



New Technology Transfer Publications [use form in back to order]

Manuals

Process Design Manual for Land Application of Sewage Sludge and Domestic Septage (EPA/625/R-95/001)

Almost 33 percent of the 5.4 million dry metric tons of sewage sludge generated annually in the United States is land applied. Of the sewage sludge that is land applied, approximately 67 percent is land applied on agricultural lands, 3 percent on forest lands, approximately 9 percent on reclamation sites, 9 percent on public contact sites, and 12 percent is sold or given away. In addition, almost 8.6 billion gallons of domestic septage is generated annually. In 1993, the U.S. Environmental Protection Agency promulgated 40 CFR Part 503 to regulate the use and disposal of sewage sludge. The information in this manual is intended for use by municipal wastewater treatment and sludge management authorities, project planners and designers, regional, state, and local governments concerned with permitting and enforcement of federal sludge management regulations, and consultants in relevant disciplines such as engineering, soil science, and agronomy. The manual is intended to provide general guidance and basic information on the planning, design, and operation of sewage sludge land application projects for one or more of the following design practices:

- Agricultural land application (crop production, improvement of pasture and rangeland)
- Forest land application (increased tree growth) Land application at reclamation sites (mine spoils, construction sites, gravel pits)
- Land application at public contact sites (such as parks and golf courses, lawns, and home gardens.

The manual gives state-of-the art design information for the land application of sewage sludge.

Process Design Manual: Surface Disposal of Sewage Sludge and Domestic Septage (EPA/625/R-95/002)

Sewage sludge and domestic septage may be applied to the land as a soil conditioner and partial fertilizer, incinerated, or placed on land (surface disposal). Placement refers to the act of putting sewage sludge on an active sewage sludge unit (land on which only sewage sludge is placed for final disposal) at high rates for final disposal rather than using the organic content in the sewage sludge to condition the soil or using the nutrients in the sewage sludge to fertilize crops. This manual provides practical guidance on the surface disposal approach to managing sewage sludge and domestic septage. It

- Describes the various types of active sewage sludge units.
- Provides guidance in selecting the most appropriate type of active sewage sludge unit for a particular situation.
- Details the engineering aspects of designing and operating a surface disposal site.
- Describes the applicable federal regulations.

The manual is intended for owners and operators of surface disposal sites, municipal officials involved in sludge management, planners, design engineers, and regional, state, and local governments concerned with permitting and enforcement of federal sludge management regulations.

Seminar Publication

National Conference on Environmental Problem Solving with Geographic Information Systems (EPA/625/R-95/004)

This publication presents the technical papers presented at the National Conference on Environmental Problem Solving with Geographic Information Systems,



which was held in Cincinnati, Ohio, on September 21-23, 1994. The conference was a forum for over 450 environmental professionals to exchange information and approaches on how to use geographic information systems (GIS) to define, assess, and solve various types of environmental problems.

The papers presented in this publication have been organized by general topic area as follows:

- GIS Concepts
- · Groundwater Applications
- · Watershed Applications
- Wetlands Applications
- · Water Quality Applications
- Environmental Management Applications
- Other Applications of GIS

The purpose of this document is to share the information presented at the conference with individuals that were unable to attend. This document will be useful to individuals who are currently applying GIS to environmental situations or considering GIS for application in environmental problem solving. These individuals will include environmental regulatory personnel at the federal, state and local level; university professors, researchers and students; private sector personnel, including industry representatives and environmental consultants; and other interested persons. By sharing this information with a broader audience, it is hoped that the application of GIS to environmental problem solving will be conducted with a greater awareness of the power and limitations of this very useful tool.

Summary Report

Environmental Planning for Small Communities: A Guide for Local Decision-Makers (EPA/625/R-94/009)

EPA's Office of Research and Development in concert with the Office of Regional Operations and State/Local Relations announce the availability of a new publication for small communities.

Environmental Planning for Small Communities - A Guide for Local Decision-Makers presents a process for creating and implementing a community environmental plan. With a comprehensive environmental plan, local decision-makers can create an integrated approach to protecting the environment and meeting their community's needs. Planning ahead to solve environmental problems can especially help small communities that do not have the resources to meet all of the regulatory requirements at once. This approach will help the community prioritize

solutions to environmental problems and develop a strategy for regulatory compliance

- Chapter 1 introduces the goals of creating a plan and putting it into action.
- Chapter 2 describes how to build a planning team that can lead your community in creating its environmental plan.
- Chapter 3 explains the importance of developing a shared vision, or framework, for your community's future.
- Chapter 4 describes how to define your community's needs by determining the greatest problems facing your community's public health, environment, and quality of life; by determining which environmental regulations apply to your community; and by evaluating the effectiveness of your environmental facilities.
- Chapter 5 explains how to figure out which technologies and strategies can work in your community.
- Chapter 6 discusses how to weigh your community's needs and possible ways of meeting those needs to set priorities for action.
- Chapter 7 is about implementation: putting the plan into action, evaluating how well the plan works, and revising the plan as you need to.

