Online Support and Resources for Onsite Wastewater Professionals

DecentralizedWastewater.org

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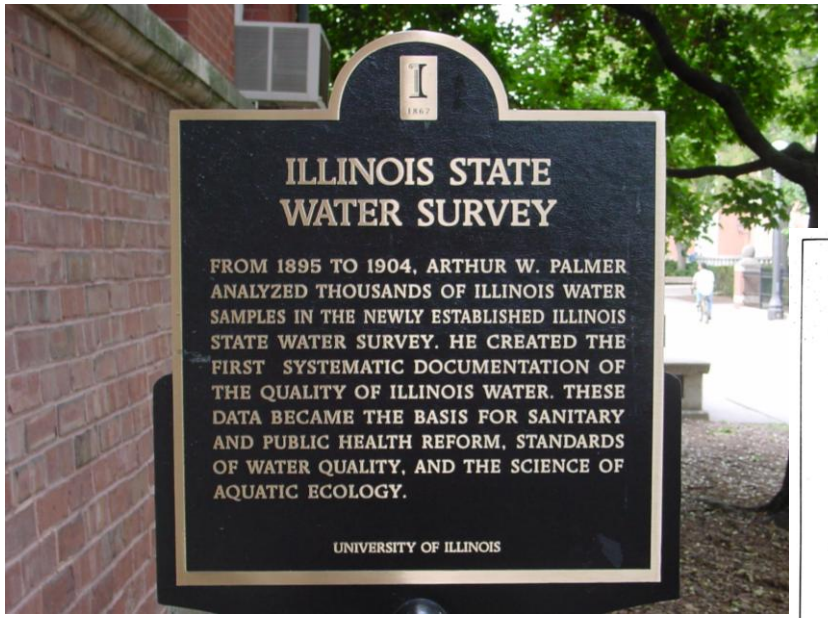
Illinois State Water Survey

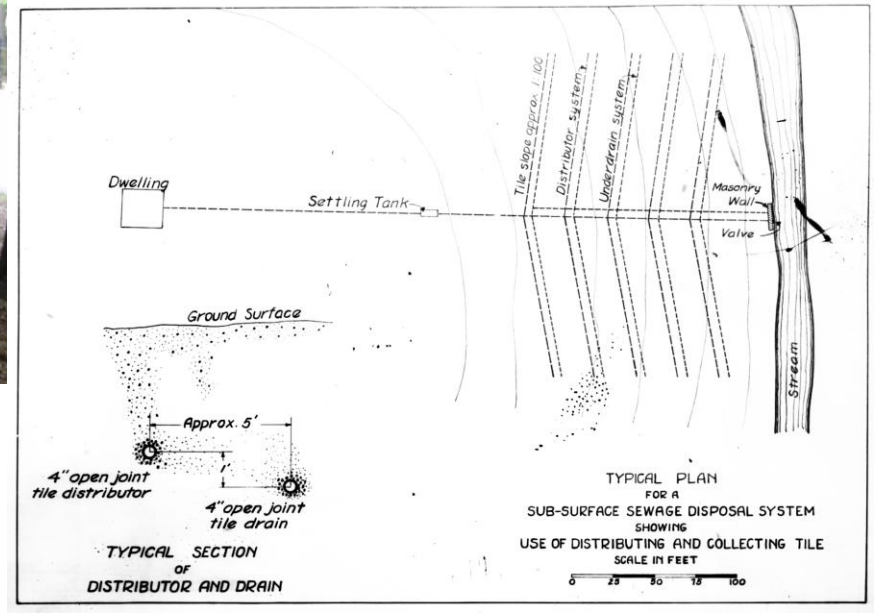
University of Illinois

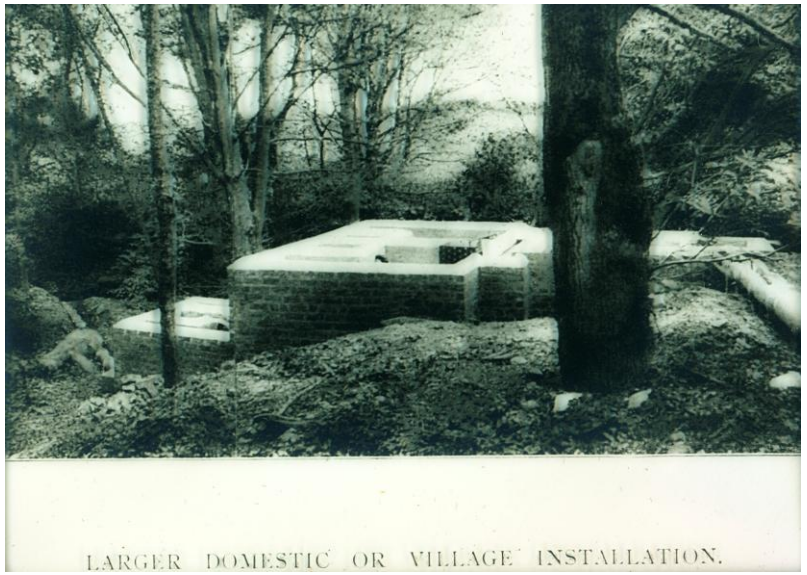
These Programs are Sponsored, Funded, & Supported By
The Rural Community Assistance Partnership & USEPA

Onsite Wastewater Mega-Conference 2024 Spokane, WA
Celebrating Tomorrow's Environment Clean Water for the Future

Who We Are







WaterOperator.org

All materials presented herein and henceforth represent my own opinion, and do NOT reflect the opinions of NOWRA

Outline

- What is DecentralizedWastewater.org
- Wide range of topics with example resources
- How to find resources on DecentralizedWastewater.org
- Other features offered on the website

DecentralizedWastewater.org

- Clearinghouse of information for anything related to onsite wastewater.
- Legwork has been done for you, easy to use, value-added information.
- An easy to use interface for finding, free, publicly available information on the web.
- Supports operators, can call us, email us, request our help in finding resources or help.

We Have Done The Legwork

- Search for various organizations nationwide.
  - That provide technical assistance and training
  - Regulatory agencies and associations
- Library of publicly available documents, presentations, manuals, programs.
- Nationwide calendar that lists trainings offering continuing education
- All from regional, state, and national organizations (RCAP/EPA, state agencies, onsite wastewater associations, community colleges, etc.)

Value Added Information

- Complete details.
  - Clear, concise summary of every document
  - List the host/owner and source pages
  - ***All event info in one location***
- Logic put into search and database information.
- Clickable details with contact info.

Wide Range of Resources

- 20 Categories

Asset/Financial Management
Certification/License Exam Prep
Consumer Information
Discharge/Water Standards
Environmental Impacts/Concerns
Health & Safety
Innovative/Alternative Systems
Installation/Installers
Monitoring
Nutrient Control
Operation & Maintenance
Pumping/Pumper
Regulations/Permits
Remediation
Soils/Drainfields
Source Water Protection
System Design/Treatment
System Inspection
Troubleshooting
Water Security/Emergency Response

Wide Range of Resources

- Searchable Resource Types
  - CD/Program/Spreadsheet
  - Factsheets/Case Studies
  - Forms/Templates
  - Manuals/Handbooks
  - Newsletters/Magazines
  - Reports
  - Slides/Presentations
  - Videos
  - Webpage/Website list
- Searchable Event Types
  - Outings/banquets (networking events, tours, etc.)
  - Certification exam
  - Conference/symposium
  - Seminar/meeting
  - Training/workshop
  - Webinar/live online trainings

Short On Time?

Find All The Best Resources In One Place, For Free!

DecentralizedWastewater.org is a clearinghouse of continuing education training events, free resources, and the latest news for decentralized and onsite wastewater professionals.

More About Us | Go To Latest News

Upcoming Training Opportunities

Search The Calendar ›

Our event calendar includes free and paid continuing education training opportunities for decentralized wastewater professionals.

September 4, 2024 | 11 a.m. Central

Put Controls To Work For You

Orenco Systems

Learn about Orenco's various control panels, plus available options, features, and suggested applications.

» Learn More

September 24 | 1 p.m. Eastern

Optimizing Onsite Wastewater Systems

Environmental Finance Center Network

Learn troubleshooting techniques, issues related to FOG, and important guidelines on what not to flush.

