



The Ambient Water Quality Monitoring System (AWQMS) data management and analysis system represents approximately three million dollars-worth of software development.

The current community of over 75 tribal nations, 7 states, and 60+ local watershed groups and municipal agencies share in the benefits of AWQMS development for a relatively small annual maintenance or hosting fee.

Community Software

Why do I need a Hosting Agreement?

The AWQMS application was developed using the **Community Software** development model. This development methodology is dependent on partners pooling their resources to develop a common application that exceeds the capabilities that the partners could have developed independently. Because maintenance for AWQMS is not funded by the EPA, the sustainability of AWQMS must come from the community. Maintenance costs are shared across the community resulting in a higher level of service at a lower overall cost for each of the partners. Hosting or maintenance agreements from each of the community partners enable Gold Systems to ensure the sustainability of the AWQMS application. The hosting fee also helps Gold Systems defray the costs of computer server and network hardware, co-location fees, database management and operating system software licenses, electricity, etc.

Inclusions

What is Included in the Hosting Agreement?

- 24/7 access to the AWQMS-Cloud hosting environment
 - Manage/maintain up to 10 million result records
 - Maintain up to 150 active user accounts
 - Configure up to 8 WQX organization IDs.
 - (Need additional capacity? Call or email for a custom quote.)
 - If AWQMS-Cloud ever goes down, Gold Systems will bring the application back on line and restore to the latest database back up within 24 hours of the reported outage
- AWQMS cloud-based demo and training environment
- Database administration costs, including backups
- Datacenter location and maintenance costs for database and application servers in a secure, air-conditioned environment with constant power supply, etc.
- Costs of any AWQMS 3rd party software libraries
- Periodic AWQMS-Cloud software updates including:
 - Enhancements funded by other AWQMS community members or by your own organization
 - Bug fixes, as prioritized by Gold Systems
 - Domain value updates to maintain compatibility with WQX
 - Software maintenance due to newly supported database, operating system, or browser software
- Remote AWQMS technical support
 - Software initial configuration (organization, user, and security Setup) and related questions
 - Assistance with EPA WQX organization registration
 - Investigating AWQMS application errors
 - Investigating WQX submission errors
- AWQMS Support Portal (www.awqms.org)
 - Tutorials & documentation

Exclusions

What is not Included in the Hosting Agreement?

- Assistance with:
 - Mapping data files to the WQX schema
 - Data migration
 - Importing of data into AWQMS
 - Submitting data to WQX
 - Checking the quality of data
 - Managing or analyzing data
 - Configuring user-controlled domain values (such as sample collection methods)
- On-site or remote Training
- On-demand bug fixes or patches
- Development of software changes, enhancements, or new features
- User support of the AWQMS Application
- Questions on how to use AWQMS
- Sharing of AWQMS with or providing AWQMS to other external organizations without written Gold Systems' consent



Ambient Water Quality Monitoring System

AWQMS is a water quality data management and analysis system in use by over 70 tribes, 7 states, and more than 65 volunteer, watershed, and municipal agencies. AWQMS provides the following tried-and-true features; with many more enhancements currently under development or slated for development in the near future:

Built-in Exchange Network Node Client - Sends your latest data changes to the EPA WQX in the proper XML format with the click of a button.

Internet Access – access your water quality information from virtually anywhere in the world.

Security – User Name and Password authentication. Each user has a separate account. You can even restrict what type of access each user has to different projects!

Highly configurable batch import capability – Configure the software to match the data files you get from your lab or from your sonde; not the other way around! Pull large amounts of data into the database from an electronic file (Excel spreadsheet or a text file). *Less time wasted re-typing data that has already been typed and reduced probability of introducing data entry errors.* This sophisticated feature also allows you to default metadata values that are missing from your data or that you know will be the same for every result value. Also, you can configure AWQMS to auto-translate meta-data in your batches of data to the equivalent WQX term.

Configurable rapid entry forms – You can enter your data directly into AWQMS from paper field sheets or paper results reports from a lab. You can configure as many types of rapid entry forms as you need. Use rapid entry forms to streamline the amount of work to get your data to WQX and reduce data entry errors. You default numerous meta-data values and even which parameters are shown in the form so that all you have to do is enter the result value for each parameter observed.

Concurrent access to your data by multiple users. No more wondering who has the master copy of which data files and where they are keeping them! All your water quality data is consolidated in one convenient database and is simultaneously accessible by an unlimited number of users within your tribal program.

Web browser user interface. No desktop software to install or upgrade! Imagine the difficulty if you had to install new software on every user's PC (for multiple tribes) every time there's a new patch or upgrade!

Sophisticated Analytical / Statistical reports and Graphs – too numerous to list. Find trends in your data or correlations between parameters. Look for exceedances to your water quality standards.

Built in Google Map interface. Plot all your locations on a map. Plot locations having certain data on a map. Plot locations having exceedances for a particular parameter on a map. Plot your locations next to state locations. Pull up your data for a location in AWQMS next to State data from a nearby location.

Built-in QA/QC data checking – warns you if result values are being imported or entered that are higher or lower than expected. Warns if someone attempts to import or enter data for unexpected variations of a parameter (e.g. the wrong unit of measure or the wrong sample fraction).

Built-in WQX Business Rule Validation - Validates imported and entered data against every business rule enforced by WQX. Provides data validation error resolution pages for most WQX and QA/QC validation errors.

Data Sharing – Tribes can share data in a “read-only” mode with each other, if they desire. Create your own data sharing network!

Public water quality portal (if desired) – You can provide your tribal members (or the general public) with the data analysis tools in AWQMS, but in a read-only environment where the data is protected against unauthorized changes.

Web services – RESTful, Virtual Node, and GIS centric web services provide Location, Project, and associated Activity and Result and Metric, and Index data to external GIS or other tools. (Included with AWQMS-Cloud hosting fee).

AWQMS is maintained using a “community-based” funding approach which provides AWQMS subscribers all enhancements and fixes funded by other subscribing organizations. This approach guarantees a sustainable future for AWQMS and provides constant improvements to the system (numerous are currently under construction). All subscribing organizations receive the improvements at no additional cost and can make use of the tutorials and documentation available on the AWQMS website.



AWQMS

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