Report to the General Assembly in Response to House Bill 2477: Steps to Begin Eliminating VDH Site Evaluation and Design Services for Onsite Sewage Systems and Private Wells

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Division of Onsite Sewage and Water Services,
Environmental Engineering and Marina Programs
Virginia Department of Health

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List of Acronyms

AOSS – alternative onsite sewage system
COSS – conventional onsite sewage system
DPOR – Department of Professional and Occupational Regulation
EH – Environmental Health
FPG – Federal Poverty Guideline
GMP – Guidance Memorandum and Policies
GPS – global positioning system
gpd – gallons per day
HB – House Bill
LHD – local health department
OEHS – Office of Environmental Health Services
O&M – operation and maintenance
OSE – onsite soil evaluator
OSS – onsite sewage systems
PE – professional engineer
RFP – Request for Proposal
SAP – safe, adequate, and proper
SHADAC – Sewage Handling and Disposal Advisory Committee
SHIFT – Safety and Health in Facilitating a Transition
VDH – Virginia Department of Health
VENIS – Virginia Environmental Information System

Executive Summary

Vision

The strategic vision of the Virginia Department of Health (VDH) is to shift site evaluation and design services for onsite sewage systems (OSS) and private wells to the private sector in an orderly manner so limited VDH resources can be focused on improving public health and groundwater supplies. VDH should not provide evaluation and design services when and where a sufficient number of licensed private sector professionals are available to perform evaluation and design services. VDH cannot currently perform higher priority needs to the extent necessary because the law requires VDH to perform soil evaluations and designs. VDH's 2016 report to the General Assembly recommended enacting a number of statutory, regulatory, and policy changes necessary to achieve the strategic vision.

> House Bill 558 Report
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> In 2016, VDH presented its vision for the onsite program in a report to the General Assembly and suggested that VDH focus its limited resources on population health and strengthen its efforts in health monitoring and programmatic oversight.

On March 16, 2017, Governor McAuliffe signed House Bill (HB) 2477 of the 2017 General Assembly Session. HB 2477 requires VDH to take steps to begin eliminating site evaluation and design services for onsite sewage systems and private wells. The bill lays out eight specific tasks which were taken from VDH's HB 558 Report. HB 2477 focused on the tasks that could be completed by revising agency policies or regulations. HB 2477 also requires VDH to report on its progress in implementing the provisions of the bill and any recommendations for statutory, regulatory, policy, or budgetary changes necessary to implement the provisions of the bill to the Secretary of Health and Human Resources and the Chairman of the House Committee on Health, Welfare and Institutions and Senate Committee on Education and Health by November 1, 2017. Implementation of HB 2477 will require significant input from agency stakeholders.

To implement the requirements of HB 2477 VDH used the recommendations and stakeholder feedback from the HB 558 Report as a starting point. Staff developed multiple workgroups to assist in the development of draft policies and procedures to implement HB 2477. The draft policies and procedures were shared with the Sewage Handling and Disposal Advisory Committee (SHADAC) and Environmental Health (EH) Managers for feedback. Staff also facilitated four meetings across the state with local health department (LHD) staff to provide updates on draft policies and procedures and to encourage LHD staff to share their thoughts on implementing the eight specific tasks in HB 2477.

HB 2477 Implementation

VDH's response and implementation of the specific tasks contained in HB 2477 is as follows:

> **Task #1:** *Require, in cases in which site evaluations and design services for onsite sewage systems and private wells are provided by private sector service providers, that such site*

evaluation and design service providers disclose to the property owner when a conventional onsite sewage system is an option.

VDH has issued a policy to require private sector service providers and VDH staff to certify on their design that options for conventional onsite sewage systems (COSS) and alternative onsite sewage systems (AOSS) were discussed with the property owner. VDH staff will continue to monitor the disclosure statement through SHADAC meetings and agency interaction with citizens. VDH will update its policy and procedures, if necessary, as designers begin implementing this aspect of the program. Changes to the certification statement might become evident as stakeholders begin working on the expectation to fully inform property owners on the options available for proper sewage disposal and treatment.

Task #2: *Revise agency regulations and policies to require VDH staff to inspect all onsite sewage systems and private wells designed by private sector service providers.*

VDH has issued a policy requesting that contractors provide VDH with at least 24-hour notice before commencing construction of onsite systems designed by the private sector. Once notified, VDH staff will conduct a site visit during the installation to confirm the location, treatment level, depth, and sizing of the installation. This procedure will provide additional protection and oversight for system installations to protect public health. Previously, VDH inspected only a percentage of private sector designs and all of VDH's designs. Without a code change, notification by the contractor community will be voluntary. VDH staff will monitor and seek voluntary compliance through training events and interactions with contractors and other stakeholders. VDH will continue to seek ways to improve oversight of the program with installers.

Task #3: *Expand efforts to educate the public concerning the design, operation, and maintenance of onsite sewage systems and private wells.*

VDH developed an outline for onsite sewage and private well education and outreach programs, and is using the outline for two pilot projects: one on a statewide level and one on a local level. VDH staff will continue to develop outreach programs for stakeholders and develop lessons learned from the two pilot projects to inform and improve future work in this area.

Task #4: *Expand efforts to incorporate onsite sewage systems and private well data into community health assessments.*

The Office of Environmental Health Services (OEHS) worked with LHD's to develop a list of possible stakeholders to include in community health assessments and a list of external environmental data sources that can be used as part of a community health assessment. OEHS also provided training on a national protocol for conducting community based EH assessments. These efforts will be enhanced when the new data system is put in place.

Task #5: *Enhance quality assurance checks and inspection procedures for the review of evaluations, designs, and installations by private sector service providers and update VDH's quality assurance manual to reflect this change in the agency's business model.*

VDH is finalizing edits to the Onsite Quality Assurance Manual to include new procedures for inspections. The new manual will have an improved method for tracking adherence to quality assurance measures. VDH also established several workgroups to rewrite and update GMPs to promote consistency. Staff have also begun devising a standardization plan for all onsite staff. Once implemented, the standardization plan will likely improve consistency across the Commonwealth.

Task #6: *Consider separating work unit functions regarding permitting and enforcement for onsite sewage systems and private wells to ensure that staff reviewing evaluations and designs for permitting purposes are separate and independent from staff performing enforcement functions.*

VDH convened a workgroup to consider options and review how other agencies address permitting and enforcement. VDH is considering a local enforcement model for initial implementation of separating work unit functions. In this local enforcement model, one person will supervise the permitting and enforcement functions, which will be separated to the extent possible. The local enforcement model operates similarly to VDH's current model, except the future model will separate permitting and enforcement functions, allowing for greater expertise and efficiency in each area. VDH will consider adopting a regional enforcement model when adequate resources are available. A regional model would operate for a region with permitting and compliance staff remaining within the local health department. VDH will continue to monitor changes in its procedures to improve efficiency for permitting and enforcement.

Task #7: *Improve the collection and management of data about onsite sewage systems and private wells, including (i) creating a web-based reporting system for conventional onsite sewage system operation and maintenance, (ii) accepting applications and payments online, (iii) making onsite sewage system and private well records available online, (iv) creating a complete electronic record of all permitted onsite sewage systems and private wells in the Commonwealth, and (v) creating procedures for tracking Notices of Alleged Violations and corrective actions.*

A new EH data management system is slated to be in place by January 1, 2019. The new system will include: a web-based reporting system for COSS; a method for accepting applications and payments online; a method for making onsite sewage and private well records available online; and tracking Notices of Alleged Violations and corrective actions. VDH has also instituted several pilot projects to develop a process for creating a complete inventory of onsite sewage systems and private wells and is making progress. OEHS has also created a new data management division which will assist in monitoring and implementing the new data system. The new system will likely have improved reporting capabilities.

Task #8: *Revise agency policies to allow the transfer of valid construction permits for onsite sewage systems and private wells to new property owners.*

VDH issued a policy with procedures to facilitate the transfer of valid construction permits. VDH will continue to monitor the implementation with the SHADAC and other stakeholders. Private sector providers have questioned whether the transfer of permits will impact private party contracts. For example, future owners may not understand important aspects of the permit such as clearing requirements or other contractual obligations. Private sector providers believe this policy directive could lead to problems so VDH will continue to monitor the policy's effectiveness and respond to concerns as necessary.

Recommendations

In addition to implementation of eight tasks contained in HB 2477, VDH recommends the following actions be taken to ensure full implementation of the agency's strategic vision:

Recommendation #1

Amend the Code of Virginia to give well drillers the authority to perform sanitary surveys for locating wells and submitting work to VDH.

Recommendation #2

Amend § 32.1-163 of the Code of Virginia to revise the definition of maintenance, such that paperwork is reduced for certain types of repairs or voluntary upgrades.

Recommendation #3

Amend § 32.1-164 of the Code of Virginia to establish an O&M program and reporting for COSS, which will improve program oversight and protection of public health and groundwater.

Recommendation #4

Amend the Code of Virginia to shift onsite sewage system evaluations and design services which are not associated with a building permit or the repair of a failing system (i.e., subdivision reviews, certification letters, and voluntary upgrades) to the private sector by July 1, 2018.

Recommendation #5

Amend the Code of Virginia to shift new construction evaluations and designs which are not for a principle place of residence to the private sector by July 1, 2018.

Recommendation #6

Amend the Code of Virginia to require VDH to establish guidelines to help property owners with a specific hardship and be a provider of last resort.

Recommendation #7

Amend the Code of Virginia to require applicants to petition VDH to provide evaluation and design services for new construction, repairs, and safe, adequate, and proper (SAP) evaluations.

Recommendation #8

Amend the Code of Virginia to ensure the orderly transition of evaluations and designs for new construction, repair, and SAP evaluations over a five-year period based on a sliding scale of income eligibility.

Recommendation #9

Amend the Appropriations Act to allow VDH to retain its current level of funding during and after the transition of direct services to private sector service providers. Keep VDH funded to maintain staffing levels necessary to provide oversight, improve O&M of AOSS and alternative discharging sewage systems, improve management of onsite sewage system and private well data, and incorporate onsite sewage systems and private wells into community health planning.

Recommendation #10

Amend the Code of Virginia to create a fund to cover the cost of designing and installing repairs for failing onsite sewage systems and private wells for income eligible property owners.

1 Introduction

On March 16, 2017, Governor McAuliffe signed HB 2477 of the 2017 General Assembly Session. HB 2477 requires VDH to take steps to begin eliminating site evaluation and design services for onsite sewage systems and private wells. The bill lays out seven specific tasks that could be done by policy and one that required the additional Code authority provided by the bill. VDH identified these tasks in a report to the General Assembly in November 2016 as items that could be completed by revising agency policies or regulations. These tasks are part of the agency's strategic vision to have licensed private sector professionals provide consulting services, soil evaluation and design services, and well siting for private property improvements and property sales, which are services VDH has historically provided over five decades. This vision has developed as a result of gradual changes in the onsite sewage program over the last twenty years.

Before 1994, VDH staff was the primary group providing site and soil evaluations and designs in the Commonwealth for onsite sewage systems. Private sector professionals sometimes provided recommendations for VDH staff to consider when issuing permits for onsite sewage systems, especially as part of a new subdivision review. During this time, VDH staff did not have to accept the work performed by the private sector. Disagreements were handled informally and through the Administrative Process Act to provide due process.

As home building and new construction increased, VDH experienced backlogs in processing applications. Legislation approved in 1994 created the "Authorized Onsite Evaluator" program so that VDH could accept work from private sector practitioners who had previously been offering recommendations to VDH. Legislation approved in 1999 required VDH to accept private evaluations and designs from AOSEs and PEs when those evaluations and designs were certified to comply with the Board of Health's regulations.

Beginning in 1997, VDH addressed the issue of increasing private sector services in its five-year reports to the General Assembly. In 2005-06, as part of the ongoing statewide initiative to improve business processes and operating efficiencies among the various agencies in the Commonwealth of Virginia (http://www.future.virginia.gov), VDH commissioned a study of the onsite sewage program and current business models. VDH's consultant, E.L. Hamm and Associates, Inc., concluded that VDH should develop and implement a mechanism for handing over the delivery of the direct services of site and soil evaluations, system design, and system installation inspection to the private sector.

In 2009, legislation transferred VDH's certification program for evaluators and designers to the Department of Professional and Occupational Regulation (DPOR). DPOR implemented a licensing program for Onsite Soil Evaluators (OSE). This effort completed one recommendation from the E.L. Hamm Report. Following this change in 2009, some members of the private sector began to complain of unfair competition from VDH. Over time, and without a specific statutory mandate to require private evaluations and designs, the OSE program has gained broad

acceptance in many parts of the Commonwealth, primarily in those areas with higher property values and higher rates of growth. However, areas of low private sector participation persist today, particularly in the South and the Southwestern areas of the Commonwealth.

In 2011, HB 2185 was considered but not passed by the General Assembly. HB 2185 would have mandated all applications include supporting work from the private sector. Although the bill was laid on the table by voice vote, VDH was asked to determine the best course for the Commonwealth's health and safety and also for the marketplace, and to examine the best means of accomplishing the transition of onsite sewage services to the private sector. VDH's report was submitted to the General Assembly in 2012.[1] Stakeholders agreed that VDH is an essential participant in making sure public health and groundwater supplies were protected, and that VDH has a critical role in assuring adequate regulations and policies were in place to protect public health. However, stakeholder opinions differed on VDH's role in protecting public health and the environment.

In 2013, VDH engaged the Institute for Environmental Negotiation (IEN) to institute the Safety and Health in Facilitating a Transition (SHIFT) process. IEN worked with VDH to convene a group of 25 stakeholders to provide VDH with recommendations on how to maximize private sector input to the greatest extent possible, while protecting public health and the environment. The SHIFT process recommended a gradual, voluntary approach going forward, which would allow homeowners to choose, or not choose, to work with private sector professionals.

While the SHIFT process recommended a gradual, voluntary, and encouraging approach going forward, VDH has consistently required private sector work when the applicant has one or more of the following needs:

- A sewage system that serves a business or non-residential need;
- A sewage system that disperses over 1,000 gallons per day (gpd);
- An AOSS that disperses treated effluent into the soil;
- An alternative discharging sewage system;
- A sewage system that requires plans from a professional engineer (PE); or
- A sewage system that is part of a new subdivision being reviewed by a local government.

When the SHIFT process explored whether VDH should implement additional mandated policies, stakeholders could not find agreement. For example, stakeholders discussed whether VDH should require private sector work for any future application associated with a property that had been previously evaluated by the private sector. This proposal did not get support.

In 2016, legislation approved by the General Assembly (HB558) directed VDH to develop a plan for the orderly reduction and elimination of evaluation and design services by VDH for onsite

[1] The HB2185 report is found at: http://leg2.state.va.us/dls/h&sdocs.nsf/4d54200d7e28716385256ec1004f3130/b758d93613af667f85257989006edacf?OpenDocument

sewage systems and private wells. The result of this legislation was VDH's report[2] to the General Assembly which outlined VDH's strategic vision to shift evaluation and design services for sewage systems and private wells to the private sector in an orderly manner so limited VDH resources can be focused on improving public health and groundwater supplies. VDH presented 20 specific recommendations for statutory, regulatory, and policy changes to achieve the vision of gradually transitioning service to the private sector. The transition would allow VDH to focus its limited resources on population health improvement and strengthen its efforts in health monitoring, data collection and dissemination, community health assessments, creating a complete inventory of wells and sewage systems throughout the Commonwealth, understanding viral and nutrient impacts to drinking water and recreational water, providing quality assurance inspections of private sector work, improving enforcement of regulations, and educating the public on O&M needs.

[2] The HB 558 report is found at:
http://leg2.state.va.us/DLS/H&SDocs.NSF/4d54200d7e28716385256ec1004f3130/2d721257d696848385257fb7004f93b0?OpenDocument

2 Background and Analysis

On March 16, 2017, Governor McAuliffe signed HB 2477 of the 2017 General Assembly Session. HB 2477 requires VDH to take steps to begin eliminating site evaluation and design services for onsite sewage systems and private wells. The bill lays out eight specific tasks, which VDH identified in a report to the General Assembly in November 2016.

VDH used the recommendations and stakeholder feedback from the HB 558 Report from 2016 as a starting point to implement HB 2477 from the 2017 General Assembly session. OEHS developed multiple workgroups to assist in the development of draft policies and procedures, shared the draft policies and procedures with the SHADAC and EH Managers for feedback, and facilitated four meetings across the state with LHD's to provide an opportunity for feedback on implementing the eight specific tasks in HB 2477.

List of HB 2477 Tasks

1	Require, in cases in which site evaluations and design services for onsite sewage systems and private wells are provided by private sector service providers, that such site evaluation and design service providers disclose to the property owner when a COSS is an option.
2	Revise agency regulations and policies to require VDH staff to inspect all onsite sewage systems and private wells designed by private sector service providers.
3	Expand efforts to educate the public concerning the design, operation, and maintenance of onsite sewage systems and private wells.
4	Expand efforts to incorporate onsite sewage systems and private well data into community health assessments.
5	Enhance quality assurance checks and inspection procedures for the review of evaluations, designs, and installations by private sector service providers and update VDH's quality assurance manual to reflect this change in the agency's business model.
6	Consider separating work unit functions regarding permitting and enforcement for onsite sewage systems and private wells to ensure that staff reviewing evaluations and designs for permitting purposes are separate and independent from staff performing enforcement functions.
7	Improve the collection and management of data about onsite sewage systems and private wells, including (i) creating a web-based reporting system for COSS O&M, (ii) accepting applications and payments online, (iii) making onsite sewage system and private well records available online, (iv) creating a complete electronic record of all permitted onsite sewage systems and private wells in the Commonwealth, and (v) creating procedures for tracking Notices of Alleged Violations and corrective actions.
8	Revise agency policies to allow the transfer of valid construction permits for onsite sewage systems and private wells to new property owners.

HB 2477 Tasks

Task #1: Disclose to the property owner when a COSS is an option.

VDH's HB 558 report recommended that the General Assembly require private sector OSEs and PEs verify system design options and disclose estimated costs to the property owner. HB 2477 incorporates a portion of this recommendation by requiring, in cases in which site evaluations and design services for onsite sewage systems and private wells are provided by private sector service providers, that such site evaluation and design service providers disclose to the property owner when a COSS is an option.

To implement this recommendation, VDH revised Guidance Memorandum and Policies (GMP) 2015-01 which describes VDH's procedures for accepting and processing applications with supporting private sector work. The policy was revised with input from the SHADAC and EH Managers. Staff also discussed the policy with LHD staff during four face-to-face meetings across the state.

The revised policy requires private and public sector service providers to certify that the potential for both COSS and AOSS has been discussed with the owner or applicant. This included revising the certification statement on the cover page for onsite sewage systems which is required to be signed by designers for all applications.

Task #2: Inspect all onsite sewage systems and private wells designed by private sector service providers.

The agency's vision to shift design responsibility to the private sector would allow VDH staff to focus efforts in other areas of public health protection. One such area would be VDH staff conducting construction inspections of all onsite systems and private wells during construction. HB 2477 tasks the agency with conducting construction inspections of all onsite sewage systems and private wells.

VDH inspects every onsite sewage system designed by VDH staff. However, GMP 2015-01 only required staff to inspect a minimum of 10 percent of onsite sewage systems designed by the private sector. GMP 2015-01 required VDH staff to inspect all private wells, including those designed by the private sector.

GMP 2015-02 requires VDH staff to obtain GPS coordinates for all onsite sewage systems and private wells after installation. The policy states the LHD will obtain and record, in VDH's electronic database, the Virginia Environmental Information System (VENIS), global positioning system (GPS) coordinates for all onsite systems and private wells. Some LHD's rely on the private sector designer to provide this information since § 32.1-164.1.E of the Code requires the certifying private sector OSE/PE to inspect the system at the time of installation.

Pursuant to § 32.1-164.1.E of the Code, private sector OSE/PEs are responsible for the final inspection of their system design; the responsibility extends to any subsequent re-issuance of the

permit (e.g. renewal, change of owner, etc.). The certifying private sector OSE/PE is responsible for inspecting the entire system to determine whether the installation complies with the applicable regulations and the permit. GMP 2015-01 clarified that the OSE/PE must complete an as-built drawing of the installation with field measurements to the septic tank, the distribution box, and other necessary components. In some cases, the LHD is using the as-built drawing provided by the private sector designer to obtain the GPS data potentially leading to imperfect results.

To implement the inspection criteria in HB 2477, VDH staff established a stakeholder workgroup to draft recommendations to the Commissioner. The workgroup consisted of members of OEHS, EH Specialists and Supervisors, licensed private well and onsite contractors, and private sector designers. The workgroup meetings were also observed by members of DPOR. The group explored several possible scenarios and came to consensus that the VDH inspection should provide added value and not impede the installation process. The key would be avoiding a duplication of effort and VDH staff having the opportunity to observe major components of the installation.

The workgroup came to a consensus that VDH should continue to inspect VDH designs with no changes in current procedures or policies. For private sector designs the licensed contractor should notify VDH staff 24 hours before commencing construction. The workgroup noted that a change to the Code or regulations may be necessary to ensure that VDH receives notification. Once notified the VDH inspection could take place at any point during the construction and staff would confirm the location, treatment level, depth, and sizing of the installation. The workgroup also recommended that VDH staff also record the GPS location of the tank, distribution box, and well, in addition to the center of the drainfield, for entry into VENIS. The private sector designer will still be responsible for providing the complete system inspection, certification, and as-built drawings.

The workgroup recommended that any observations of deficiencies be handled using the current established procedures. The workgroup's recommendations were incorporated into the revisions to GMP 2015-01 and were shared with the SHADAC and EH Managers. The draft policy was also shared with local EH staff during four face-to-face meetings around the state.

GMP 2017-01 was issued on October 16, 2017, to replace GMP 2015-01. The policy includes the recommendations presented by the workgroup for conducting 100 percent of inspections of onsite sewage systems and private wells.

