

# Environmental Eng by G.B.

IS : 1172 (Basic supply)

IS : 8025 (Odour)

IS : 2065 (Plumbing)

IS : 174 (

CPHEEO Manual

1. Water supply & treatments.
2. Sewage & wastewater treatments.
3. Solid & hazardous waste Management.

Surface Water :—

Treatment schemes

1) Raw Water — [storage] — [chlorination] — supply

2) Raw water — [sedimentation] — [slow sand Filtration] — [chlorination]

supply

3) <sup>conventional</sup> Raw water — [chlorination] — [Rapid mixing] — [flocculation slow mixing]

Supply — [chlorination] — [Rapid sand Filtration] — [sedimentation]

RSF

4) Raw water — [Rapid Mixing] — [slow mixing] — [RSF] — [Part chlorination]

supply

Ground Water

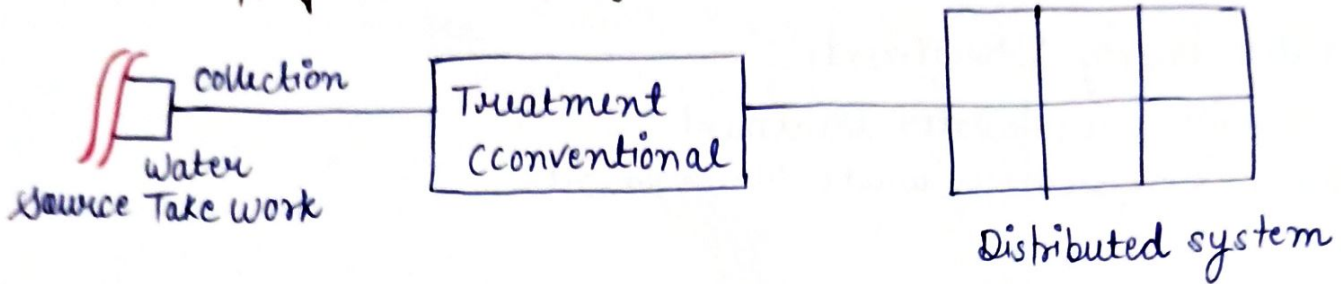
1) Raw water — [chlorination] — supply

2) Raw water — [Aeration] — [R.M.] — [S.M.] — [S.E.D.] — [RSF] — [CL] — supply

3). Raw Water — [softening] — [RSF] — [CI] — supply

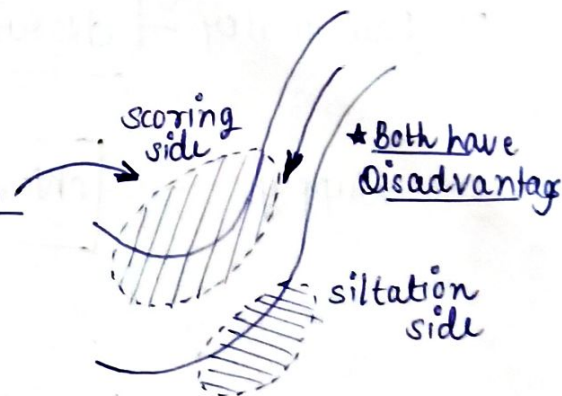
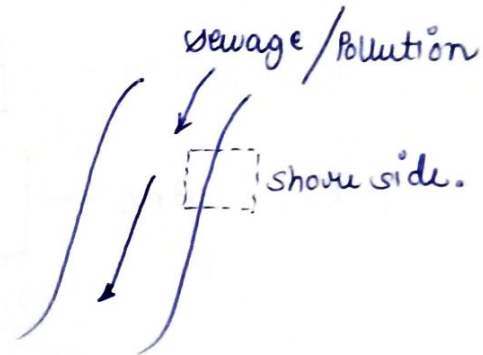
4). Raw Water — [RSF] — [softening] — [CL] — [Demineralization] — supply

