

Flow Enhancement and Water Rights Workshop

At the 3rd Steelhead Summit held in Ventura, California on December 5, 2018.



Flow Enhancement and Water Rights Workshop



Matt Clifford, JD, California Water Project, and Tom Hicks, Water Law Attorney

Lack of adequate streamflow, particularly during California's long summer dry season, is one of the most prevalent factors limiting the recovery of steelhead and salmon in the state's coastal watersheds. California conservation professionals are at the forefront of an emerging movement to improve instream flows and aquatic conservation values through the implementation of voluntary projects with willing landowners and water right holders. Developing and implementing such projects can be challenging, because the underlying law, policy, and science are complex, and often raise distinct issues unlike those encountered in other types of restoration projects. This workshop will provide an overview of streamflow restoration in coastal California. Part I will be a crash course in the basics of California water law. Part II will provide an overview of various types of projects that are being used to enhance dry season streamflows. Part III will discuss several current policy challenges that have emerged in the course of streamflow restoration work, and potential solutions. Audience participation will be encouraged throughout the day.

+ Agenda

9:00 – 9:15: Welcome and introductions; audience background and experience; goals for the day

9:15 - 10:30: Water law 101: an overview of California water law, including discussions of:

- n Riparian and appropriative water rights
- n Instream flow dedications under Water Code section 1707
- n The Public Trust Doctrine
- n The Sustainable Groundwater Management Act (SGMA)

10:30 - 10:45 Break

10:45 - noon: Projects that protect, restore, and enhance streamflow, including:

- n Storage and forbearance
- n Rainwater harvesting
- n Coordination of diversions
- n Leases & acquisitions
- n Groundwater infiltration (slow/spread sink)
- n Sources of funding

Noon - 1:00: Lunch

1:00 - 2:30: Legal and policy issues affecting streamflow restoration. Topics will include:

- n State streamflow standards and their relation to voluntary projects
- n Safe harbor agreements
- n Infiltration & water rights
- n Tax deductions for water right donations



Intro to Water Law, Water Bond,
Voluntary Water Transactions,
and Instream Transfers

TOM HICKS ATTORNEY AT LAW

Who is in the Audience?

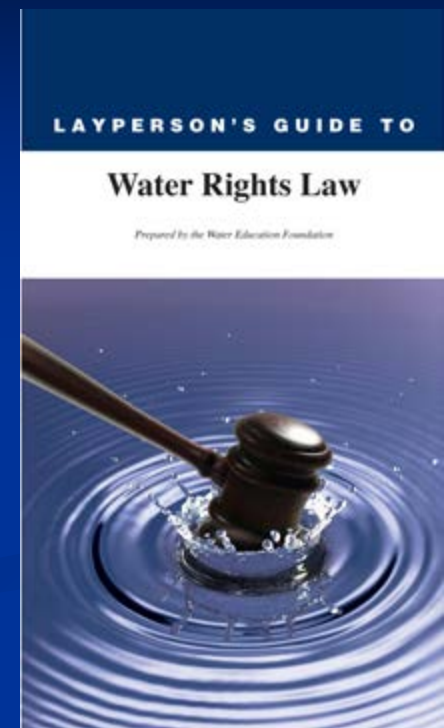
- Land and water conservation professionals?
- Land owners? Ranch managers?
- Conservation attorneys?
- Board members?
- State or federal agencies?
- Concerned citizens?
- Others?

Outline and Overview

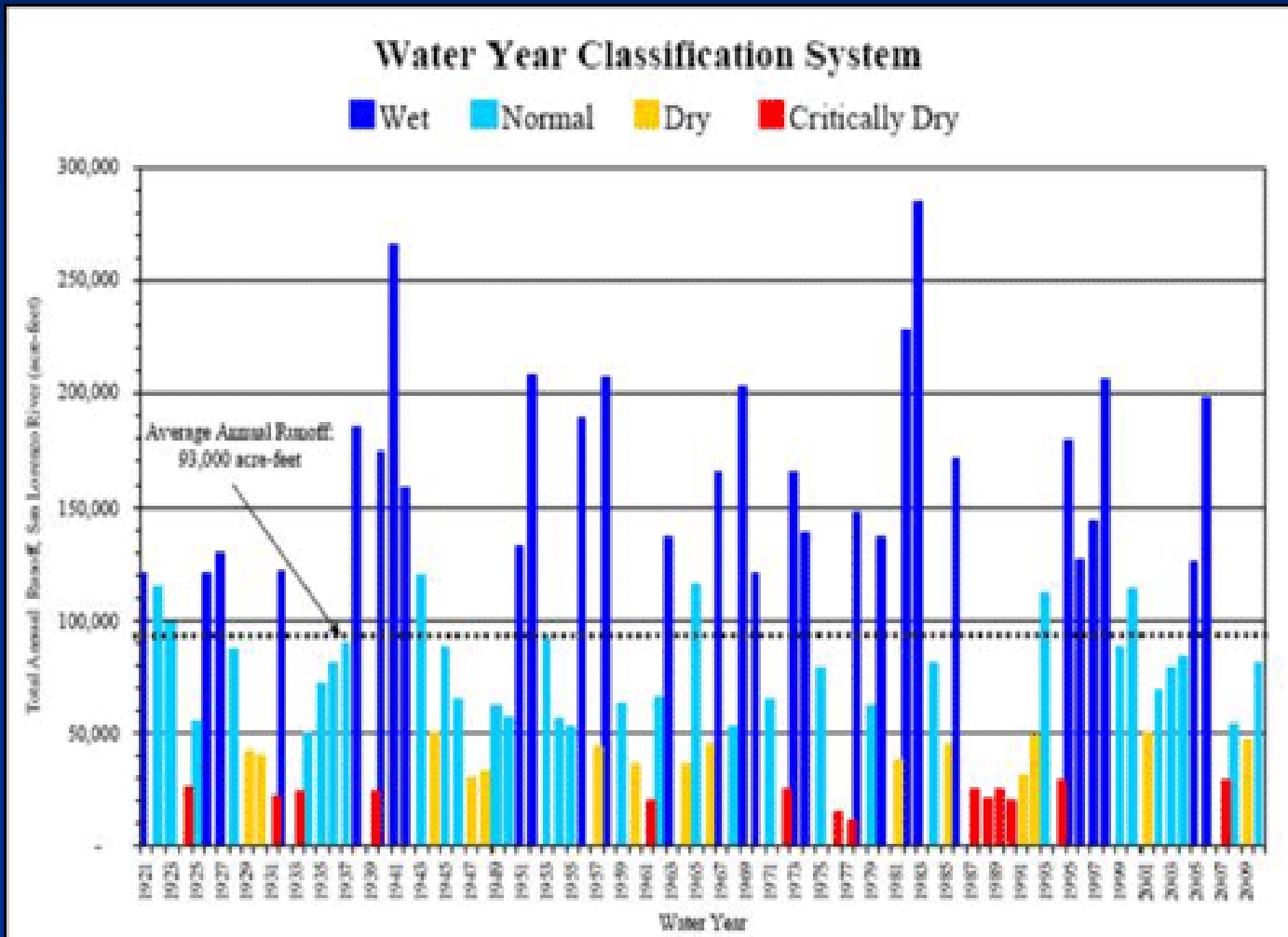
- Executive Order: Mandatory Statewide Water Reductions
- California Water Law Basics
- Groundwater
- Water Management
- Water Bond
- Water Transactions and Transfers
- Federal Tax Deductibility of Water Right Donations
- Disclaimer: More than can be covered in an hour!

Author, Layperson's Guide to Water Rights Law

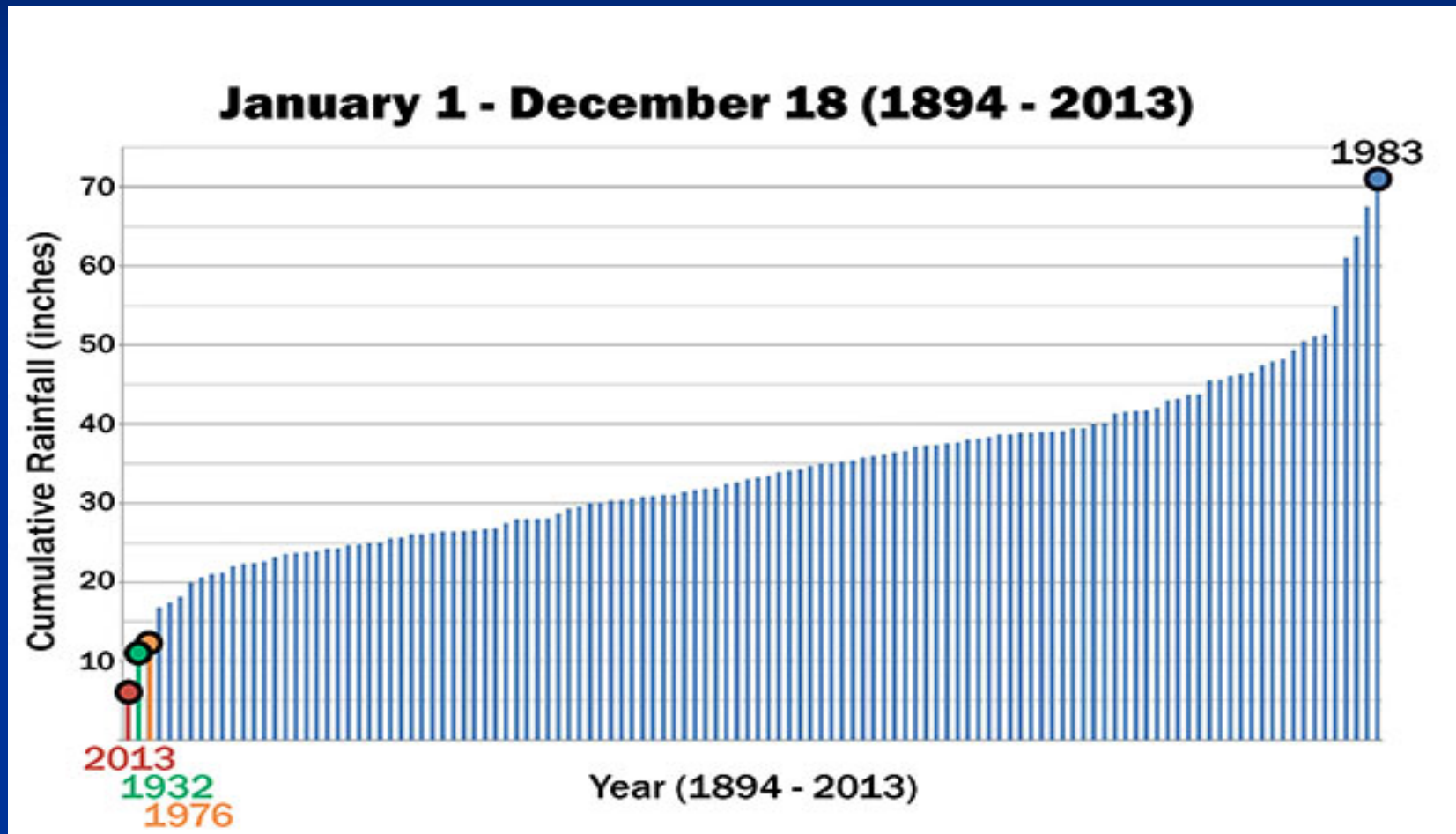
- The 28-page, recognized as the most thorough explanation of California water rights law available to non-lawyers, traces the authority for water flowing in a stream or reservoir, from a faucet or into an irrigation ditch through the complex web of California water rights.
- It includes historical information on the development of water rights law, sections on surface water rights and groundwater rights, a description of the different agencies involved in water rights, and a section on the issues not only shaped by water rights decisions but that are also driving changes in water rights. Includes chronology of landmark cases and legislation and an extensive glossary.
- <http://www.watereducation.org/publication/laypersons-guide-water-rights-law>