During development of the draft policy, VDH staff evaluated the potential impact on LHD resources. The impact will be low in areas where the majority of permits are currently designed by VDH staff as the LHD already conducts inspections for most installations. However, the resource impact will be high in areas with a significant number of designs by the private sector where LHD staff currently only conducts 10 percent of inspections. The HB 558 Report recommended that VDH conduct 100 percent of inspections as part of a larger vision to shift evaluation and design services to the private sectors. OEHS staff will work with the LHD's that may see a substantial increase in staff resource demands to meet this new expectation to the

extent possible until such time that the larger program vision can be incorporated. This may include having staff perform a post installation inspection while collecting GPS coordinates.

Task #3: Expand efforts to educate the public.

LHD staff provide education to the public on a daily basis regarding onsite sewage system and private well design, operation, and maintenance. The majority of this information is provided on an individual basis to people applying for construction permits or contacting LHD staff with questions. LHD staff also occasionally participate in outreach efforts at schools and community events to educate the public. However, previous reports, such as the 2006 E.L. Hamm report and the 2016 HB 558 report identified education and outreach as an area were VDH could take a more active role.

Improving education offered to the public would likely improve O&M practices, extending the life of onsite sewage systems and reducing repair costs for owners. Improved education would also likely improve the health of Virginians through reduced impacts on the environment, as owners would better understand how to monitor and improve water quality and sewage system function.

HB 2477 directs VDH to expand efforts to educate the public concerning the design, operation, and maintenance of onsite sewage systems and private wells. To begin implementation, OEHS staff drafted an outline for an education and outreach program (see Appendix A). The program outline lays out a process for developing, disseminating, and monitoring the effectiveness of individual outreach projects. The process would begin by meeting with partners to determine the specific topics and messages for the specific outreach program. VDH would then work with partners to set goals and objectives, develop materials, and disseminate the content for the outreach effort. VDH would then monitor results of the effort to ensure that goals are meet and meet with partners to modify material as necessary. The concept is to develop proven education and outreach methods and materials that can be used for future outreach initiatives.

The draft outline was shared with the SHADAC and EH Managers for feedback. Following feedback from stakeholders, OEHS staff worked to identify pilot projects for the program; a statewide project and a local project were identified.

The statewide project was for VDH to participate in the U.S. EPA's annual SepticSmart Week, which occurred from September 18-22, 2017. The goal of the effort was to improve onsite sewage system owner awareness of how systems work and necessary system maintenance. To achieve this goal staff submitted a request for a Governor's proclamation to promote SepticSmart Week. The proclamation was signed by Governor McAuliffe on September 18, 2017. The Governor's proclamation and other VDH efforts were discussed in press releases and interviews with VDH staff throughout the state. VDH staff also placed promotional material on the VDH website and various agency social media platforms. Staff worked with stakeholders and industry groups to share promotional materials. OEHS also worked with LHD's to set up education and outreach efforts throughout the state related to SepticSmart week. OEHS staff are monitoring the number of unique visitors to the VDH website and the number of onsite sewage system

maintenance activities to evaluate the effectiveness of this statewide education and outreach effort.

For the local effort, OEHS worked with SHADAC members to identify the Smith Mountain Lake community for a local pilot project. OEHS and LHD staff meet with representatives from the Smith Mountain Lake Association, the Tri-County Lakes Administrative Commission, local government representatives, and other local stakeholders to:

1. Determine whether education and outreach about onsite sewage systems is needed;
2. Get buy-in from stakeholders to support the promotion of onsite sewage system education and outreach;
3. Identify a list of potential messages; and
4. Develop messages specific to the community's needs.

Staff are still working with community stakeholders to prioritize messages and finalize a plan for disseminating educational material. Stakeholders agreed that the outreach would be an ongoing process focusing on issues such as:

- Do's and Don'ts for onsite sewage system owners.
- Cost of repairs.
- Impacts to the environment.
- Types of systems.
- Maintenance requirements.
- Impacts of improper sizing.
- How systems work.
- What is an onsite sewage system?
- System owner responsibilities.

Following dissemination of education and outreach messages, VDH will work with stakeholders to identify measures to identify the effectiveness of the program.

Task #4: Expand efforts to incorporate data into community health assessments.

LHD's through Virginia have been working with community stakeholders to conduct community health assessments. While EH is sometimes involved in conducting community health assessments, the focus is typically to share data on program components, such as foodborne illness and water quality of public water supplies.

In the HB 558 Report, VDH recommended expanding efforts to incorporate onsite sewage system and private well data into community health assessments. This recommendation was included as a task in HB 2477. Expanding community health assessments would improve stakeholder decisions and policies regarding private drinking water supplies and onsite sewage treatment.

OEHS staff met with staff from the Division of Population Health Data to better understand how onsite sewage system, private well, and other EH data can be incorporated into community health assessments. Staff noted that being able to convene stakeholders from the EH community is a key first step to including EH into community health assessments. OEHS staff worked with LHD's to develop a list of possible stakeholders and shared the list at a statewide EH Managers meeting in September.

In additional to onsite sewage system and private well data, EH staff can work with other agencies and stakeholders to incorporate additional environmental data such as surface water and air quality and permits for waste disposal. Incorporating these datasets can help increase awareness of environmental factors that may impact local communities. OEHS has worked with LHD's to develop a list of external environmental data sources that can be used as part of a community health assessment.

The Centers for Disease Control and Prevention (CDC) has partnered with the National Association for County and City Health Officials (NACCHO) to develop a Protocol for Assessing Community Excellence in Environmental Health (PACE EH).[3] PACE EH guides communities and local health officials in conducting community-based EH assessments. Training on PACE EH was provided to EH Managers at a statewide meeting in September. OEHS staff also discussed incorporating EH data into community health assessments with LHD staff at four face-to-face meetings throughout the state.

Task #5: Enhance quality assurance.

In 2006, OEHS was directed to work with the health districts to develop a Quality Assurance (QA) Program for the onsite sewage program. A QA Committee was convened to draft an initial QA Procedures Manual for the onsite sewage program. The QA Procedures Manual identifies measurable standards for four major processes - bare applications, OSE applications, inspection and approval of installations, and subdivision reviews.

In 2013, OEHS convened the SHIFT committee to produce a report of recommendations to advise VDH on how to maximize private sector participation in the onsite sewage program while providing adequate oversight to protect public health and the environment. One of the consensus recommendations of SHIFT process was to revise the QA Procedures Manual to address any changes to existing practices. To identify necessary revisions, OEHS convened a workgroup consisting of both OEHS staff and LHD staff. Draft revisions were produced but not released prior to the issuance of the HB 558 Report.

The HB 558 Report recommended that VDH enhance quality assurance checks and inspection procedures for the review of private sector evaluations, designs, and installations, and update the quality assurance manual to reflect a change in the agency's business model. This recommendation was incorporated into HB 2477.

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[3] More information on PACE EH is available at https://www.cdc.gov/nceh/ehs/ceha/pace_eh.htm .

As previously discussed, VDH updated existing agency policy to enhance quality assurance inspection of private sector designs by conducting 100 percent of installation inspections. In addition to updating agency policy, OEHS staff are also in the processes of incorporating the 100 percent inspection procedures into the QA Procedures Manual.

Another change in the updated QA program is the replacement of the tool staff use to determine whether quality assurance measures are met. The QA Procedures Manual currently uses a pass/fail method of determining whether a measure was met. This pass/fail method will be replaced with a scoring rubric where districts will give a 1, 2, 3, or 4 for each measure. A 3 indicates that the measure was met, a 4 exceeds expectations, a 2 is slightly below expectations, and a 1 indicates a need for significant improvement. OEHS believes this revised method for determining whether measures are met will help better identify areas where VDH is succeeding and where improvement is necessary.

Task #6: Consider separating work unit functions.

The HB 558 Report included a recommendation that VDH should consider whether to separate work unit functions regarding permitting and enforcement. Staff reviewing evaluations and designs for permitting purposes may need to have a separate and independent function from staff performing enforcement actions. This recommendation was incorporated into HB 2477. To address this task in HB 2477 OEHS established an internal workgroup to analyze the feasibility of separating work unit functions regarding permitting and enforcement; and if feasible, submit a plan for separating work unit functions. The workgroup drafted a report and recommendations for the Commissioner's consideration. The full report from the workgroup can be found in Appendix B.

The workgroup consisted of members of OEHS staff, EH Managers and Specialists, and District Directors, and investigated several models of enforcement and permitting utilized within various state and local agencies. Among the models considered were the regional enforcement model, the centralized enforcement model, the local enforcement model, and VDH's current enforcement model. The workgroup agreed that permitting functions should remain within the LHD based upon the interplay of local ordinances in many permitting functions. The workgroup asked representatives from the Department of Environmental Quality, the Department of Mines, Minerals and Energy, and the Department of Housing and Community Development to speak about their respective agency's models used for permitting and enforcement. The representatives answered the workgroup's questions regarding the benefits and costs involved in the particular enforcement model utilized and asked for observations on the efficiency of the model.

The regional enforcement model used by DEQ and some programs in DMME separates permitting, compliance, and enforcement into three separate work units. Permitting involves reviewing designs, working with applicants to obtain permits, and updating permits for renewal. Compliance specialists work with the permittee to maintain their permit and meet all the requirements of the Code and Regulation. Once a permittee enters formal enforcement (a Notice of Violation for DEQ), the case is submitted to the Enforcement Division which works on

Consent Orders, hearings, orders of the Board and court cases alongside the Office of the Attorney General.

The centralized enforcement model, utilized by DMME for some programs, centralizes all enforcement staff into a single office which is a separate unit from the permitting staff. Central enforcement staff are given cases from all over the Commonwealth once a Notice of Alleged Violation is sought to be issued.

The local enforcement model, utilized by DHCD, separates permitting and enforcement when it can, given staff levels, and keeps both units co-located in the local offices. The enforcement staff inspect the properties and give notice of violations.

Based upon these discussions and the discussions of the workgroup during their meetings, the group came to a consensus recommendation for the Commissioner of separating the work unit functions of permitting and enforcement. The workgroup also recommended the Commissioner adopt the local enforcement model for implementation in the beginning and move towards a regional enforcement model when adequate resources are available.

The Commissioner has elected to pursue a local enforcement model for initial implementation of separating work unit functions. In this model, the same entity and ultimately the same person is responsible for supervising both the permitting employee and the enforcement employee. The local enforcement model operates like the current model, except employees are designated to only perform either permitting or enforcement functions, allowing for greater expertise and efficiency. VDH will adopt a regional enforcement model when adequate resources are available. This model operates in a regional capacity for enforcement with permitting and compliance staff remaining within the local health department.

Task #7.A: Creating a web-based reporting system for COSS O&M.

VDH currently has an online reporting tool for AOSS operators to submit O&M reports. This tool was developed pursuant to § 32.1-164 of the Code which requires O&M of AOSS to be provided by licensed operators, and requires operators to report the results using the web-based system. There are approximately 20,000 alterative onsite sewage systems installed throughout the state. VDH has received more than more than 50,000 O&M reports for those systems.

During development of the HB 558 Report, stakeholders commented that adding operation and monitoring reporting for COSS would be a benefit to the program. One of the recommendations of the HB 558 Report was for VDH to create a web-based reporting system for COSS O&M, such as septic tank pump outs. This recommendation was incorporated into HB 2477. Another recommendation from the HB 558 Report was to require reporting of COSS O&M.

