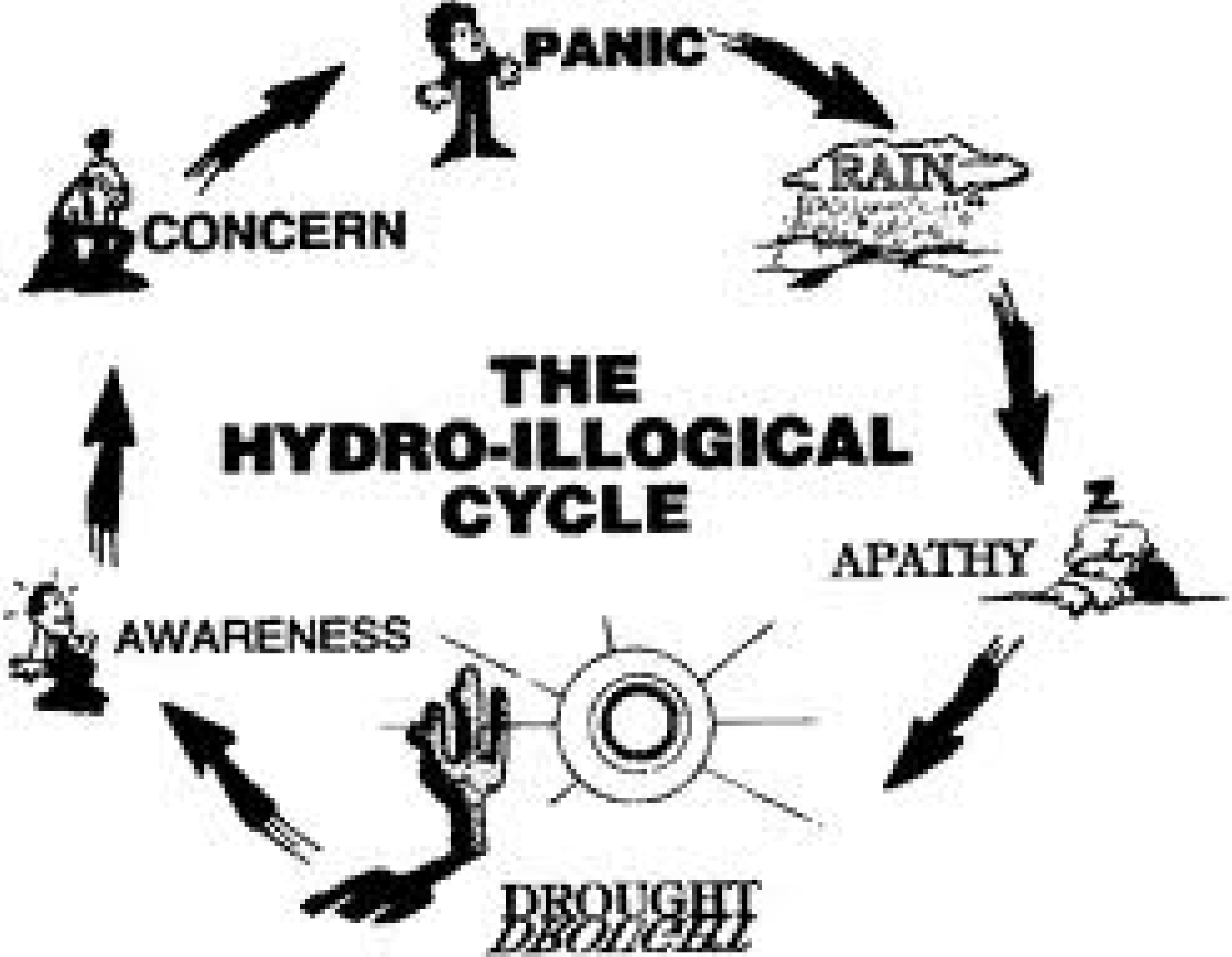
Stanislaus County Groundwater Management Overview

Walter Ward, Stanislaus County Water Resources Manager


PANIC
RAIN
APATHY
DROUGHT
AWARENESS
CONCERN
THE
HYDRO-ILLOGICAL
CYCLE

Cause for Concern

- Drought
  - Three years running
    - 1976-1977
    - 1987-1992
- Land conversion
  - Rangeland to Tree Orchards & Vineyards
- Groundwater Development
  - Large diameter (capacity) wells drilled
- Well Interference
  - Drawdown impacts to existing users?
- Sustainability??