Dry & Critically Dry Years



Drought (Does not include '14-15)



Drought Conditions



Executive Order B-29-15: Mandatory Statewide Water Reductions

- On April 1, 2015, Gov. Brown announces actions that will:
 - save water,
 - increase enforcement to prevent wasteful water use,
 - streamline the state's drought response, and
 - invest in new technologies that will make California more drought resilient.

Mandatory Statewide Water Reductions

■ Save Water

For the first time in state history, the Governor has directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent. This savings amounts to approximately 1.5 million acre-feet of water over the next nine months, or nearly as much as is currently in Lake Oroville.

Mandatory Statewide Water Reductions

■ Increase Enforcement

- The Governor's order calls on local water agencies to adjust their rate structures to implement conservation pricing, recognized as an effective way to realize water reductions and discourage water waste.
- Agricultural water users will be required to report more water use information to state regulators, increasing the state's ability to enforce against illegal diversions and waste and unreasonable use of water under today's order.
- Additionally, the Governor's action strengthens standards for Agricultural Water Management Plans submitted by large agriculture water districts and requires small agriculture water districts to develop similar plans. These plans will help ensure that agricultural communities are prepared in case the drought extends into 2016.

Executive Authority

- The state is taking steps to make sure that water is available for:
 - human health and safety,
 - growing food,
 - fighting fires, and
 - protecting fish and wildlife.

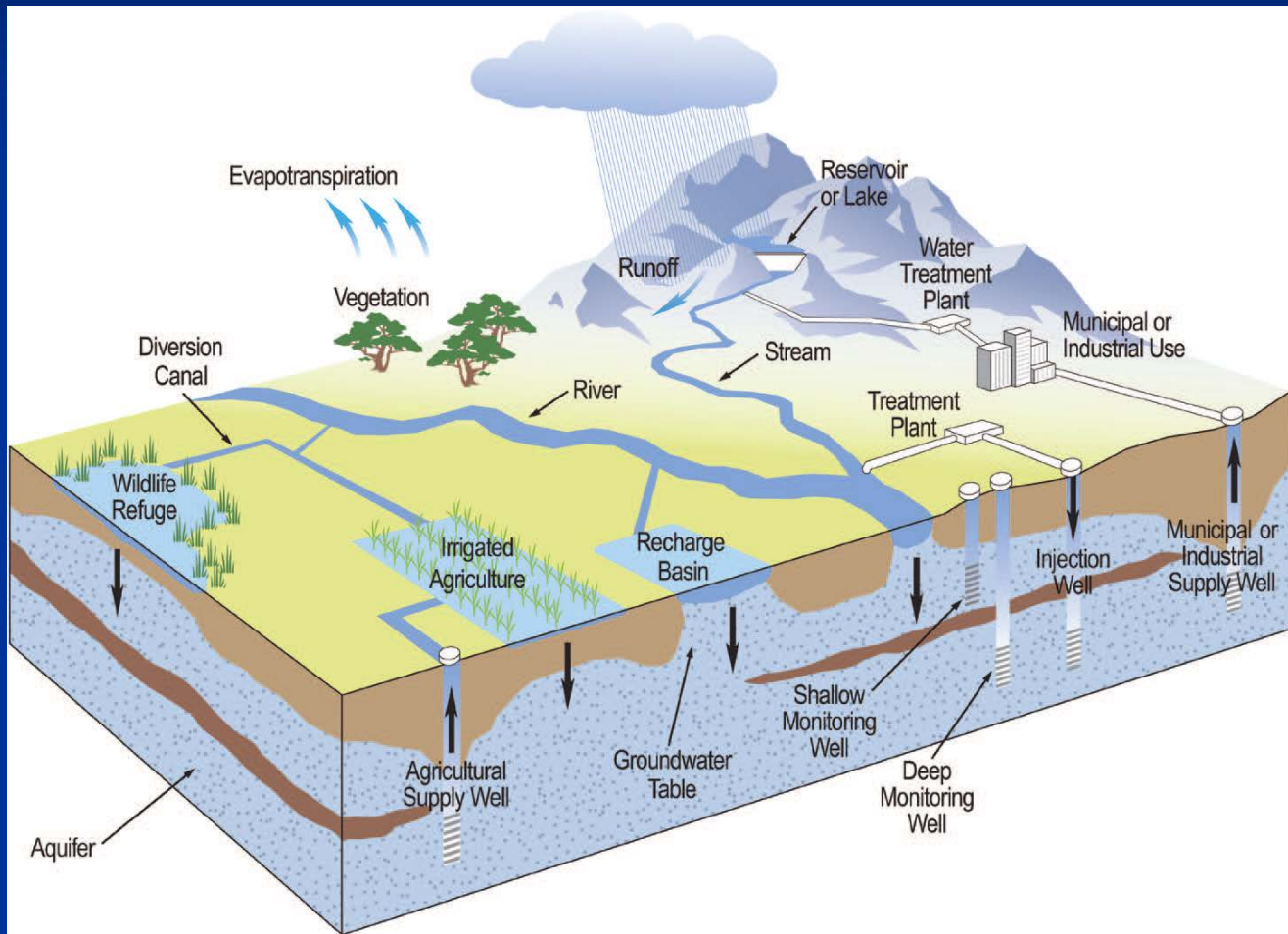
*Capistrano Tax Payers Assoc v.
City of San Juan Capistrano (April 2015)*

- 4th District Court of Appeal invalidates tiered-rate program for water service.
- Gov. Brown claims the court's opinion puts "a straitjacket on local government at a time when maximum flexibility is needed."
- The Constitution requires public water agencies charge rates that reflect the actual "cost of service" to a given customer.
- The Court says the Constitution does not prohibit tiered pricing, it just requires that such pricing be based on cost of service.

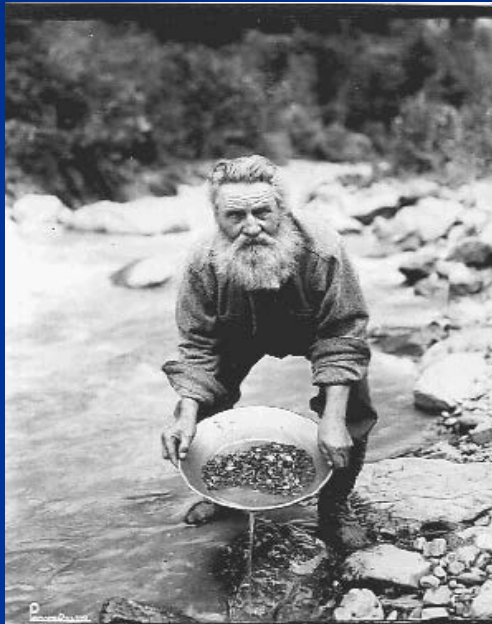
California Water Law

- Many Legal Definitions & Issues:
 - Appropriative water rights
 - Riparian water rights
 - Groundwater rights
 - Beneficial use
 - Public Trust Doctrine
 - Property rights
 - Environmental law
 - Federal water law authorities
 - Hydropower development

Water Law in the Watershed



1848 Gold Discovered



California Water Law

- **Doctrine of Prior Appropriation** system spreads from California east and north across the West wherever miners diverted water from natural creeks, streams, and rivers passing through federally-owned lands;
- Water was severed from riparian use on public lands and re-directed overland towards capital- intensive mining claims on land the miners did not own.
- Ever since, the appropriative water right does not arise from land ownership, but instead from the beneficial use of water for a particular purpose and place of use;
- “**First in time, first in right,**” which, unlike riparian rights, does not apportion water shortages equally. There is no "equitable apportionment" of shared scarcity;
- *Usufructuary* right of use: "Use it or lose it."