» Learn More

December 18, 2024 | 1 p.m. Eastern

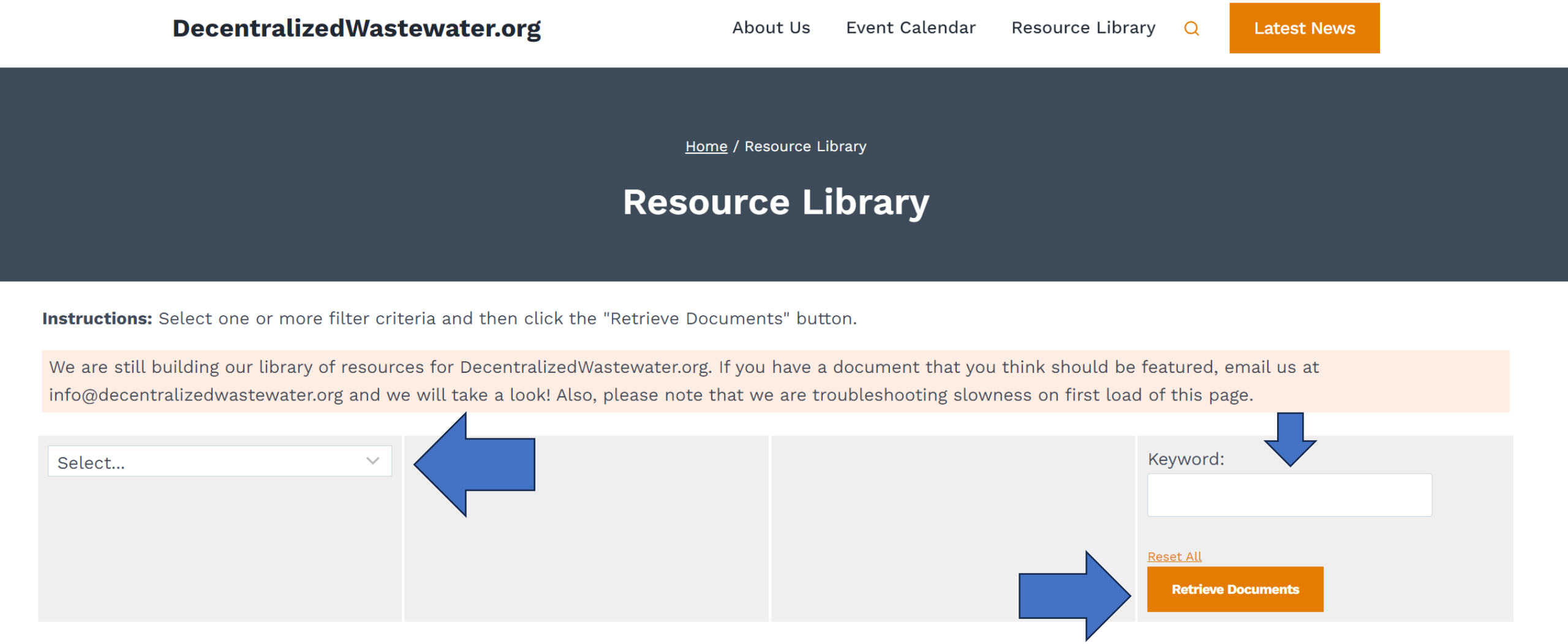
Design And Installation For Difficult Sites

Infiltrator Water Technologies

Learn possible solutions to challenging site conditions, including tight soils, high water table, site elevations, steep slopes, and more.

» Learn More

Resource Library



Resource Library

DecentralizedWastewater.org

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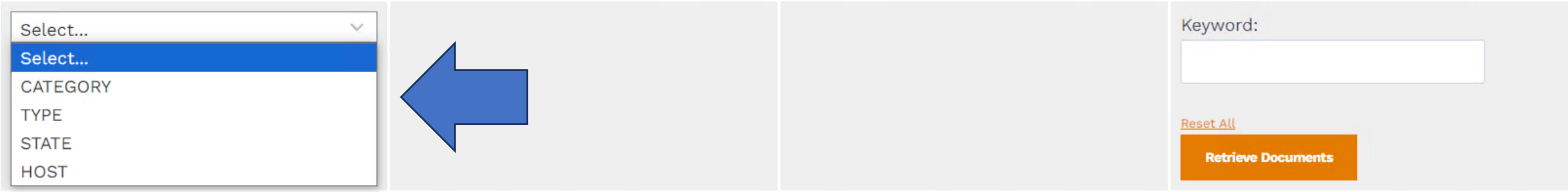

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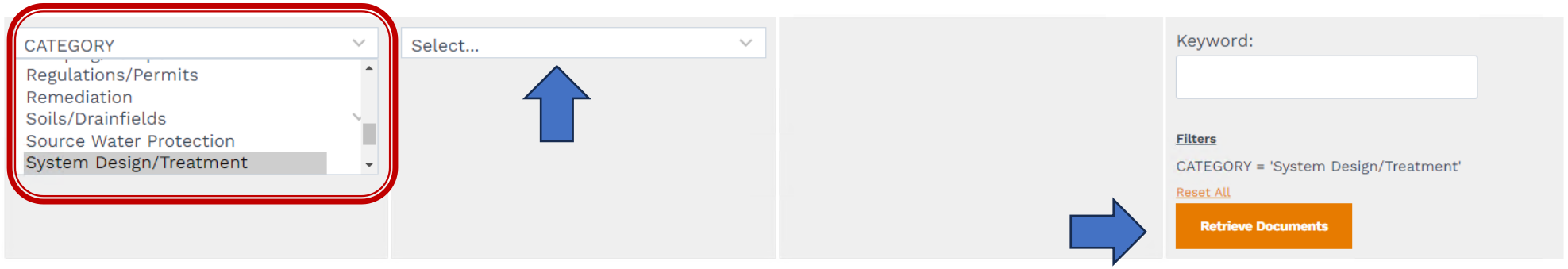

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First | Previous Page | Next Page | Last

1. **Title:** "How-To" Guide for Wastewater Management of Rural, Underserved Communities in the Black Belt Region of Alabama: A Resource for Local Stakeholders

   Summary: This 28-slide presentation from NOWRA's 2022 Onsite Wastewater Mega-Conference provides an overview of wastewater management challenges in the Black Belt Region of Alabama where many residents have 'straight pipe' raw sewage discharge due to no sewer access, poverty, and unsuitable soil. The presentation also highlights the barriers to addressing wastewater issues in small communities, wastewater collection strategies (traditional municipal systems, onsite systems, cluster systems), management options, funding sources, and community education and outreach methods. Several slides provides more information on decentralized cluster systems and shares the costs per connection and the different clusters system approaches including STEP (Septic Tank Effluent Pump) and STEG (Septic Tank Effluent Gravity).

   Source: https://www.nowra.org/conference/mega-conference/2022-conference-proceedings/

   Host(s): National Onsite Wastewater Recycling Association

2. **Title:** "How-To" Guide for Wastewater Management of Rural, Underserved Communities in the Black Belt Region of Alabama: A Resource for Local Stakeholders

   Summary: This is a 28 page presentation is from NOWRA's 2022 Onsite Wastewater Mega-Conference. The presentation outlines approaches to address

Resource Library

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1. **Title:** A Guide to Community Septic Systems

   Summary: This 11-page handbook discusses information on subdivision planning, conditions of approval, soil and site requirements, and miscellaneous requirements. This handbook includes references and contact information as well.

   Source:

   Host(s): Idaho Department of Environmental Quality

2. **Title:** Alternative Collection System Manual

   Summary: This 104-page manual provides information and guidance on alternative wastewater collection systems, which have been developed to provide cost-effective solutions for wastewater collection and conveyance. Alternative collection systems have developed centered around changing the motive force (e.g. pumping) or changing the character of the wastewater collected so that construction and operating costs can be reduced. The most common alternatives used are pressurized sewers using septic tank effluent pumps (STEP) or low-pressure sewers (LPS), and septic tank effluent gravity (STEG) sewers that are small diameter sewers that convey septic tank effluent through a gravity sewer main.

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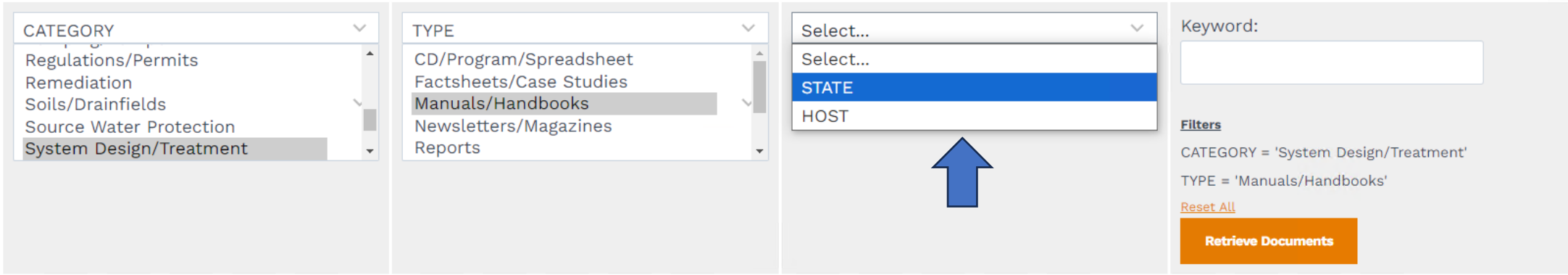

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11. **Title:** Manual for septic professionals in Minnesota

Summary: This 662-page manual provides guidance for onsite professionals (installers, designers, inspectors, maintainers, or service providers) in Minnesota. Originally developed in 1972 to serve as educational material for extension educators focused on sewage treatment, the manual continues to be updated with the latest information, rules, and regulations. The manual includes detailed information on the regulations involved with the design, installation, O&M of onsite systems, soil science basics, overview of a site evaluation process, understanding wastewater sources and characteristics, residential wastewater collection and plumbing, septic tank overview, tank and septage management, pumping systems, pretreatment units, effluent distribution, soil treatment systems, etc. The manual also features a chapter on reference materials such as formulas, conversion factors, loading rates, etc.