## Water supply scheme / project

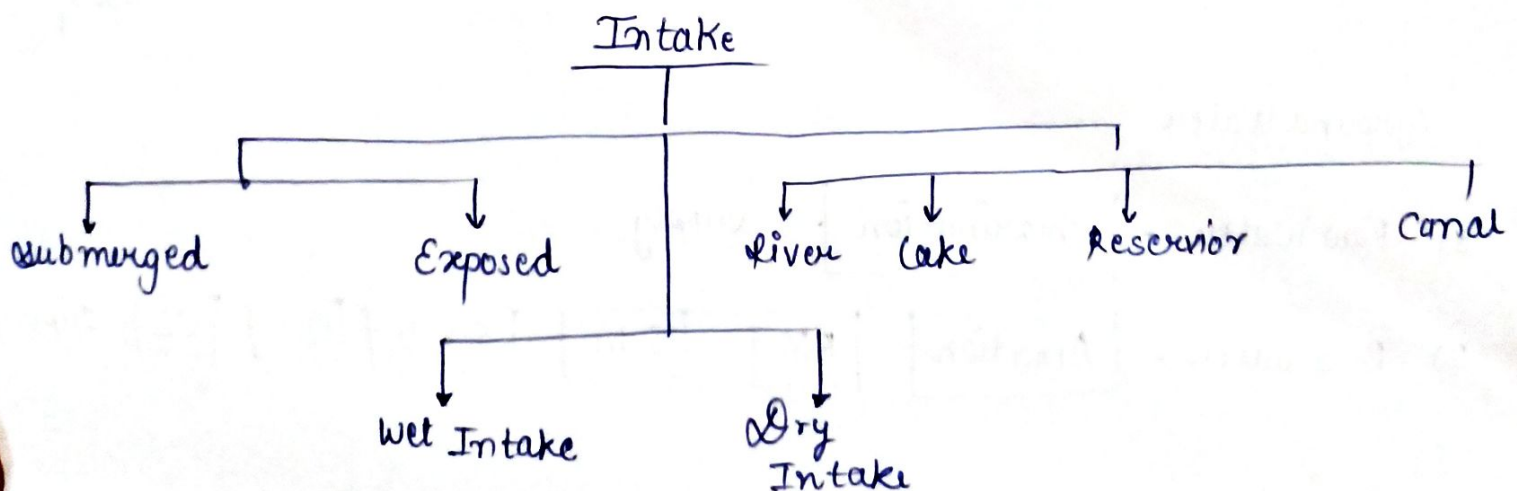


## Selection of intake site.

- 1) Water to be best quality.
- 2) To be fit for supply in worst condition.
  - Inside the shore line.
- 3) Proximity to Water treatment plant.
- 4) To be protected from floating bodies.
- 5) should not interfere into river traffic.
- 6) good foundation condition & least scouring
- 7)  $\checkmark$  finite expansion is possible.  
future

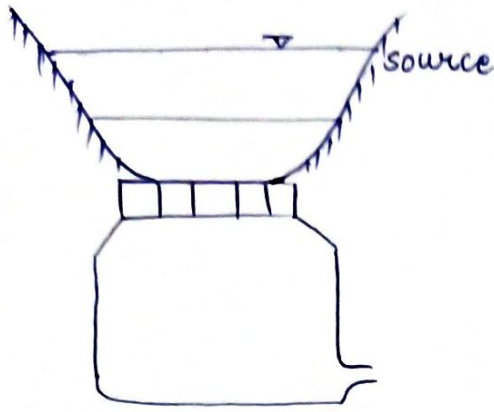


## Types of Intake :-





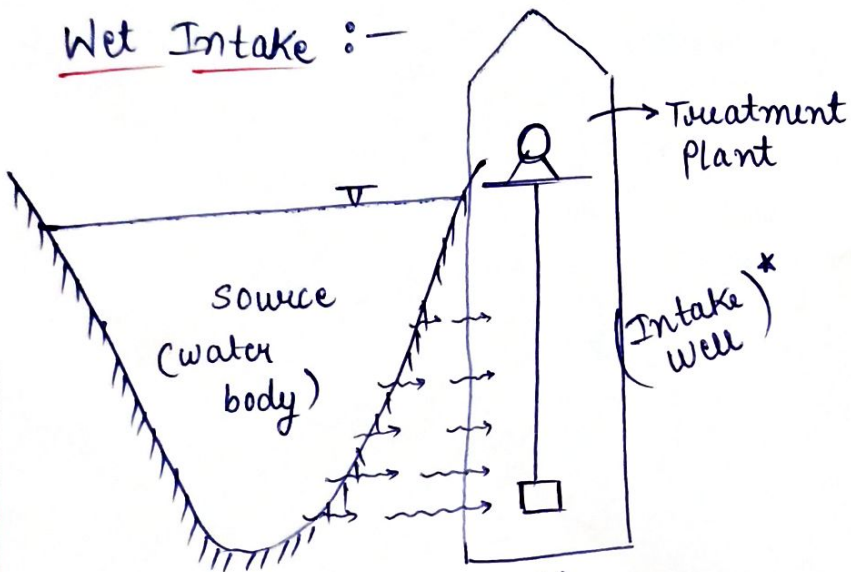
## Submerged Intake :-



\* It is Different from Ground water

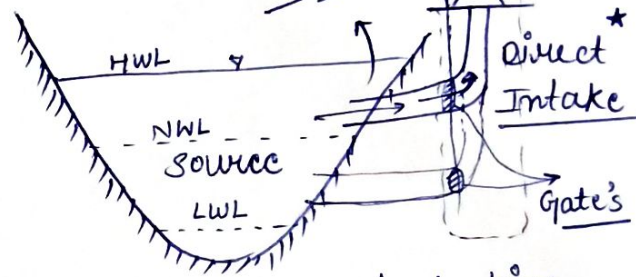
\* Its benefits are the purity of water is good and not problem with level of water.

## Wet Intake :-



\* We use it where suction head is higher.

## Dry Intake :-



\* Generally pen stock pipe system is below from LWL (Lowest Water Level).