

Department : Civil

Year : 2014-2015

Group No: 3

Guided By

**MR. BHAVIK G.  
PATEL**

## **SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA**

### **Project Title**

### **INGRESS OF SALINITY NEAR COSTAL AREA”**

#### **Abstract:**

Every cell is water dependent and water sustained. All human activities are predicted upon the availability of water. Water is omnipresent. Its existence is fundamental assumption. Water is considered to be a free commodity a substance to be taken used and disposed-without a thought that it is becoming valuable. There will be always plenty of water but our supplies of fresh water are seriously threatened. Of all the plants known to man Earth deserves to be called as the water plant. Fresh water is a gift of nature to beings. Rain is the main source of fresh water. After formation of Gujarat state in may 1960, it is striving hard to improve its economy as well as regional development in all fields. To achieve agricultural and industrial development all efforts are put to develop the water resources of state. For equitable development of entire state, major medium and minor irrigation schemes across the river of all state are being taken up at all feasible storage sites. Gujarat has very limited resources. The characteristic feature of the rains in Gujarat is the variation of precipitation. Its occurrence is a short spell of the year and its variation is erratic not only during monsoon but also varies from region to region. The state's total surface water resources work out 2-3 percent of the water resources of India. Salinity ingress is seawater movement into freshwater aquifers due to natural processes or human activities. This may be happen by reduction in groundwater levels or by rise in seawater levels. Pumping out of ground water may reduce the height of freshwater causing formation of a cone of depression. The salt water rises 40 feet (12.192 meters) for every 1 foot (0.3048 meters) of freshwater depression and forms a cone of ascension. Salinity ingress can affect the quality of water not only at the pumping well sites but also at other well sites, and undeveloped portions of the aquifer. The impact of salinity ingress is an important and serious concern in the sea-coast and nearby by area. Most large sources of fresh groundwater are in close proximity to the sea, to natural bodies of saline groundwater or to salts from effluent wastes released by human activities. Salinity ingress is also called as Seawater Intrusion or Saltwater Intrusion has to be determined, assessed and evaluated so as to meet the fresh ground water requirement and dement. Saltwater intrusion is a major concern commonly found in coastal aquifers around the world.

#### **Prepared By:**

<b>Sr. No.</b>	<b>Student Name</b>	<b>Enrollment No</b>
1	PATEL HARDIK P.	110780106034
2	PATEL DAX S.	110780106026
3	PATEL SAPANA S.	110780106011
4	PATEL HIRAL J.	100780106023

