

CUPSS Can Help – and, It’s FREE!

Communities and rural water systems across Kansas invest heavily in water and wastewater utility infrastructure. As an employee of Kansas Rural Water Association, I have seen hundreds of systems. While often the focus of local boards and councils and staff seems to be on obtaining funding for new projects, there should always be a commensurate concern that once the improvements are made that there be an equal if not greater responsibility to properly account for and maintain those facilities. No individual forgets what he or she personally owns. Local people should take accounting for “community property” with equal importance.

Water and wastewater systems will always be faced with the prospects of making improvements and replacing equipment. Having a rate structure in place and capital

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improvement plans developed to provide for emergencies and replacements indicates good leadership and governance by local officials. That’s a far better situation to be in than having a riser pipe on a tank freeze and break and then have no funds to make even basic repairs. Deferring maintenance because of insufficient funding compounds the situation. And even though the federal government makes billions of dollars available annually to help finance drinking water and wastewater projects, it should not be necessary for existing systems to continue to rely on federal funding

for replacement of infrastructure. Sometimes, the underlying reason the replacement is needed is because of the lack of maintenance and poor operational practices. One problem I am thinking of is scores of mainline valves that won’t open or fully close because no one operated the valves at least one time annually. Over time, the valves then become completely useless.

There have been considerations in Congress and by oversight agencies to require local utilities to develop asset management plans to help protect the investment in water and wastewater utility infrastructure. Some cities and RWDs have embarked on such initiatives on their own. Most have no idea where to begin. It’s certainly not the one line depreciation account that shows up on a financial audit. Instead, it should be an asset management program. Such a program is simply described as a planning process for maintaining and replacing infrastructure in the most efficient manner. There are two items all systems must realize: 1) the facilities are assets that depreciate over time; and, 2) taking proper care of facilities

Getting started with CUPSS requires completion of all five steps in the "Getting Started Module". The CUPSS software has a flash tutorial "Do Some Training" in the upper right hand corner. The link appears on all CUPSS pages, so help is just a click away.

and equipment is necessary to maintain the assets over the life-cycle of the equipment. By developing an asset management plan, water and wastewater systems can help meet those goals.

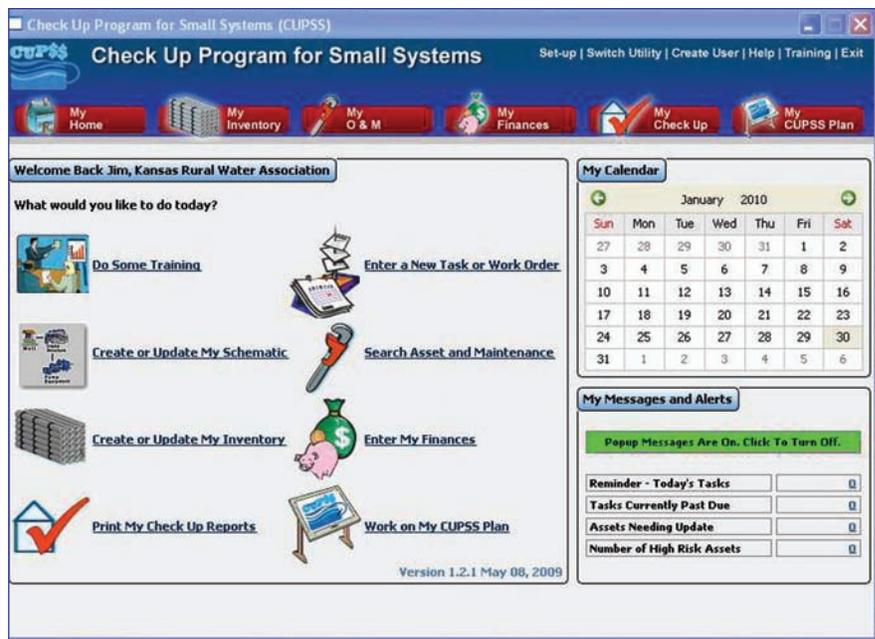
CUPSS to the rescue

The US Environmental Protection Agency has developed a great tool that any utility can use to develop and operate a comprehensive asset management plan. It's called CUPSS. CUPSS is an acronym for Check Up Program for Small Systems. It's a user-friendly desktop application, designed for small and medium-sized water and wastewater systems. It's FREE! The CUPSS software and supporting documentation can be downloaded from www.epa.gov/cupss. The download will take several minutes to complete. If the user has a dial-up Internet connection a copy of the software is available on CD by contacting EPA or you may call KRWA at 785-336-3760 and a CD will be mailed from our office.