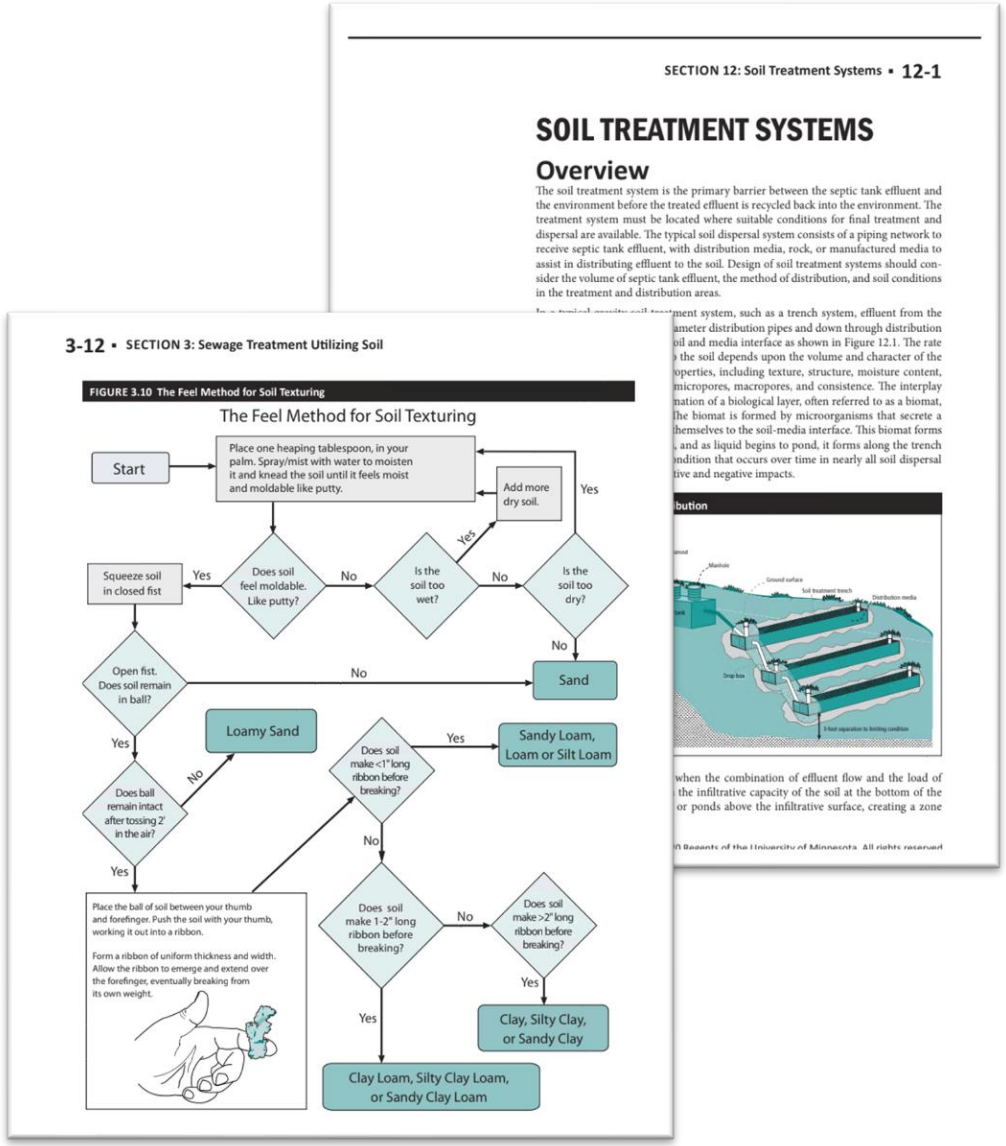
Source: https://septic.umn.edu/manual-professional

Host(s): University of Minnesota Onsite Sewage Treatment Program

Onsite Wastewater Manual

Manual for Septic Professionals in Minnesota

- 662-page manual from the University of Minnesota's Onsite Sewage Treatment Program.
- Provides guidance for onsite professionals including installers, designers, inspectors, maintainers, and service providers.
  - Developed in 1974
  - Updated in 2021 to include more information specific to requirements and conditions found in Minnesota.
- 14-chapters, covering topics including: treatment system design, wastewater plumbing, septic tank management, pumping systems, soil science, etc.
- Useful tables, figures, sketches, diagrams to help professionals visualize properly designed systems, ideal site conditions, operation and maintenance considerations and more.
- PDF's of individual chapters available. Chapter 13 includes useful tables to determine loading rates of absorption areas and list of useful mathematical equations and conversion factors.



https://septic.umn.edu/manual-professional

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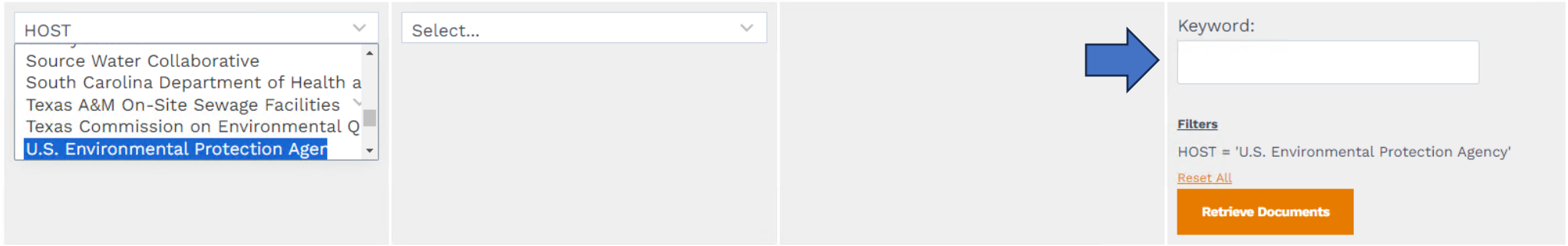

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1. **Title:** 2017 PISCES Recognition Program Compendium

   Summary: This 24-page report presents this year's PISCES projects in an annual compendium, with the hope that reading about successful projects will inspire continued success in the CWSRF.

   Source: https://www.epa.gov/cwsrf/cwsrf-2017-pisces-recognition-program-compendium

   Host(s): U.S. Environmental Protection Agency

2. **Title:** A Homeowner's Guide to Septic Systems

   Summary: This 6-page document is based off of the booklet "A Homeowner's Guide to Septic Systems." This short brochure describes how a septic system works and what a homeowner can do to help the system treat their wastewater efficiently. Readers will gain the knowledge necessary to maintain their septic system properly.

   Source: https://nepis.epa.gov/EPA/html/Pubs/pubalpha_H.html

   Host(s): U.S. Environmental Protection Agency

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South Carolina Department of Health a
Texas A&M On-Site Sewage Facilities
Texas Commission on Environmental Q
U.S. Environmental Protection Ager

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cluster systems

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HOST = 'U.S. Environmental Protection Agency'

Keyword = 'cluster systems'

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Retrieve Documents

Total Records:**8** - Showing Page: **1** of **1**

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1. **Title:** Case Studies of Economic Analysis and Community Decision Making for Decentralized Wastewater Systems

Summary: This 421-page report examines how communities consider and value the benefits and costs of different scale wastewater facility options (onsite, cluster, and centralized options) in monetary or other terms, and examines the driving issues, motivations, thought processes, and decision-making methods of stakeholders relative to choices of wastewater system scale. The report is intended to help communities facing wastewater system choices to better understand the implications of different options, so that communities can make better evaluations, and see how the decision process has played out in other communities, so that the process pitfalls encountered in some communities can be avoided, and the process successes of other communities emulated. The report is divided into two parts where part 1 of the report explains the research and presents its key findings (Chapters 1-5) and part 2 provides detailed case studies of how eight communities have managed wastewater planning issues (Chapters 6–13).

Source: https://www.epa.gov/septic/septic-systems-case-studies

Host(s): U.S. Environmental Protection Agency

the prevalence of decentralized systems and their historical background.

Source: https://www.epa.gov/septic/septic-systems-policy-and-regulations

Host(s): U.S. Environmental Protection Agency

5. **Title:** Design Manual Onsite Wastewater Treatment and Disposal Systems

Summary: This 409-page manual, intended for those involved in the design, construction, opera
systems, provides technical information on generic types of onsite wastewater treatm
strategies for selecting an onsite system, procedures for conducting a site evaluation
and disposal methods, discussion on appurtenances for onsite systems, an overview
on management of onsite systems.