1849 Gold Rush



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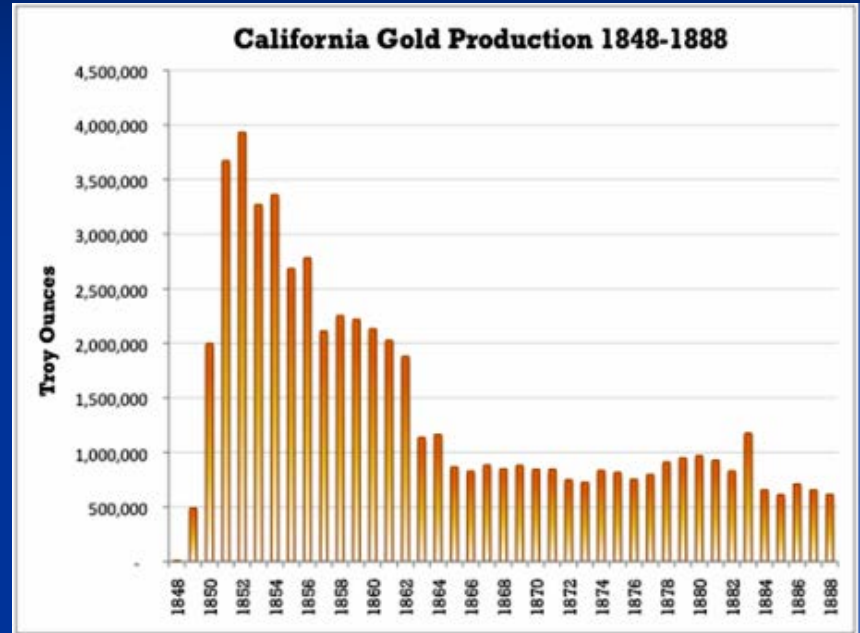
RANDOLPH M. COOLEY, 88 Wall Street, Textile Building.



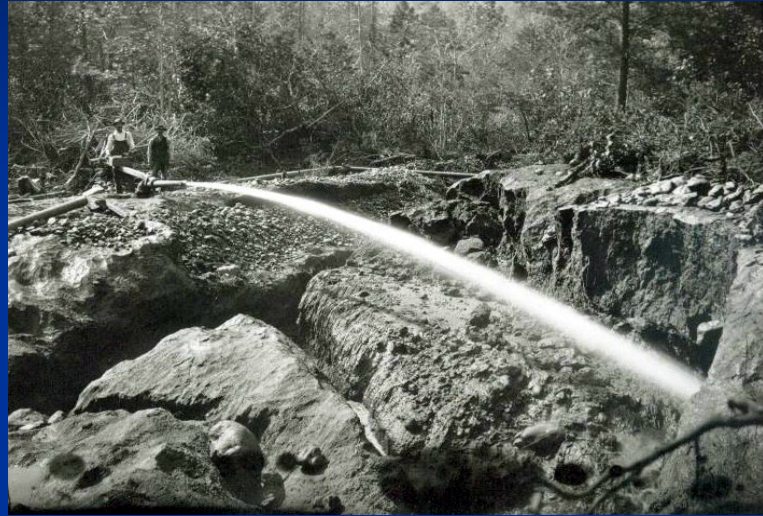
California Water Law

- Essential elements of an appropriative right:
 1. intent to take the water and apply it to a use;
 2. actual diversion from the natural channel; and
 3. application of the water within a reasonable time to **beneficial use**;

1853 Hydraulic Mining



1884 End of an Era



California Water Law

- "Pre-1914" water rights
 - appropriator must be able to prove “continuous, beneficial use” of the water
 - not always recorded = hard to prove
 - right would not attach or vest until the water was actually put to beneficial use.
- Post-1914 appropriative water rights
 - applications are filed with the SWRCB for a water right permit to develop a water diversion and use project within specified conditions and timeframes.
 1. annual quantity measured in acre-feet ("AF");
 2. rate of diversion (often measured in cubic feet per second (“cfs”));
 3. season of diversion;
 4. point(s) of diversion;
 5. purpose of use; and
 6. place of use.

California Water Law

■ Riparian water right:

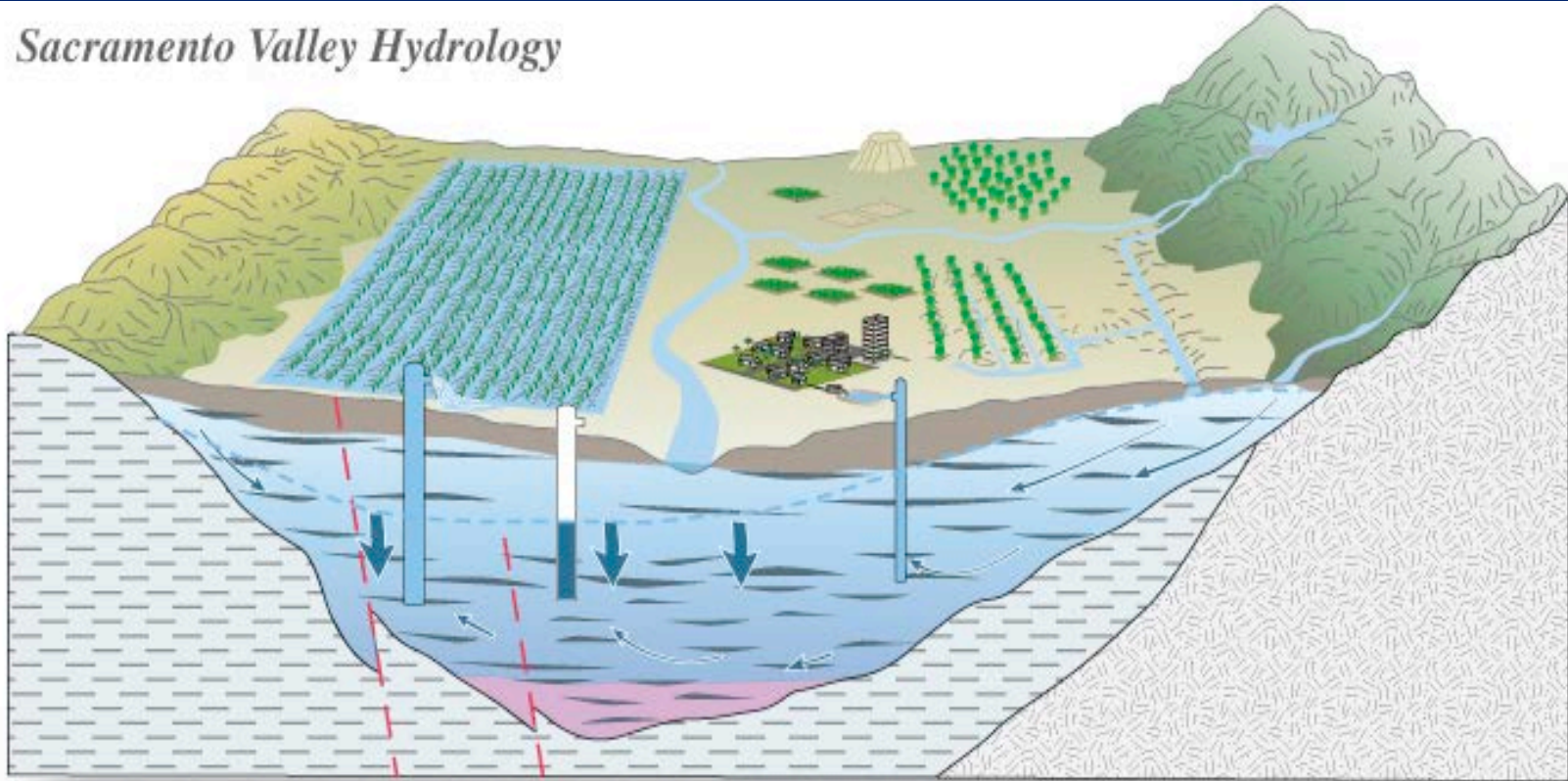
- is a right to use the natural flow of water within a natural watercourse on riparian land;
- depend entirely on the ownership of riparian land adjacent to a water course, e.g. land that touches a lake, river, stream, or creek;
- correlative in time of shortage, such that no user has priority over others and water use reductions are shared equally;
- is not created by actual use or lost by non-use of water, but are partial interests in the bundle of property sticks that are "**part and parcel**" of the land;
- cannot be stored for longer than thirty days and that water can only be used on land that drains back to the lake, river, stream, or creek from which the water was taken;
- does not require state approval or permitting.

California Water Law

- Reasonable and Beneficial use
- Waste and unreasonable use
 - California Constitution, Article X, Section 2
 - All water rights: surface + groundwater
- **Trend:** more reasonable and more beneficial
- **How:** use of price and transfer infrastructure to move water to more valuable uses per unit of consumption

California Groundwater

Sacramento Valley Hydrology



Groundwater Rights

Five types:

- (1) **Overlying rights** based on ownership of land that lies above a groundwater source (the largest category);
- (2) **Appropriative or non-overlying rights** (the right to divert groundwater from its source to a non-overlying area, or for municipal use);
- (3) Prescriptive rights;
- (4) Pueblo rights; and
- (5) Federal reserved rights.

State Groundwater Regulation

- Water Code Section 1200 allows appropriation of groundwater that is part of “subterranean streams flowing in known and definite channels.”
- In 1899, the California Supreme Court held in *Los Angeles v. Pomeroy* that subterranean streams are governed by the same rules that apply to surface streams, giving the State Water Board authority to require permits for appropriation of groundwater in subterranean streams.

