EPA
United States
Environmental Protection
Agency

A Guide for New CUPSS Trainers

United States
Environmental Protection
Agency

Office of Water (4606M)
EPA 816-R-12-007
May 2012
www.epa.gov/safewater

Contents

1 OVERVIEW

1.1 ABOUT THIS GUIDE

This *Guide for New CUPSS Trainers* has been designed to educate trainers how to successfully introduce the CUPSS tool; a tool that will help users manage small drinking water and wastewater systems. This guide presents tips and techniques for successful CUPSS training, marketing strategies, marketing materials and training preparation assistance.

While this training guide primarily focuses on CUPSS, it can also complement many of the activities that should be conducted to promote asset management locally and around the country. EPA has developed a series of Simple Tools for Effective Performance (STEP) Guides, referenced in Appendix B, which provides much of the content that is used in CUPSS and could also be used to promote the development of effective asset management plans for small utilities.

1.2 WHAT IS CUPSS?

EPA developed CUPSS as a ***user-friendly*** desktop application to promote the integration of asset management activities into utility practices.

CUPSS leads users through a series of modules to collect information on the utility's assets, operation and maintenance activities and financial status to produce a prioritized asset inventory, financial reports and a customized asset management plan.

CUPSS will help water and wastewater utilities

- ✔ Support budget talks with solid facts
- ✔ Boost utility efficiency
- ✔ Save staff time
- ✔ Prepare an asset management plan in five steps
- ✔ Keep utility customers happy by ensuring continual service at competitive prices

Why Use Asset Management?

"We now think of asset management as nearly analogous to utility management."

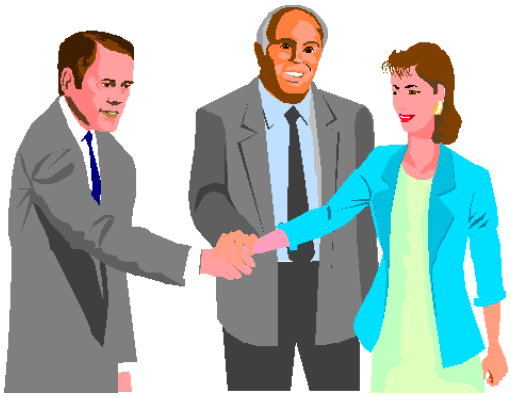
1.3 HOW WILL THIS GUIDE HELP TRAINERS?

This trainer's guide and associated training materials have been developed for potential CUPSS trainers. The goals of this guide are to

- ✔ Educate future trainers on possible marketing strategies and techniques to gain buy-in from decision makers and stakeholders on the adoption of asset management and the use of CUPSS.
- ✔ Provide examples and case studies of successful asset management implementation.

- ✔ Educate future trainers on the key features and benefits of asset management and CUPSS to potential users.
- ✔ Walk future trainers through activities to include in training events.

2 Public Relations



The marketing of CUPSS should be an iterative process that first involves creating awareness and understanding of CUPSS and its uses. The final stage is motivating utility managers to use the application to develop effective asset management plans.

This Public Relations section presents strategies and guided assistance in presenting information successfully to various audiences. Many sections of this guide have editable examples on the website (www.epa.gov/cupss/resources.htm#trainers), which allow trainers to tailor examples to their needs.

2.1 PROMOTION STRATEGIES

Successful promotion occurs when social marketing strategies are specifically geared to a target community. The decision makers, whether political or financial, must have information that clearly illustrates the benefits of using CUPSS for asset management.

Advertisements geared to general users and other trainers should illustrate the ease of the system, the financial benefits of an effective asset management system and the general benefits of incorporating CUPSS into the utility's overall management strategy.

Four major components should be addressed to establish a successful marketing campaign for CUPSS

- ✓ What are the goals and objectives?
- ✓ Who is the target audience?
- ✓ What are the recommended resources for CUPSS Training?
- ✓ How is success evaluated?

Benefits to the User Community

- Assist with collaboration and knowledge sharing
- Improve small utilities' sustainable management
- Assist in making informed decisions rather than crisis management
- Improve financial management decisions despite limited resources
- Encourage utilities to establish and maintain level of service
- Facilitate more efficient and focused utility performance
- Help utilities in the asset management process

WHAT ARE THE TRAINER'S GOALS AND OBJECTIVES?

