THE ROLE OF GROUNDWATER IN CALIFORNIA

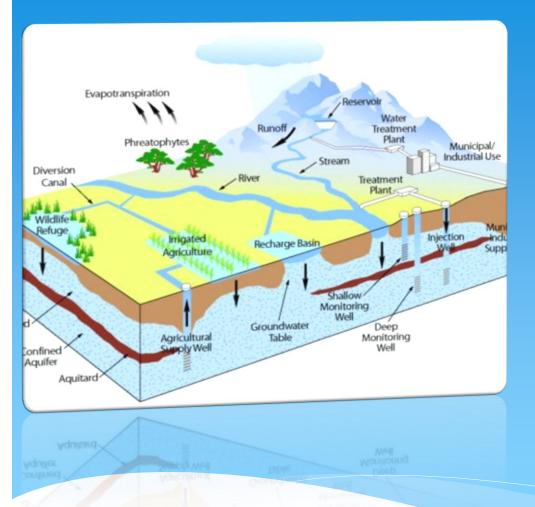
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GROUNDWATER IS A CRITICAL RESOURCE IN CALIFORNIA

- * In an average year, groundwater meets about 40% of the State's water demand
- * In drought conditions groundwater provides more of California's water supply
- * In 2014, groundwater was estimated to provide nearly 70% of the State's need

GROUNDWATER WILL BE AN INCREASINGLY VITAL RESOURCE

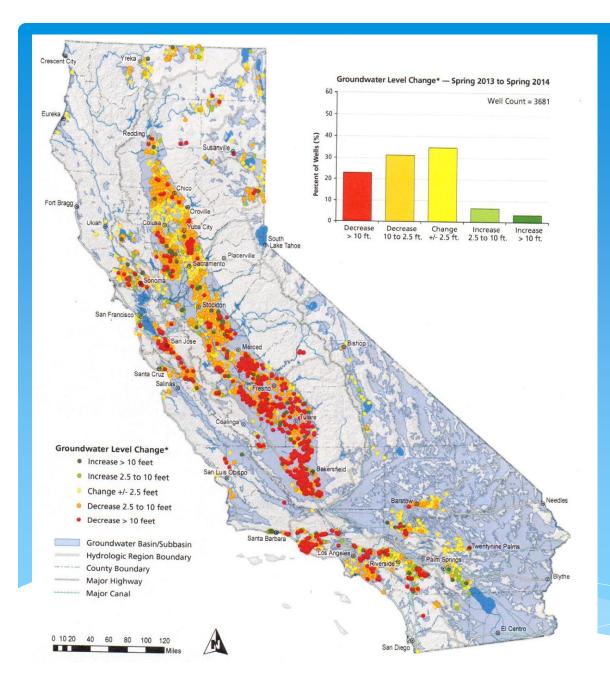
- Increased water demand will cause additional reliance on groundwater
- * Altered precipitation patterns will also likely cause increased reliance
- * Population expected to grow to 50 Million by 2050 (12 Million increase



IT IS A COMPLICATED SYSTEM IN CALIFORNIA

PRESSURES ON GROUNDWATER

- * Significant Groundwater overdraft (State DWR estimates 1.233 Billion to 2.5 Billion Cubic Meters)
- * Saltwater intrusion along coastal aquifers
- * Land subsidence
- * Increased energy consumption and facility costs



OVERDRAFT EXISTS STATEWIDE

GROUNDWATER HAS BEEN LARGELY UNREGULATED

- * Dual System of overlying rights and appropriative rights
- Complicated by percolating groundwater and subterranean streams
- * Surface water/groundwater interconnection
- Occasional adjudication in the Courts (long-time and very costly

SUSTAINABLE GROUNDWATER MANAGEMENT ACT OF 2014

Fundamental Change

- * Provides for local/regional management of groundwater basins
- Requires the development of sustainability plans
- Requires implementation
- Provides for State monitoring of performance and intervention in certain cases

AVOID "UNDESIREABLE RESULTS"

- Chronic lowering of groundwater levels
- * Significant reduction of groundwater storage capability
- Significant seawater intrusion
- * Significant degradation of groundwater quality
- * Significant land subsidence
- * Surface water depletions that have a unreasonable adverse impact on beneficial uses

CASGEM Groundwater Basin Prioritization Oroundwater basin/subbasin Basin prioritization ranking High Medium DWR Region Office boundary Hydrologic region boundary County boundary Region North Central Region Office South Central

GROUNDWATER BASINS COVERED

- Applies to all medium and high priority basins as determined by DWR
- 127 basins in total (all of the orange and yellow on the map)

TIMING

- * Local Groundwater agencies must be designated by June 30, 2017
- Plans must be developed by January 31, 2020 for basins in a critical overdraft condition and by January 31, 2022 for all others
- * Plans must provide for achieving sustainability within 20 years

PLAN REQUIREMENTS AND AUTHORITIES

- * Establish a sustainability goal
- Include measureable objectives
- Coordination among and between local agencies overlying the basin
- * Authorizes allocation of pumping rights
- * Authorizes imposition of pumping taxes
- * Authorizes construction of facilities to recharge basins

CONCLUSIONS

- * Most significant water legislation in California in 100 years
- * Ambitious goal "manage groundwater sustainably within 20 years"
- * Will avoid mining of groundwater
- * Will provoke more efficient water use and some contraction of uses
- * Will create markets for groundwater