Water Rights Decision-1639

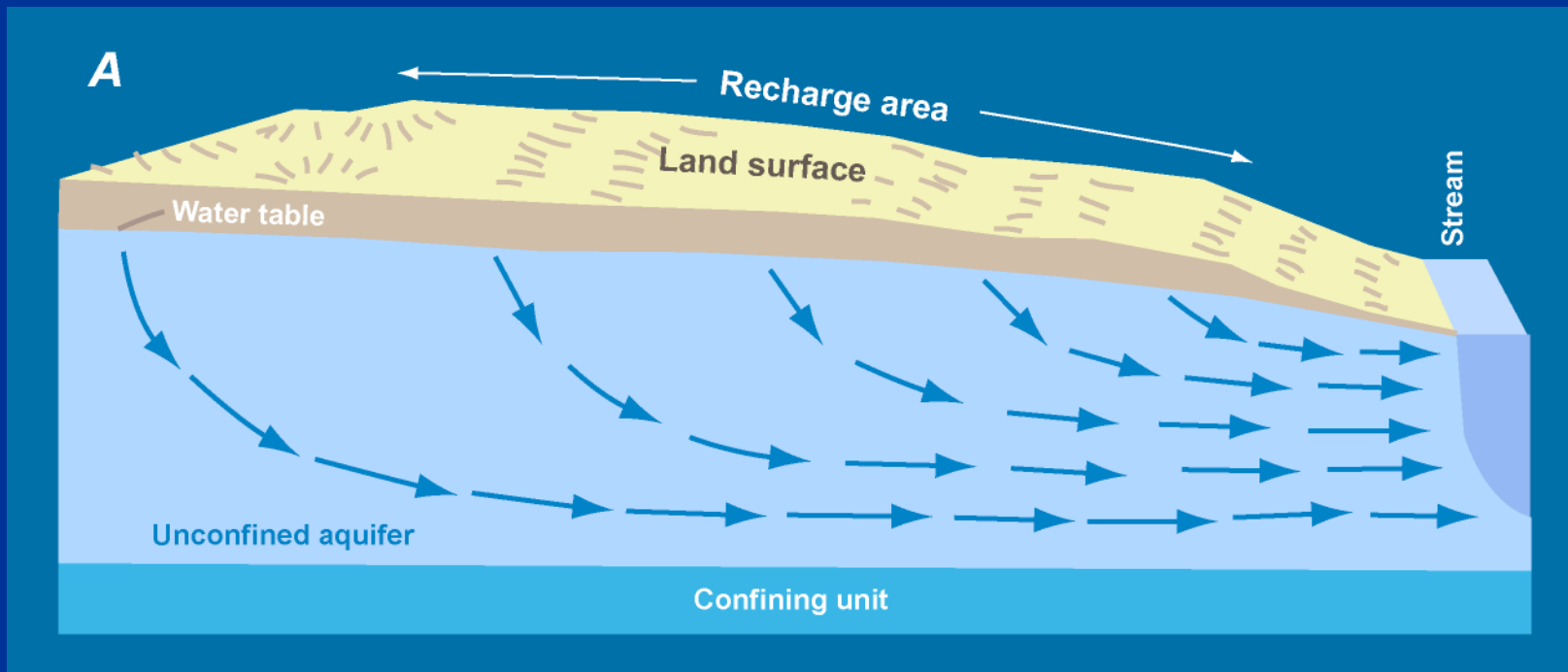
- In a 1999 decision, the State Water Board clarified its authority over groundwater and developed a four-part test to support a finding that groundwater is a “subterranean stream flowing through a known and definite channel.”
 1. the presence of a subsurface channel with
 2. relatively impermeable bed and banks,
 3. whose course is known or capable of being determined by reasonable inference, and
 4. groundwater is flowing in the channel.
- The California Court of Appeal upheld the SWRCB’s assertion that a water company must obtain an appropriative water right permit in order to pump groundwater from two production wells located near a stream. *North Gualala Water Company v. SWRCB*, 139 Cal.App.4th 1577 (1st Dist. 2006).

Limits of State Groundwater Regulation

- The vast majority of California's groundwater resource is treated as "percolating groundwater" from precipitation or surface water that collects underground in tiny spaces between soil particles. This water moves through soil by gravity along the path of least resistance.
- The State Water Board has little authority to regulate percolating groundwater. Until 2014, there has been no comprehensive, statewide regulatory scheme governing the extraction or use of groundwater.
- Groundwater regulation is within a county's police powers and is not otherwise preempted by general State law.
- *Baldwin v. County of Tehama*, 31 Cal.App.4th 166 (1994).

Integrated Surface-Groundwater

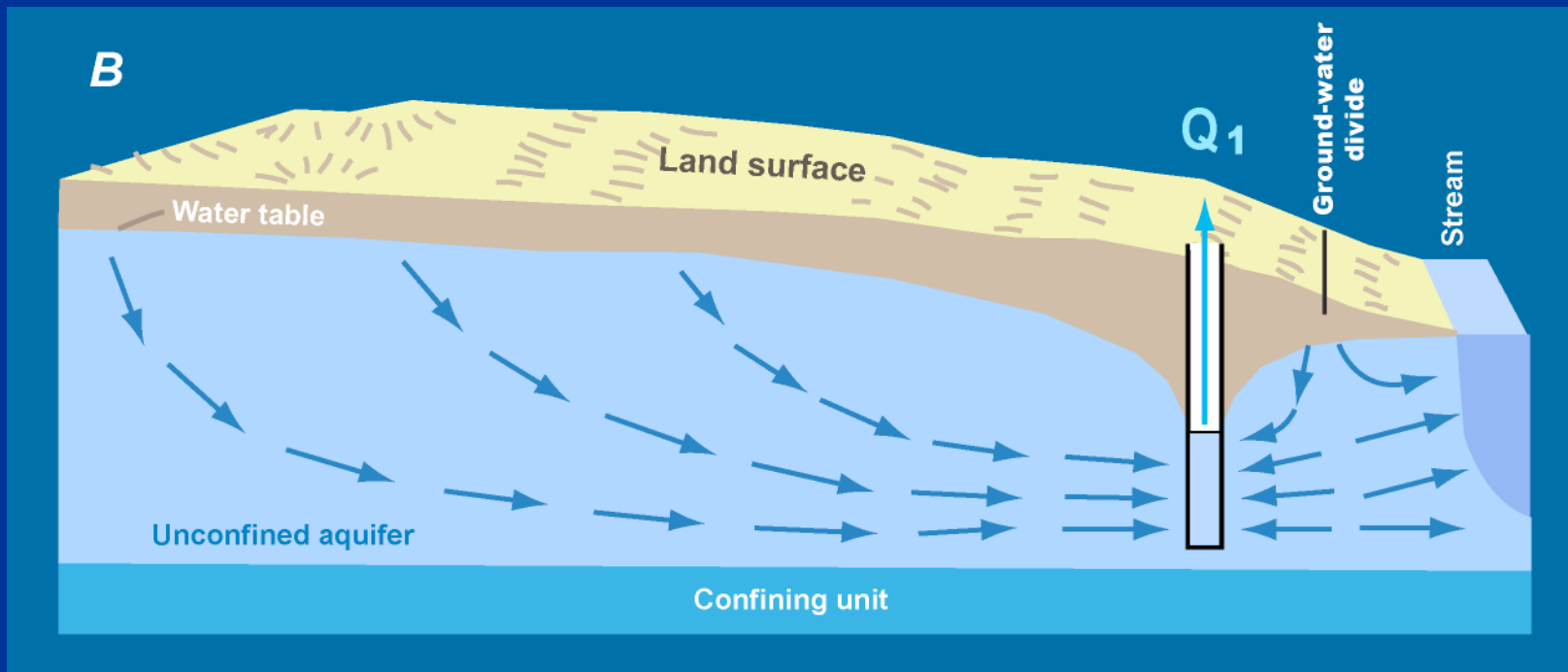
- Normal Groundwater Flow
 - No groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

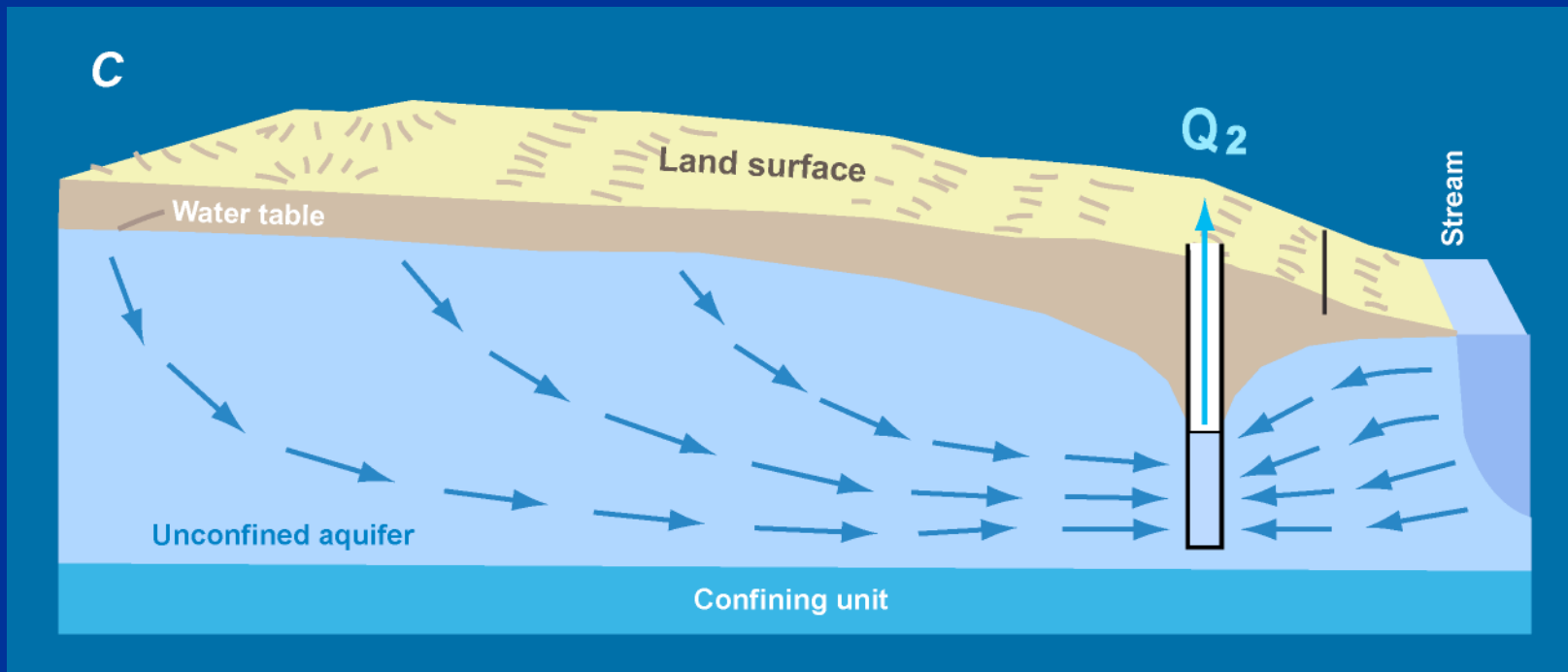
- Groundwater Flow
- With low groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

