

**NOTE ON CENTRES OF EXCELLENCE PERTAINING TO THE OFFICE OF THE
DEPUTY DIRECTOR, GROUND WATER DEPARTMENT, ANANTAPUR.**

To monitor the Minor Irrigation Programmes like Dug wells, Bore wells, utilisation of Ground Water and as per the agreement entered with World Bank by India, Andhra Pradesh Ground Water Department was established in March, 1971. The Department is working under the supervision of the Director, with Head Office at Hyderabad and it has been part of the Minor Irrigation Department.

Activities of the Department:

- A) Identification of suitable sites for wells for all purpose mainly Drinking Water, Irrigation and Industrial purpose.
- B) Monthly monitoring water levels and collecting water samples twice a year to analyse quality for Irrigation purpose.
- C) Estimating the Ground Water availability Village wise for entire District. --Availability, Utilization and balance for future use.
- D) Coordinative with the sectoral line department. -- S.C. Corporation, S.T. Corporation, B.C. Corporation, DRDA, DWMA, Agriculture etc. This office is backing the down trodden families, Small and Marginal farmers in receiving their benefits from the concerned departments.
- E) This Department is drilling bore wells to the Small and Marginal farmers of Scheduled Caste (About 5 Nos) and Scheduled Tribes (About 2 Nos) during 2010-11.
- F) APWALTA Act has been implementing by this department in Ground water utilization and Sand Mining.

The Centres of Excellence of this department is One monitoring of Water levels with AWLRs and the other is APCBTMP.

I. Monitoring of Water levels with AWLRs:

This office established 73 Piezometers (Bore wells exclusively drilled) for monitoring water levels and for analysis of quality of Ground Water covering entire district. The Project was launched under Hydrology Project with the financial assistance of World Bank in 1997. The Piezometers are in addition to the regular 120 Observation Bore Wells, which have been manually monitored for the last 30 Years. The Piezometers are fitted with AWLRs (Automatic Water Level Recorders) of U.S. Technology. As per demand the instrument will automatically record the water levels for every 6 minutes and to a maximum range of 7 days. (Gap between Two consecutive readings). It works on the natural air pressure head maintained/ applied on the water level in the piezometer and the water column head maintained above the sensor point. The data is to be extracted with soft ware like Pocket PC, Palmtop, Lap Top etc. and it is to be analyzed in the office computer through the special software supplied. The soft ware is different (a) for recording and storing (b) for data retrieval and (c) for data analysis.

60 Piezometers are fitted with AWLRs and 13 Piezometers has been monitoring manually. This office is retrieving the data since 1999. The data has been monthly submitted to the Director, for onward submission to the Government. The data is available with this office also. A comparative analysis with the rainfall is also carried out. In 14 streams, stream gauging is also done by this department twice a year.

II. Andhra Pradesh Community Based Tank Management Programme (APCBTMP):

This Project has been implemented by AP Command Area Development Authority, a Minor Irrigation wing, during 2007, in 21 Districts covering 3000 Tanks. In Anantapur 74 Tanks are selected in 19 Mandals to implement in 2 Phases. The intension of this programme is to renovate or to moderate the Minor Irrigation bodies (Tanks), (a Comprehensive Tank Development) with people participation. After implementation and development of tank it is to be handed over to the water user association people only. The Scheme is also intended to create awareness and to train the farmers on Agriculture, Animal Husbandry, Horticulture and Fishery culture and soforth.

To monitor the Ground Water Development two types of programmes are taken up in the tank area (PHM = Participatory Hydrological monitoring).

- (a) Establishment of Rain gage stations to record rainfall.
- (b) Establishment of Observation Wells for water level monitoring. (Special equipment fitted to the bore wells and measuring instruments also supplied).

The Farmers of the water users of the Tank and 3 Para workers (3 different wings - Agriculture, Water management and Social Mobilisor) are trained by the specially appointed Training Resource Persons (TRPs), in different aspects.

Some of the Trainings carried out are -

- i) To measure the water levels and the yield of bore wells with the special equipment installed and supplied. Measuring and recording will be carried out by the farmers themselves on his own well.
- ii) To measure rainfall (Farmer or Para worker).
- iii) Calculation of Crop water budget (TRPs will help). etc.,

So far 23 Piezometers drilled in the selected tank influence areas to monitor water levels. At present department is manually monitoring water levels. 224 PHM wells are established in 45 Tanks under Ist Phase. The water levels are monitored by farmers only with the help of Para workers and TRPs.

In recent period Ground Water clearance has been accorded to 7 industries and contributed this office service to Industrial Development. Lift Irrigation scheme is also cleared. Sites were selected to Sand Mining. Preparation for drilling of bore wells to SC and ST beneficiaries is under progress. All the sites registered under APWALTA, bore well sites in CLDP (RIDF XIII & XV) were also completed, including the proposals submitted by SC and ST Corporation.

Recently Ground Water Re-estimation is completed within a short span of 2 years and submitted to the Government. State Government approved it and Central approval is awaited. (5.12.2010).

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