VDH estimates there to be over one million COSS in the Commonwealth. If reporting were required for COSS O&M, VDH would have more accurate information on onsite sewage systems in Virginia. The reports would also assist VDH in identifying and adding permitted systems not currently included in the VENIS database. DEQ and local governments would

benefit by relying on improved VDH data. VDH would be able to provide information on activities related to the Chesapeake Bay Preservation Area Designation and Management Regulations, potentially reducing staff resource needs at the local level. DEQ and localities outside of the Preservation Area would also benefit by having more accurate information regarding COSS O&M that could help with Watershed Implementation Plans to improve water quality in impaired surface waters.

With over one million systems, the staff resource needs could be significant for implementing a COSS reporting system. VDH recommends that owners have systems pumped out or inspected once every five years. This means VDH could receive as many as 200,000 COSS O&M reports each year. However, it is difficult to determine how many reports will be received.

On October 4, 2016, VDH issued a Request for Proposal (RFP) for a database system to track EH program activities. VDH's contract with the current VENIS database contractor, HealthSpace, is set to expire in 2019. One of the components of the RFP was that the proposed software programs must include modules for onsite sewage system operation and monitoring. A new database will be in place by January 1, 2019. The voluntary COSS O&M reporting system will be part of the new database.

Task #7.B: Accepting applications and payments online.

Applications and payments for onsite sewage system and private well permits are currently submitted to VDH in paper form, with some exceptions (i.e. applications that do not include a fee may be submitted via email as a PDF). The HB 558 Report recommended that VDH begin accepting applications and payments online, and this recommendation was incorporated into HB 2477.

On October 4, 2016, VDH issued a RFP for a database system to track EH program activities. VDH's contract with the current VENIS database contractor, HealthSpace, is set to expire in 2019. One of the components of the RFP was that the proposed software programs must include the capability for online submittal of applications and fees. A new database will be in place by January 1, 2019. The ability to accept applications and payments online will be part of the new system.

Task #7.C: Making onsite sewage system and private well records available online.

Many Virginians visit VDH's website on a daily basis to view restaurant inspection reports. While the capability to review reports online for some VDH programs exists, VDH does not currently have the capability to provide onsite sewage system and private well records online. However, some LHD's have made records, or portions of records, available using local database programs. The HB 558 report recommended that VDH make onsite sewage system and private well records available online, and this recommendation was incorporated into HB 2477.

On October 4, 2016, VDH issued a RFP for a database system to track EH program activities. VDH's contract with the current VENIS database contractor, HealthSpace, is set to expire in 2019. One of the components of the RFP was that the proposed software programs must include a public web portal for the public to obtain data concerning permitted facilities. A new database will be in place by January 1, 2019. The ability to make onsite sewage system and private well records available online will be part of the new system. However, only those systems entered into the database will be available. Ensuring that the public has access to records for all permitted onsite sewage systems and private wells will require creating a complete electronic inventory of systems.

Task #7.D: Creating a complete electronic record of all permitted onsite sewage systems and private wells in the Commonwealth.

As previously mentioned, VDH estimates there are more than one million onsite sewage systems in the Commonwealth. These include both COSS and AOSS. This estimate is based on U.S. Census data and information from VDH's VENIS database.

Until 1990, the United States Census Bureau collected information regarding the use of onsite sewage systems and private wells. In 1990, 707,409 homes in Virginia were reported as using an onsite sewage system. In 2003, VDH began tracking onsite sewage systems and private well records using the VENIS database. Most LHD's also maintain a hard copy of the information entered in the VENIS database. The VENIS database contains information for more than 180,000 installed onsite sewage systems. These records are in addition to thousands of other VENIS records where an application was denied, withdrawn, or the construction permit expired prior to installation.

In addition to census data and VENIS data, VDH estimates approximately 180,000 onsite sewage systems were installed from 1990 to 2003, covering the data gap between the 1990 census and current VENIS records. Adding these numbers to the census data and VENIS data VDH reaches an estimated total of more than 1,000,000 homes served by onsite sewage systems. Most of these records are not in VENIS, and can only be found in hard copy at LHD's.

While VDH has a reasonable estimate of the total number of onsite sewage systems and private wells in Virginia, these estimates do not provide a clear picture of the number of records on file with the LHD, the location of systems, or information about the owners. VDH estimates there are a total of 2,750,000 hard copy records on file at LHD's. These records include files for installed systems, permit denials, subdivision approvals, complaint investigations, and other miscellaneous records.

The filing method for these records can vary from one locality to the next locality. Generally, records after 1982 are filed by a property identifier (e.g. Tax Map, GPIN, 911 address), with all of the information for one property stapled together in one package (sewage system permits, well permits, inspections, complaints, pump out records, etc.). Records prior to 1982 may just be identified by the owner's name at the time, or perhaps a road number or rural route.

Over the years, VDH has made efforts to create a complete inventory of onsite sewage systems and private wells. Some LHD's have hired contractors to scan records to create searchable electronic records; however, these processes were not uniform across the state. VDH has taken significant efforts to ensure that all AOSS are included in the VENIS database; however, those systems make up only a fraction of all onsite sewage systems in the state. Additionally, the Private Well Regulations did not go into effect until 1990, so a number of installed private wells pre-date permitting requirements.

In the HB 558 Report VDH recommended that a complete inventory of onsite sewage system and private well be completed, understanding the hurdles to create such an inventory. This recommendation was included in HB 2477.

To implement this recommendation, VDH has begun pilot projects in three health districts (Chickahominy, Henrico, and Cumberland Plateau) with the aim of creating a process that will be uniform and easily duplicated in all localities. The concept of the pilot projects is to work with localities to get parcel data that identifies the available utilities for each property (public or private sewage and water); transform that information into a standard format; import that information into VENIS using an automated process that compares fields; and create records only for those properties not currently in the database. The anticipated result is a complete inventory of all properties in a locality which have buildings for human occupancy that do not have access to public water or sewer. These properties would be assumed to have an onsite sewage system and/or private well. LHD staff would review the transferred information in a testing data base, conduct necessary data clean up, and then the records would be moved into the live database. While this would not provide complete information on the components of the installed system, it would provide reliable location data and owner contact information for the properties served by onsite sewage systems and private wells. As LHD staff pull files, receive complaints and applications, and perform other duties related to specific properties they could easily verify in the database that the property is served by an onsite sewage system and/or private well, and include additional information about the system. Once the pilot projects are complete and show that the process works, VDH will share the template with other localities to complete similar projects on a county by county basis.

It should be noted that all the necessary data may not be available in every county. VDH selected the Cumberland Plateau Health District because it does not maintain utility data for developed parcels. Working with Cumberland Plateau will help to identify other mechanisms for creating complete inventories in localities that also lack utility data to connect with property records.

Task #7.E: Creating procedures for tracking Notices of Alleged Violations and corrective actions.

One component of VDH's Onsite Sewage and Water Services program is enforcement of regulations, such as correction of improper system installation, correction of failing system, and compliance with AOSS O&M requirements. Enforcement actions typically begin with the issuance of a Notice of Alleged Violation (NOAV) and can ultimately result in civil penalties

and court cases. EH Managers report issuing an average of 556 NOAV's statewide each year regarding possible OSS violations. EH Managers report taking an average of 15 cases to court statewide each year regarding OSS violations. The HB 558 Report recommended that VDH implement specific procedures for tracking NOAV's and corrective actions in the EH database.

On October 4, 2016, VDH issued a RFP for a database system to track EH program activities. VDH's contract with the current VENIS database contractor, HealthSpace, is set to expire in 2019. One of the components of the RFP was that the proposed software program must improve operational efficiency by standardizing reporting and program monitoring. A new database will be in place by January 1, 2019. The ability to track NOAV's and corrective actions will be part of the new database.

Task #8: Transfer of valid construction permits.

Historically, construction permits for onsite sewage systems and private wells were not transferrable to new property owners. The HB 558 Report recommended VDH revise agency policy to allow the transfer of valid construction permits to new property owners provided no permit change is necessary. Allowing permits to transfer would decrease demand on agency resources. VDH would only need to ensure no change to the permit was necessary. This recommendation was incorporated into HB 2477.

To implement this requirement, VDH revised GMP 2015-01 with input from the SHADAC and EH Managers. OEHS staff also discussed draft revisions to the policy with LHD staff at four face-to-face meeting throughout the state. VDH's revised policy, GMP 2017-01, allows valid construction permits for onsite sewage systems and private wells to transfer to new property owners provided no permit changes are necessary.

3 Implementation

Task #1: *Require, in cases in which site evaluations and design services for onsite sewage systems and private wells are provided by private sector service providers, that such site evaluation and design service providers disclose to the property owner when a conventional onsite sewage system is an option.*

VDH has issued a policy to require private sector service providers and VDH staff to certify on their design that options for COSS and alternative onsite sewage systems (AOSS) were discussed with the property owner. VDH staff will continue to monitor the disclosure statement through SHADAC meetings and agency interaction with citizens. VDH will update its policy and procedures, if necessary, as designers begin implementing this aspect of the program. Changes to the certification statement might become evident as stakeholders begin working on the expectation to fully inform property owners on the options available for proper sewage disposal and treatment.

Task #2: *Revise agency regulations and policies to require VDH staff to inspect all onsite sewage systems and private wells designed by private sector service providers.*

VDH has issued a policy requesting that contractors provide VDH with at least 24-hour notice before commencing construction of onsite systems designed by the private sector. Once notified, VDH staff will conduct a site visit during the installation to confirm the location, treatment level, depth, and sizing of the installation. This procedure will provide additional protection and oversight for system installations to protect public health. Previously, VDH inspected only a percentage of private sector designs and all of VDH's designs. Without a code change, notification by the contractor community will be voluntary. VDH staff will monitor and seek voluntary compliance through training events and interactions with contractors and other stakeholders. VDH will continue to seek ways to improve oversight of the program with installers.

Task #3: *Expand efforts to educate the public concerning the design, operation, and maintenance of onsite sewage systems and private wells.*

VDH developed an outline for onsite sewage and private well education and outreach programs, and is using the outline for two pilot projects: one on a statewide level and one on a local level. VDH staff will continue to develop outreach programs for stakeholders and develop lessons learned from the two pilot projects to inform and improve future work in this area.

Task #4: *Expand efforts to incorporate onsite sewage systems and private well data into community health assessments.*

OEHS worked with LHD's to develop a list of possible stakeholders to include in community health assessments and a list of external environmental data sources that can be used as part of a

community health assessment. OEHS also provided training on a national protocol for conducting community based EH assessments. These efforts will be enhanced when the new data system is put in place.

> **Task #5:** *Enhance quality assurance checks and inspection procedures for the review of evaluations, designs, and installations by private sector service providers and update VDH's quality assurance manual to reflect this change in the agency's business model.*

VDH is finalizing edits to the Onsite Quality Assurance Manual to include new procedures for inspections. The new manual will have an improved method for tracking adherence to quality assurance measures. VDH also established several workgroups to rewrite and update GMPs to promote consistency. Staff have also begun devising a standardization plan for all onsite staff. Once implemented, the standardization plan will likely improve consistency across the Commonwealth.