Source: https://ordspub.epa.gov/ords/wfc/f?p=259:1::::::

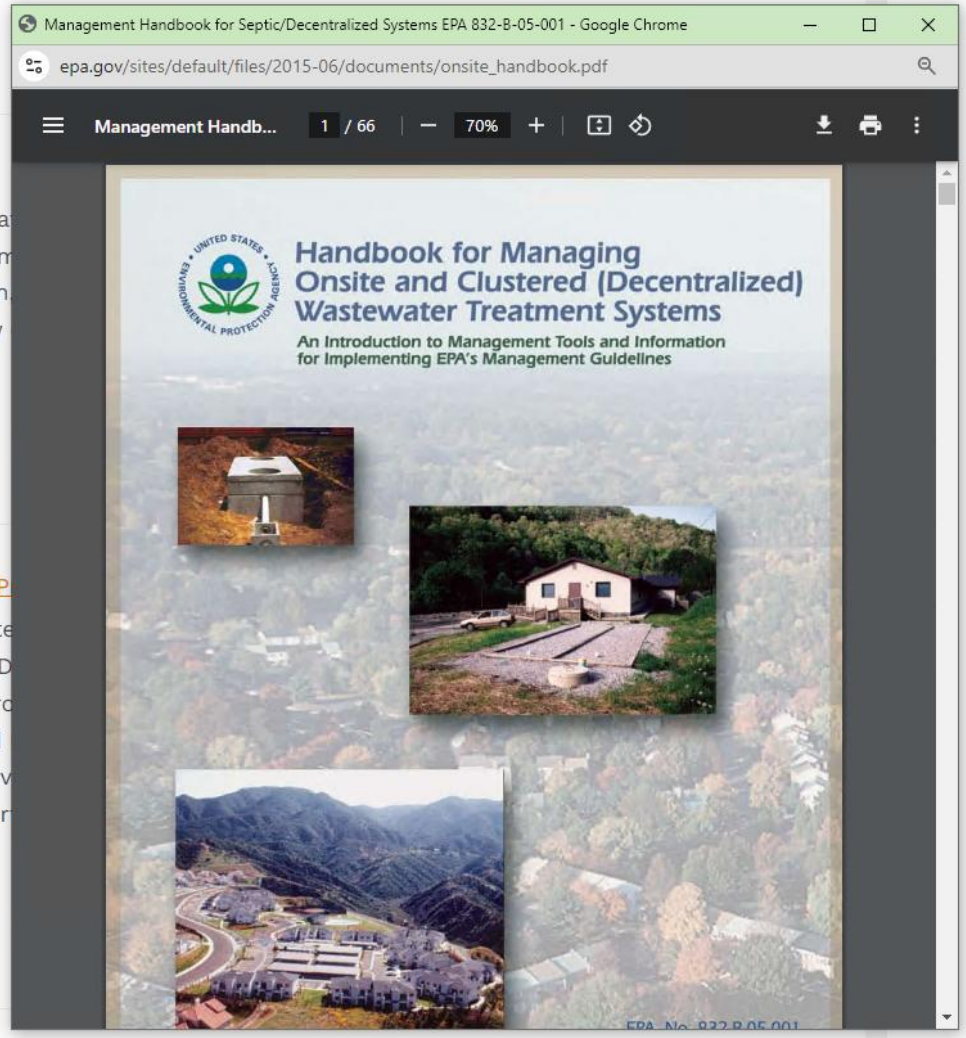
Host(s): U.S. Environmental Protection Agency

6. **Title:** Florida Department of Environmental Protection Onsite Sewage Programs Research P

Summary: The research program has many current and upcoming projects looking at how onsite
health and the environment. All documents are in the Portable Document Format (PD
Projects include: Data Analyses to Investigate the Fate and Transport of Pollutants fro
Soil and Shallow Groundwater (2022 - Ongoing); Performance Evaluation of Inground
Estimation of Failure or Non-Conformance Frequency of OSTDS (2019 - Ongoing); Dev
Remediation and Upgrade (2018 – Ongoing). Upcoming Research Projects include: Per
Treatment and Disposal Systems (OSTDS) in Florida.

Source: https://www.epa.gov/septic/septic-systems-demonstration-projects

Host(s): U.S. Environmental Protection Agency



7. **Title:** Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems

Summary: This 66-page handbook provides an overview of key considerations for developing or enhancing management programs for decentralized wastewater treatment systems. The handbook also provide an introduction to management tools and information for implementing EPA's management guidelines.

Source: https://www.epa.gov/septic/septic-systems-reports-regulations-guidance-and-manuals

Host(s): U.S. Environmental Protection Agency

Onsite Wastewater Management Handbook

Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems

- 66-page handbook from the USEPA for communities planning on implementing decentralized wastewater for long-term wastewater management.
- Provides a basic overview of the elements essential for proper management.
- Step-by-step process for developing a management plan.
- Includes list of factsheets and references covering topics such as:
  - Case studies
  - Public education
  - Financial assistance and funding
  - Alternative systems
  - System design
  - Inspection and monitoring, etc.

chapter 4

What is best for our community?

Developing or enhancing your program

This chapter discusses the development or enhancement of your decentralized wastewater management program based on 13 principal program elements (Figure 5 and Table 3; also see Appendix A for fact sheets on each of these elements.) Management programs typically support the twin goals of protecting human health and environmental resources. They might also influ-

Figure 5. *Decentralized wastewater management program elements*

Selecting a management approach

The EPA *Voluntary Management Guidelines* (see page 49, reference #4) detail

that respond to varying levels of risk posed by decentralized wastewater treatm

www.epa.gov/owm/onsite). These conceptual models represent a range of poss

water quality and public health concerns or local wastewater infrastructure nee

Figure 6. *Using risk inputs to select a management model*

18 Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Trea

appendix B

Financial Assistance/Funding Documents

8. Funding Decentralized Wastewater Systems Using the Clean Water State Revolving Fund.
This fact sheet explains the Clean Water State Revolving Fund and the types of activities that can be funded. It can be downloaded from http://www.epa.gov/owm/cwfinance/cwsrf/factsheets.htm#Decentralized

9. Valuing Decentralized Wastewater Technologies A Catalog of Benefits, Costs, and Economic Analysis Techniques.
Presents a "catalog" of the economic advantages and disadvantages of decentralized wastewater systems relative to larger scale, centralized solutions. It also discusses techniques that can be used to place economic values on positive and negative impacts brought about by a community's choice of a wastewater system. Visit http://www.rmi.org/images/other/Water/W04-21_ValuingDecentralizedWastewater to download the report.

10. National Decentralized Water Resources Capacity Development Project Case Studies of Economic Analysis and Community Decision Making for Decentralized Wastewater Systems.
This report examines how communities consider and value the benefits and costs of different scale wastewater facility options (onsite, cluster, and centralized options) in monetary or other terms, and examines the driving issues, motivations, thought processes, and decision-making methods of stakeholders relative to choices of wastewater system scale. Case study communities are included. Visit http://www.rmi.org/rmi/Library/W04-20_EconomicAnalysisCommunityDecisionMaking to download the report.

11. Rural Empowerment Zone and Economic Community Program.
The road to economic opportunity and community development starts with broad participation by all segments of the community. This Website provides information on how to involve the community and develop a strategic plan. Visit http://www.ezec.gov/index.html

12. PENNVEST Onlot Sewage Disposal Funds
PENNVEST was established in 1988 to help provide more than $2.5 billion for improvements in Pennsylvania's drinking water, sewer and stormwater systems. PENNVEST provides Low-cost financing for wastewater systems across the Commonwealth. See the PENNVEST Website http://www.pennvest.state.pa.us/ or go directly to http://www.pennvest.state.pa.us/portal/server.pt/community/programs/9322

13. Community Onsite System Management Program.
Provides tools to help communities regulate and manage on-site systems. See Website http://www.mass.gov/dep/water/wastewater/onsite.htm

14. Potential Roles for Clean Water State Revolving Fund Programs in Smart Growth Initiatives.
The CWSRF is a widely available financing source used to fund municipal wastewater treatment projects as well as nonpoint source pollution control and estuary protection projects. See Website http://www.epa.gov/owmitnet/cwfinance/cwsrf/smartgro.pdf

15. Onsite Wastewater Management: Cost and Financing
Several approaches are being used to collect the funds necessary to maintain an onsite wastewater management system. Visit http://ohioline.osu.edu/aex-fact/0751.html to view this fact sheet.

Planning/Decision-Making Resources

16. Building Our Future: A Handbook to Community Visioning.
This manual provides community residents with a process for planning for their mutual future. It can be downloaded from http://dnr.wi.gov/org/es/science/landuse/data_wkshp/future.pdf

https://www.epa.gov/septic/septic-systems-reports-regulations-guidance-and-manuals

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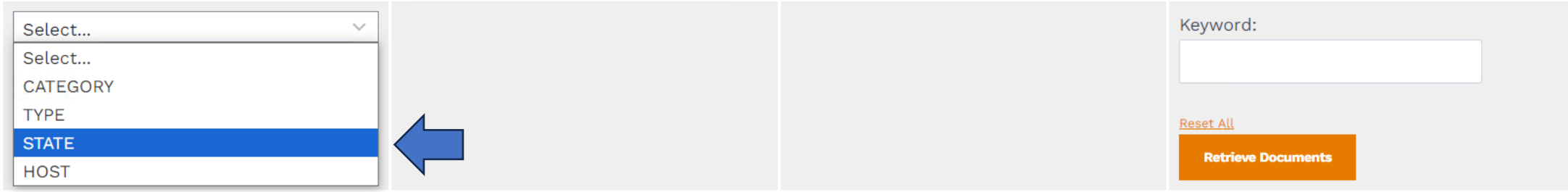

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STATE

Tennessee
Texas
Vermont
Virginia
Washington

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Total Records:**14** - Showing Page: **1** of **2**
First | Previous Page | Next Page | Last

1. **Title:** "More Than Just Dirty" Pathogen Exposures to Workers in the On-Site Industry

Summary: This 107-slide presentation provides research results on a study conducted to examine pathog
industry, discuss the various types of pathogen exposures and health impacts, what kind of pe
to on-site workers, and basic hygiene practices to reduce risks from handling human waste.

