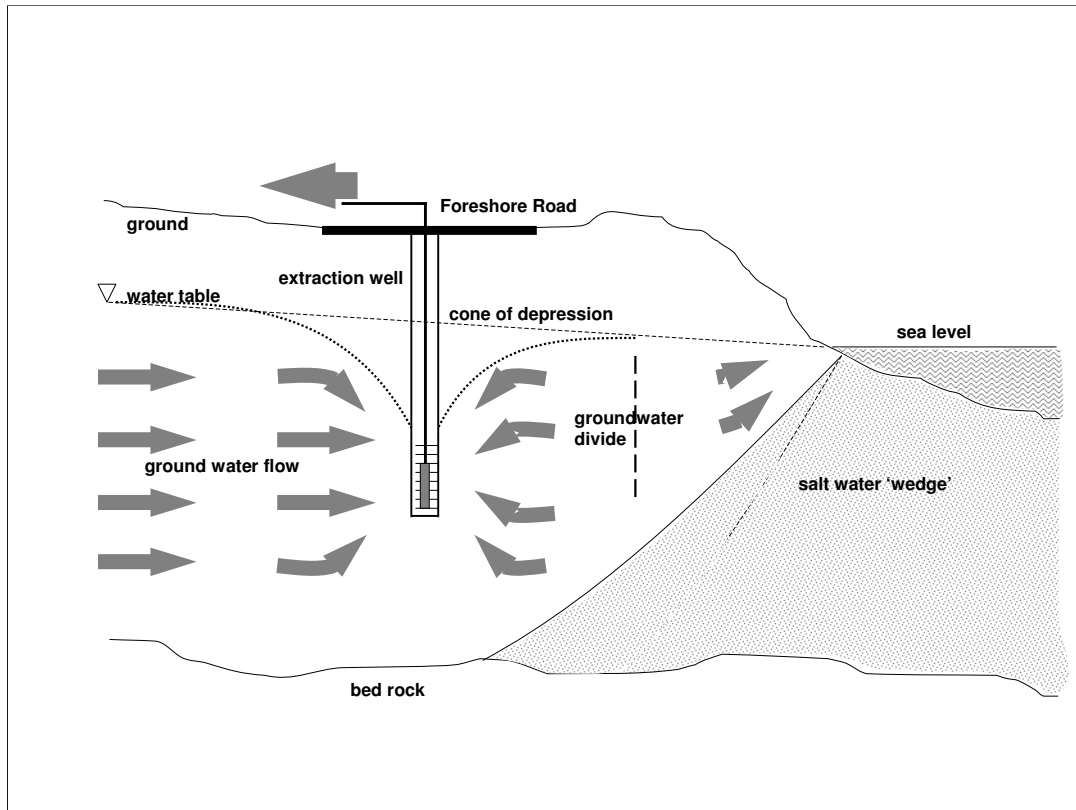


Salt water is denser than fresh water or groundwater.

As the groundwater flows towards the point of discharge into the sea, it is 'pushed' upwards by the heavier 'wedge' of salt water that saturates the aquifer at the coastline.



Pumping groundwater out of the well forms the cone of depression and the groundwater divide. It also draws the edge of the salt water 'wedge' towards the extraction well.

If pumping is too hard, salt water can be drawn into the well. But it won't be able to flow upgradient beyond the extraction well.