> **Task #6:** *Consider separating work unit functions regarding permitting and enforcement for onsite sewage systems and private wells to ensure that staff reviewing evaluations and designs for permitting purposes are separate and independent from staff performing enforcement functions.*

VDH convened a workgroup to consider options and review how other agencies address permitting and enforcement. VDH is considering a local enforcement model for initial implementation of separating work unit functions. In this local enforcement model, one person will supervise the permitting and enforcement functions, which will be separated to the extent possible. The local enforcement model operates like VDH's current model, except the future model will separate permitting and enforcement functions, allowing for greater expertise and efficiency in each area. VDH will consider adopting a regional enforcement model when adequate resources are available. A regional model would operate for a regional with permitting and compliance staff remaining within the local health department. VDH will continue to monitor changes in its procedures to improve efficiency for permitting and enforcement.

> **Task #7:** *Improve the collection and management of data about onsite sewage systems and private wells, including (i) creating a web-based reporting system for conventional onsite sewage system operation and maintenance, (ii) accepting applications and payments online, (iii) making onsite sewage system and private well records available online, (iv) creating a complete electronic record of all permitted onsite sewage systems and private wells in the Commonwealth, and (v) creating procedures for tracking Notices of Alleged Violations and corrective actions.*

A new EH data management system is planned to be in place by January 1, 2019. The new database will include: a web-based reporting system for COSS; a method for accepting applications and payments online; a method for making onsite sewage and private well records available online; and tracking Notices of Alleged Violations and corrective actions. VDH has also instituted several pilot projects to develop a process for creating a complete inventory of onsite sewage systems and private wells and is making progress. OEHS has also created a new

data management division which will assist in monitoring and implementing the new data system. The new system will likely have improved reporting capabilities.

> **Task #8:** *Revise agency policies to allow the transfer of valid construction permits for onsite sewage systems and private wells to new property owners.*

VDH issued a policy that allows the transfer of valid construction permits. VDH will continue to monitor the implementation with the SHADAC and other stakeholders. Private sector providers have questioned whether the transfer of permits will impact private party contracts. For example, perhaps future owners may not understand important aspects of the permit such as clearing requirements or other contractual obligations. Private sector providers believe this policy directive could lead to problems so VDH will continue to monitor the policy's effectiveness and respond to concerns as necessary.

4 Recommendations

The tasks listed in HB 2477 were part of the agency's larger strategic vision laid out in the HB 558 report. While VDH has taken steps to implement the requirements of HB 2477, it is necessary to implement the additional recommendations from HB 558 to fully achieve the agency's strategic vision. In order to meet that vision, VDH recommends that specific authority be provided in the Code of Virginia for the following:

Recommendation #1

Amend the Code of Virginia to give well drillers the authority to perform sanitary surveys for locating wells and submitting work to VDH.

VDH recommends allowing DPOR certified water well system providers to provide private well evaluations for all well types. This recommendation provides property owners with additional options for service providers that can provide private well evaluations. Evaluations should be required to meet the same standards as those provided by private sector OSEs and PEs. Accepting private well evaluations from certified water well system providers would reduce demand on agency resources to provide site evaluations and would have a corresponding increased demand on resources to conduct Level I and Level II reviews.

Recommendation #2

Amend § 32.1-163 of the Code of Virginia to revise the definition of maintenance, such that paperwork is reduced for certain types of repairs or voluntary upgrades.

VDH recommends expanding the definition of maintenance to streamline processing for simple repairs and voluntary upgrades. Incorporating simple repairs and voluntary upgrades under maintenance would allow licensed operators (or installers with appropriate authority) to make simple improvements to onsite sewage systems without the need for an evaluation, design, and permit. VDH recommends limiting maintenance to in-kind replacement of components. This would require an amendment to the definition of maintenance in § 32.1-163 of the Code. Revising the definition of maintenance would decrease the demand on agency resources to review site evaluations and designs. With this change, a number of property owners would avoid additional evaluation and design costs. VDH recommends maintenance activities be reported electronically; otherwise this work would be performed without oversight.

Recommendation #3

Amend § 32.1-164 of the Code of Virginia to establish an O&M program and reporting for COSS, which will improve program oversight and public health by protection of groundwater.

VDH recommends requiring operators to report to VDH all inspections and maintenance activities performed on COSS. This recommendation would require an amendment to § 32.1-164 of the Code. Requiring reporting of inspections and maintenance activities for COSS may increase costs for private sector providers. However, having VDH manage this data may provide long-term savings for localities and enhance the Commonwealth's ability to reduce failures and more quickly respond to problems. VDH should provide aggregated data to stakeholders.

Ongoing O&M of onsite sewage systems is necessary to ensure sewage systems function properly. Many homeowners have septic tanks pumped and there is no reporting or tracking mechanism. Establishing an O&M program could extend the life of COSS, saving owners money on the cost of system repairs. This recommendation may also help the Commonwealth and localities meet Chesapeake Bay Watershed Implementation Plan goals since COSS pump outs are listed as one of the possible nitrogen credits for the onsite sewage sector.

Recommendation #4

Amend the Code of Virginia to shift onsite sewage system evaluations and design services which are not associated with a building permit or the repair of a failing system (i.e., subdivision reviews, certification letters, and voluntary upgrades) to the private sector by July 1, 2018.

There are three evaluation and design services which are voluntary in nature because a building permit is not required: subdivision reviews, certification letters, and voluntary upgrades. VDH recommends continuing to require that all subdivision reviews include supporting private sector work. This requirement is currently in place through policy. Starting July 1, 2018, VDH recommends requiring all applications for a certification letter or voluntary upgrade also be accompanied with private sector work.

Requiring private sector evaluations for all certification letters would result in a decreased demand on agency resources to provide site evaluations and a corresponding increased demand on resources to conduct Level I and Level II reviews. Requiring private sector evaluations for all voluntary upgrades would also result in a decreased demand on agency resources to provide site evaluations and designs and a corresponding increased demand on resources to conduct Level I and Level II reviews.

Recommendation #5

Amend the Code of Virginia to shift new construction evaluations and designs which are not for a principle place of residence to the private sector by July 1, 2018.

Starting July 1, 2018, VDH recommends requiring all applications for new OSS construction not intended as a principle place of residence to be accompanied by work from the private sector. VDH does not anticipate this recommendation to impact a large volume of applications.

Recommendation #6

Amend the Code of Virginia to require VDH to establish guidelines to help property owners with a specific hardship and be a provider of last resort.

No later than July 1, 2019, VDH should develop guidelines for evaluating the hardship of receiving private sector help. VDH should continue to provide services as the provider of last resort. VDH should work with stakeholders to develop the specific guidelines for determining hardship. Considerations should include the ability for the owner to receive timely services, needs of the applicant, and criteria for services in the absence of a repair fund.

Recommendation #7

Amend the Code of Virginia to require applicants to petition VDH to provide evaluation and design services for new construction, repairs, and SAP evaluations.

The first step in transitioning direct services for new construction, repairs, and SAP evaluations is to establish a process where owners must specifically request VDH services. VDH recommends requiring applicants to petition VDH to process bare application services for new construction, repairs, and SAPs starting July 1, 2018.

Recommendation #8

Amend the Code of Virginia to ensure the orderly transition of evaluations and designs for new construction, repair, and SAP evaluations over a five-year period based on a sliding scale of income eligibility.

Once a process is in place for owners to petition VDH for services, then the limits for service must be set. VDH recommends transitioning evaluation and design services for new construction of OSS and private wells over a five-year period based on income eligibility. This process should begin on July 1, 2019, by requiring means testing of applicants that petition VDH for services. Applicants that do not meet the income eligibility criteria could still receive services if a hardship exists in accordance with guidelines developed by VDH.

Starting July 1, 2019, VDH should provide services only to applicants below 400 percent of the federal poverty guidelines (FPG) or who demonstrate a hardship. Starting July 1, 2020, the income eligibility should drop to applicants below 300 percent of the FPG. Income eligibility should then drop to 200 percent of the FPG on July 1, 2021, and to 100 percent of the FPG on July 1, 2022. Starting July 1, 2023, VDH should provide services only to those applicants that demonstrate a hardship in accordance with the guidelines developed by VDH.

Gradually requiring private sector evaluations for new onsite sewage system and private well construction would decrease demand on agency resources, except for review of private sector work. Means testing would increase resources for performing eligibility assessments. VDH estimates each eligibility review would add one-half hour to application processing. Not every

applicant would request an eligibility review and the largest volume of requests would likely be in FY 2020.

Property owners will see an increase in the cost of evaluation and design services. However, owners that meet income eligibility requirements or that demonstrate a hardship would receive VDH services without this additional cost. Allowing water well system providers to provide well evaluations would reduce costs to owners.

VDH recommends transitioning SAP evaluations based on income eligibility. This process should begin on July 1, 2019, by requiring means testing of property owners that petition VDH to provide SAP evaluation services. Owners that do not meet the income eligibility criteria could still receive services if they are able to demonstrate a hardship in accordance with guidelines developed by VDH.

Starting July 1, 2019, VDH should provide services only to applicants below 400 percent of the FPG or demonstrating a hardship in obtaining private sector evaluation design services in a timely manner. Starting July 1, 2020, the income eligibility should drop to applicants below 300 percent of the FPG. Income eligibility should then drop to 200 percent of the FPG on July 1, 2021, and to 100 percent of the FPG on July 1, 2022. Starting July 1, 2023, VDH should provide services only to those applicants that demonstrate a hardship in accordance with the guidelines developed by VDH.

Gradually requiring private sector evaluations for SAP would result in decreased demand on agency resources to provide site evaluations. Means testing would increase resources needs for performing eligibility assessments. VDH anticipates this impact would be greatest in FY 2020.

VDH recommends transitioning evaluation and design services for the repair of onsite sewage systems and private wells based on income eligibility. This process should begin on July 1, 2019, by requiring means testing of applicants that petition VDH to provide evaluation and design services for the repair of OSS and private wells. Applicants who do not meet the income eligibility criteria could still receive services for a hardship in the absence of a repair fund (see recommendation #10).

Starting July 1, 2019, VDH should provide services only to applicants below 400 percent of the FPG or who have a hardship. Starting July 1, 2020, the income eligibility should drop to applicants below 300 percent of the FPG. Income eligibility should then drop to 200 percent of the FPG on July 1, 2021, and to 100 percent of the FPG on July 1, 2022. Starting July 1, 2023, VDH should provide services only to those applicants that demonstrate a hardship.

Recommendation #9

Amend the Appropriations Act to allow VDH to retain its current level of funding during and after the transition of direct services to private sector service providers. Keep VDH funded to maintain a staffing levels necessary to provide oversight, improve O&M of AOSS and alternative discharging sewage systems, improve management of

onsite sewage system and private well data, and incorporate onsite sewage systems and private wells into community health planning.

In order to fully implement the previous recommendations and the tasks outlined in HB 2477, VDH recommends no change in staffing level. VDH also recommends charging fees for several services that are currently provided for free. Starting July 1, 2019, VDH recommends charging an application fee of up to $425 for onsite sewage system repair applications with flows less than or equal to 1,000 gpd not supported with certified work from an OSE or a PE, $225 for onsite sewage system repair applications with flows less than or equal to 1,000 gpd that are supported with certified work from an OSE or a PE, and up to $1,400 for onsite sewage system repair applications with flows greater than 1,000 gpd. Repair fees should be waived for all property owners that are eligible for the repair fund recommended below.