Source: https://www.nawt.org/covid_19.html

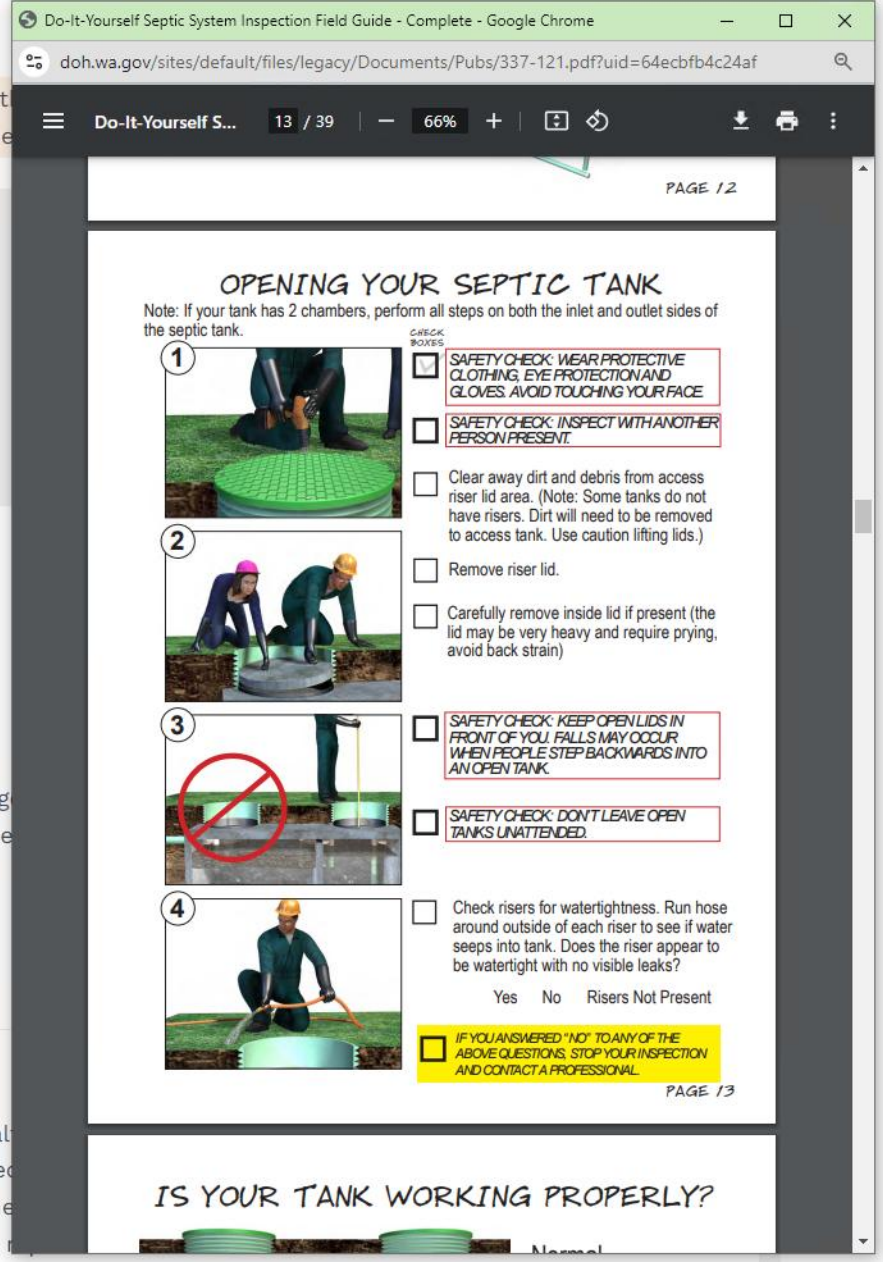
Host(s): Washington Onsite Sewage Association

2. **Title:** Do-It-Yourself Septic System Inspection Field Guide

Summary: This 39 page field guide intended for homeowners is from the Washington Department of Heal
Yourself" (DIY) septic system inspection video and is to be used after viewing the video. Homec
during the inspection of their septic system. Checklists are provided in the guide to help home
Once the inspection process is complete, homeowners can use the field guide's checklists to
department.

Source: https://doh.wa.gov/community-and-environment/wastewater-management/septic-system/do-it-yourself-inspection-video

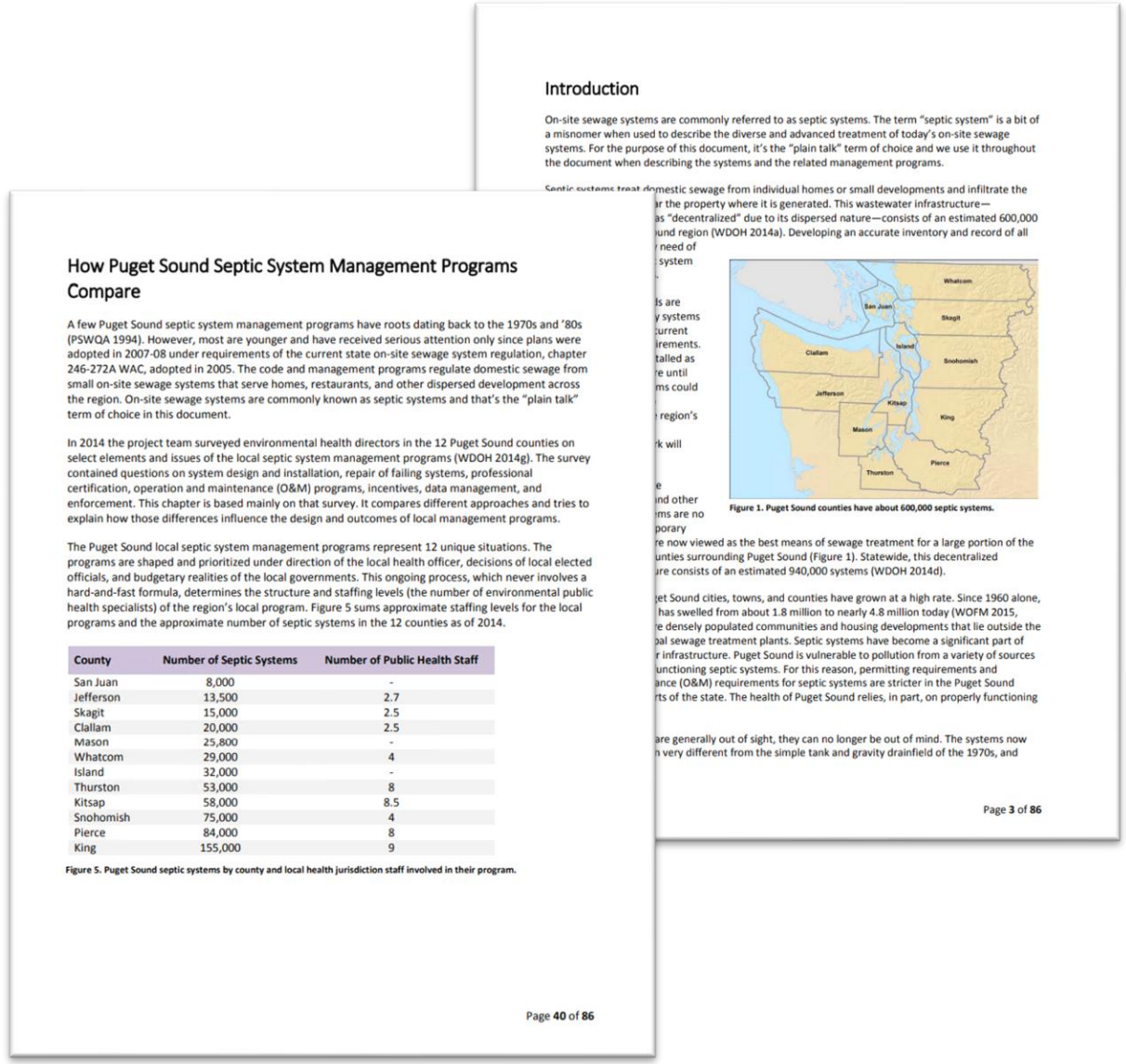
Host(s): Washington State Department of Health



Onsite Wastewater Management Manual

Puget Sound Septic System Management Programs

- 89-page guidance manual from the WA DOH which discuses the many issues and challenges associated with the local wastewater management programs and compares the approaches used across the Puget Sound Region.
- Provides the fundamentals of a septic system management program and how best to gain public support.
- Includes a chapter highlighting the roles of service providers, their challenges in working in multiple local health districts, certification requirements, data management, best practices, etc.



Introduction

On-site sewage systems are commonly referred to as septic systems. The term "septic system" is a bit of a misnomer when used to describe the diverse and advanced treatment of today's on-site sewage systems. For the purpose of this document, it's the "plain talk" term of choice and we use it throughout the document when describing the systems and the related management programs.