- Groundwater Flow
 - With high groundwater pumping



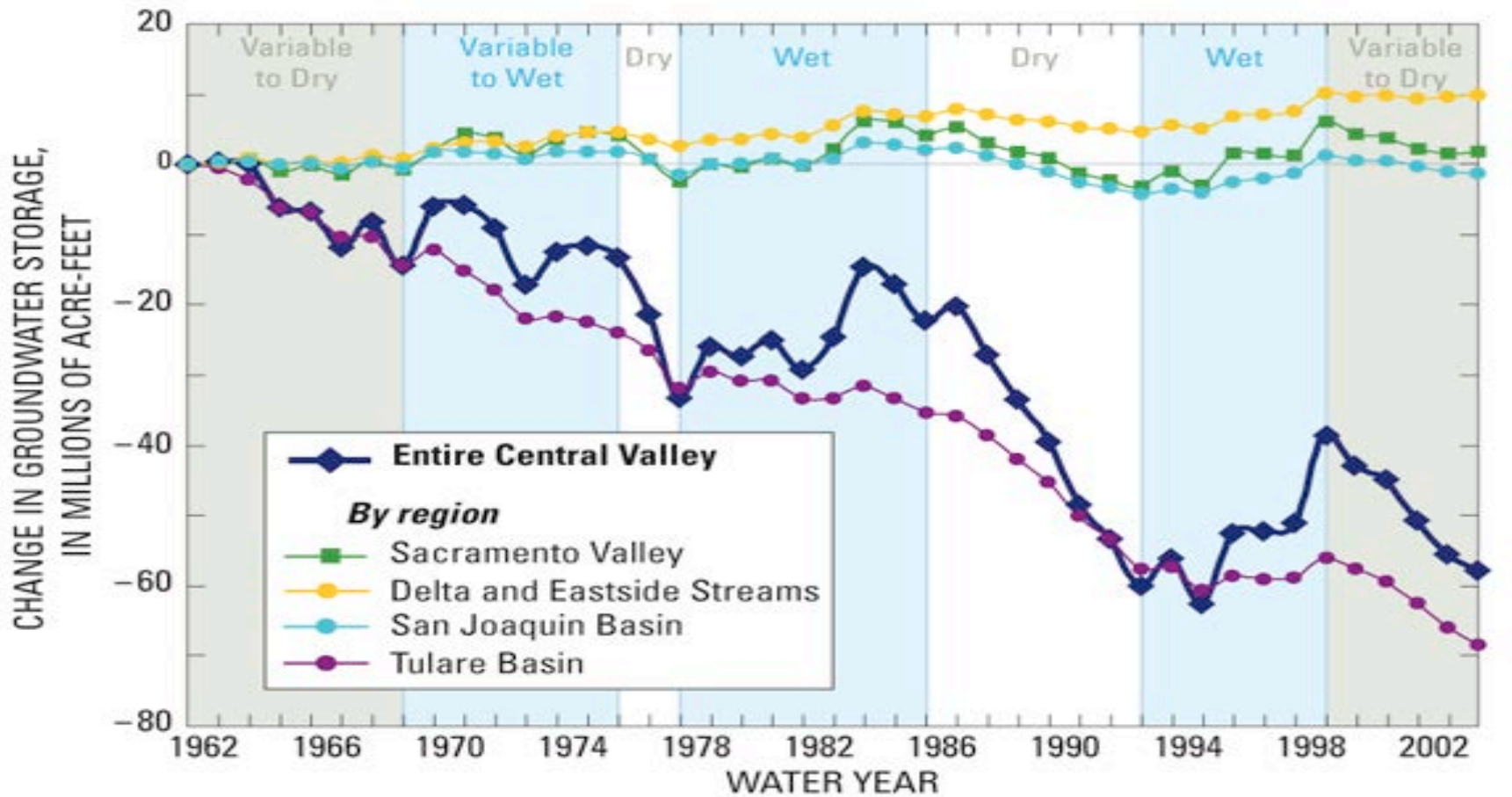
USGS Circular 1139

Local Groundwater Jurisdiction & Groundwater Management Plans

Groundwater Management Plans (AB 3030)

- “The planned and coordinated monitoring, operation and administration of a groundwater basin...with the goal of long-term groundwater resource sustainability.”
- Locally administered
- But local management failure can lead to State or judicial intervention

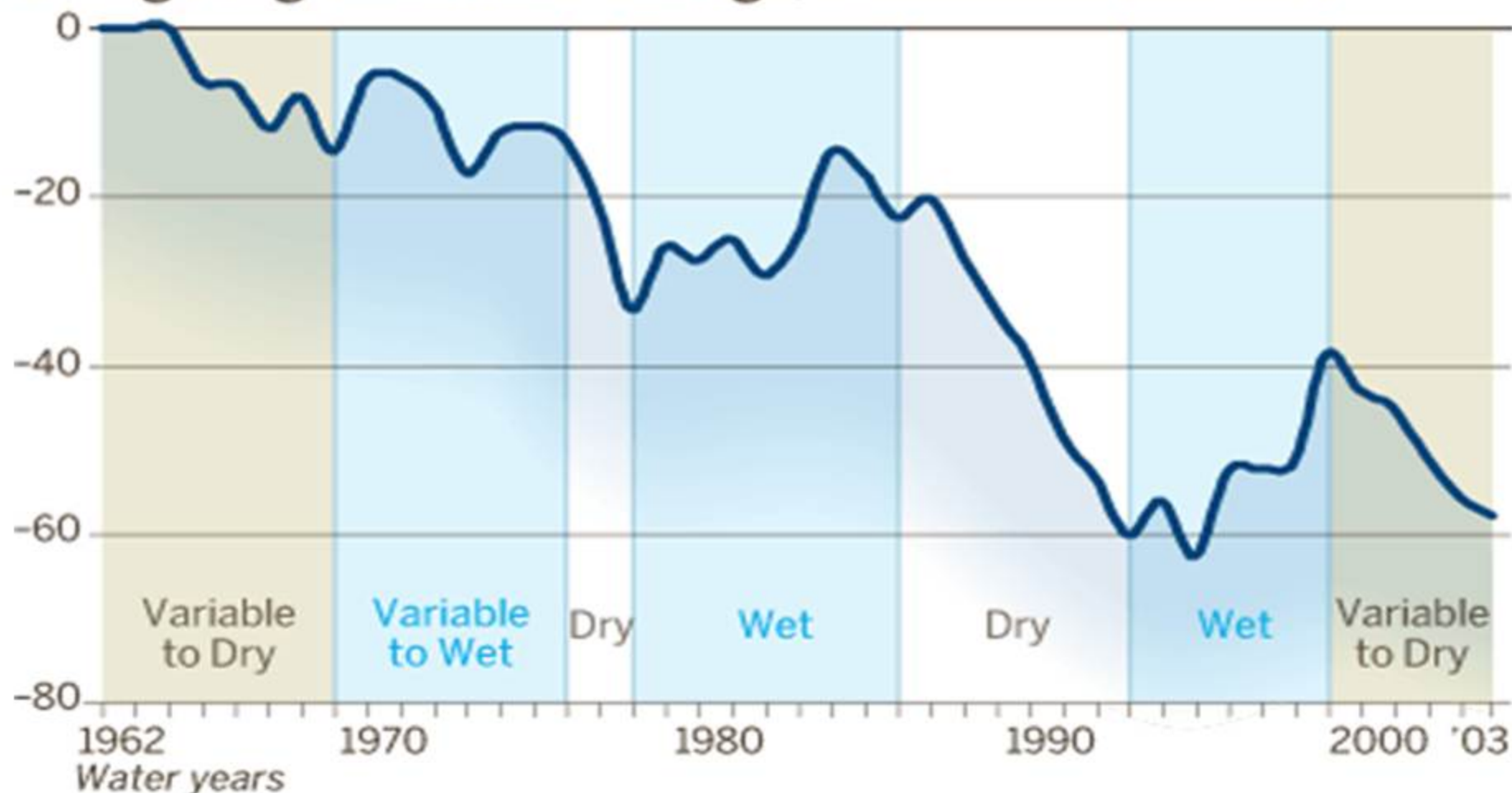
Groundwater Depletions



GROUNDWATER LOSS

Groundwater levels in the Central Valley from 1962 to 2003 during wet and dry years.

