

Achieving Long Term Sustainability

Sierra Ryan, Water Resources Planner County of Santa Cruz Feb 22, 2017

THE PURPOSE OF GROUNDWATER MANAGEMENT

AVOID UNDESIRABLE RESULTS:

- REDUCTION IN GROUNDWATER STORAGE
- SEAWATER INTRUSION
- DEGRADED WATER QUALITY
- LAND SUBSIDENCE
- CHRONIC GROUNDWATER OVERDRAFT
- SURFACE WATER DEPLETIONS IMPACTS ON HUMAN & ECOLOGICAL USES

TIMELINE FOR SUSTAINABILITY June Local groundwater

June 30, 2017 Local groundwater sustainability agencies formed.

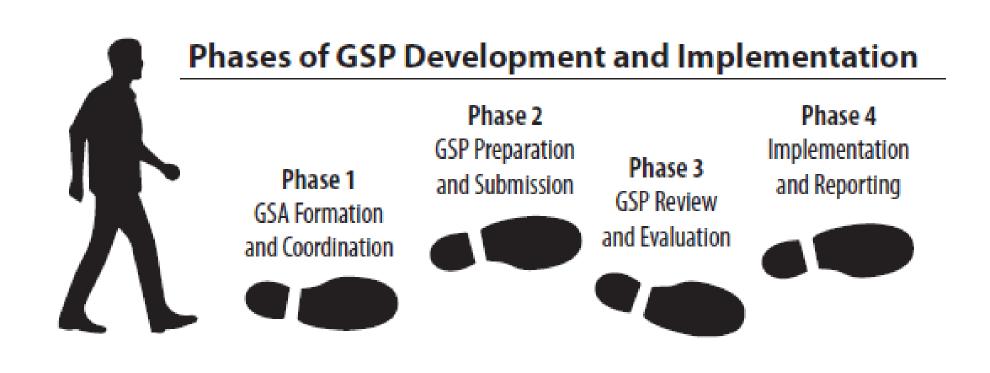
Jan. 31, 2020 Groundwater sustainability plans adopted for critically overdrafted basins.

Jan. 31, 2022 Groundwater sustainability plans adopted for high and medium priority basins not currently in overdraft.

By 2040 All high and medium priority groundwater basins must acheive sustainability.

SUSTAINABILITY TIMELINE

THE GROUNDWATER SUSTAINABILITY PLAN (GSP)





GSP CONTENTS

- ADMINISTRATIVE INFORMATION
- BASIN SETTING
- SUSTAINABLE MANAGEMENT CRITERIA
- MONITORING NETWORKS
- PROJECTS AND MANAGEMENT ACTIONS

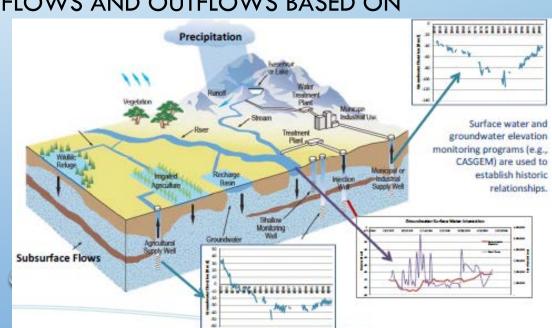


BASIN SETTING

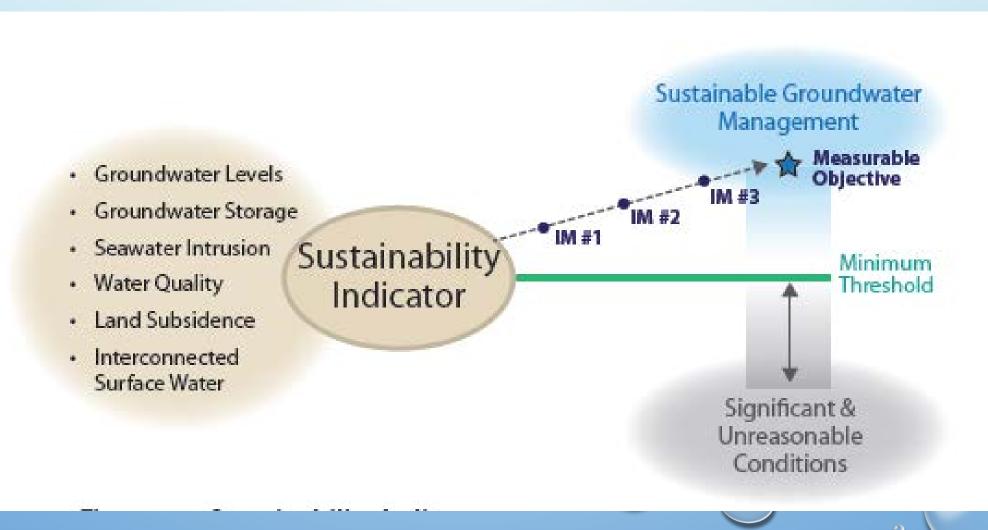
- STATIC PHYSICAL CHARACTERISTICS (IE GEOLOGY)
- DYNAMIC GROUNDWATER CONDITIONS BASED ON GROUNDWATER MODELING
 - INCLUDES ANALYSIS OF GROUNDWATER-SURFACE WATER INTERACTIONS
 - ANALYSES HOW THE BASIN RESPONDS TO STRESSES OVER TIME
- WATER BUDGET QUANTITATIVE ACCOUNTING OF INFLOWS AND OUTFLOWS BASED ON