Septic systems treat domestic sewage from individual homes or small developments and infiltrate the ...r the property where it is generated. This wastewater infrastructure— ...as "decentralized" due to its dispersed nature—consists of an estimated 600,000 ...und region (WDOH 2014a). Developing an accurate inventory and record of all ... need of ... system ... ...ls are ...y systems ...current ...irements. ...talled as ...e until ...ms could ... ...region's ...k will ... ...ind other ...ms are no ...porary ...re now viewed as the best means of sewage treatment for a large portion of the ...unties surrounding Puget Sound (Figure 1). Statewide, this decentralized ...re consists of an estimated 940,000 systems (WDOH 2014d).

...et Sound cities, towns, and counties have grown at a high rate. Since 1960 alone, ... has swelled from about 1.8 million to nearly 4.8 million today (WOFM 2015, ...e densely populated communities and housing developments that lie outside the ...al sewage treatment plants. Septic systems have become a significant part of ...r infrastructure. Puget Sound is vulnerable to pollution from a variety of sources ...unctioning septic systems. For this reason, permitting requirements and ...ance (O&M) requirements for septic systems are stricter in the Puget Sound ...rts of the state. The health of Puget Sound relies, in part, on properly functioning

...are generally out of sight, they can no longer be out of mind. The systems now ...n very different from the simple tank and gravity drainfield of the 1970s, and

Figure 1. Puget Sound counties have about 600,000 septic systems.

How Puget Sound Septic System Management Programs Compare

A few Puget Sound septic system management programs have roots dating back to the 1970s and '80s (PSWQA 1994). However, most are younger and have received serious attention only since plans were adopted in 2007-08 under requirements of the current state on-site sewage system regulation, chapter 246-272A WAC, adopted in 2005. The code and management programs regulate domestic sewage from small on-site sewage systems that serve homes, restaurants, and other dispersed development across the region. On-site sewage systems are commonly known as septic systems and that's the "plain talk" term of choice in this document.

In 2014 the project team surveyed environmental health directors in the 12 Puget Sound counties on select elements and issues of the local septic system management programs (WDOH 2014g). The survey contained questions on system design and installation, repair of failing systems, professional certification, operation and maintenance (O&M) programs, incentives, data management, and enforcement. This chapter is based mainly on that survey. It compares different approaches and tries to explain how those differences influence the design and outcomes of local management programs.

The Puget Sound local septic system management programs represent 12 unique situations. The programs are shaped and prioritized under direction of the local health officer, decisions of local elected officials, and budgetary realities of the local governments. This ongoing process, which never involves a hard-and-fast formula, determines the structure and staffing levels (the number of environmental public health specialists) of the region's local program. Figure 5 sums approximate staffing levels for the local programs and the approximate number of septic systems in the 12 counties as of 2014.

County	Number of Septic Systems	Number of Public Health Staff
San Juan	8,000	-
Jefferson	13,500	2.7
Skagit	15,000	2.5
Clallam	20,000	2.5
Mason	25,800	-
Whatcom	29,000	4
Island	32,000	-
Thurston	53,000	8
Kitsap	58,000	8.5
Snohomish	75,000	4
Pierce	84,000	8
King	155,000	9

Figure 5. Puget Sound septic systems by county and local health jurisdiction staff involved in their program.

https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs//332-166.pdf

Resource Library

Instructions: Select one or more filter criteria and then click the "Retrieve Documents" button.

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HOST

Iowa Department of Natural Resources
Iowa Onsite Waste Water Association
Kentucky Department for Environmenta
Maryland Department of the Environme
Massachusetts Department of Envi
Michigan Department of Environment (

Select...

Keyword:

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HOST = 'Massachusetts Department of Environmental Protection'

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Retrieve Documents

Total Records:**23** - Showing Page: **1** of **3**

First | Previous Page | Next Page | Last

1. **Title:** Advanced Enviro-Septic Wastewater Treatment System

Summary: The Advanced Enviro-Septic System (the 'System' or 'AES') is an alternative subsurface Soil Absorption System (SAS) that replaces a conventional SAS designed in accordance with 310 CMR 15.000. A soil absorption system filters and treats the septic tank effluent before it enters the groundwater. The system passively creates a powerful biological ecosystem that continually digests organic matter in wastewater. Each unit of pipe is 10 feet long and has an outside diameter of 12 inches. AES also features the Bio-Accelerator® fabric, which speeds the development of the biomat and allows for distribution of wastewater along the entire length of the pipes. The AES treatment system has been proven to remove up to 99% of wastewater impurities without the need for electricity or replacement media. This innovative/alternative onsite wastewater system technology is approved under MassDEP's Title 5 Regulations that can be found at: https://www.mass.gov/guides/approved-title-5-innovativealternative-technologies.

Source: https://www.masstc.org/technologies

Host(s): Massachusetts Department of Environmental Protection

Host(s): Massachusetts Department of Environmental Protection

3. **Title:** Aerobic Recovery System/Aero-Stream Aerobic Septic System R

Summary: The Aero-Stream Aerobic Septic System Restoration Process (Sy
reduce the strength of the wastewater received by the existing s
be pumped to remove settled solids. Aerobic treatment is estab
The aerator mixes the contents of the septic tank with the bact
of the wastewater in the septic tank. The aerated effluent from
the SAS, thereby improving the soil absorption capacity. This inn
MassDEP's Title 5 Regulations that can be found at: https://www

Source: https://www.masstc.org/technologies

Host(s): Massachusetts Department of Environmental Protection

4. **Title:** Anua PuraSys SBR/ Puraflo Peat Fiber System

Summary: The combination PuraSys SBR/Puraflo Peat Fiber Biofilter Syster
when soil or site conditions make conventional soil absorption s
secondary treatment system is periodically pumped at set inter
polished effluent flows to a gravel bed. This innovative/alternati
Regulations that can be found at: https://www.mass.gov/guides/

Source: https://www.masstc.org/technologies

Host(s): Massachusetts Department of Environmental Protection

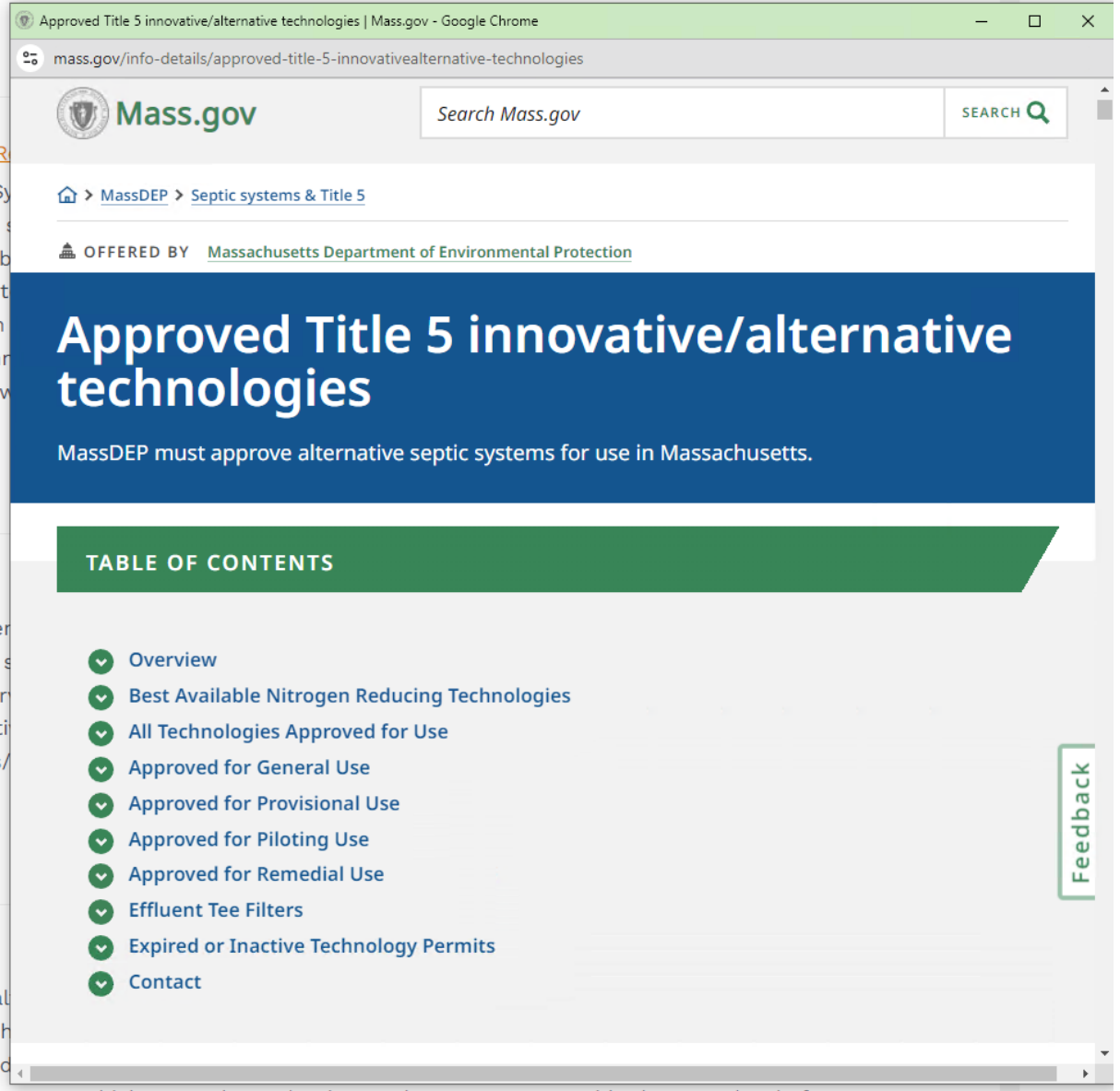
5. **Title:** Approved Title 5 innovative/alternative technologies

Summary: This webpage provides a list of MassDEP approved innovative/al
There are 4 categories of approvals. General use systems, which
conventional onsite system. Piloted systems which are intended
technology can or cannot function effectively. Provisional use systems which are under evaluation as they appear to provide the same level of protection as standard systems. Remedial use systems which improve existing conditions at a particular facility served by a failing system.

