

A calibrated and validated numerical groundwater model for simulation that helps in understanding the interlinkage between the variables of the groundwater system. The model may also assess the response of the desired abstraction or any other changes in the input and output stresses on ground water system of the area. Such groundwater models help in decision support and considered as a desired groundwater management tool. It has ability to foresee the future response of the groundwater system under different permutation and combination of recharge and abstraction.

(If the qualification of **TAE Hydrogeology** suits qualification of **TAE- Groundwater modelling**, then an option may be given **to work as both TAE (Hydrogeology) and TAE (Groundwater modelling)**)

Technical area expert – Groundwater modelling:

a. Educational qualifications specific to functional area:

- i. Master's (post-graduate) degree in Science/Technology or equivalent in either subject Hydrogeology, Geology/ Applied Geology from a UGC/AICTE recognized University/Institution or equivalent with full course or project/research work done in the field of groundwater modelling.
- ii. B.E/ B. Tech or higher degree in technical subjects such as Water Resource Engineering, Hydrology, Hydraulics or equivalent subject from a UGC /AICTE recognized University/ Institution or equivalent with full course or project work done in groundwater modelling.
- iii. Desirable: PhD in Groundwater modelling.

b. Minimum experience:

- I. In case of PhD, candidate should have minimum 3 years of overall work experience after the completion of qualifying degree.
- II. In case of B. Tech/ B.E. and above, candidate should have minimum 5 years of overall work experience after the completion of qualifying degree.
- III. Officers retired/served for minimum 5 years in Central/ State Ground Water Organizations/ Research Institutes/ universities/ IIT/ NIT as Hydrogeologist, Hydrologist, Geologist, Geophysicist, will be considered to fulfil the minimum experience.

c. Experience specific to functional area must include:

- I. Proven capability of groundwater modelling with proof of successful development and execution of a calibrated and validated groundwater flow model. It is also desired to have ability for simulation of solute transport, density dependent flow etc on a numerical groundwater modelling platform.
- II. Prediction of scenarios using calibrated and validated groundwater models
- III. It is also expected that the expert has the following knowledge /experience:
 - Contribution to Groundwater modelling based report documentation.
 - Understanding the Graphical User Interface (GUI) and software used for groundwater modelling.

Training Preferable: Specialized course/training in Ground Water management/ Modelling and related concepts.