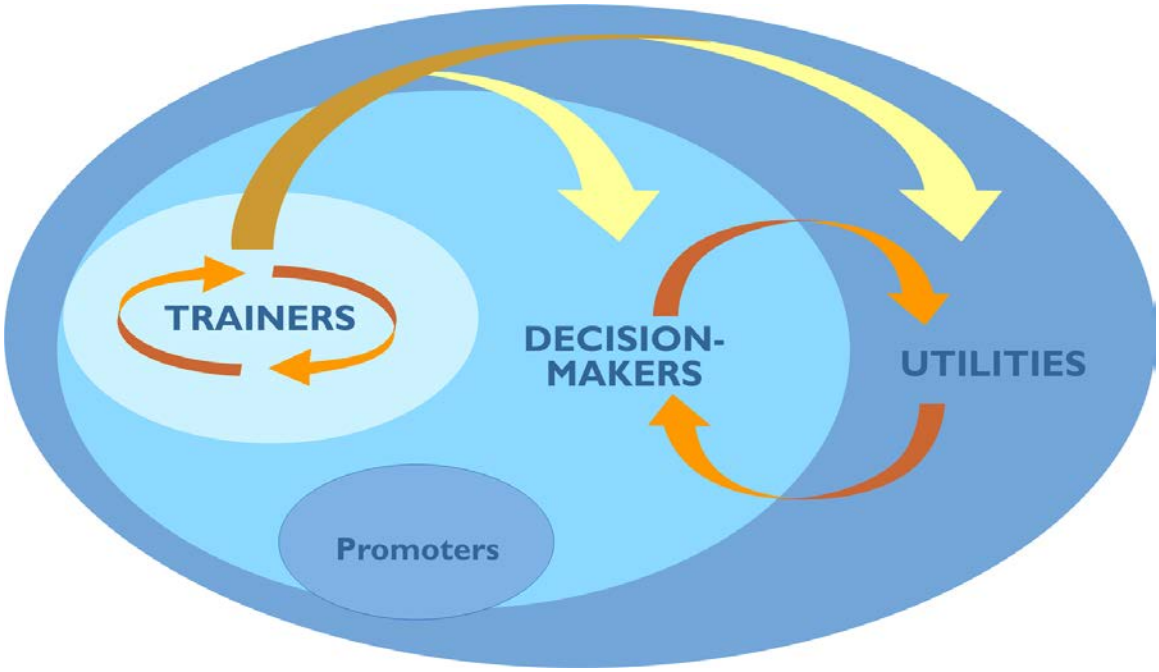
The goal is to show that CUPSS is easy to use and will help utility managers successfully administer a utility's assets. The following objectives will help with promoting CUPSS:

1. Conduct training and give demonstrations of CUPSS
2. Distribute electronic and hard-copy marketing materials that can be used to educate users on the availability of the tool
3. Publicize the availability of CUPSS through articles, e-mails, electronic distribution lists, conferences and newsletters
4. Conduct train-the-trainer workshops with state and local staff, to enable them to promote the tool

WHO IS THE TARGET AUDIENCE?

There are several audiences that should be targeted for successful adoption of CUPSS. These include the following:

- ✔ Users (small drinking water and wastewater utility owners and operators)
- ✔ Local decision makers (utility districts, town council members, mayors and other local government officials)
- ✔ Promoters (regulatory agencies, funding agencies and public utility commissions)
- ✔ Other trainers (state field staff, technical assistance providers and consultants)



Users

Utilities are targeted as both end-users for the tool and as potential resource partners that can help promote the availability and use of CUPSS to their peers. Stakeholder interviews conducted with representatives of utilities showed that some of the greatest challenges to utilities are:

- ✔ Lack of understanding of the benefits of sound asset management through the 5-step process.
- ✔ Lack of technical expertise or time to fully understand the asset management process.
- ✔ Not knowing where to begin the process.

Why Use Asset Management?

Asset management "actually has a direct financial impact by increasing our revenues."

CUPSS addresses each of these challenges and will be a useful tool for any small utility willing to embrace the benefits of asset management.

Trainers

Trainers provide various skill sets needed for asset management, such as technical expertise, training and marketing support for CUPSS. Trainers, including state staff and technical assistance providers, are a key communication gateway and primary resource for small utilities trying to adopt or learn about asset management. It is essential that other trainers are aware of CUPSS and its uses for drinking and wastewater utilities. The role of the trainer in the marketing of CUPSS is not only to train users, but also to train future trainers to help broaden the use of CUPSS for communities around the country.

Local Decision Makers

These stakeholders provide funding and support for the long-term sustainability of CUPSS within their community. The decision makers see the direct benefit of CUPSS through the financial savings to their community and improved quality of service from the utilities. In addition, these groups also are a key communication gateway to states and other local agencies on the success of CUPSS. They must understand the benefits of CUPSS. Trainers should try to seek the support and influence of local decision makers to help implement and sustain asset management and CUPSS.

