

Woodbury, Allan

STATEMENT OF WORK: 2003-04

Dr. Woodbury will support CNWRA work for clients including the American Water Works Association Research Foundation, Edwards Aquifer Authority, Southwest Florida Water Management District, Nuclear Regulatory Commission, and possibly others. This work is expected to include application of advanced inversion methodologies to modeling of aquifers, in particular to testing inferred positions for major conduits within karstic aquifers, and to explicit quantification of uncertainties in model inversion.

STATEMENT OF WORK

Allan Woodbury

July 14, 2000

The specific task to be performed by Dr. Woodbury is to apply his joint inversion methodology to the hydrogeologic and thermal data recorded at YM in an effort to better constrain hydraulic conductivity estimates in the hydrostratigraphic units that comprise the saturated zone in the region. The modeling framework adopted by the consultant should be consistent with that currently being proposed by CNWRA staff, so that results provided by the consultant can be easily incorporated into the model currently being designed by CNWRA. The consultant will work with CNWRA researchers, but should be able to work independently. The consultant is expected to identify model and data needs to be provided by CNWRA researchers to make the modeling application specific to YM. Site specific aspects of the work are expected to include:

- Description of data requirements for Dr. Woodbury's inversion methodology.
- Preliminary demonstration of Dr. Woodbury's inversion methodology using data that are site-specific to YM.

Milestones and Deliverables

- Report documenting the feasibility of applying Dr. Woodbury's joint inversion methodology to improving hydraulic parameter values needed for the saturated zone model. The report should also document the technical approach to be employed
- Report on preliminary results on implementation of the joint inversion methodology to saturated zone hydraulic parameter estimation.