Change in groundwater storage, in millions of acre-feet



Source: U.S. Geological Survey

Sacramento Bee

California Statewide Groundwater Elevation Monitoring

- In 2009, the State Legislature passed SB 6 X7, which established a statewide groundwater elevation monitoring program, but not individual groundwater well extraction monitoring, to track seasonal and long-term trends in groundwater elevations in California's groundwater basins.
- The amendment requires collaboration between local monitoring entities and the **California Department of Water Resources (DWR)** to collect groundwater elevation data.
- DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program to establish a permanent, locally-managed program of regular and systematic monitoring in all of California's alluvial groundwater basins.
- The CASGEM Program relies and builds on the many, established local long-term groundwater monitoring and management programs. DWR coordinated the CASGEM program, to work cooperatively with local entities, and to maintain the collected elevation data in a statewide public database.

SBX7 6

- Local parties may assume responsibility for monitoring and reporting groundwater elevations.
- DWR work cooperatively with local Monitoring Entities to achieve monitoring programs that demonstrate seasonal and long-term trends in groundwater elevations.
- DWR accept and review prospective Monitoring Entity submittals, then determine the designated Monitoring Entity, notify the Monitoring Entity and make that information available to the public.
- DWR perform groundwater elevation monitoring in basins where no local party has agreed to perform the monitoring functions.
- If local parties (for example, counties) do not volunteer to perform the groundwater monitoring functions, and DWR assumes those functions, then those parties become ineligible for water grants or loans from the state.

Groundwater Management Plans

- monitoring of groundwater levels in storage;
- mitigation of conditions of overdraft;
- replenishment of ground-water extracted by water producers;
- facilitation of conjunctive use operations;
- administration of a well abandonment and well destruction program;
- identification of well construction policies;
- construction and operation of groundwater contamination, clean-up, recharge storage, conservation, water recycling, and extraction projects;
- development of relationships with state and federal regulatory agencies; review of land-use plans to assess activities which could create a risk of groundwater contamination;
- reductions in the amount of water pumped from specific wells.

2014 Groundwater Legislation

- **Sustainable Groundwater Management Act (2014) (AB 1739, SB 1168, SB 1319)**
 - Creates a framework for sustainable, local groundwater management for first time in CA
 - Applies to medium or high priority basins to be delineated by DWR Bulletin 118
 - Existing GMPs must be replaced or augmented

2014 Groundwater Legislation

- Three historic groundwater bills (SB1168, SB1319 and AB1739) were signed by Governor Jerry Brown on September 16, 2014, which create a framework for sustainable, local groundwater management for the first time in California history.

The bills establish a definition of sustainable groundwater management and require local agencies to adopt management plans for the state's most important groundwater basins. The legislation prioritizes groundwater basins and sets a timeline for implementation:

- By 2017, local groundwater management agencies must be identified;
- By 2020, overdrafted groundwater basins must have sustainability plans;
- By 2022, other high and medium priority basins not currently in overdraft must have sustainability plans; and
- By 2040, all high and medium priority groundwater basins must achieve sustainability.

2014 Groundwater Legislation

- **Sustainable Groundwater Management Act**
 - 2017 local Groundwater Sustainability Agency delineated
 - 2020 overdrafted basins must have Sustainability Plans
 - 2022 other medium and high priority basins must have Sustainability Plans
 - 2040 ALL BASINS must achieve sustainability
 - Any existing GMPs must be replaced or augmented

Groundwater Law

- **Sustainable Groundwater Management Act**
 - Plans must include monitoring and articulate measurable objectives to be achieved every 5 years.
 - The Act authorizes the designated agency to limit or curtail groundwater production, monitor withdrawals, track wells and assess regulatory fees to fund management.
 - The Act does not determine or quantify existing water rights.

Federal Agencies & Jurisdictions

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Federal Energy Regulatory Commission
- National Marine Fisheries Service (NMFS)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Bureau of Reclamation
- U.S. Department of Agriculture
- Others

State Agencies & Jurisdictions

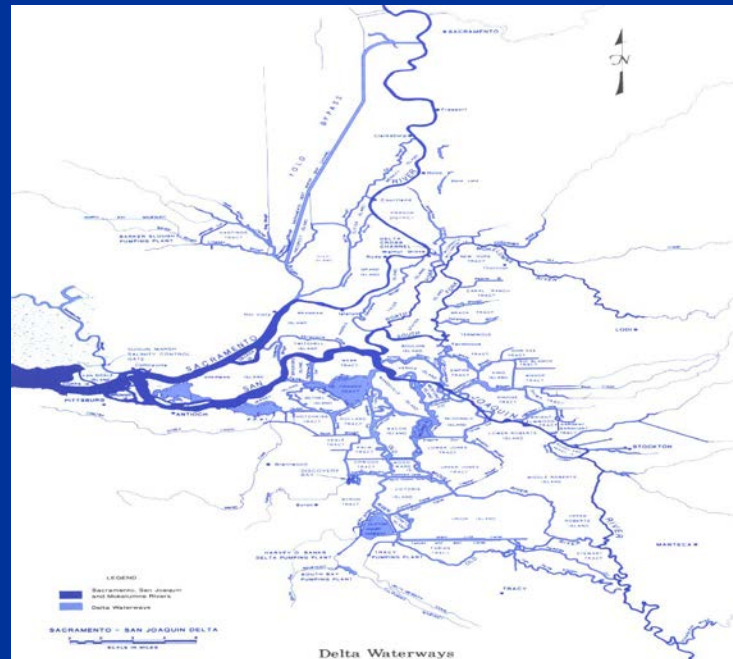
- State Water Resources Control Board
 - Water Rights measured by reasonable and beneficial use per California Constitution Article X, Section 2
 - Water Quality and 9 regional boards
- Department of Fish and Wildlife
- Department of Water Resources
- Department of Conservation
- Wildlife Conservation Board
- Others

California Water Law

- 2009 California Legislation
 - Co-equal goals:
 - Water supply reliability;
 - Protecting, restoring, and enhancing the Delta ecosystem

California Water Law

- Statements of Diversion
 - New penalties for not filing amount of diversion
 - Non-filing creates presumption of non-use



Water Bond: Bottom Line

- The voters authorize the issuance of bonds in the amount of \$7.12 billion to finance a water quality, supply, and infrastructure improvement program.
- In addition, the Bond reallocates \$425 million of bonds already authorized for the purposes of Propositions 1E, 13, 44, 50, 84, and 204 to consolidate and further finance AB 1471.

Water Bond: Nov '14 – July '15

- 1. Bond Grant Guidelines:** Guidelines that will define how billions of Bond money will be spent through a competitive grant programs.
- 2. Interagency Coordination:** Multiple California agencies are implicated across the chapters of the Bond without clarification on how they will coordinate.
- 3. Monitoring:** State investments are needed to create a robust system to account for, monitor, and protect voluntary water transactions and transfers.
- 4. Leveraging Federal and Other Money:** Local and Federal dollars, and other sources of public and private money will magnify the scope and scale of individual local transactions.

Water Bond: Chapters

- Chapter 1. Short Title
- Chapter 2. Findings
- Chapter 3. Definitions
- Chapter 4. General Provisions
- Chapter 5. Clean, Safe, and Reliable Drinking Water
- **Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds**
- Chapter 7. Regional Water Security, Climate, and Drought Preparedness
- Chapter 8. Statewide Water System Operational Improvement and Drought Preparedness
- Chapter 9. Water Recycling
- Chapter 10. Groundwater Sustainability
- Chapter 11. Flood Management

Chapter 3. Definitions

- 79702. Unless the context otherwise requires, the definitions set forth in this section govern the construction of this division, as follows:
 - (a) **“Acquisition”** means obtaining a fee interest or any other interest in real property, including, easements, leases, water, water rights, or interest in water obtained for the purposes of instream flows and development rights.
 - (m) **“Instream flows”** means a specific streamflow, measured in cubic feet per second, at a particular location for a defined time, and typically follows seasonal variations.
 - (o) **“Long-term”** means for a period of not less than 20 years.
 - (p) **“Nonprofit organization”** means an organization qualified to do business in California and qualified under Section 501(c)(3) of Title 26 of the United States Code.
 - (s) **“Public agency”** means a state agency or department, special district, joint powers authority, city, county, city and county, or other political subdivision of the state.
 - (ab) **“Water right”** means a legal entitlement authorizing water to be diverted from a specified source and put to a beneficial, non wasteful use.

Chapter 5. Clean, Safe and Reliable Drinking Water

- 79720. The sum of five hundred twenty million dollars (\$520,000,000) shall be available, upon appropriation by the Legislature from the fund, for expenditures, grants, and loans for **projects that improve water quality or help provide clean, safe, and reliable drinking water to all Californians.**

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- 79730. The sum of one billion four hundred ninety-five million dollars (\$1,495,000,000) shall be available, upon appropriation by the Legislature from the fund, in accordance with this chapter, for **competitive grants for multibenefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities.**

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- 79732. (a) In protecting and restoring California rivers, lakes, streams, and watersheds, the purposes of this chapter are to:
 - (4) Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow.

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

79733. Of the funds made available by Section 79730, the sum of two hundred million dollars (\$200,000,000) shall be administered by the **Wildlife Conservation Board** for projects that result in enhanced stream flows.

Wildlife Conservation Board

- August 2014 Strategic Plan: Key Trends
 1. Future Climate Impacts to Wildlife and Their Habitats.
 2. Natural Community Conservation Plans.
 3. Protection and Conservation of Water Resources for Fish and Wildlife.
 4. Greater Reliance on Conservation Partnerships.
 5. Increasing Use of Conservation Easements.
 6. Scrutiny Over Public Expenditures.