Promoters

The support of CUPSS and asset management involves stakeholders at the state level. These stakeholders often can reach a very broad audience at a high level within the state and local governments to help strengthen the sustainability of CUPSS. When marketing to this group, trainers will need to demonstrate the many benefits for the utilities' adoption of CUPSS, such as addressing water security issues in small communities within their state or district, improving water delivery to rural communities or improved crisis management and response.

SENDING THE RIGHT MESSAGE

The following are some sample messages that can be used to help promote the availability and implementation of CUPSS.

Users

Trainers can teach potential CUPSS users about the many features of the free software. Additionally, trainers should emphasize that CUPSS has the ability to give utility managers information to support more effective communication with the individuals and groups that make important decisions about the utility budget.

- ✓ EPA has developed a **FREE**, easy-to-use asset management tool for small drinking and wastewater utilities to support effective asset management plans. This user-friendly, desktop-based tool leads users through a step-by-step process to manage assets, operations and maintenance activities, and finances.
- ✓ State and local agencies can conduct trainings to teach utilities how to use CUPSS to develop comprehensive asset management plans. No experience with the software is necessary.
- ✓ Utilities using CUPSS will be more efficient with managing their time and money.

Why Use Asset Management?

"Asset management is about optimization; working smarter, not harder."

Trainers

For informing other instructors, trainers should demonstrate how CUPSS-related support material can aid in their overall training practice and how they can train communities in creating sustainable water systems.

- ✓ EPA developed CUPSS in response to a clear need from communities and trainers to consolidate and package asset management materials in an easy-to-use, clear and updated fashion.
- ✓ Check out EPA's recently developed CUPSS Package to help utilities develop effective asset management plans.

Promoters and Local Decision Makers

Trainers should target community leaders to demonstrate the benefits of CUPSS to the community water systems. Trainers should discuss the concept of asset management and potential savings that can arise from carefully managing the utility.

- ✓ CUPSS helps small systems to efficiently manage their assets and finances to save time and money.
- ✓ CUPSS helps improve community reactions to a crisis, while reducing response time.

RESOURCES FOR CUPSS TRAINING

This section outlines the various distribution methods through which CUPSS can be marketed. Three primary formats will be used to distribute the messages: (1) printed materials, (2) electronic means, and (3) presentations, including training and demonstrations. A combination of formats can be used for each of the target audiences described above. The proposed materials developed to support CUPSS are tailored to each audience group. To increase the exposure of CUPSS, a series of train-the-trainer workshops are recommended to include decision makers, trainers not familiar with CUPSS and users. Each of the trainees will receive presentation materials that they can adapt to their needs.

"CUPSS and Us" Promotional PowerPoint Presentation

The "CUPSS and Us" presentation has been developed to assist in gaining the buy-in from decision makers and users. This presentation provides detailed information demonstrating the need for the tool and the benefits of using asset management for not only the utility and utility's management, but also the community at large.

Recommended Distribution Mechanism
This presentation can be delivered in a traditional town hall meeting; the audience **will not** need personal work stations. The presentation is included on the *CUPSS CD*.

"Asset Management 101" Training Presentation

The "Asset Management 101" presentation highlights the basics of asset management, with a small systems focus. This training presentation provides information on the resources to use for managing assets at small utilities and is consistent with the CUPSS approach to asset management. This presentation is geared toward CUPSS trainers and other stakeholders.

Recommended Distribution Mechanism
This presentation will be presented as an EPA-sponsored Webcast, and the presentation can also be used in traditional training sessions. Participants **will not** need personal work stations for this training. The presentation is available on the CUPSS training website (www.epa.gov/cupss/resources.htm#trainers).

CUPSS Training Presentations

The short version of the CUPSS Training presentation (approximately 2 hours) includes an introduction to each CUPSS module and explains the key functions of each module through a brief walk-through of the CUPSS tool.

The long version of the CUPSS Training presentation (approximately 6 hours) covers information found in the CUPSS Users Guide. Future CUPSS trainers can use this presentation for in-person training with CUPSS users. Exercises are included to train participants how to use each module within CUPSS.

Recommended Distribution Mechanism
This presentation will be presented as an EPA-sponsored Webcast, and the presentation can also be used in traditional training sessions.

Short version: Participants **will not** need personal work stations for this training.
Long version: Participants **will** need personal work stations for this training.

These presentations are included on the CUPSS training website (www.epa.gov/cupss/resources.htm#trainers).

