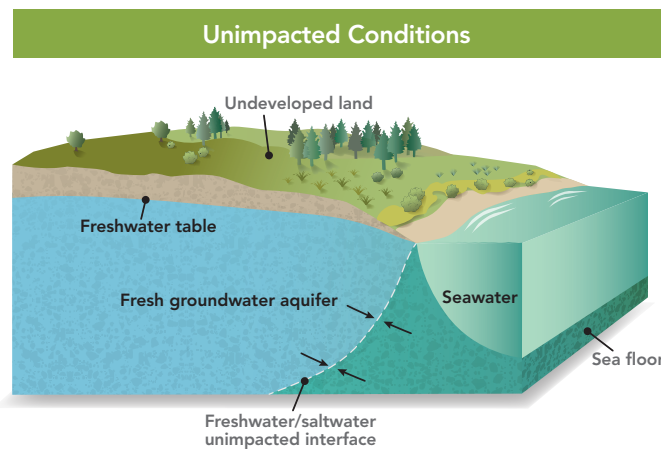


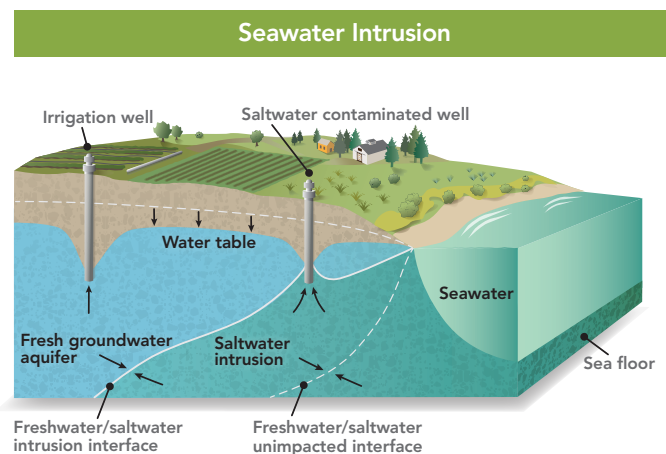
Seawater intrusion threatens water supply.

Seawater intrusion occurs in coastal groundwater aquifers when groundwater pumping or sea level rise causes saline groundwater to migrate inland toward freshwater portions of the aquifer, decreasing the capacity of the aquifer to store freshwater and potentially affecting water quality in coastal groundwater wells. SGMA requires that Groundwater Sustainability Plans (GSPs) set forth actions to limit further seawater intrusion in basins where it has occurred due to pumping.



Coastal groundwater under unimpacted conditions.

Under unimpacted conditions, density differences between fresh groundwater and saline groundwater maintain an interface between the two water sources, with less dense, fresh groundwater overlying denser seawater. As groundwater recharge replenishes coastal aquifers, fresh groundwater migrates seaward, preventing seawater from encroaching landward into coastal aquifers. Natural processes maintain this balance.



How can seawater intrusion occur?

Seawater intrusion can occur when groundwater pumping lowers water levels in a coastal aquifer, causing saline groundwater to be drawn into freshwater zones of an aquifer. Seawater intrusion may also result from sea level rise where increasing sea levels cause landward encroachment of saline groundwater.

How does seawater intrusion impact me?

Why does seawater intrusion occur?

What is the role of my GSA in preventing seawater intrusion?

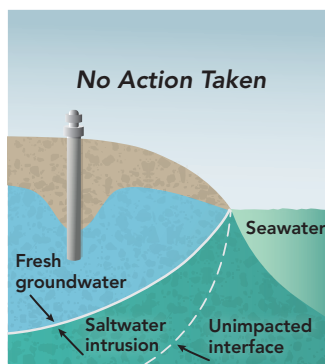
Will seawater intrusion affect me and my community?

Seawater intrusion can affect the quality of water supplies obtained from coastal groundwater wells by increasing salt concentrations, which then may require treatment or blending to return groundwater to drinking water or agricultural quality standards. In addition to treatment, management of seawater intrusion may require pumping reduction, managed aquifer recharge, or installing costly freshwater injection wells along the coast to limit further landward migration of saline groundwater.

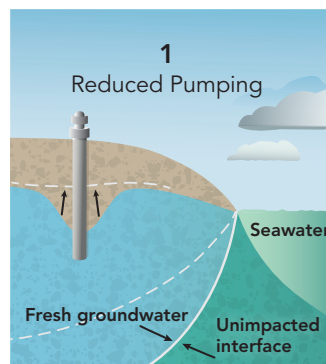
How can we monitor seawater intrusion to demonstrate the success of our Groundwater Sustainability Plan?

If seawater intrusion is an issue in your basin, the GSP will include a description of historical groundwater data and a monitoring network to assess groundwater elevations and chloride concentrations to identify locations where seawater intrusion has occurred or may occur in the future.

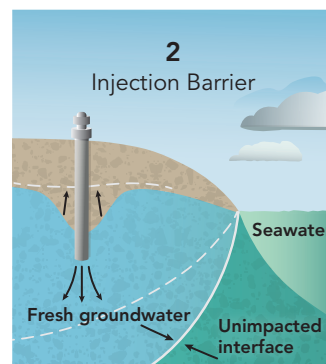
MANAGEMENT ACTIONS TO PREVENT OR REDUCE SEAWATER INTRUSION



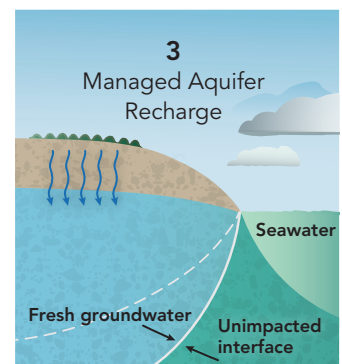
No actions are taken and the coastal aquifer shows seawater intruding.



1. Reduced pumping which raises the groundwater level or freshwater barrier over time.



2. A barrier of injection wells which causes seaward migration of the freshwater/saltwater interface.



3. Near shore managed aquifer recharge which also causes seaward migration of the freshwater/saltwater interface.

What might I be asked to do?

- Coordinate with my neighbors in development of a GSP through participation in my GSA
- Allow or participate in monitoring endorsed by my GSA
- Adjust or reduce pumping in areas susceptible to seawater intrusion
- Participate in funding projects to manage seawater intrusion

Be involved in your local GSA

SGMA encourages local landowners to work together to develop effective GSPs, and encourages neighboring basins to find common, acceptable solutions. Basins that fail to take corrective action over time may have plans written and implemented by the State Water Resources Control Board.