

## Appendix M – Water Treatment Plant Specifications

### Water Treatment Plant (WTP) Specifications:

- All above ground treated storage reservoirs — poly or fibreglass construction with side wall access three feet from the bottom of the tank.
- Treated storage reservoirs to be partitioned off from the rest of the building.
- Treated reservoirs to be filled from the top of each with a diffuser to fan out the incoming water. Each fill pipe will have a valve to control the flow into the tank. A common drafting header will connect to each tank and be valved prior to the common header.
- Low voltage control when power supply drops by 10% the WTP will shut down and if available the generator will kick in.
- Lighting protection and power surge protection.
- Backup generator to run the WTP during hydro failures in remote areas and areas with a history of dirty power supply.
- A single level control set in a column off the drafting header will control all reservoirs connected to the header. Level controller mini ranger or multi ranger dependent upon the requirements set out in the design.
- UV disinfection prior to chlorination.
- Mag meters for raw water supply and treated distribution waters with a piped and valved bypass for all meters.
- Only schedule 80 PVC piping throughout plant. Absolutely no metal piping.
- Distribution pumps to be controlled by pneumatic tanks.
- Office area with a sink for operator, testing and record keeping. (8' x 12').
- Card readers for truck fill for WTP that accommodate regular truck haul and truck fill supply from distribution pumps.
- Cordless phone and fax machine for the office.
- Catalogue of suppliers and technical support.
- Project cash flow – from contractor / supplier.
- Maximum level II classification class I where possible.

### Not required:

- Washroom and showers.
- On line monitoring of NTU & Cl (hand held still acceptable).
- SCADA system (computer).
- Facility sign.
- Separate truck fill pump.