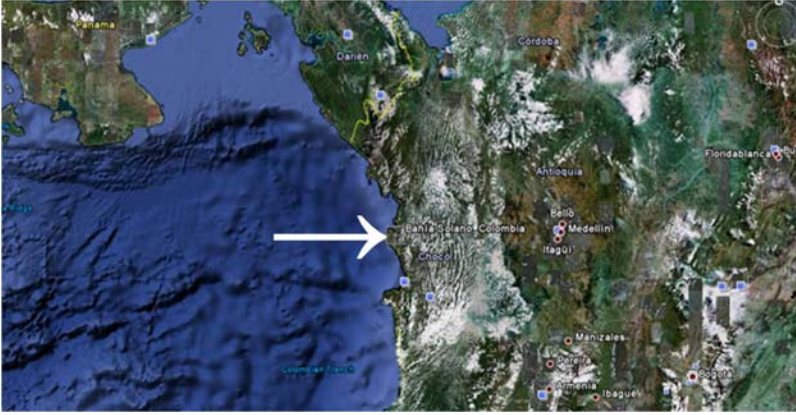


**Colombia – MEL type Filters (SSF's) serving a village on the Pacific Coast just south of Panama**



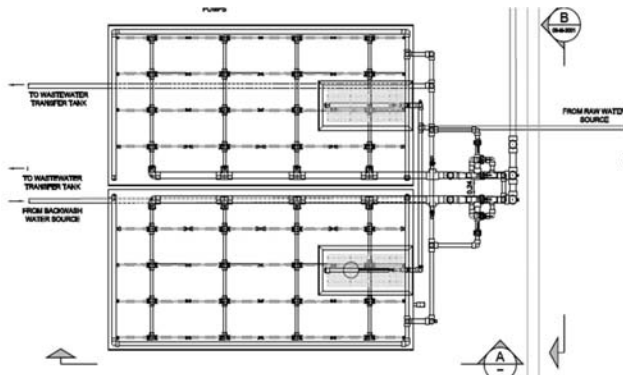
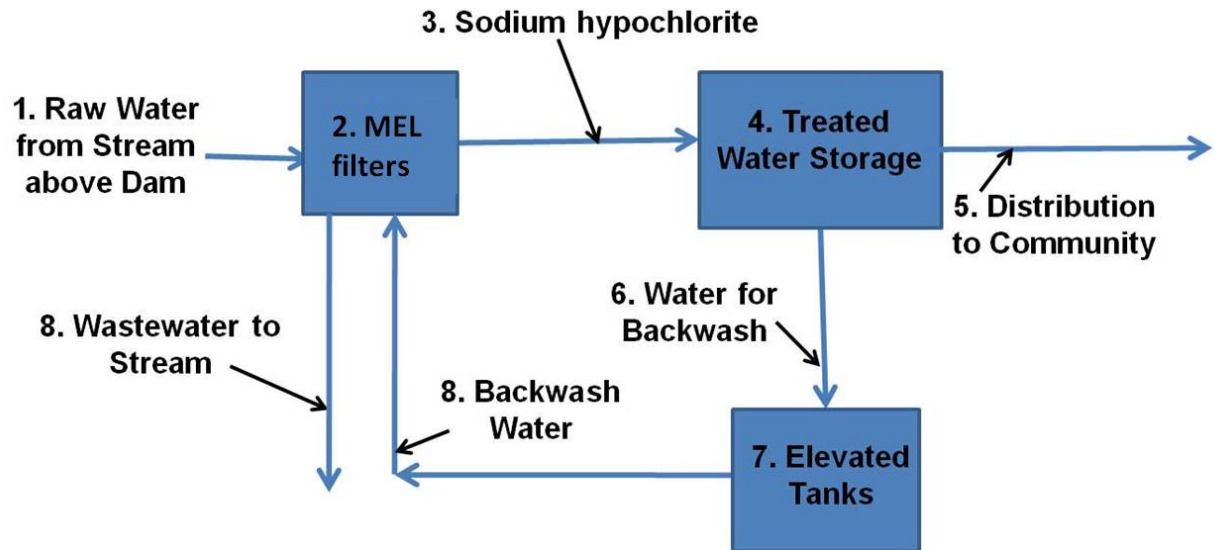
**Water from a stream is captured by a small dam which creates a reservoir at a higher elevation. The water flows by gravity to the raw water intake of filters.**

**Filtered water flows by gravity to the treated water storage tank and then to the community.**

**Water treatment plant capacity is 4,500 L/h.**



## Process Flow Diagram



- 2 (2 m x 4 m) MEL-BF type cells
- Maximum production per cell 3,200 L/h (Use surface loading of 400 L/h/m<sup>2</sup>)

### Key specifications provided by Government of Colombia for water treatment plants.

1. The primary filters should use granular media consisting of reusable sand, gravel and anthracite with a guaranteed useful life of at least 5 years. Care should be made to ensure proper cleaning of filters.
2. The treatment plant will operate using one of the following energy supplies: 110 VAC electricity, batteries and/or solar cells (12 or 24 VDC) or gravity.
3. Plant operations will require a maximum of 125 watts of power.
4. Filtered water will be disinfected using sodium hypochlorite to achieve satisfactory chlorine residual in distributed water.
5. In those areas where there are opportunities to use solar or alternative energy supplies, the plant will operate automatically, stopping and starting without supervision and responding to raw and treated water tank supplies or requirements.