Source: https://www.mass.gov/septic-systems-title-5

Host(s): Massachusetts Department of Environmental Protection

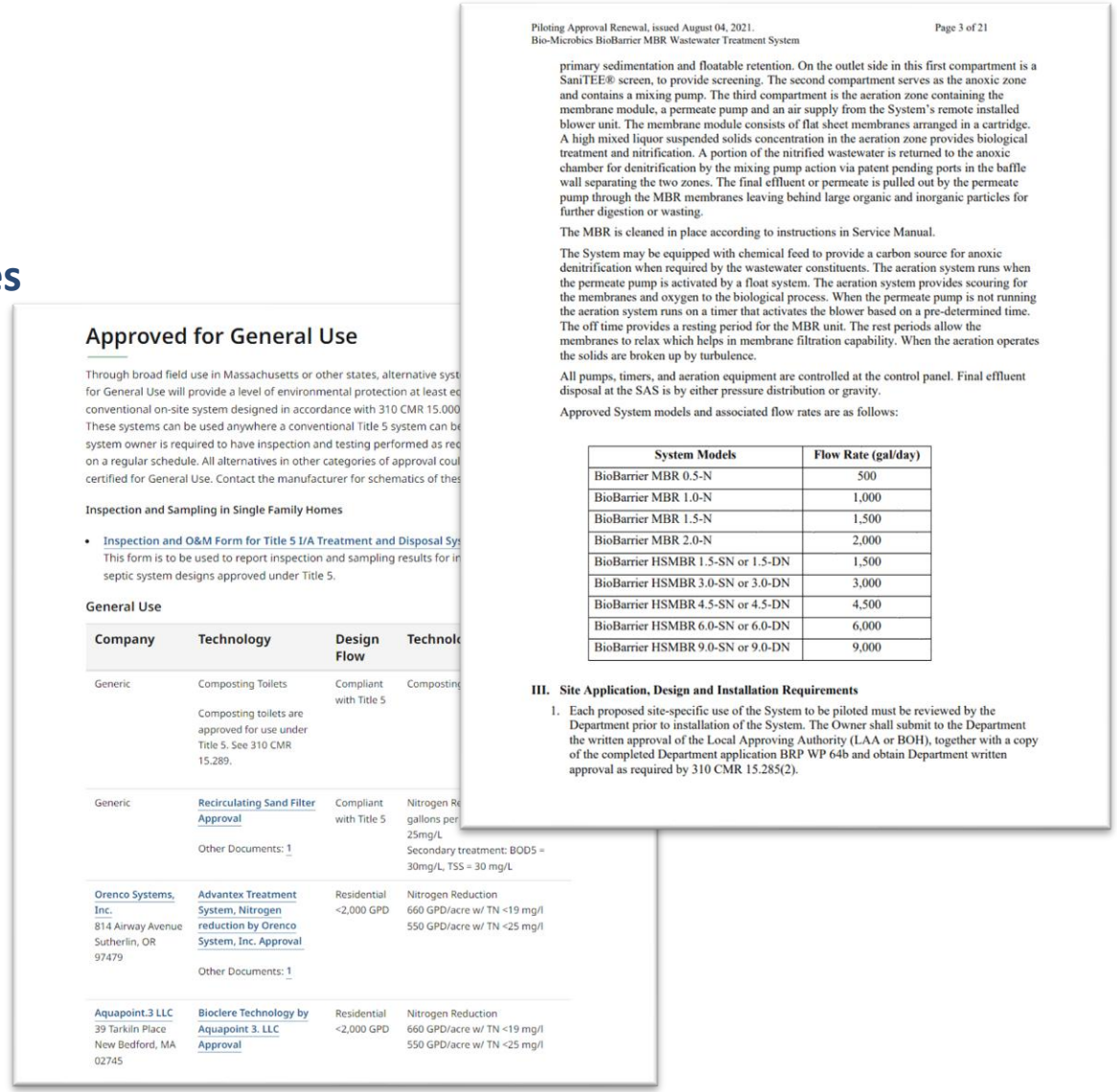
6. **Title:** Aquapoint Bioclere System



Innovative/Alternative System Resources

MassDEP – Approved Title 5 Innovative/Alternative Technologies

- Title 5 regulations govern the design, installation, and maintenance of septic systems in Massachusetts.
- Innovative/alternative septic-system technologies must be approved by the agency before it can be used.
- List of technologies currently approved for general use, pilot testing, provisional use, and remedial use.
- Each technology is accompanied with individual factsheets which provide information on design standards, O&M, inspection, etc.



Approved for General Use

Through broad field use in Massachusetts or other states, alternative syst
for General Use will provide a level of environmental protection at least eq
conventional on-site system designed in accordance with 310 CMR 15.000
These systems can be used anywhere a conventional Title 5 system can be
system owner is required to have inspection and testing performed as req
on a regular schedule. All alternatives in other categories of approval coul
certified for General Use. Contact the manufacturer for schematics of thes

Inspection and Sampling in Single Family Homes

- Inspection and O&M Form for Title 5 I/A Treatment and Disposal Sy
  This form is to be used to report inspection and sampling results for in
  septic system designs approved under Title 5.

General Use

Company	Technology	Design Flow	Technol
Generic	Composting Toilets Composting toilets are approved for use under Title 5. See 310 CMR 15.289.	Compliant with Title 5	Composting
Generic	Recirculating Sand Filter Approval Other Documents: 1	Compliant with Title 5	Nitrogen Re gallons per 25mg/L Secondary treatment: BOD5 = 30mg/L, TSS = 30 mg/L
Orenco Systems, Inc. 814 Airway Avenue Sutherlin, OR 97479	Advantex Treatment System, Nitrogen reduction by Orenco System, Inc. Approval Other Documents: 1	Residential <2,000 GPD	Nitrogen Reduction 660 GPD/acre w/ TN <19 mg/l 550 GPD/acre w/ TN <25 mg/l
Aquapoint.3 LLC 39 Tarkiln Place New Bedford, MA 02745	Bioclere Technology by Aquapoint 3. LLC Approval	Residential <2,000 GPD	Nitrogen Reduction 660 GPD/acre w/ TN <19 mg/l 550 GPD/acre w/ TN <25 mg/l

Piloting Approval Renewal, issued August 04, 2021. Page 3 of 21
Bio-Microbics BioBarrier MBR Wastewater Treatment System

primary sedimentation and floatable retention. On the outlet side in this first compartment is a SaniTEE® screen, to provide screening. The second compartment serves as the anoxic zone and contains a mixing pump. The third compartment is the aeration zone containing the membrane module, a permeate pump and an air supply from the System's remote installed blower unit. The membrane module consists of flat sheet membranes arranged in a cartridge. A high mixed liquor suspended solids concentration in the aeration zone provides biological treatment and nitrification. A portion of the nitrified wastewater is returned to the anoxic chamber for denitrification by the mixing pump action via patent pending ports in the baffle wall separating the two zones. The final effluent or permeate is pulled out by the permeate pump through the MBR membranes leaving behind large organic and inorganic particles for further digestion or wasting.

The MBR is cleaned in place according to instructions in Service Manual.

The System may be equipped with chemical feed to provide a carbon source for anoxic denitrification when required by the wastewater constituents. The aeration system runs when the permeate pump is activated by a float system. The aeration system provides scouring for the membranes and oxygen to the biological process. When the permeate pump is not running the aeration system runs on a timer that activates the blower based on a pre-determined time. The off time provides a resting period for the MBR unit. The rest periods allow the membranes to relax which helps in membrane filtration capability. When the aeration operates the solids are broken up by turbulence.

All pumps, timers, and aeration equipment are controlled at the control panel. Final effluent disposal at the SAS is by either pressure distribution or gravity.

Approved System models and associated flow rates are as follows:

System Models	Flow Rate (gal/day)
BioBarrier MBR 0.5-N	500
BioBarrier MBR 1.0-N	1,000
BioBarrier MBR 1.5-N	1,500
BioBarrier MBR 2.0-N	2,000
BioBarrier HSMBR 1.5-SN or 1.5-DN	1,500
BioBarrier HSMBR 3.0-SN or 3.0-DN	3,000
BioBarrier HSMBR 4.5-SN or 4.5-DN	4,500
BioBarrier HSMBR 6.0-SN or 6.0-DN	6,000
BioBarrier HSMBR 9.0-SN or 9.0-DN	9,000

III. Site Application, Design and Installation Requirements

1. Each proposed site-specific use of the System to be piloted must be reviewed by the Department prior to installation of the System. The Owner shall submit to the Department the written approval of the Local Approving Authority (LAA or BOH), together with a copy of the completed Department application BRP WP 64b and obtain Department written approval as required by 310 CMR 15.285(2).

https://www.mass.gov/guides/approved-title-5-innovativealternative-technologies

Events Calendar

Event Calendar

Instructions: To view events, select one or more filter criteria and/or enter a keyword (press the 'Go' button to apply a keyword filter). Then, click on an event to see details.