MODELING AND WATER USE PROJECTIONS

- QUANTIFICATION OF OVERDRAFT CONDITIONS
- HELPS TO UNDERSTAND THE FUTURE PROJECTED
 CONDITIONS NEEDED TO DEVELOP MANAGEMENT
 AND PROJECTS









MONITORING NETWORK

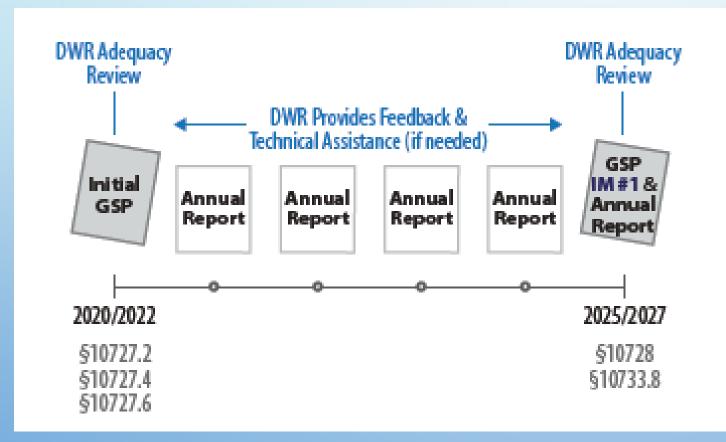
- USED TO TRACK PROGRESS TOWARD SUSTAINABILITY GOALS
- WILL RELY HEAVILY ON WELL LEVEL MONITORING WITHIN THE BASIN

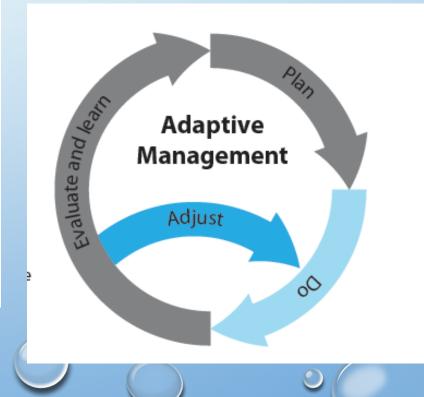


- DETERMINE ACTIONS REQUIRED TO ADDRESS PROBLEMS AND HELP ACHIEVE THE MEASUREABLE OBJECTIVES
- EACH MUST HAVE INFORMATION ON PERMITTING, IMPLEMENTATION TIMELINE, EXPECTED BENEFITS, REQUIRED AUTHORITY, AND COST
- INCLUDE CONTINGENCY MEASURES IN CASE THE BASIN DOES NOT RESPOND AS EXPECTED
- IN OUR BASIN, THIS WILL LIKELY INCLUDE WATER EFFICIENCY, INCREASED RECHARGE, AND SUPPLEMENTAL SUPPLY



REPORTING ON PROGRESS







THE DETAILS TO BE DETERMINED

- PLAN FOR ACHIEVING LONG TERM SUSTAINABILITY, RECOVERY WILL BENEFIT ALL USERS OF THE BASIN, INCLUDING THE NATURAL ENVIRONMENT
- WHO WILL WRITE IT?
- FINANCING/ POTENTIAL FOR FEES
- DE MIMIMIS VS. NON-DE MINIMIS PRIVATE WELL USERS