Starting July 1, 2019, VDH recommends charging an application fee of up to $225 for onsite sewage system voluntary upgrade applications with flows less than or equal to 1,000 gpd and up to $1,400 for onsite sewage system voluntary upgrade applications with flows greater than 1,000 gpd. The fee waiver for new OSS construction permits contained in the Fee Regulations should be extended to voluntary upgrade applications.

Lastly, starting July 1, 2019, VDH recommends charging a fee of up to $150 for SAP evaluations not supported with certified work from a qualified professional, and $100 for SAP evaluations supported with certified work from a qualified professional. The fee waiver criteria contained in the Fee Regulations should be extended to SAP evaluations.

The recommendation to establish new fees for repairs, voluntary upgrades, and SAP evaluations would offset a portion of revenue losses from other recommendations to shift services to the private sector.

Recommendation #10

Amend the Code of Virginia to create a fund to cover the cost of designing and installing repairs for failing onsite sewage systems and private wells for income eligible property owners.

A repair fund should be created to cover the cost of design and installation of onsite sewage system and private wells for qualifying property owners. VDH does not recommend a specific source for funding; however, a number of options are presented in the background section for consideration. The specific funding source would determine resource needs and fiscal impacts.

More information regarding the background, development, and cost to the agency and stakeholders for these recommendations can be found in the HB 558 Report.

5 Conclusion

VDH's strategic vision is to shift evaluation and design services for sewage systems and private wells to the private sector in an orderly manner over a five-year period so limited VDH resources can be focused on improving public health, including protection of groundwater supplies. The strategic vision includes VDH having a more traditional regulatory role. VDH is unique among state and federal agencies in that it provides some of the same services offered in the private sector. VDH's dual role of service provider and regulator creates numerous difficulties with enforcement, plan review, and work product expectations. The strategic vision includes VDH providing adequate programmatic oversight with a proper "check and balance" system.

While the tasks outlined in HB 2477 do implement portions of VDH's strategic plan to focus on improving public health and groundwater supplies, the strategic plan and these tasks can only be fully realized by incorporating the additional recommendations from the HB 558 Report. VDH should not provide evaluation and design services when and where a sufficient number of licensed private sector professionals are available to perform evaluation and design services. VDH should focus its limited resources on risk assessment, policy development, population health improvement (e.g.,strengthening efforts in health monitoring), data collection and dissemination, community health assessments, creating a complete inventory of wells and sewage systems throughout the Commonwealth, understanding viral and nutrient impacts to drinking water and recreational water, providing quality assurance inspections of private sector work, educating the public on O&M needs and drinking water quality, developing necessary policies to improve health, and providing reasonable enforcement and programmatic oversight. VDH cannot currently perform these higher priority needs to the extent necessary because the law requires VDH to perform soil evaluations and designs.

VDH should be adequately staffed in order to protect public health while it is implementing this shift of direct services to the private sector in order to ensure adequate staffing. This may include re-evaluation of programmatic priorities to ensure that higher priority needs, such as 100 percent inspection of onsite sewage systems, can be completed with limited agency resources. Full implementation of the agencies strategic plan and the tasks outline in HB 558 may actually require dedicating more resources to the agency. VDH intends to work closely with the General Assembly and stakeholders to ensure that the tasks outline in HB 2477 and the agency's strategic vision are fully implemented.

6 References

E. L. Hamm and Associates, Inc. (2006, May). VDH Re-Engineering Initiative Onsite Sewage System Program. 1-132. Retrieved from http://www.vdh.virginia.gov/EnvironmentalHealth/Onsite/newsofinterest/documents/VDH percent20Reengineering percent20Initiative_final_5.06.pdf

Poverty Guidelines | ASPE. (n.d.) Retrieved October 24, 2016, from https://aspe.hhs.gov/poverty-guidelines

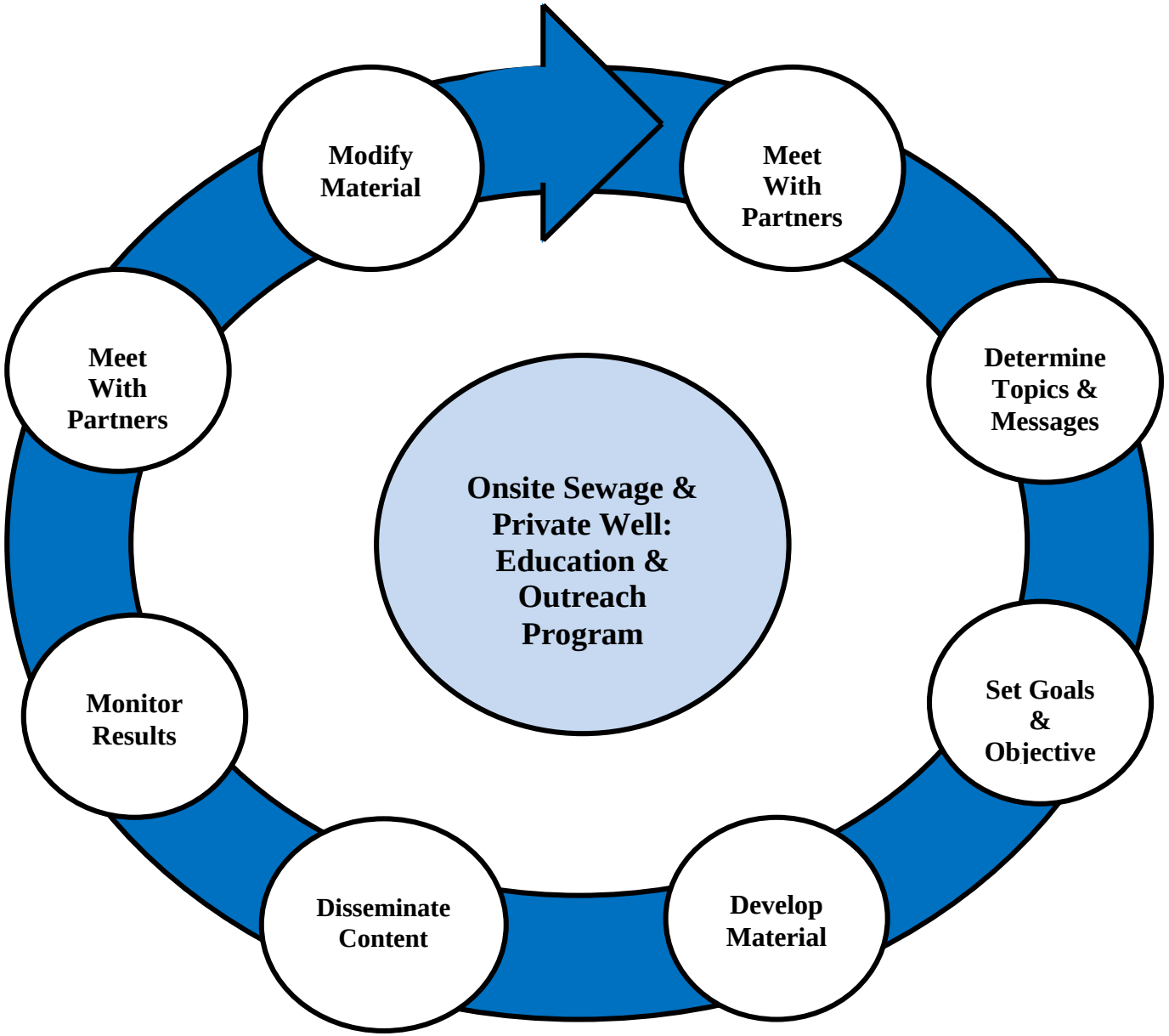
University of Virginia Institute for Environmental Negotiation (2014, January). Stakeholder Advisory Committee on Safety and Health in Facilitating a Transition. 1-278. Retrieved from http://166.67.66.226/EnvironmentalHealth/Onsite/shift/documents/SHIFT_Final_Report.pdf

Virginia Department of Health (2011, December). Report Document 32: Private Sector Service Delivery for the Onsite Sewage and Water Supply Program. 1-243. Retrieved from http://www.vdh.virginia.gov/EnvironmentalHealth/ONSITE/newsofinterest/documents/2012/pdf /RD32.pdf

Virginia Department of Health (2016, November). House Document 10: Report to the General Assembly in Response to HB 558 [2016]: A Plan for the Orderly Reduction and Elimination of Evaluation and Design Services by the Virginia Department of Health for Onsite Sewage Systems and Private Wells. 1-182. Retrieved from http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/HD102016/$file/HD10.pdf

7 Appendices

Appendix A


Onsite Sewage & Private Well: Education & Outreach Program
Meet With Partners
Determine Topics & Messages
Set Goals & Objective
Develop Material
Disseminate Content
Monitor Results
Meet With Partners
Modify Material

I. Purpose

The purpose of the onsite sewage and private well education and outreach program is to provide citizens of the Commonwealth of Virginia with a basic understanding of onsite sewage and private well systems, with a focus on key messages that promote improvements to individual and community health.

II. Target Audience

The target audience is individuals using onsite sewage and/or private well systems.

III. Objectives and Goals

The objective is to change the out-of-site out-of-mind paradigm for onsite sewage and/or private well system users by increasing their basic understanding of how these systems function, how to car for these systems, and having users understand that these systems have a direct impact on their health and the health of their community. The overall goal is healthier Virginians in healthier communities.

IV. Methods of Delivery

The program will be broken in to a variety of small education and outreach programs; each with a unique message, objective, and goal. These small programs will be delivered using a series of methods.

1. Social Media: We will use social media platforms such as Twitter and Facebook to disseminate the overall message and direct interested citizens to view 2-3 minute YouTube videos to deliver the message through an educational component. YouTube viewers will see videos of onsite sewage and private well system simulators, as well as photos and real-world videos taken by VDH staff and industry partners. Likewise, similar messages and material posted by industry partners will be re-posted on VDH social media platforms.
2. Website Content: Messages and educational material (as well as links to social media outlets) specifically directed to the general public will be posted on a more user-friendly portion of the onsite sewage and water services website. Content will be available for publication on industry partner websites, and links to similar messages and material on industry partner websites will be added.

3. Outreach-in-a-box: Messages and educational material will be packaged for easy access and easy use by local health department staff and industry partners. Electronic materials will be posted in a dedicated location on the onsite sewage and water services website. Materials and visuals, such as system simulators, will be made available to local health department staff upon request once staff have completed any necessary training (which will be provided by OEHS upon request). Local health departments will also be encouraged to share "outreach-in-a-box" projects which they have created. Projects will be peer reviewed to assure they are not locality or district specific, and to assure they align with the overall program purpose of promoting improvements to individual and community health.

V. Monitoring Effectiveness

Initial monitoring will focus on the number of citizen viewing online educational material and attending "outreach-in-a-box" events. However, staff will seek input from partners to develop more effective measures of each individual programs impact on individual and community health.

VI. Funding Need

Staff and partners should be able to produce much of the content with specific funding. However, funds may be necessary to create videos and purchase booth space for "outreach-in-a-box" events. Detailed funding needs will be identified as the project starts underway. Initial project efforts will focus on education and outreach programs that do not require funding beyond staff time.