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1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

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Select...
- Select...
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- TYPE
- STATE
- SPONSOR

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STATE

Oklahoma
Oregon
Pennsylvania
Rhode Island
Texas

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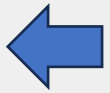

Previous

October 2024

Next

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2 TEEX OSSF - Homeowner Aerobic Treatment & Surface Appl. System Op and Maint - 10/2	3	4	5
6	7 TEEX OSSF - Onsite Installer I - 10/7 HAC Water Utility Safety	8 ETS Electrical Wiring and Connections - 10/8	9 TEEX OSSF - Onsite Installer II - 10/9	10 TXOWA Onsite Basic Maintenance Provider Course - October	11	12
13	14	15 ETS Installation, Operation & Maintenance of Subsurface Drip Disposal Systems - 10/15	16 PER OSSF Refresher Class - 10/16	17	18 HAC Confined Space Awareness PER OSSF Refresher Class - 10/18	19
20	21 PER OSSF Refresher Class - 10/21	22 ETS Troubleshooting & Repair of Aerobic Treatment Units, Electrical Controls, Spray or Drip Disposal - 10/22	23 PER OSSF Refresher Class - 10/23	24	25	26
27	28	29	30	31		

Event Calendar

Event List - Google Chrome

events.decentralizedwastewater.org/calendar_list2_dwo.aspx?f1=STATE&fv1=Texas&f2=Select...&fv2=&f3=&fv3=...

City: Carrollton
State: Texas

10/08/2024 **Title:** ETS Electrical Wiring and Connections - 10/8
Sponsor(s): Environmental Training Systems

City: Live Online
State:

10/09/2024 **Title:** TEEX OSSF - Onsite Installer II - 10/9
Sponsor(s): Texas Engineering Extension Service

City: Bryan
State: Texas

10/10/2024 **Title:** TXOWA Onsite Basic Maintenance Provider Course - October
Sponsor(s): Texas Onsite Wastewater Association

City: San Marcos
State: Texas

10/11/2024 **Title:** HAC Confined Space Awareness
Sponsor(s): Hardin Associates & Consulting

City: Carrollton
State: Texas

10/15/2024 **Title:** ETS Installation, Operation & Maintenance of Subsurface Drip Disposal Systems - 10/15

a keyword filter). Then, click on an event to see details.

ould be featured, email us at info@decentralizedwastewater.org and we will take a look! Also,

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STATE = 'Texas'

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Thu	Fri	Sat
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10 TXOWA Onsite Basic Maintenance Provider Course - October	11 HAC Confined Space Awareness	12
17	18 PER OSSF Refresher Class - 10/18	19
24 ETS Troubleshooting & Repair of Aerobic Treatment Units - 10/24	25	26 ETS Troubleshooting & Repair of Aerobic Treatment Units - 10/26
31		

Event Details - Google Chrome

events.decentralizedwastewater.org/calendar_detail2.aspx?ID=224021

TXOWA Onsite Basic Maintenance Provider Course - October

Start Date: 10/10/2024
End Date: 10/11/2024
City: San Marcos
State: Texas
Location: Embassy Suites San Marcos
Start Time: 8:00 AM

Event Info: https://txowa.org/calendar-of-events/
For More Info: https://towa21.wufoo.com/forms/zrlj1hw0uv8yvd/

Details: This introductory Basic Maintenance Provider course can earn you 16 CEU hours toward all current OSSF licenses, even if you have taken the course in previous years. The course is two days, but if you need only 8 hours, the first day of the course may be taken.

Costs: $355 for Certification course OR 16 hour Continuing Education course, $175 for 8 hour Continuing Education course

Contact Information

Name: Emma Alvarado
Phone: *Not Specified*
Email: emmaalvarado8815@gmail.com

Sponsor(s): Texas Onsite Wastewater Association
Fee: $355.00

Continuing Education

Event Credit: 16 CEU
Accepted in: Texas

dar

a keyword filter). Then, click on an event to see details.

ould be featured, email us at info@decentralizedwastewater.org and we will take a look! Also,

Keyword: Go

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STATE = 'Texas'

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Thu	Fri	Sat
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10 TXOWA Onsite Basic Maintenance Provider Course - October	11 HAC Confined Space Awareness	12
17	18 PER OSSF Refresher Class - 10/18	19
24 ETS Troubleshooting & Repair of Aerobic Treatment Units - 10/24	25	26 ETS Troubleshooting & Repair of Aerobic Treatment Units - 10/26
31		

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- conference/symposium
- seminar/meeting
- training/workshop
- webinar/live online

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3	4	5	6	7 ETS Electrical Wiring and Connections - 11/7	8	9
10	11	12 WOWRA POWTS Evaluator Certification Training ETS Installation, Operation & Maintenance Subsurface Drip Disposal Systems - 11/12	13 IWT Specifying Solutions: A Guide to Wastewater Treatment Design and Product Choice	14	15	16
17	18 TEEX Water Utilities Safety	19 ETS Troubleshooting & Repair of Aerobic Treatment Units, Electrical Controls, Spray or Drip Disposal - 11/19	20	21 CPOW NAWT Online Onsite O&M 1	22	23
24	25	26 ILICA Private Sewage Disposal Contractor Virtual Training - 11/26	27	28	29	30

Event Calendar

Event Details - Google Chrome

https://events.decentralizedwastewater.org/calendar_detail2.aspx?ID=225279

IWT Specifying Solutions: A Guide to Wastewater Treatment Design and Product Choice

Start Date: 11/13/2024
End Date: *One Day Event*
City: Live Online
State: *Not Specified*
Location: Eastern Daylight Time
Start Time: 1:00 PM

Event Info: https://www.infiltratorwater.com/webinars/2024/11/13/specifying-solutions-a-guide-to-wastewater-treatment-design-and-product-choice/
For More Info: *Not Specified*

Details: This is a free live webinar hosted by Infiltrator Water Technologies. In this day and age, there are a multitude of products and technologies to specify from in the Onsite Wastewater Industry. The right system and components can improve system performance and function, reduce the cost to the customer, reduce operation and maintenance, and possibly reduce the overall system footprint. An understanding of the project site conditions is instrumental in making the best choice possible. This presentation will cover the design of onsite wastewater systems from the evaluation of these site conditions, to the available products and technologies, to the design itself.

Attendance approved for 1 credit hour by the following states/organizations/licenses:

- Florida - Florida Professional Engineers
- Georgia - REHS
- IOWWA - CIOWTS
- Maine - Local Plumbing Inspectors, Site Evaluator, Voluntary Certification for On-Site System Contractors
- Nebraska - Onsite Wastewater System Contractors
- New Hampshire - Designers & Installers
- New York - Land Surveyors, Professional Engineers

Contact Information

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By Laura Schultz • August 22, 2024

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By Laura Schultz • August 16, 2024

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HELPFUL INFORMATION

Getting Ready For SepticSmart Week 2024

By Laura Schultz • August 16, 2024

This year's SepticSmart Week is just one month away! The 12th annual celebration of the event will run from September 16-20, and provide the opportunity for communities, national organizations, local groups, and governments to come together to bring attention to the importance of caring for and maintaining septic systems through homeowner education and public outreach.

Remember, there are seven principles for homeowner septic care that the SepticSmart program works to share. You can find videos and other digital resources advertising these principles to share with homeowners in the links below!

1. **Think at the Sink!** What goes down the drain has a big impact on your septic system. Fats, grease, and solids can clog a system's pipes and drainfield.
2. **Don't Overload the Commode!** A toilet is not a trash can. Disposable diapers and wipes, feminine hygiene products, coffee grounds, cigarette butts, and cat litter can damage a septic system.
3. **Don't Strain Your Drain!** Use water efficiently and stagger use of water-based appliances. Too much water use at once can overload a system that hasn't been pumped recently.
4. **Shield Your Field!** Tree and shrub roots, cars, and livestock can damage your septic

DecentralizedWastewater.org Newsletter for June 2024

Technical Assistance Available at EPA

The "Closing America's Wastewater Access Gap" initiative at the EPA offers free technical assistance for communities with failing decentralized wastewater systems, or no existing wastewater systems at all. If your community or a community you know of needs assistance, you can request it **at this webform**.

Does your community have septic system or decentralized wastewater challenges?

- Do septic systems back up into homes or cause sewage to pool in yards?
- Does the town or country struggle to provide adequate sanitation services to its residents?
- Does the community struggle to rebuild damaged or non-functioning wastewater and septic systems?

More information **can be found here**. You can also email **SepticHelp@epa.gov** with questions.

Thanks for your time!

Hideyuki Terashima
(217) 300-7579
terashi1@Illinois.edu

Steven D. Wilson
(217) 333-0956
sdwilson@Illinois.edu