WCB August 2014 Strategic Plan: Goals

- Goal A: Environmental Protection and Conservation
 - A.1. Fund projects and landscapes that provide resilience for native wildlife and plant species in the face of climate change.
 - A.2. Fund projects and landscape areas that conserve, protect, or enhance water resources for fish and wildlife.
 - A.4 Invest in priority conservation projects recommended under CDFW's land acquisition evaluation process or within other conservation plans supported by CDFW.
 - A.6. Coordinate acquisition application processes to ensure that WCB project evaluation is unified across programs to the fullest possible extent.

WCB August 2014 Strategic Plan: Goals

- Goal B: Environmental Restoration and Enhancement
 1. B.1 Invest in projects and landscape areas that help provide resilience in the face of climate change, enhance water resources for fish and wildlife and enhance habitats on working lands.
 2. B.2 Strengthen the grant application process to further highlight the importance of the following factors in project design and selection: robustness and resilience to extreme weather events, ecosystem services (e.g. groundwater recharge, flood reduction, fire prevention, etc.), water quality and quantity, and compatible public use and access.
 3. B.4 Expand project monitoring and evaluation of restoration activities to assess long-term project success, moving beyond compliance monitoring.

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- 79737. (a) Of the funds authorized by Section 79730, two hundred eighty-five million dollars (\$285,000,000) shall be available to the **Department of Fish and Wildlife for watershed restoration projects** statewide in accordance with this chapter.
- (b) For the purposes of this section, **watershed restoration includes activities to ... restore or enhance riparian, aquatic, and terrestrial habitat... acquire from willing sellers conservation easements for riparian buffer strips.**
- (c) For any funds available pursuant to this section that are used to provide grants under the **Fisheries Restoration Grant Program**, a priority shall be given to coastal waters.

Department of Fish & Wildlife

■ Fisheries Restoration Grant Program

For FRGP to accomplish its goals applicants must submit proposals that address a task in one of the State or Federal recover plans listed below:

1. Steelhead Restoration and Management Plan for California (DFG 1996) (PDF);
2. Recovery Strategy for California Coho Salmon (DFG 2004) (PDF);
3. Southern California Steelhead Recovery Plan Final Version (NOAA January 2012)
4. South-Central California Steelhead Recovery Plan Public Review Final (NOAA September 2013);
5. Recovery Plan for the Evolutionarily Significant Unit of Central California Coast Coho Salmon Final Version (NOAA September 2012);
6. Recovery Plan for the Southern Oregon Northern California Coast Evolutionarily Significant Unit of Coho Salmon Public Review Draft (NOAA January 2012)

DFW Fisheries Restoration Grant Program

- Forbearance Agreements and Instream Flow Leases are used to dedicate water, not the water right, to instream flow purposes and are established directly with water rights holders independently of the State Water Resources Control Board water rights process.
- To date, forbearance agreements and instream flow leases have been limited to watersheds where there are established organizations with the capacity to coordinate and develop agreements and leases, water monitoring, and water use.

DFW Fisheries Restoration Grant Program

- Water right holders with junior water rights must yield to diverters with more senior water rights, and thus may not be able to legally divert or transfer water in dry years or dry periods. Therefore, depending on the water year, a junior appropriative right dedication may not yield any actual flow increases to the stream. Diverters should review their water rights in relation to actual flows, and the seniority of upstream and downstream diverters, to determine how much water could actually be transferred through a Section 1707 dedication or realized through a forbearance or short-term lease agreement.

Chapter 7. Regional Water Security, Climate, and Drought Preparedness

- 79740. The sum of eight hundred ten million dollars (\$810,000,000) shall be available, upon appropriation by the Legislature from the fund, for expenditures on, and competitive grants and loans to, **projects that are included in and implemented in an adopted integrated regional water management plan consistent with Part 2.2 (commencing with Section 10530) of Division 6 and respond to climate change and contribute to regional water security as provided in this chapter.**

Chapter 8. Statewide Water System Operational Improvement and Drought Preparedness

(b) Notwithstanding Section 13340 of the Government Code, the sum of **two billion seven hundred million dollars** (\$2,700,000,000) is hereby continuously appropriated from the fund, without regard to fiscal years, to the commission for public benefits associated with water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions, in accordance with this chapter...

Chapter 9. Water Recycling

- 79765. The sum of seven hundred twenty-five million dollars (\$725,000,000) shall be available, upon appropriation by the Legislature from the fund, for grants or loans for **water recycling and advanced treatment technology projects**, including all of the following:
 - (a) **Water recycling projects, including, but not limited to, treatment, storage, conveyance, and distribution facilities for potable and nonpotable recycling projects.**
 - (c) **Dedicated distribution infrastructure to serve residential, commercial, agricultural, and industrial end-user retrofit projects to allow use of recycled water.**
 - (e) **Multibenefit recycled water projects that improve water quality.**

Hicks Law and Water Bond

Hicks Law is counsel for:

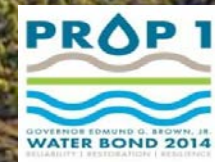
- one DFW conservation easement in Humboldt, and
- six WCB projects that enhance stream flow in Ventura, Santa Barbara, San Luis Obispo, Siskiyou, and Stanislaus Counties.

Hicks Law Prop One Projects

1. Central Coast Salmon Enhancement: *Integrated Water Strategies to Enhance Flows in Santa Barbara and Ventura Counties;*
2. Immaculate Heart Community/La Casa de Maria: *San Ysidro Flow Enhancement and Water Conservation*
3. Tuolumne River Trust: *Dos Rios Section 1707 Project*
4. The Thacher School: *The Thacher School Instream Flow Resiliency and Dormitory Conservation Project*
5. Marshall Family: *Marshall Ranch Conservation Easement – 2016*
6. National Fish and Wildlife Foundation (via Siskiyou Land Trust): *Spencer Ranch Permanent Instream Water Dedication and Conservation Easement*
7. Central Coast Salmon Enhancement: *Baseflow Monitoring for Stream Flow Enhancement Project Planning and Evaluation in San Luis Obispo County*

Tuolumne River Trust

Dos Rios Section 1707 Project



Instream Flow and Dormitory Conservation Project

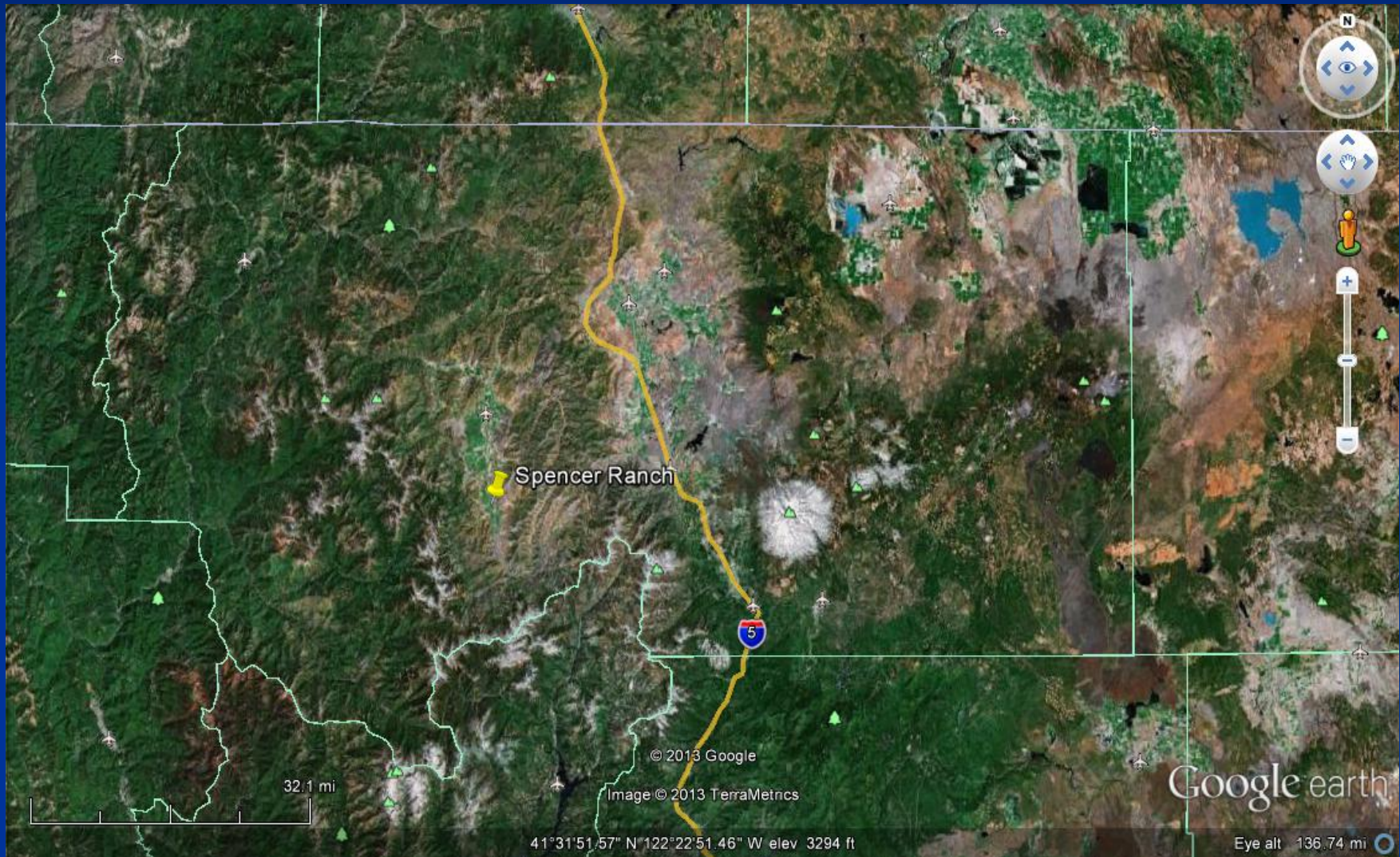
\$800,000 grant from the California Wildlife Conservation Board for an, which will install and capture 920,000 gallons of rainwater for dormitory toilet flushing.