WAC Mission Statement

- *"To evaluate the status of the groundwater resources of Stanislaus County in order to identify and develop programs and practices that ensure a reliable and sustainable groundwater supply for the benefit of its citizens, present and future, and to make recommendations to the County Board of Supervisors to adopt public policy that empowers such identified actions."*

Groundwater Management Action Plan (GMAP)

- Board of Supervisors accepted the GMAP and directed staff to implement it on June 10, 2014
- Five-year, phased program
- Emphasis on data collection from private landowners
- Plan Elements
  - Thresholds
  - Monitoring
  - Governance
  - Funding
  - Enforcement
- http://www.stancounty.com/er/pdf/groundwater/groundwater-management-action-plan.pdf

Domestic Dry Wells

- In an effort to collect information in a more systematic manner and to map the location of the reported impacted dry wells, staff created the “Report A Well Problem” form and made it available on-line at the following address:
    - //www.stancounty.com/er/pdf/report-well-problem-form.pdf.
- Other useful information regarding water conservation and how to obtain a copy of a Well Completion Report from the California Department of Water Resources is also includes on this site.

Domestic Dry Wells

- As information began to be collected, a prevailing trend was revealed in that the great majority of the impacted domestic wells shared two common characteristics: they were less than 100 feet in total depth and greater than 50 years in age.

- The lead-time to get repairs made is 2 – 3 months (and up to six months)

- Tremendous backlog and limited, qualified well drilling capacity

Domestic Dry Well Financial Assistance Program

- Provide financial assistance to those persons on fixed incomes (elderly preference) that can't afford the $12,000 to $15,000 price tag
- Deeper well drilled and new pump system installed
- Rural unincorporated areas of the County

Domestic Dry Well Financial Assistance Program

- The program only applies to verifiable rural domestic well failure situations and cannot be used for unreasonable well upgrades or that which is beyond what is reasonably necessary to maintain a domestic household water supply.

- The process was approved by the Board of Supervisors on September 9, 2014 and is administered by the local Housing Authority.

Domestic Dry Well Financial Assistance Program

- Only three have been processed and approved to date
- The loan application forms and more details involving the pilot program are posted on the County's main website:
- http://www.stancounty.com/er/pdf/groundwater/loan-application.pdf

Sustainable Groundwater Management Act

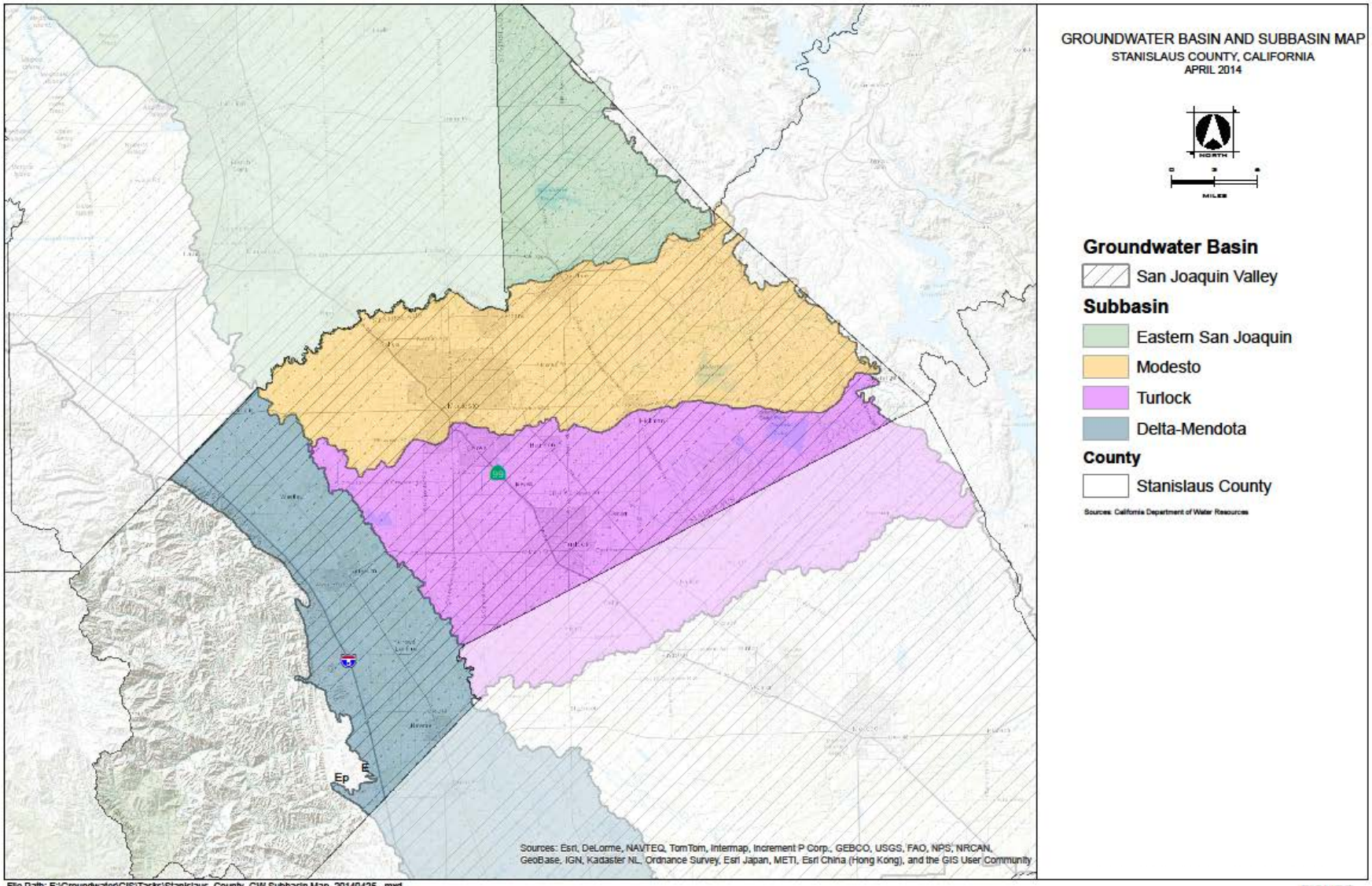
- Signed into law by Governor Brown on September 16, 2014