CUPSS EPA Web site

This Web site is designed for CUPSS users, trainers and all others involved with small drinking water or wastewater utilities. Information is provided on downloading or ordering the CUPSS software as well as guidance materials and training events related to CUPSS and asset management.

Recommended Distribution Mechanism
This Web site is at: http://www.epa.gov/cupss

HOW TO EVALUATE SUCCESS?

An evaluation component should be incorporated into all trainings to measure the effectiveness of the materials and distribution approaches so that changes can be made throughout the marketing effort to maximize its usefulness. The results of these evaluations can be used by organizations to justify additional internal resources to continue promoting CUPSS. They can also be used to promote CUPSS's usability and ease of use—as more utilities are using CUPSS, it should alleviate intimidation that others might have with using the tool. Several measures of success include:

- ✓ Number of people receiving/requesting the CD and associated information about CUPSS
- ✓ Number of requests for more information on CUPSS
- ✓ Number of requests by organizations to make a presentation or conduct training on CUPSS
- ✓ Number of presentations made and number of people reached in the presentations
- ✓ Number of utilities that use CUPSS to develop their Asset Management Plans
- ✓ Number of systems that change their management practices as a result of CUPSS

Why Use Asset Management?

A Utility Success Story

"Some of the most compelling information we have regarding cost and rate benefits of asset management is through comparison of the projections we had prior to implementation of asset management in 2002 to the actual costs and rates since then.

Utility rates have been reduced in comparison to earlier planned levels. In 2002 – before implementation of asset management – we projected 2004, 2007, and 2010 rates in our four lines of business, then predicted them again in 2004. In those years, we see a reduction of between $6 and $13 per household for combined rates for each of the prediction years.

The actuals for the 2003/2004 operations and maintenance budget were about 6% lower than the 2002 projection. There has also been an 18% reduction in the capital budget – comparing the 2002 prediction for our combined (WF, DWF, SWF) capital budget in 2005 and 2006, to the actuals for those years.

Staffing, as measured by regular, temporary, and contract employees was reduced by about 8%.

We've also been able to increase our cash contribution to the capital budget. For the water fund, our cash contribution was about 19% in 2003, and we project it to be 22% in 2005. For the drainage and wastewater fund, the cash contribution was 5% in 2003 and we project it to be 15% in 2005. For the solid waste fund, it was 6% in 2003 and we project it to be 30% in 2005."

3 Training Preparation

Effective training is very important when attempting to introduce software to a new user group. Because of the nature of the application, it is important for all training locations to have access to desktop computers. Trainers will be instructed on how to effectively discuss the details of the system with a variety of user and stakeholder communities. Some groups need to be informed of the benefits of incorporating this tool into their daily routine, while other groups need to understand how this will help them better manage the utility. Communicating that CUPSS will provide maintenance strategies and aid in financial reporting will help utilities make the decision to use this tool for their asset management needs.

3.1 PREPLANNING FOR THE COURSE: CHECKLIST

Before beginning the training preparation process, it is important for trainers to complete the attached checklist (see Appendix D) highlighting important, required steps. These steps will ensure that the training will accurately target the selected audience and will provide the audience with enough educational information that they can then present to their larger base communities.

3.2 TRAINING LOGISTICS

COORDINATION

Preparation requires all trainers to identify the target audience, their technical abilities and possible training locations during the planning process. Effective coordination first requires all trainers to identify a point of contact (POC) in the targeted utility or locality. The identified POC can help secure an audience, manage training registration and secure a training location.

LOCATION

Once the target audience is identified, an appropriate training location must be found. The technology required at each training location is directly related to the audience identified. Decision makers will not be walked through the application. Instead, they will be presented with information to assist in their decision-making processes. Because of this, decision makers need a lecture-style classroom for their presentation.

Both future trainers and user groups will need a more interactive setting. These groups will require a lecture presentation, computers and software. The CUPSS application is compatible with Microsoft Windows 1995/98/2000 Professional/XP operating systems. Basic Microsoft Office applications or readers will be helpful for report generation and modification.

PROMOTION MATERIALS

The CUPSS trainers website (www.epa.gov/cupss/resources.htm#trainers) provides several templates for various forms of advertising materials and several documents such as the "CUPSS and US" presentation that can be used in marketing CUPSS to local decision makers. All materials are available at EPA and, on request, will be shipped at no cost to each CUPSS User. Trainers can order promotional post cards in bulk, but they should use the CUPSS CD for all other materials.

PRESENTATION HANDOUTS

EPA has developed presentations that will assist any trainer in effectively communicating the importance of CUPSS and the application's features to multiple audiences. Presentations are specifically geared toward community and financial decision makers, future trainers and potential users. All presentations are editable so that trainers have the ability to modify materials to better reach a specific community.

EVALUATION

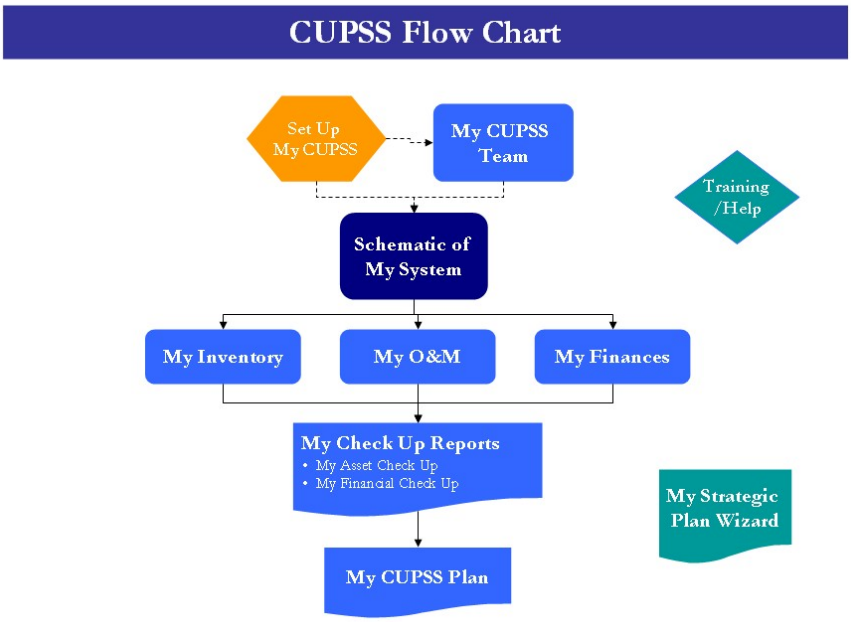
Evaluation form templates are used at the conclusion of the training course. A template has been provided on the CUPSS training website and can be edited and geared toward the training location and community. *See Appendix E for the evaluation form.*

3.3 "GETTING READY FOR CUPSS" TRAINING

"Getting Ready for CUPSS" will provide education on how to help future trainers when setting the stage for successful implementation of the CUPSS tool. This presentation discusses how the tool should be used, when it should be used and who should use it. Explanatory information is provided on how to train new trainers and future CUPSS users. Trainers will go through the "Getting Ready" workbook and help potential users in the information-gathering stage of the CUPSS process. Trainers must be well versed in the system before seeking community support and approval. The "Getting Ready for CUPSS" presentation is on the CUPSS CD.

4 Training Activities

Comprehensive training activities are essential when educating users on new concepts and technical tools. This section provides training tips and assistance on each of the main modules within the CUPSS desktop application. Instructions have been provided for the trainers to ensure an effective system walk through. These exercises follow and complement the CUPSS User's Guide. The User's Guide contains all the essential information for the user to make full use of CUPSS. It includes a description of the functions and capabilities of CUPSS and step-by-step instructions for using the application to develop and implement an asset management plan. An electronic version of the User's Guide is on the CUPSS CD.



4.1 MY TRAINING

Overview: This module has been developed to help the user understand CUPSS and the asset management process through clear, concise instructional materials. In this section, the user finds an introductory training video and a tutorial for each CUPSS module. The help section is keyword searchable and has a glossary section in addition to example forms and reports.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 1 and 10 of the User's Guide.

4.2 SET-UP MY CUPSS

Overview: The first step in the CUPSS process is to identify the CUPSS team. CUPSS contains a team assembly wizard that will allow users to create lists of team members, define their roles and gather contact information. The default CUPSS user (from Set-Up My CUPSS) is carried over into the team roster. The users can then establish or modify their team at any time but should be encouraged to set up a team during the initial run of CUPSS. CUPSS allows users to export the team roster and associated data into a Microsoft Excel spreadsheet file.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 3 and 4 of the User's Guide.

4.3 MY INVENTORY

Overview: This module allows users to identify and characterize their water system's assets. The program prioritizes the user's assets and helps the utility better manage its revenue for repair and replacement of assets. Users will enter their assets and all related information. If an asset has already been entered, the user can review and update the assets' information. The My Inventory module already contains information about the utility's assets from the user's self-created diagram. The user can also enter additional assets. All assets are displayed in a table format with both mandatory and optional data fields.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 5 of the User's Guide.