This guide provides general information about environmental issues and offers suggestions for dealing with many of these issues. The reader will still have questions about what their community can and should do. Appendices are provided that include information on regulations, assessing risks, and where to turn for help.

With minimal exposure in the form of large conference distribution, about 3,000 copies have been distributed in seven months. This demand is significant in that it is by word-of-mouth only. The guide is being used as the primary resource document for a Region VIII pilot project in South Dakota for three small communities. These communities with the assistance of the regional Rural Community Assistance Project (RCAP) personnel are identifying and prioritizing their local environmental issues. Similar pilot projects are being conducted in Region X in the states of Idaho and Oregon.

The Decision-Makers Guide is also the cornerstone of several community-based environmental projects being proposed under the Environmental Technology Initiative and other Office of Research and Development initiatives.

Software

Municipal Solid Waste Options Software (SWOP) - REVISION

SWOP is a PC-based user-friendly planning tool developed to help the small community solid waste planner evaluate and select the major resource recovery options for diverting municipal solid wastes from landfills. The program provides technical details for solid waste management options and an estimation of the resultant effects and costs involved once a course of action is selected. This software enables analysis for an almost infinite variety of solid waste management options to select the optimum combination. SWOP is a useful starting point in understanding the solid waste decision-making process and optimizing integrated solid waste management activities.

SWOP was the focus of a CERI workshop series in 1992 and has been available as a downloadable file on the ORD Electronic Bulletin Board System. During 1995, some aspects of SWOP were enhanced to address comments received from users, including National Association of Counties, the U.S. Army Center for Public Works, small community service providers, and from EPA solid waste experts. The software and user documentation was extensively reviewed and modified.

The major areas of enhancement include the following:

- Addition of multiple neighborhoods (or districts) as part of communities and multiple communities as part of waste management districts.
- Review and expansion of the existing cost algorithms
- Full documentation of the modified program. Throughout the program a number of technical and economic assumptions are made for which default values are used in the program to calculate both sizes and costs. These default values are clearly defined along with full documentation of the software's logic approach.

Getting your free update of SWOP is easy. You can send a blank, high density 3.5" floppy diskette to

USEPA (CERI) 26 W. Martin Luther King Drive Cincinnati, OH 45268 Attn: SWOP

National Rural Water Association Wellhead Protection Program

The National Rural Water Association's (NRWA's) Wellhead Protection Program was implemented March 15, 1991, through 12 NRWA Member State Rural Water Associations covering 14 states. It is a cooperative effort between NRWA and the Environmental Protection Agency. The purpose of the program is to provide training and on-site assistance with small municipal water systems and rural communities in the design and implementation of ground water protection plans. There are currently 1,594 water systems actively participating in the program in 31 states representing a population of 2,840,988.

Formal training has been provided through a series of 70 technology transfer training sessions in 27 states. A centerpiece session is directed primarily at state and federal personnel, decision makers. and other association representatives to acquaint them with NRWA's program and begin a dialogue as to the future direction of the program in the state. Areawide sessions are presented in two other locations around the state. The target audience for these training sessions are water system personnel, other community officials, decision makers and consultants who will be directly involved in the development and implementation of wellhead protection plans.

The following is a tentative schedule of the upcoming technology transfer (one-day) sessions. For further information please call the respective state rural water association or contact Dr. Jim Smith in USEPA's National Risk Management Research Laboratory at 513-569-7355.

Louisiana

Nov. 27, 28, & 30; (318) 738-2896

Minnesota

Oct. 24, 25, & 27; (218) 865-5197

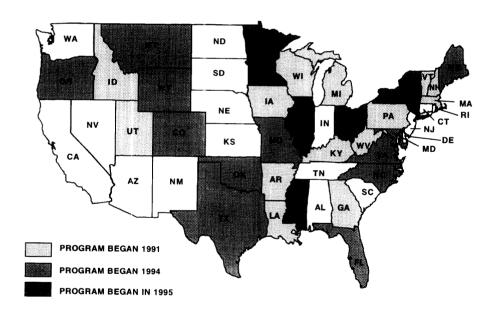
Mississippi

Oct. 18, 19, & 20; (601) 544-2735

Ohio

Oct. 18, 19, 24, & 25; (614) 871-2725

STATUS OF NRWA GROUND WATER PROGRAMS



Mine Drainage Workshop December 4-6, 1995 Cincinnati, Ohio

This workshop is being sponsored by Terrene Institute, USDA-NRCS, U.S. EPA and many other government and non-government organizations to address the water quality problems and the economic and social effects of mine drainage, including acid mine drainage. The goal of the workshop is to help participants understand the resources, approaches and programs that are available for building partnerships to address the many problems related to mine drainage.