- Gives *local public agencies* the authority to adopt Groundwater Sustainability Plans (GSP's) intended to manage the groundwater to maintain the "Safe Yield" of the basin.

- The legislation imposes timeline on adoption of such plans:

  – Basins *designated as "critically" overdrafted* by DWR in Bulletin 118 must have plans in place by *January 31, 2020.*

  – Basins "*not critically" overdrafted*, but designated by DWR as high or medium priority basins must have plans in place *January 31, 2022.*



File Path: E:\Groundwater\GIS\Tasks\Stanislaus_County_GW Subbasin Map_20140425_.mxd

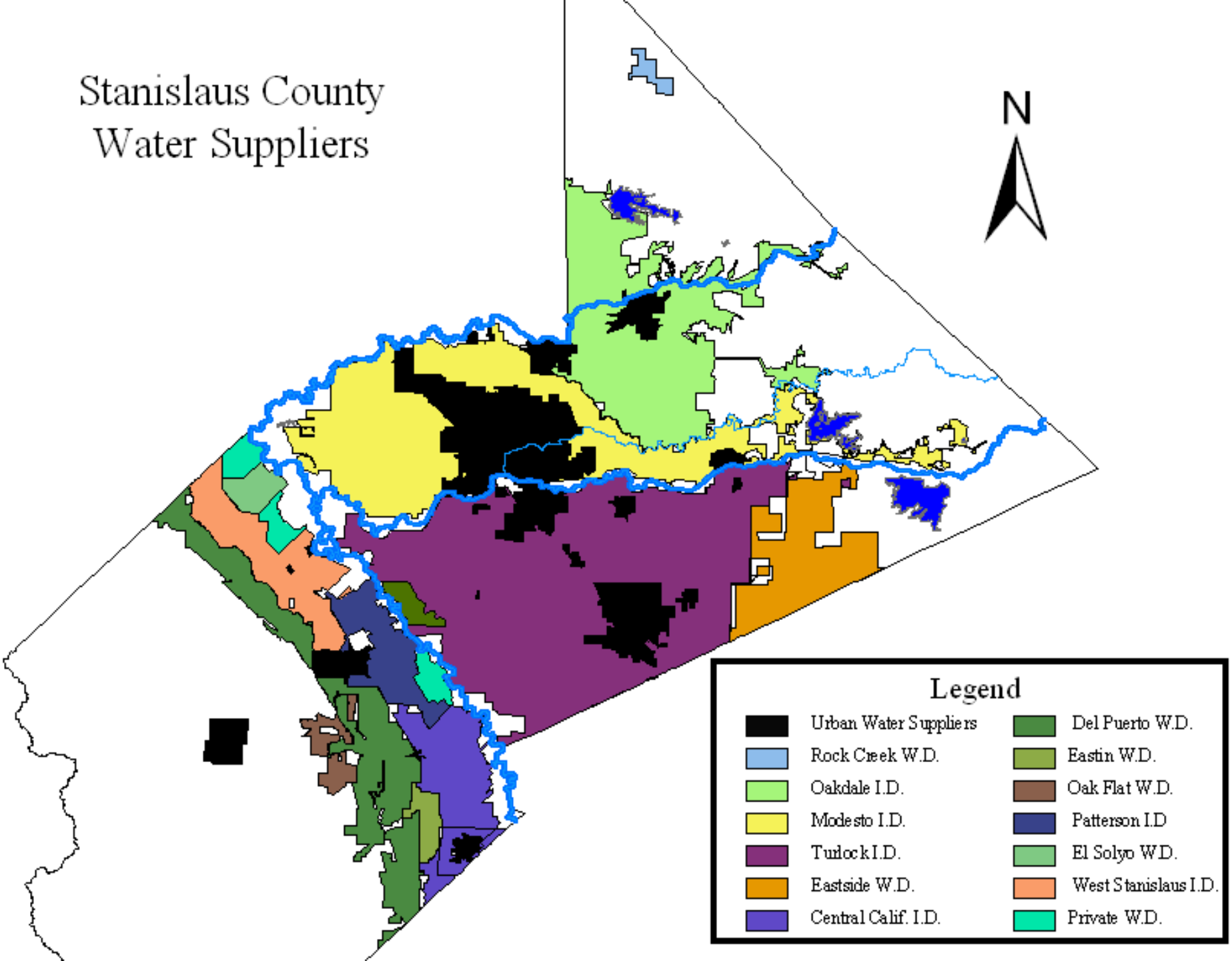
FIGURE

Sustainable Groundwater Management Act

- Agencies electing to become Groundwater Sustainability Agencies (GSA's) will be given broad powers over groundwater, including:
  - investigate and determine the sustainable yield of a groundwater basin,
  - Collect groundwater extraction data
  - impose fees for groundwater management
  - enforce the terms of any adopted GSP

Sustainable Groundwater Management Act

- The final version of the legislation allows multiple agencies to operate within a groundwater basin.
- By January *1, 2016* DWR must adopt regulations for evaluating GSP's, which also identify required plan components;
- By January *1, 2017* DWR must establish "best management practices" for the sustainable management of groundwater.
- DWR must periodically review plans to determine compliance and meet goals.


Stanislaus County
Water Suppliers
N
Legend
Urban Water Suppliers
Rock Creek W.D.
Oakdale I.D.
Modesto I.D.
Turlock I.D.
Eastside W.D.
Central Calif. I.D.
Del Puerto W.D.
Eastin W.D.
Oak Flat W.D.
Patterson I.D
El Solyo W.D.
West Stanislaus I.D.
Private W.D.

Sustainable Groundwater Management

- "Sustainable groundwater management" means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.

- "Sustainable yield" means the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.

Undesirable Result

- Means one or more of the following:
  - Significant and unreasonable reduction of groundwater storage.
  - Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
  - Significant and unreasonable land subsidence that substantially interferes with surface land uses.
  - Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

Sustainable Groundwater Management

- *State Intervention.* The State will have the ability to step in if a basin is not being properly administered:
  - no local agency is willing to serve as a GSA;