VII. Project Outline

This project will be a combination of small education and outreach programs. To being the process of creating these small programs, OEHS will first:

1. Meet with partners: Partners will be local health department staff, VDH media specialist, other interested agencies, and industry partners such as: the Department of Environmental Quality, the Virginia Household Water Quality Program, the Virginia Water Well Association, the Virginia Onsite Wastewater Recycling Association, among others.

OEHS and our partners will then set out to:

2. Determine topics and messages: This will begin the process of selecting the different small education and outreach programs that will form the overall onsite sewage and private well education and outreach program. Each individual program will have its own unique message, under the umbrella of the overall program message of "Improving individual and community health."

   Once topics and messages are determined the group will then set out to:

3. Set goals and objectives: Again, each individual program will have its own unique goals and objectives, under the umbrella of the overall program objective and goal.

   Partners will then be asked to help:

4. Develop material:

   And;

5. Disseminate content: (Focus groups may be utilized prior to dissemination to a wider audience)

   Once the individual programs are underway, OEHS will:

6. Monitor results: The method for monitoring results will be established by the group during initial development of the program. Results will be shared with partners.

   OEHS will then:

7. Meet with partners: These meetings will be to discuss results of the program and determine whether modifications to the individual or overall program are necessary.

   Finally, OEHS and partners will:

8. Modify material: Material will need to be keep up to date to improve results and to incorporate any statutory or regulatory changes in the onsite sewage or private well program.

Appendix B

Workgroup Report to the State Health Commissioner
Consideration of Separation of Permitting and Enforcement

House Bill 2477, an Act to require the Virginia Department of Health (VDH) to take steps toward eliminating site evaluation and design services for onsite sewage systems and private wells provided by the Department, was approved March 16, 2017. Section § 1. 6 of the Act requires VDH to consider separating work unit functions regarding permitting and enforcement for onsite sewage systems and private wells.

The agency was charged with completing an analysis regarding the feasibility of separating work unit functions regarding permitting and enforcement in order to ensure independent, impartial operation; and if feasible, submitting a plan for separating work unit functions. Staff established an internal workgroup to draft a report containing recommendations for the Commissioner. The workgroup, consisting of members of OEHS, Environmental Health (EH) Managers, and Specialists and District Directors, investigated several models of enforcement and permitting utilized by various state and local agencies.

Among the models considered were the regional enforcement model, the centralized enforcement model, the local enforcement model, and the current enforcement model. The workgroup agreed that permitting functions should remain within the local health department, based upon the interplay of local ordinances in many permitting functions. The workgroup asked representatives from the Department of Environmental Quality (DEQ), the Department of Mines, Minerals and Energy (DMME), and the Department of Housing and Community Development (DHCD) to speak about their respective agency's models used for permitting and enforcement. The representatives answered the workgroup's questions regarding the benefits and costs involved in the particular enforcement model utilized and were asked for observations on the efficiency and challenges of their agency's model.

The regional enforcement model as used by DEQ and DMME in some programs, separates permitting, compliance, and enforcement into three separate work units. Permitting involves reviewing designs, working with applicants to obtain permits, and updating permits for renewal. Compliance specialists work with the permittee to maintain their permit validation and meet all the requirements of the Code and applicable regulation. Once a permittee enters formal enforcement (a Notice of Violation for DEQ after an initial Notice of Alleged Violation (NOAV)), the case is submitted to the Enforcement Division, which works on drafting Consent Orders, hearings, orders of the Board, and assisting in court cases alongside the Office of the Attorney General.

The centralized enforcement model, utilized by DMME for some programs, centralizes all enforcement staff into a single unit separate from the permitting staff. Central enforcement staff are assigned cases from all over the Commonwealth once a NOAV is issued. The permitting staff assists applicants in obtaining permits and understanding the requirements of the regulations and Code.

The local enforcement model, utilized by DHCD, in part, separates permitting and enforcement when it can, given staff levels. Permitting and enforcement staff are co-located in the local offices. The enforcement staff inspect the properties and give notice of violations while permitting staff reviews plans and issues permits. Each local building department's resources determines whether adequate staffing levels exist to accomplish the separation of the work unit functions.

Based upon the discussions of the workgroup during meetings, the group reached a consensus recommendation for the Commissioner to separate the work unit functions of permitting and enforcement. The workgroup also recommends the Commissioner adopt the local enforcement model for initial implementation. The group also recognizes that efficiencies may be gained by adopting a regional enforcement model when adequate resources are available. Below is a detailed analysis of each model and the issues associated with the model considered by the workgroup.

Current Model of Permitting and Enforcement

Before considering separating the work unit functions, the workgroup discussed VDH's current model of permitting and enforcement and the associated benefits and challenges. Currently, each Environmental Health Specialist (EHS) performs both functions of permitting and enforcement, with the assistance and supervision of their EH manager. Enforcement frequently is based upon follow-up on reports of sewage discharging onto the ground surface from a failing onsite sewage disposal system. The process is as follows:

1. The EHS receives a citizen's complaint regarding sewage discharging to the ground. The Complaint is entered into VENIS (computer database).
2. EHS visits the site to investigate and evaluate the potentially failing system. If the EHS observes sewage discharge onto the ground's surface or a backing up of sewage into the fixtures of the building structure, the EHS will attempt to work with the owner to troubleshoot the problem and determine why the system is failing.
3. EHS attempts to determine if the problem can be abated without the need for a repair permit. If so, remediation is completed and the system likely goes back to functioning properly. If the EHS determines the system cannot be repaired without a permit; i.e. the malfunction is substantial or is due to drainfield conditions, the owner is asked to file an application for a construction permit for repairs to their system.
4. The applicant files an application for repair of their system, the EHS then performs a site and soil evaluation. If the site is suitable for a conventional system, the EHS most often drafts and issues a repair permit.
5. When the permit is issued, the EHS will typically send a NOAV with the permit which will give a time frame for making repairs to the system. Usually there is a 60-day window for the repair to be completed as contemplated by the Commissioner's Dashboard, however, some repairs require additional time. The EHS may have to send a second NOAV giving a time frame for installation after the Onsite Soil Evaluator (OSE)/Professional Engineer (PE) design is submitted should an alternative repair prove necessary.

The same EHS issues the repair permit and the NOAV, initiating the enforcement process. If the system is not installed by the timeframe given in the NOAV, the EHS will either file a criminal complaint or continue with the Administrative Process Act (APA) process of convening an informal fact-finding conference (IFFC) leading to a case decision. The decision of whether to file a criminal complaint is highly dependent upon the unique facts of the case and usually occurs with notice and approval from OEHS.

Future enforcement cases will likely involve violations relating to the owner's failure to file operations and maintenance (O&M) reports for alternative onsite sewage systems as required by the regulations. VDH is currently revising a policy addressing civil penalties, which will be a large part of the enforcement strategy regarding O&M and other violations of the regulations. There are currently thousands of outstanding O&M reports in which an EHS will be required to initiate all enforcement. This additional workload created by O&M and civil penalties enforcement will put a significant strain on the current structure of a single EHS performing both permitting and enforcement functions. The workgroup considered the following questions during the discussion:

1. What have been the biggest causes of concern/frustration/failure with current enforcement model?

   The group discussed the perception that VDH was biased and engaged in conflicts of interest where they provided the design of conventional onsite sewage systems for bare applications, and also conducted enforcement activities on privately submitted designs. Many in the private sector believe VDH arbitrarily pursues enforcement when comparing agency versus private sector designs.

2. What do you think has worked well with current model?

   The group believed that the availability of the permit/enforcement staff at the local level was a benefit to customers and local officials with questions and concerns. The group also thought that local staff were best able to serve the community in which they reside as they understand unique characteristics of the court system and the residents.

3. How has current model impacted customer service?

   The group identified both benefits and costs for customer service for the reasons cited above. The responsiveness of local permitting and enforcement staff was an advantage, however, the fact that a single individual acted as both permit issuer and enforcer negatively impacted customer service as people may be hesitant to contact VDH for help if they feared enforcement action.

4. How will current model handle the additional enforcement demands of O&M violations?

   The group thought it would be very difficult for the EHS to be able to handle many O&M enforcement cases in addition to the work they are currently completing. Each O&M violation case would likely utilize the civil penalties as a means of enforcement, requiring

the EHS to send out several enforcement documents, conduct follow-up, provide for an IFFC, and schedule court cases on the many outstanding reports. The group thought the idea of a compliance specialist would be best in the long term to assist owners in meeting their O&M requirements. In initial adoption of the separation of work unit functions, the enforcement personnel, utilizing a local model, would be highly trained in the use of civil penalties and be able to establish connections with local court staff to ensure proper docketing of cases.

Separating Permitting from Enforcement- Co-Location in Local Health Department

In this model, the same entity and ultimately the same person (EH manager) is still supervising both the permitting employee and the enforcement employee. It operates similarly current model, except employees are designated to only perform either permitting or enforcement functions, allowing for greater expertise and efficiency.

In order to accomplish this model, VDH would designate or create separate EHS positions to perform enforcement. The workgroup considered whether the enforcement EHS would need OSE credentials. The workgroup also considered whether there would be enough enforcement activity in the local health department or district to keep the enforcement EHS person occupied. The increased focus on enforcement for both O&M reports as well as VDH's direction going forward, as required by HB 2477, would generate significant enforcement activity. Going forward, VDH would need to consider whether the designated enforcement EHS would also pursue enforcement for other programs such as rabies, private wells, and food. HB 2477 required VDH to consider separating work functions for onsite sewage and private wells. The potential danger with this approach, as identified by the group, is during a staffing shortage, the enforcement EHS could not assist in permitting functions.

The benefit of this model is the specialized knowledge of enforcement and permitting. Someone trained specifically in enforcement will be able to understand all enforcement options and make the necessary connections with the local Commonwealth's Attorney, and/or the city and county attorney for local ordinance enforcement. The enforcement EHS would be familiar with all the enforcement procedures, and could take over a case when compliance outreach has failed. The group considered the following questions during open discussion:

1. Will new positions need to be created?

   This would depend on a local health department's needs and current staffing. It may be that the local health departments within a district designate 2-3 EHS to conduct enforcement for the entire health district.

2. What do you do about redundancy?

   Other enforcement EHS within a district may be needed to assure redundancy. The problem then occurs that another EHS may not be employed by the county seeking local ordinance enforcement. In such cases, a county employee would need to sign any enforcement document on behalf of the county.

3. Is it practical?

   The group believes it is and there are significant benefits to be realized by separating the functions. The group also believed the adoption of this model could be rolled out district by district when the local health department is interested or able to move to this model.

4. Would an enforcement officer have an OSE license?

   The group thought while this may be helpful, it is not necessary. The enforcement EHS would need to have significant knowledge and training in the requirements of the Code of Virginia and the regulations. Any lack in knowledge of soil conditions could be overcome by good communication with the permitting staff. Training by legal professionals both within VDH and the OAG would be necessary for enforcement staff.

Separating Permitting from Enforcement- Regional or District Compliance and Enforcement Staff

The group considered separating work functions into three separate sectors, as DEQ does: permitting, compliance, and enforcement. This model operates in a regional capacity for enforcement with permitting and compliance staff remaining within the local health department. The group liked the idea of compliance specialists to assist homeowners in meeting O&M requirements. They would also create a distinct tier between the installation of a new septic system (permitting staff) and the enforcement of a failing/ illegal septic system (enforcement staff).