4.4 MY O&M

Overview: This module allows users to create and track past, current and future operations and maintenance (O&M) activities. The user can add tasks to the schedule and mark scheduled items as *completed*. These items will then be moved to the log. The log incorporates all routine tasks and logged activities into the task list. This module then records the status and history of each task, alerts users if the task status is past due or critically past due and alerts the user when to reassess the asset condition if maintenance is not performed as scheduled.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 6 of the User's Guide.

4.5 MY FINANCES

Overview: This module allows users to determine the full costs of doing business and to calculate how much money is needed for full recovery. This allows staff members to discuss their needs within the context of the community budget.

The user provides the current year's budget (at a minimum) and actual expenses from previous years' financial statements. From this, the user can calculate their total cost of doing business and project budget needs for up to ten years.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 7 of the User's Guide.

4.6 MY CHECK UP

Overview: CUPSS generates two customizable reports: "My Asset Check Up" and "My Financial Check Up." These reports allow the user to pick the level of complexity they wish to use to manage their assets. Trainers should walk the user through each of the two reports paying special focus on how the financial report should be set up and run.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 8 of the User's Guide.

4.7 MY CUPSS PLAN

Overview: This module assembles, using an existing template, an asset management plan that is already pre-filled with the information the user enters throughout the previous CUPSS modules. CUPSS allows the user to make edits within the template and export the management plan as a Word document.

Training Activity: The activity information is found in the CUPSS training presentation and will follow Chapter 9 of the User's Guide.

Appendix A. Additional Resources

Several additional resources are available to provide valuable information to the trainers, the users and the decision makers. EPA-approved guidance documents, references and other associated information are on the associated CUPSS CD.

RESOURCES ON THE CUPSS CD

- *Getting Started with CUPSS Workbook*. EPA 816-R-08-005
- *CUPSS User's Guide*. EPA 816-R-08-003
- *CUPSS and Us* presentation.
- *Asset Management: A Best Practices Guide.* EPA 816-F-07-011
- *Asset Management for Local Officials Factsheet.* EPA 816-F-07-012
- *Building an Asset Management Team Factsheet.* EPA 816-F-07-013

RESOURCES AVAILABLE ON THE CUPSS TRAINER'S WEB SITE (**www.epa.gov/cupss/resources.htm#trainers)**

- *A Guide for New CUPSS Trainer's (this guide).* EPA 816-R-08-004
- *Getting Ready for CUPSS: Information for Trainers* presentation.
- *Short format CUPSS Training* presentation.
- *Long format CUPSS Training* presentation.
- Postcards. EPA 816-E-08-001 and EPA 816-E-08-002

RESOURCES ON THE EPA WEB SITE (epa.gov/safewater)

- *Asset Management: A Handbook for Small Water Systems*. EPA 816-R-03-016
- *Taking Stock of Your Water System: A Simple Asset Inventory for Very Small Drinking Water Systems*. EPA 816-K03-002
- *Setting Small Drinking Water System Rates for a Sustainable Future*. EPA 816-R-05-006
- *Preventive Maintenance Card File for Small Public Water Systems Using Ground Water.* EPA 816-B-04-002

CUPSS WEB SITE

www.epa.gov/cupss

Appendix B. Glossary

Term	Definition
Annual Debt Payment	The dollar amount that must be paid each year toward retiring existing debt.
Annual Operating Expenses	Total annual cost of operating and maintaining the water or wastewater utility service. This does not include savings or future draws from capital savings accounts.
Asset	A component of a facility with an independent physical and functional identity and age (e.g. pump, motor, sedimentation tank, main).
Asset Category	Where the asset best fits within your system (e.g., source water, distribution or collection), for organizational purposes.
Asset Inventory	A list of assets with details about each one (installation date, original cost, condition, and such). Also known as an *asset register*.
Asset Management	A process for maintaining a desired level of customer service at the best appropriate cost.
Asset Name	The name of the technology or equipment that is used for your system to properly function (for example, "5th Street Pumping Station"). *See* Asset.
Asset Status	This is how your utilities view an asset. Assets can be active (most assets), not in use or a future investment. You would designate an asset a "future investment" if you would like it added to your capital improvement plan.
Asset Type	The asset's functional purpose for a specific asset category (for example, intake structure, pumping station, transmission main, storage tank, and the like).
Associated Asset	Assets that are directly related to a primary asset's function.
Associated Location	A location that complements an associated asset.
Capital Improvement (Expense)	Funds required for the future purchase, repair and/or alteration to or for an asset, structure, or major pieces of equipment.
Capital Improvement Program (CIP) Plan	A plan that projects and assesses which projects (including asset improvements, repairs, replacements, and such) need to be completed in the future.
Capital Reserve Contribution	Funds set aside to fund capital improvements (i.e. future purchase, repair and/or alteration to or for an asset, structure, or major pieces of equipment).
Cash on Hand	The amount of cash that is available to the system within a 24 hour period.