  - the GSA does not complete a GSP;
  - the GSP is found to be inadequate; or
  - the GSP does not achieve its goals.
- *State intervention.* Restricted to only those areas of a basin that are not being properly managed.

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Groundwater Ordinance (GWO)

- The definition of groundwater “mining” in the existing GWO is problematic

- The WAC and the TAC have spent considerable time and effort working on a revised GWO, including the definition of groundwater “mining”

- The recently enacted groundwater legislation focuses on the development of *sustainable groundwater management* programs, practices and policies.

Groundwater Ordinance

"Mining" has been replaced with the concept of "unsustainable groundwater extraction"

- Subject to a local "permit" issued by the County unless otherwise exempt
  - Exemptions recognize historical and ongoing activities of cities and irrigation districts related to groundwater planning and management
    - Specifically points out that groundwater sustainability is achieved through coordinated conjunctive use of surface water
- Term tied to Groundwater Sustainability Plans

- It is also envisioned that the GWO could be used as the local enforcement tool or "backstop" to what otherwise would involve State intervention for failure to comply with legislative mandate

Groundwater Ordinance

- Periodic reports of pertinent groundwater information (that are reasonably necessary to monitor the existing condition of groundwater resources within the unincorporated County) will be required to be submitted to DER.
  - To facilitate the development of effective Sustainable Groundwater Plans.
  - To identify areas of concern and focus for GSP implementation such as areas with no or limited surface water
  - *Such data shall be treated as proprietary and confidential and protected from the public record except in aggregated form for reporting purposes.*
  - A "De minimis extractor" shall not be required to submit such information ("De minimis extractor" means a person who extracts two (2) acre-feet or less per year.)

Next Steps

- Groundwater Sustainability Agency(s) formation
- Groundwater Data Collection (see Board funding)
  - Centralized Database
    - Facilities Mapping
    - Water Levels
    - Extraction Volume
    - Coordinate and integrate inter-basin groundwater data to assist Groundwater Sustainability Planning
- Revised Groundwater Ordinance Adoption and Implementation
- Praying for Rain and LOTS OF SNOW!!