This workshop is designed to build on the successes of the 1994 Acid Mine Drainage Workshop and will address a wide variety of topics, including the following:

- · historical perspectives;
- · partnership efforts;
- · industry successes;
- · legislative updates;
- · education and outreach;
- · technology transfer;
- · funding alternatives;
- · watershed associations; and
- · measuring success.

Participants in this workshop will include federal, state, and local government agency personnel; representatives of industry, coal mining coalitions, and academia; members of environmental, watershed and citizens groups; and other interested persons.

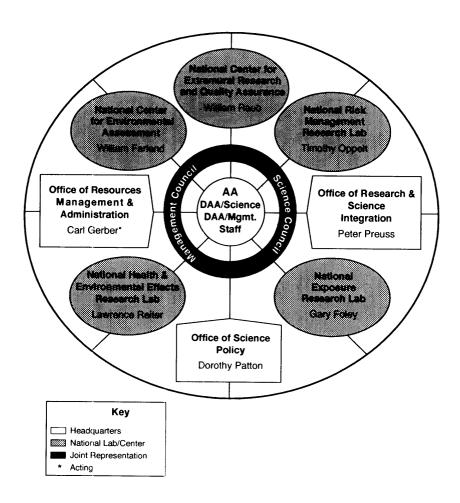
This workshop will be held at the Regal Cincinnati Hotel, which is located at 150 West Fifth Street, Cincinnati, Ohio. To receive additional information on registering for the workshop call Lisa Grayson, Terrene Institute, at 215-245-2219 (Fax - 215-245-2253).

EPA has established a database of GRITS/STAT users. The database will be used to notify GRITS/STAT users of updates to the software and potential problems and solutions encountered in using the software. If you have not already registered, send your name, organization, address, phone number, and fax number to the following address:

Mary Bitney ARTD/RPCS USEPA Region 7 726 Minnesota Avenue Kansas City, KS 66101

EPA is pleased to offer you software we feel will enable you to analyze technical data efficiently. Report problems encountered using the software to the Technical Support Line at 913–551–7074. We are currently improving the software and anticipate being able to offer Version 5.0 in the spring of 1996.

ORD Reorganization



U.S. EPA's Internet Access: HTTP://WWW.EPA.GOV

The EPA World Wide Web Server (WWW) is run as a prototype system to provide public access to EPA information. If you have any questions or problems with the WWW server, please feel free to use our on-line feedback form or send e-mail to internet-Support@unixmail.rtpnc.epa.gov. Information is available on the following subjects:

- · Press releases, calendars, announcements, speeches
- · EPA offices and regions
- Consumer information
- · EPA initiatives, policy, and strategy documents
- · Rules, regulations, and legislation
- EPA standards
- · Science, research, and technology
- · Information about grants, contracts (RFPs), and job vacancies
- · Newsletters and journals
- · Software and databases

The following programs have links to this EPA home page:

- Environmental Monitoring and Assessment Program (EMAP)
- Gulf of Mexico Program
- · National Estuaries Program
- Great Lakes Information Network
- Government Information Servers

Coming soon to the this home page:

· EPA's Office of Research and Development

TECHNOLOGY TRANSFER MATERIAL

MANUALS	
Phosphorus Removal (Sept. 1987)	
Land Treatment of Municipal Wastewater (Oct. 1981)	625/1-81/013
Supplement for Land Treatment of Municipal Wastewater (Oct. 1984)	. 625/1-81/013a
Dewatering Municipal Wastewater Sludges (Sept. 1987)	625/1-87/014
Land Application of Municipal Sludge (Oct. 1983)	
Odor and Corrosion Control in Sanitary Sewerage Systems and Treatment Plants (Oct. 1985)	
Municipal Wastewater Disinfection (Oct. 1986)	
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Ground Water and Leachate Treatment Systems (Jan. 1995)	625/R-94/005
◆ Process Design Manual for Land Application of Sewage Sludge and Domestic Septage	625/R-95/001
◆ Process Design Manual: Surface Disposal of Sewage Sludge and Domestic Septage	625/R-95/002
TECHNICAL CAPSULE REPORT Radon-Resistant Construction Techniques for New Residential Construction: Technical Guidance SEMINAR PUBLICATIONS	625/2-91/032
Permitting Hazardous Waste Incinerators	625/4-87/017
Meeting Hazardous Waste Requirements for Metal Finishers	
Transport and Fate of Contaminants in the Subsurface	
Corrective Actions - Technologies and Applications	
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Design and Construction of RCRA/CERCLA Final Covers	625/4-91/025
Site Characterization for Subsurface Remediation	625/4-91/026
Nonpoint Source Watershed Workshop	625/4-91/027
Medical and Institutional Waste Incineration: Regulations, Management, Technology, Emissions, and Operation	625/4-91/030
Control of Biofilm Growth in Drinking Water Distribution Systems	625/R-92/001
Organic Air Emissions from Waste Management Facilities	625/R-92/003
The National Rural Clean Water Program Symposium	625/R-92/006
RCRA Corrective Action Stabilization Technologies	625/R-92/014
Control of Lead and Copper in Drinking Water	625/R-93/001
Wellhead Protection: A Guide for Small Communities	625/R-93/002
Operational Parameters for Hazardous Waste Combustion Devices	625/R-93/008
Design, Operation, and Closure of Municipal Solid Waste Landfills	625/R-94/008
National Conference on Urban Runoff Management	625/R-95/003
◆ National Conference on Environmental Problem Solving with Geographic Information Systems	625/R-95/004
BROCHURES Environmental Pollution Control Alternatives: Drinking Water Treatment for Small Communities	625/5-90/025
Regional Environmental Monitoring and Assessment Program (R-EMAP)	
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HANDBOOKS	
Septage Treatment and Disposal (Oct. 1984)	625/6-84/009
Control Technologies for Hazardous Air Pollutants (July 1991)	625/6-91/014
Ground Water - Volume I (Sept. 1990)	625/6-90/016a
Ground Water - Volume II: Methodology (July 1991)	625/6-90/016b
Retrofitting POTWs for Phosphorus Removal in the Chesapeake Bay Drainage Area (Sept. 1987)	
Guide to Technical Resources for the Design of Land Disposal Facilities (Dec. 1988)	625/6-88/018
Guidance on Setting Permit Conditions and Reporting Trial Burn Results (Jan. 1989)	625/6-89/019
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Operation and Maintenance of Hospital Waste Incinerators (Jan. 1990)	625/6-89/024
Assessing the Geochemical Fate of Deep-Well Injected Hazardous Waste (June 1990)	
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Optimizing Water Treatment Plant Performance Using the Composite Correction Program Approach (Feb. 1	991) 625/6-91/027
Remediation of Contaminated Sediments (Apr. 1991)	
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Sewer System Infrastructure Analysis and Rehabilitation (Oct. 1991)	625/6-91/030
Materials Recovery Facilities for Municipal Solid Waste (Sept. 1991)	625/6-91/031
Vitrification Technologies for Treatment of Hazardous and Radioactive Waste (May 1992)	625/R-92/002
Control of Air Emissions from Superfund Sites	625/R-92/012
Subsurface Field Screening, Characterization and Monitoring Techniques: A Desk Reference Guide (Sept.	1993)
Volume I: Solids and Ground Water - Appendices A and B	625/R-93/003a
Volume II: The Vadose Zone, Field Screening and Analytical Methods - Appendices C and D	625/R-93/003b
Urban Runoff Pollution Prevention and Control Planning (Sept. 1993)	625/R-93/004
Use of Airborne, Surface and Borehole Geophysical Techniques at Contaminated Sites:	
A Reference Guide (Sept. 1993)	625/R-92/007
Control Techniques for Fugitive VOC Emissions from Chemical Process Facilities (March 1994)	625/R-93/005
Approaches for the Remediation of Federal Facility Sites Contaminated with Explosive or	
Radioactive Waste (Sept. 1993)	625/R-93/013
Ground Water and Wellhead Protection (May 1994)	625/R-94/001
Guide To Septage Treatment And Disposal (Oct. 1994)	625/R-94/002
GUIDES TO POLLUTION PREVENTION	
The Pesticide Formulating Industry (Feb. 1990)	625/7-90/004
The Faint Manufacturing Industry (June 1990)	625/7-90/005
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GRoundwater Information Tracking System with STATistical Analysis Capability (GRITS/STAT)	625/11-91/002
OTHER ORD BBS User's Manual (V 2.0)	600/M-91/050
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