Term	Definition
Condition	The current condition, in your opinion, of an asset based on age and physical functionality (ranging from poor to excellent).
Consequence of Failure	The real or hypothetical results associated with the failure of an asset.
Criticality	The importance of the asset to your system's operation. A value, that in your opinion, best represents the consequence of asset failure.
Debt Payment	The dollar amount that must be paid each year toward paying down or retiring existing debt.
Debt Service Coverage Ratio	DSCR = Debt Service Coverage Ratio = Net Income / Total Debt The debt ratio measures the amount of debt being used by the organization. A ratio of 0.6 means that 60% of operations have been financed with debt and the remaining 40% has been financed by equity.
Emergency Reserve Contribution	Funds set aside for unexpected repairs and replacements. CUPSS recommends that utilities work towards an emergency reserve balance of 25% of its annual operating expenses.
Expected Useful Life	The average amount of time, in years, that a system or component is estimated to function when installed new.
Expense	Money spent by the utility to continue its ongoing operations.
Expense Ratio	Expense Ratio = Operating Expense / Total Expense The expense ratio measures the amount of operating expenses compared to total expenses. A high ratio indicates that most expenditures are for operations – leaving the remaining balance for non-operating costs (such as debt service, capital improvements, etc.). If the non-operating balance is small, then the utility is not likely to meet all of its capital-related expenses, which may cause the system to deteriorate more rapidly.
Financial Assets	Intangible assets such as cash and bank balances.
Growth	The amount, as a percent, a community's demand for water or wastewater treatment has increased or decreased. This value will be used to adjust future revenues and expenses.
Inflation	The anticipated rate of increase in the price level of goods and services.
Interest Rate	A rate which is charged or paid for the use of money. Note: Do not include a percentage sign.

Term	Definition
Level of Service	The characteristics of system performance such as *how much*, *of what nature*, and *how frequently*, with regard to the system's service.
Liabilities	The financial obligations for which the utility is responsible.
Maintained According to Factory Recommendation	The frequency of routine maintenance as recommended by the manufacturer.
Operating Expenses	Total annual cost of operating and maintaining the water or wastewater utility service. This does not include savings or future funds withdrawal from capital savings accounts. Operating expenses include maintenance, equipment, salaries, wages, benefits, supplies, chemicals, contracts, utilities, monitoring, testing, emergency, rent, mortgage, insurance, services, training costs, billing costs, fees, and security costs.
Operating Ratio	Operating Ratio = Operating Revenue / Operating Expense The operating ratio demonstrates the relationship between operating revenues and operating expenses. A high ratio indicates that the organization has operating efficiency by keeping expenses low relative to revenue.
Original Cost	The amount paid for the initial purchase of an asset.
Probability of Failure	The chance an asset will fail based on the percent of effective life consumed and redundancy.
Redundancy	Spare assets that have the ability to do the same job, if a failure of the primary asset were to occur.
Replacement Cost	How much will it cost to replace the asset, if required today?
Revenue	Funds earned by the system through the sale of water or by other means.
Revenue Surplus/Deficit	The difference between the total cost of doing business and the funds received from fees, loans and grants, and interest earned from any accounts. If the result is zero or greater, the utility is taking in enough money to fully recover its costs and have a surplus. If the result is less than zero, the utility will not cover all costs and therefore will have a deficit.
Risk	The potential for realization of unwanted adverse consequences or events.
Routine Maintenance Cost	How much does it cost for a single routine maintenance activity to be performed on the asset?

Term	Definition
Sales Ratio	Sales Ratio = Sales / Total Revenue The sales ratio measures the percentage of total revenue that is made up of sales from operations. A low ratio indicates that the organization is overly reliant on outside funding.
Savings Withdrawal	A fixed amount of money removed from the savings account of the utility to help pay for capital improvement items or other planned or unplanned maintenance.
Total Annual Cost of Doing Business	The total annual operating expenses plus the required total annual reserve contributions to reserve funds.
Total Debt	Total Debt = Debt from Loans + Lease and Mortgage

GLOSSARY REFERENCES:

Boise State. "Capacity Tracker: User Manual." Accessed February 11, 2008. http://sspa.boisestate.edu/efc/Tools_Services/Capacity%20Tracker/Capacity%20Tracker%20User%20Manual.pdf.