The compliance specialist would assist in compliance for O&M, repair applications and permits, and complaints to track possible threats to public health and the environment. This work would help permitting/installation personnel specialize in the actual design and expected performance of proposed septic systems. Further, the specialist would assist enforcement staff when a failing septic system triggers enforcement action, likely occurring after an owner fails to meet timelines or recommended actions in an issued NOAV. This model would allow the enforcement specialists to become highly specialized in the enforcement process because they would be focused solely on the enforcement of the regulations after a compliance specialist had worked with an owner to try and reach compliance. This would ideally reduce the number of cases handled by enforcement, as well as reduce the amount of time non-compliant systems are polluting the environment and threatening public health. It would also foster better working relationships between VDH and owners. This would likely also generate a better agency record for the court if the compliance specialist documented all attempts made at reaching compliance with the owner before the case was given to enforcement.

A local compliance specialist would also have knowledge of local ordinances within the county or municipal government. Close working relationships could be fostered between the compliance specialist, local government, and licensed septic contractors. These compliance personnel would have knowledge of local trends; how septic systems are actually operating in each district; and established relationships with owners. The group considered whether an O&M Provider license with both conventional and alternative systems may be needed for this position.

Adopting this model, of at least one specific compliance specialist in each district, could be accomplished with minor additions to resources. Some districts could simply reassign current EHS to separate the duties of permitting and compliance positions. If new personnel are needed, the local health district could hire personnel depending on a review of EH metrics and projected caseloads for that district. This review could look into past enforcement cases, number of repairs/complaints per year, and the number of existing alternative onsite septic systems in the locality, as well as the number of outstanding O&M reports. The group thought the compliance specialist position would require a 4-B position at minimum, but due to specialization and work load a 4-C position may be more suitable.

The potential cost-savings and efficiency in this model are: 1) the possibility of fewer cases going to enforcement because the compliance specialist is able to focus on the systems in non-compliance and find avenues to gain compliance quickly, and 2) permitting and installation inspection staff would be able to streamline their work without the added stress of complaints and following up on failing septic systems. Some of the issues discussed by the workgroup included:

1. How many compliance specialists versus permit specialists would you need per district? Extra staff needed?

   This would be highly dependent on each local health department and the demonstrated need by data collected. If districts wanted more compliance specialists this would be a catalyst for the district to collect more enforcement data.

2. Talk of triggers, what triggers moving from permitting to compliance to enforcement?

   This would likely be detailed in policy, however, natural points of transfer would be the issuance of operation permits and NOAV's.

3. How do you keep communication channels open between the different operations?

   This was an identified con of separating the three functions by DEQ. Frequent and open communication between the three sectors is vital to keep everyone informed and complete feedback loops. DEQ utilizes monthly meetings with leaders of each division to talk about cases and emerging issues. DEQ did acknowledge that this system does not always provide good communication channels and trust can break down between units.

4. Does regional enforcement staff make sense in a scenario where compliance specialists are located within local offices?

   Group thought it made sense for the compliance specialist to remain in the local health department so they can be knowledgeable about local ordinances and enforce local ordinances as they would be employees of the locality as well as state employees. Regional enforcement staff would likely be state employees only and unable to enforce local ordinances. This could lead to problems for cooperative budgets and was a disadvantage identified by the group. Also the chain of command being different for

permitting, compliance, and enforcement was seen by the majority of the group as a disadvantage of this model.

Centralized Enforcement

The workgroup considered the centralized enforcement model as employed by DMME for certain programs. In order to properly discuss the advantages and disadvantages of a centralized enforcement program verses a decentralized one, it is important to define centralization. The group agreed that centralization is the degree to which the decision-making capacity within the organization is concentrated in a single Individual or small group. Many organizations and agencies are equipped with features of both centralized and de-centralized structures, indicating an entire spectrum exists between 'centralized' and 'decentralized'.

This analysis will evaluate a 'centralized' enforcement that is consistent with the definition above, and describe the advantages, disadvantages, and other considerations the group identified with a specialized enforcement team within OEHS.

As discussed above, the workgroup believes there is an inherent efficiency that may be captured by separating the permitting function from the enforcement function. This efficiency gain is proffered as an assumed advantage regardless of the final structure of the enforcement function. A centralized enforcement structure should promote consistency, having fewer individuals in position to decide when and how to conduct enforcement activities. Consistency is generally easier to establish and maintain when the span of control and decision making is smallest. Any centralized enforcement framework would need to include defined and measureable action levels.

The concept of a centralized enforcement team would also allow for specialization within its framework. For example, some enforcement officers may specialize in criminal prosecutions, others in civil or administrative actions. Among the civil and administrative enforcement officers there may be further specialization or expertise focused on specific tools such as injunctions or consent orders. This additional specialization should again concentrate KSAs toward the assumed efficiency gain. This becomes especially true if the agency decides to include other programs such as the Food program in the enforcement group.

Given enforcement actions can draw media attention, public interest or concern or be adversarial or sensitive, a centralized structure also provides the advantage of proximity to decision makers. A centralized enforcement team would work closely and in tandem with agency leaders allowing for greater prioritization, awareness and direction of both policy and action. This advantage may also be expressed in terms of recognizing and reporting trends and emerging issues both of which may impact policy and action in either or both the permitting or enforcement function. Cost or rather cost savings may also be another advantage. Depending on the exact structure, pay scale, and size of the centralized enforcement team, this option may be one of the more cost effective means of segregating the two functions. However, this advantage assumes that a centralized structure would establish an enforcement team smaller in scope and scale than a regionalized or local model and cannot be stated with certainty by the workgroup.

A centralized enforcement structure, however, may not be practical. If the scope and scale of enforcement activities exceed what can be effectively managed by a central team, which appears likely with the renewed focus on enforcement for the agency, any cost savings would be lost. Recent surveys of district enforcement actions suggest a caseload estimate that would be manageable for a centralized enforcement team, but these surveys have limitations. For example, the data were self-reported, the results do not account for enforcement actions that should have been undertaken or were pending, and further, the data do not account for potential increases in enforcement actions that may result from agency initiatives to increase oversight in the Onsite Sewage and Private Well Program.

The caseload issue may also be analyzed from the aspect of availability and accessibility. An enforcement team may well be expected to travel to various locations throughout the state. Their presence may be required in court, magistrate offices, formal hearings, and informal fact finding conferences. The potential need for availability and accessibility may be significant.

The centralized structure does not allow for easy recognition and/or adjustment to regional disparities. Regions and communities have disparate needs, nuance, expectations, and resources. Districts themselves have local policies and practices that may affect permitting processes in ways that affect enforcement. Save nothing for localities that may have local ordinances that impact the program. For example, one county has a requirement for resistivity testing prior to submitting a sewage disposal system permit application.

A centralized structure may promote additional "silo-ing", creating an additional process and layer of communication. Such a structure may promote 'left-hand, right-hand' confusion. Districts may experience additional strife with local partners as they become less involved in enforcement. District leaders may have difficulty communicating the status of any given situation as they are removed from the decisions and actions of the enforcement team. Further, a central structure diminishes the immediate returns of the iterative, lessons-learned process, whereby the work of permit writers and compliance staff has not improved the challenges of the enforcement process. Experience is a great teacher, and the challenges experienced during enforcement actions frequently serve as feedback for process improvement. Staff experience and learn the value of clear documentation and well-written communication that inform their and their colleagues' future work. This disadvantage can be overcome by altering the feedback loop and ensuring that the enforcement team communicates effectively with district staff, but again adds a layer and potential point of failure to the process.

The establishment of a centralized enforcement team would create an additional disparity among the various environmental health programs, a disparity beyond the specifics of each program. One program, Onsite Sewage and Private Wells, would have a modus operandi separate from the other programs within environmental health. This differentiation could potentially result in further 'silo-ing" and perhaps even workplace conflicts, if a sense of inequality manifests. Of course if other programs decide to separate permitting and enforcement work functions and utilize the enforcement team then this issue is abated.

Further, establishing a centralized enforcement team may promulgate an increase in enforcement actions. It is difficult to estimate potential increases. As discussed above, recent surveys of

district enforcement actions have attempted to estimate the statewide enforcement burden; but in addition to the limitations already identified, the surveys cannot accurately account for or anticipate how many additional enforcement actions will be initiated by field staff if they are only responsible for reporting the need and not expected to undertake the action themselves. Additionally, many aspects of the Administrative Process Act (APA) currently reside under the purview of District Health Directors, including IFFCs and appeals and subsequent case decisions. So, that when pursuing administrative enforcement considerable KSAs are still paramount for local and district staff. The APA and the relationship with a centralized enforcement structure would need to be carefully defined. The workgroup considered the following questions during their discussion:

1. The visioning meetings across the state have demonstrated that enforcement will become a greater emphasis in the agency as it moves away from designing systems, will a centralized enforcement team be flexible and mobile enough to meet enforcement demand?

   The group thought it likely would not as the increased caseload for O&M reports would require significant travel for a centralized team.

2. How many enforcement team members would be needed going forward?

   The EH Metrics as described above are self-reported and likely not a good measure for ensuring adequate staff. VDH could start with the premise that each region gets 2-3 enforcement staff within the central office and adjust as data demonstrates going forward.

3. Would they all be located in Central Office?

   Likely they would be in order to capture the benefits detailed above of being close to decision makers. This could impact cooperative budgets for the local health departments as more staff are moved to central office less resources may be allocated to the districts.

4. How would local ordinance denials and appeals be handled?

   Local ordinance denials would still need to be handled by local staff as state employees alone cannot issue a local ordinance denial. A local county or city employee would have to sign any enforcement document based upon a local ordinance.

5. How would communication channels and feedback loops operate in centralized enforcement?

   The enforcement staff would need to travel to the districts at least annually to become familiar with staff and assist in training in basic APA process and report on the enforcement activities for the year. Updates during EH Managers Polycom would

also be needed to keep everyone up to date on enforcement activity and strategy as well as providing the enforcement team with feedback from the local offices.

Conclusions and Recommendations

The workgroup finds there are substantial benefits to be gained by separating the work unit functions of permitting and enforcement. Agency staff would be better trained and able to perform duties in a more efficient manner. Being able to concentrate on either permitting or enforcement will allow more time to work with owners, improving customer service, to reach regulatory compliance. The group also believes that the first step for the agency in moving toward a separation of the work unit functions would be to adopt the local model as it is most similar to current agency practice. The local model also is one in which local health departments can transition at their own pace when they are able to with sufficient staffing levels.

The group also thinks there are significant benefits to the regional model of enforcement with a separation of permitting and compliance. A compliance specialist would be critical to working with owners to reach O&M compliance and investigating complaints while maintaining a high level of customer service. This would allow enforcement staff to concentrate on seeking compliance through the APA process or the court system where the compliance specialist has already committed significant time and resources to gaining compliance without judicial process engagement. With the addition of the compliance specialist to local health departments, less enforcement staff would be needed locally, therefore allowing for district-wide enforcement, similar to standardization officers in the food program. This model, however, will require additional resources, the hiring and training of specific enforcement staff for districts and significant training for the compliance specialist. The district level enforcement staff would also likely need to report to someone within OEHS or the central office.