



MATRIX **NEW** WORLD

Engineering Progress

Computer Modeling

Matrix is a model service provider.

Matrix New World Engineering (Matrix) computer modeling capabilities include numerical and analytical groundwater flow modeling, aquifer test analysis and contaminant mass transport. Familiar with the latest versions of the published models and pre-processors accepted by federal and state regulators, Matrix has developed groundwater models to support applications for Assured and Adequate Water Supply (AAWS), Underground Storage Facilities (USF), adjudication of Water Rights Settlements and compliance with National Environmental Policy Act (NEPA) and Endangered Species Act (ESA) requirements. Projects range from local site-specific models of relatively small areas to models of regional and sub-regional hydrologic systems.

Matrix's highly-experienced hydrologists and computer modelers routinely use and adapt the latest regional groundwater flow models published by government agencies, including the U.S. Geological Survey (USGS) and the Arizona Department of Water Resources (ADWR). Our hydrologists and computer modelers discuss model details, assumptions, and upgrades with USGS and ADWR model authors. Matrix keeps regional models up-to-date; incorporating the most recent Assured Water Supply (AWS) approved demands. Having used the models for groundwater resource and 100-year impact evaluations, Matrix modelers are proficient at adapting the models to support the client project requirements.

We are committed to providing industry-leading hydrogeologic solutions that exceed clients' expectations. At Matrix, our hydrogeologists and computer modelers know what it takes to conduct successful groundwater flow and contaminant transport modeling projects that meet clients' needs.

Our suite of computer modeling services include those listed on the right. We implement state-of-the-art modeling techniques, enabling the use of the latest scientific advancements, such as EVS. EVS has become the foundation of Matrix's site characterization approach to evaluate complex hydrostratigraphic environments, potentiometric surfaces, water producing zones, contamination pathways, and contaminant volume.

Services provided

- Conceptual Model Development
- GIS Development & Spatial Analyses
- Numerical Groundwater Flow Modeling
- Analytical Groundwater Flow Modeling
- Aquifer Test Analysis
- Particle Tracking Analyses
- Advanced Model Calibration
- Nested & Unstructured Grids
- Predictive Uncertainty Analyses
- Advanced Flow Modeling
- Contaminant Fate & Transport Modeling & 3D Modeling Capabilities with Earth Volumetric Studio (EVS)

Contact

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