After the software has been installed it will lead the user through a "Getting Started Module." Steps include: utility information; user information; choosing recommended operation and maintenance tasks; assembling an asset management team; and, a final review before saving the data. All five steps must be completed before the user will be allowed to save the data. EPA has added "Do Some Training" flash tutorials to the program; each tutorial provides a brief overview on how to use CUPSS. A description on each of the six modules that makes up the CUPSS program follows.

My Home

After the user has completed the "Getting Started Module" the next time CUPSS is opened, the user will need to enter a user name and password to log-in. The user will then advance to the "My Home" page. This page will be the user's main page; from here, the user will update and make changes to set-up, switch utility, create users, help, training and exit CUPSS. All of these links are located in the upper right corner of My Home module.



CUPSS is divided into six easy to use modules. The modules are located across the "My Home" page and can be accessed with just a click of the mouse. A help link is provided in the upper right-hand corner.

The user can create a visual representation of the system by using the pre-set icon for different asset types.

My Inventory

From the My Home page, the "My Inventory" module helps the user define the system's assets. This page is divided into four sub-sections. The My Inventory page is where the user creates and edits inventory and creates and edits a schematic of flow using pre-loaded icons, viewing the inventory list and capital improvement projects.

When completing the system inventory, the user will need to enter age, expected useful life, condition, estimated remaining service life and maintenance history. The EPA Asset Management handbook will help users determine estimated useful service life. The user will also need to prioritize the "consequence of failure" for each asset. The user will rate each asset by one of the following: insignificant, minor, moderate, major and catastrophic. EPA has developed blank, printable worksheets to help with this process. The user can create a visual representation of the system by using the pre-set icon for different asset types. My Capital Improvement Projects is developed from the assets and automatically assigns a priority rank and calculates recommended actions and timelines based on the information entered for each asset. CUPSS will also create an Asset Risk Matrix to help assess the risk associated with each asset.

My O & M

The My O & M module is used for tracking tasks and work orders to help better manage the operations and maintenance of the utility system. CUPSS performs this by incorporating current and past due tasks in the My Calendar window on the My Home page and any alerts stored in the My Messages and Alerts window which is also on the My Home page. When the user first opens the My O & M module, the user will notice all the tasks listed in the Getting Started module will be included based on the daily, weekly, monthly or yearly task as listed in the calendar. The user will be able to add new tasks or work orders from the My Inventory page. This page also allows the user to print work orders and blank worksheets. The required information for tasks includes the task name, type, responsible staff member, start and end dates, and some optional information. This is a great tool but is only effective if users keep it updated.

My Finances

The My Finances module is used for helping staff determine the cost of operating the utility. The module also calculates finances needed for a full replacement value. This module integrates with other CUPSS modules to help with financial planning by the utility. As expense and revenue information is entered, the information is organized by year and displayed in pre-set categories based on the type of expense. This page also allows the user to print graphs and blank worksheets.

My Check-Up

The My Check-Up module generates two types of reports: 2) My Asset Check-Up Report; and, 2) the My Financial Check-Up Report. Both of these reports will help the utilities analyze the data that has been entered. The My Asset Check-Up Report can list either high-risk assets only, or all assets. The My Financial Check-Up Report can

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provide a 10-year projection on the necessary financial needs of the utility. The reports can help system staff better communicate with decision-makers.

My CUPSS Plan

The My CUPSS Plan module helps the user create a customized Asset Management Plan. The final module takes data entered from other modules and formats the information into one report. There are seven steps to complete the Asset Management Plan:

- 1) utility profile; 2) mission and level of service; 3) critical assets; 4) O & M strategy; 5) capital improvement program; 6) financial management strategy; and, 7) finalize the plan. Most of the information auto-fills but it can be modified as needed.

Fill up your CUPSS

CUPSS is certainly not a one-person project or one-day panacea task. Asset management is a time consuming project that requires a team effort. The benefits of having an asset management plan can help water and wastewater utilities in several ways. It can assist in communications with decision makers and staff. It can help utilities move from crisis management to informed decision-making. It will lead to efficient and focused system operations. And it will improve the financial management of utilities to make the best use of their limited resources.

If your city or RWD is interested in setting up a good asset management program, then KRWA will be pleased to provide assistance. Give us a call or send an email to me at jim@krwa.net.

Jim Jackson has been employed by KRWA since January 2004; he is currently KRWA Training Director. Jim began working in the utility industry in 1985 and has both municipal and rural water experience. Jim holds Class II Water Operator Certification.



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