains with the owners. Thus, if any of the systems malfunction because of siting or design, who would be responsible? Not only would this create a liability issue for VDH (to which they are probably immune) but it creates hardship for affected property owners because they would not be able to receive restitution from their installer since the installer only constructed what the regulator sited and designed.

NOWRA's members believe the competency and integrity of the regulator role is of extreme importance to the protection of health and the environment. For this reason, regulators must be free of conflicts of interest. NOWRA's Model Code Framework Committee spent significant time in reviewing the issues of regulator/installer responsibilities and professional conflicts of interest. The Committee clearly stated that regulators should conduct only those activities that are defined as a regulatory role (see table below).

Conflicts of Interest for Individuals Serving Multiple Roles  
NOWRA Model Code Framework

ROLE	Owner	Site Evaluator	Designer	Installer	Operator	Pumper	Vendor	Plan Reviewer	Inspector	Monitor
Owner	X	1	1	1	1	1	1	2	2	2
Site Evaluator		X	1	1	1	1	1	2	2	2
Designer			X	1	1	1	1	2	2	2
Installer				X	1	1	1	2	2	2
Operator					X	1	1	2	2	2
Pumper						X	1	2	2	2
Vendor							X	2	2	2
Plan Reviewer								X	1	1
Inspector									X	1
Monitor										X

- 1: Potential Conflict. A consumer protection issue that can be avoided by practices such as disclosure and information
- 2: Significant conflict that should be prohibited by rule.

Regulator performance of activities that are the responsibility of non-regulatory professions was determined to be a significant conflict of interest to be prohibited in adopted codes. From their review, the Committee developed the table above that presents NOWRA's position on this issue. We encourage VDH to give serious consideration to these potential conflicts of interest to avoid denigration of their onsite sewage program.

We are confident that if VDH removed itself from all siting, design, and installation certification of systems to focus on their public and environmental health mission, the program would provide greater protection of the Commonwealth's water resources.

If NOWRA can be of any help to VDH in addressing this issue, we would be pleased to do so.

Sincerely,



Richard J. Otis, PhD, BCEE  
President  
National Onsite Wastewater Recycling Association

---

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Phone: 800-966-2942; 703-535-5265 – Fax: 703-535-5263 – email: [info@NOWRA.org](mailto:info@NOWRA.org) – Website: [www.NOWRA.org](http://www.NOWRA.org)

People Caring About Water

## Appendix 8:

§ 46.2-1167. Charges for inspection and reinspection; exemption.

A. Each official safety inspection station may charge no more than:

1. Fifty-one dollars for each inspection of any (i) tractor truck, (ii) truck that has a gross vehicle weight rating of 26,000 pounds or more, or (iii) motor vehicle that is used to transport passengers and has a seating capacity of more than 15 passengers, including the driver, \$0.50 of which shall be transmitted to the Department of State Police to support the Department's costs in administering the motor vehicle safety inspection program;
2. Twelve dollars for each inspection of any motorcycle, \$10 of which shall be retained by the inspection station and \$2 of which shall be transmitted to the Department of State Police who shall retain \$0.50 to support the Department's costs in administering the motor vehicle safety inspection program and deposit the remaining \$1.50 into the Motorcycle Rider Safety Training Program Fund created pursuant to § [46.2-1191](#); and
3. Sixteen dollars for each inspection of any other vehicle, \$0.50 of which shall be transmitted to the Department of State Police to support the Department's costs in administering the motor vehicle safety inspection program.

No such charge shall be mandatory, however, and no such charge shall be made unless the station has previously contracted therefor.

B. Each official safety inspection station may charge \$1 for each reinspection of a vehicle rejected by the station, as provided in § [46.2-1158](#), if the vehicle is submitted for reinspection within the validity period of the rejection sticker. If a rejected vehicle is not submitted to the same station within the validity period of the rejection sticker or is submitted to another official safety inspection station, an amount no greater than that permitted under subsection A may be charged for the inspection.

§ 46.2-1158. Frequency of inspection; scope of inspection.

Motor vehicles, trailers, and semitrailers required to be inspected pursuant to the provisions of § 46.2-1157 shall be reinspected within twelve months of the month of the first inspection and at least once every twelve months thereafter.

Each inspection shall be a complete inspection. A reinspection of a rejected vehicle by the same station during the period of validity of the rejection sticker on such vehicle, however, need only include an inspection of the item or items previously found defective unless there is found an obvious defect that would warrant further rejection of the vehicle.

A rejection sticker shall be valid for fifteen calendar days beyond the day of issuance. A complete inspection shall be performed on any vehicle bearing an expired rejection sticker.