

For a rectangular well field configuration with wells placed along the parallel main drains is:

$$L = 10,000 \frac{A_w}{B}$$

Where;

L = the distance between the wells (m)

B = the distance between the lines of wells (m)

5.9.5. Well Design

The Consultant shall demonstrate how the following objectives are met:

- Pump water at the lowest cost
- Pump water that is free of sand
- Operate with minimum operation and maintenance costs
- Operate with a long and economic lifetime

Materials used in well construction shall be selected without compromising long-term performance. Established international standards and guides such as BS, ISO, ASTM, WIS, and WRc shall be followed in the selection of and specification of construction materials.

In particular, screen material shall be resistant to chemical and microbiological corrosion, and degradation in contaminated and uncontaminated waters. The screen shall be durable enough to withstand installation and well development and last for the entire designed operation period. The screen material shall conform to ASTM Standard D5092 or other similar international standard.

PVC and stainless steel are the most commonly used well screen materials. However, in some situations, other materials, such as Teflon® may meet project objectives.

PVC screens, casings, and fittings	Schedule 40 or 80 conform to ASTM Standards F480 or D1785 or other similar international standard
Stainless steel well screens	Type 316 flush threaded joints sealing “O” rings conform to ASTM Standard A312/A312M or other similar international standard
Teflon® well screen	flush threaded joints sealing Teflon® “O” rings conform to ASTM Standard D4894 or D4895 or other similar international standard chemically inert as technically practical with respect to the site environment

Table 5-8 – Well Screen Materials

5.9.6. Other Well Design Considerations

The Consultant shall demonstrate consideration of other well design factors: