

# Groundwater-Surface Water Interaction: Implications for Groundwater Planning and Management

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October 29, 2015

Texas Water Law Institute, 2015

## Overview

- Groundwater Management Introduction
- Hydrogeologic Concepts
- Induced Recharge Example
- Spring Flow Reduction Example

## Groundwater Management



## Hydrogeologic Facts

- Aquifer characteristics and uses vary greatly across Texas and often across a groundwater conservation district
- Political boundaries of a groundwater conservation district do not necessarily coincide with the effects of groundwater pumping
- Groundwater and surface water are linked – groundwater pumping affects surface water

## Hydrogeologic Concepts

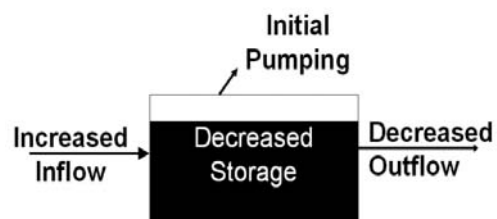
- Regional Inflow/Outflow



Equilibrium: Inflow = Outflow

## Hydrogeologic Concepts

- Regional Inflow/Outflow



Nonequilibrium: Inflow  $\neq$  Outflow

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First appeared as part of the conference materials for the  
2015 Texas Water Law Institute session

"Groundwater-Surface Water Interaction: Implications for Groundwater Planning and Management"