Department of Natural Resources and Water, Queensland. "Guidelines for Implementing Total Management Planning." Accessed December 28, 2007. http://www.nrw.qld.gov.au/compliance/wic/pdf/guidelines/tmp/2001_guidelines/implementation/asset_glossary.pdf.

EPA. 2003. "Asset Management: A Handbook for Small Water Systems:' One of the Simple Tools for Effective Performance (STEP) Guide Series." Accessed December 27, 2007. http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_asset_mgmnt.pdf.

EPA. 2007. "Drinking Water Glossary: A Dictionary of Technical and Legal Terms Related to Drinking Water." Accessed December 27, 2007. http://www.epa.gov/safewater/pubs/gloss2.html.

EPA. 2006. "Setting Small Drinking Water System Rates for a Sustainable Future: One of the Simple Tools for Effective Performance (STEP) Guide Series." Accessed December 27, 2007. http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_final_ratesetting_guide.pdf.

EPA Office of Water, California State University. "Glossary." Accessed February 10, 2008. http://www.mcet.org/Resources/LOH%20images/Glossary.pdf.

Appendix C. Readiness Checklist

- ❑ Are you sure that the facility meets your needs? Does the room have electrical outlets?
- ❑ Are there tables and chairs? Are you going to have the space to yourself during the session?
- ❑ Do any of the participants have special needs (e.g., wheelchair access, hearing impaired)?
- ❑ Have you arranged for refreshments?
- ❑ Have you identified all the restroom locations?
- ❑ Have you sent reminders/flyers to potential participants?
- ❑ Have you reviewed the session?
- ❑ Have you prepared all needed presentations and visual aids for the sessions?
- ❑ Have you prepared specific examples that your participants will be able to relate to?
- ❑ Have you practiced your presentation?
- ❑ Do you have a participant sign-in sheet?
- ❑ Are the discussion questions pre-written on a flipchart?
- ❑ Have you brought your Trainer's Guide and some extra participant workbooks?
- ❑ Have you prepared and printed the evaluation form?
- ❑ Do you have all of your teaching materials?
    - ❑ Computers?
    - ❑ Markers?
    - ❑ Flipchart?
    - ❑ Flipchart stand?
    - ❑ Tape?
    - ❑ Overhead projector?
    - ❑ Extra pencils?
    - ❑ Extra calculators?
    - ❑ Have you set the date, time and place for the next session?
    - ❑ Other

_____

Appendix D. Evaluation

CUPSS APPLICATION FOR SMALL SYSTEMS
TRAINING COURSE EVALUATION

Part I

Please rate the following aspects of the training course.

1. Trainer Evaluation

	Excellent	Good	Not Good	Poor
A. Knowledge of subject	❑	❑	❑	❑
B. Organization of sessions	❑	❑	❑	❑
C. Style and delivery	❑	❑	❑	❑
D. Responsiveness to group	❑	❑	❑	❑
E. Producing a good learning climate	❑	❑	❑	❑

2. Course Evaluation

	Excellent	Good	Not Good	Poor
A. Organization E.g., Were you informed as to what the subjects would be and when they would be covered?	❑	❑	❑	❑
B. Relevance E.g., Were the subjects relevant to your job and your future needs?	❑	❑	❑	❑
C. User's Guide booklet E.g., Were the notes clear, professionally presented and supplied on time?	❑	❑	❑	❑
D. Supporting materials E.g., Were appropriate materials provided or a source referenced?	❑	❑	❑	❑

E Informative E.g., Did this course provide additional information not previously known regarding asset management plans for small systems?	❑	❑	❑	❑

Part II

Please complete questions about the training course.

1. How would you rate the program overall?

(Please circle the score number that most closely represents your view)

Very useful	**5**	**4**	**3**	**2**	**1**	**Little use**
Very interesting	**5**	**4**	**3**	**2**	**1**	**Of little interest**

2. To what extent do you feel you have learned from the program?

(Please circle the score number that most closely represents your view)

Learned a lot	**5**	**4**	**3**	**2**	**1**	***Learned nothing***

3. What module did you most learn from? Please explain.

4. What module did you least enjoy? Please explain

5. What subjects were not covered fully enough? Please explain.

6. What subjects were not covered that you would have liked addressed?

7. Do you find that this tool fits your needs and expectations?

8. What barriers might impede your implementation?

9. What benefits do you hope will result from using this software?

10. Any other comments?