In exchange, Thacher will forbear its right to divert up to 0.92 cfs from Thacher Creek to enhance stream flow for steelhead from March 1 to April 30 of each year.

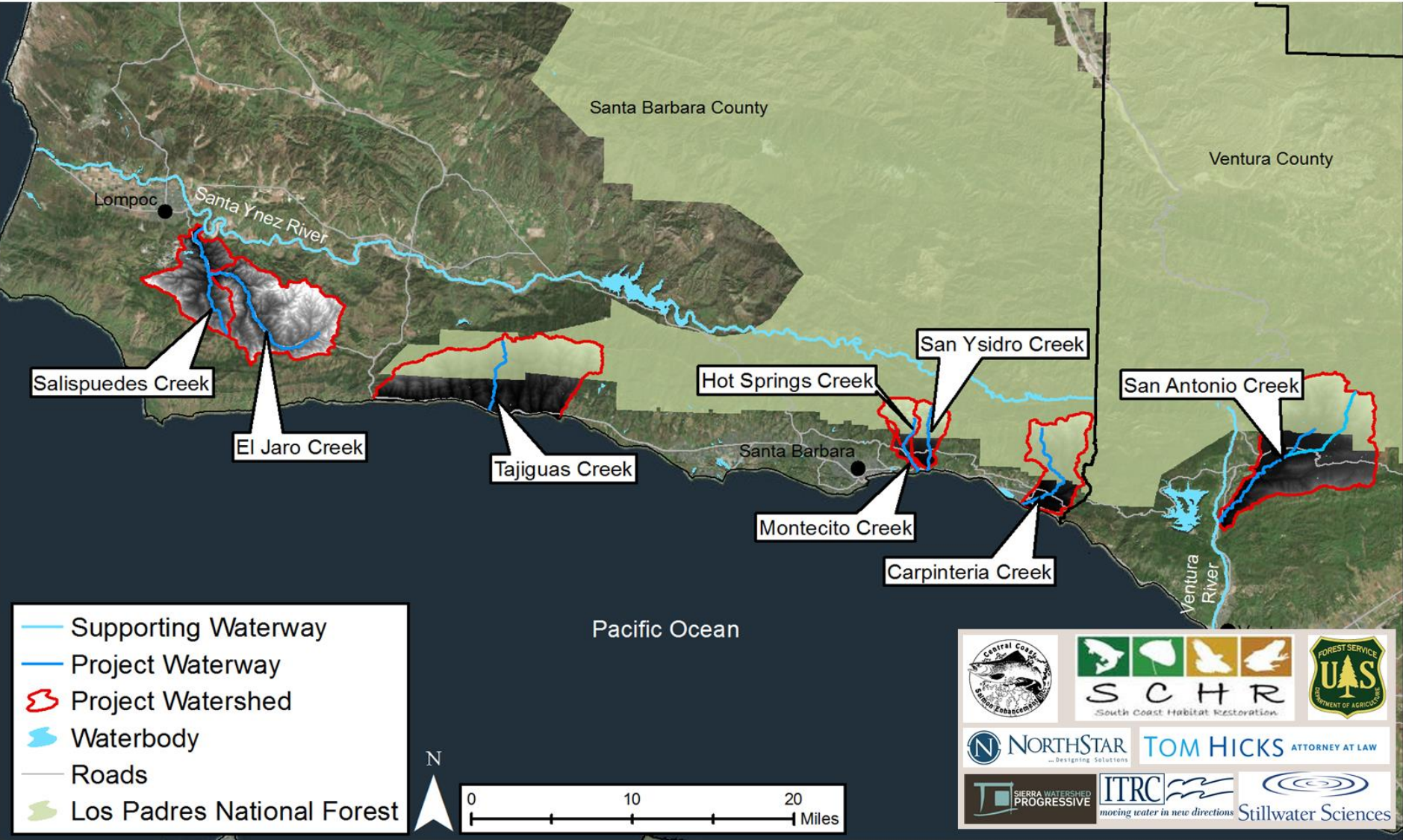


Spencer Ranch Conservation Project

Siskiyou County

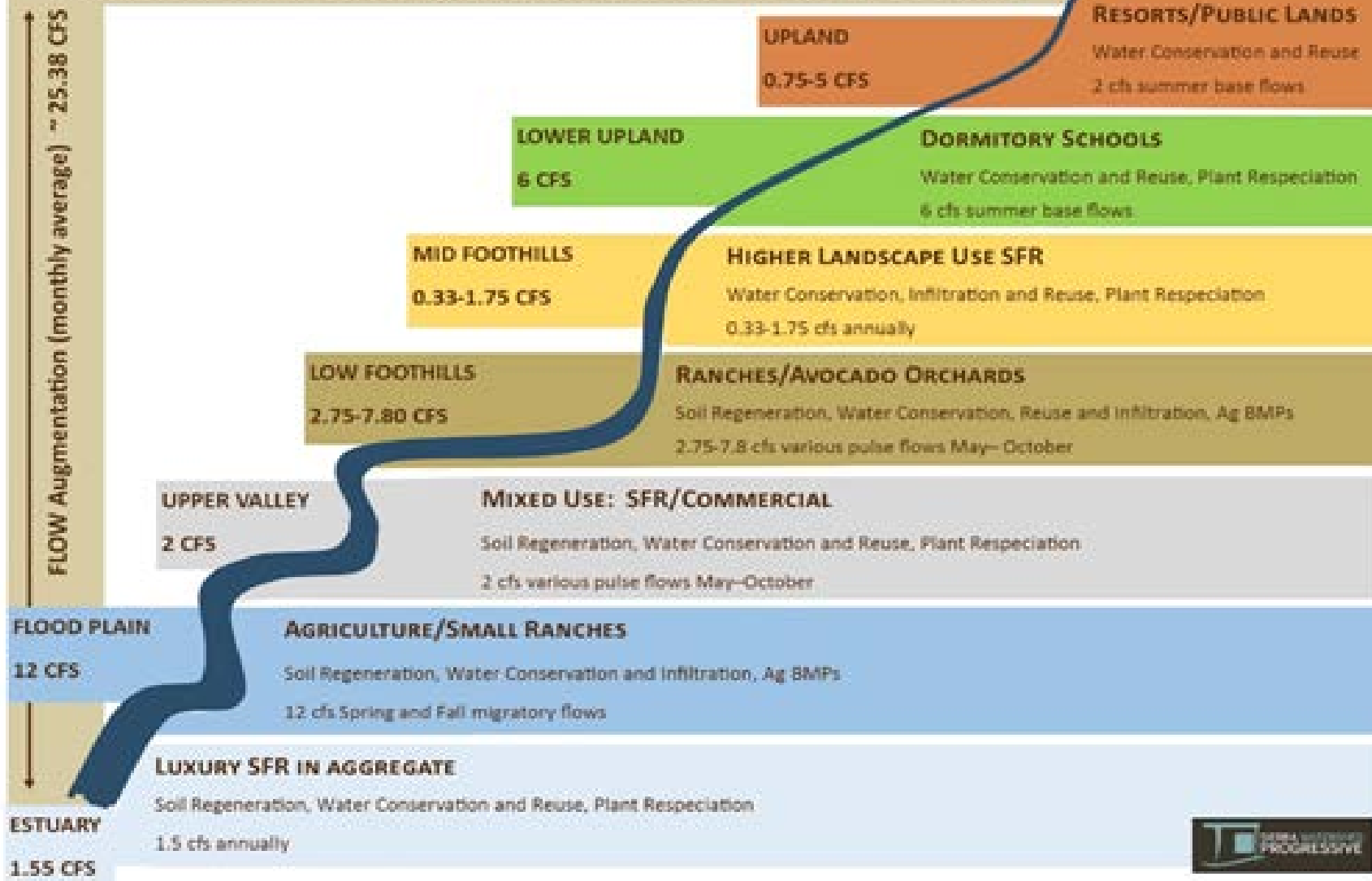


PLANNING AND FEASIBILITY STUDY FOR INTEGRATED WATER CONSERVATION, REUSE, AND TRANSACTIONAL STRATEGIES TO ENHANCE STREAMFLOWS IN SANTA BARBARA AND VENTURA COUNTIES



SOUTH COAST INSTREAM FLOW (MODEL)

Identified cumulative working land/water use conservation & reuse BMPs



South Coast Cumulative INSTREAM FLOW Project Prioritization

CANDIDATE PROJECT TEAM: South Coast Habitat Restoration, Santa Barbara Land Trust, Hicks Law, Sierra Watershed Progressive, Stoecher Environmental, UC Santa Barbara, City of Santa Barbara, USFS, Ventura Watershed Council

FOCUS WATERSHEDS:
 1. SALSIPUEDES 2. GAVIOTA 3. HOT SPRINGS/MONTECITO/SAN YSIDRO 4. CARPENTERIA 5. SAN ANTONIO



increased instream flow

decreased consumptive use

Water Right Transactions

- **Acquisition** or sale between willing buyer and seller.
- **Lease** such as a forbearance agreement or contract between a landowner/water user and a local water trust (or other entity), in which the water user agrees to forego withdrawals of water pursuant to the terms and conditions set forth in the contract.
- **Donation** of all/portion of fair market value (\$)

Water Transfers

- What is a Water Transfer?
 - A change in the way water is allocated
 - Expand use to new areas
 - Allows alternative use without extensive additional facilities
 - Instream Flow (Water Code Section 1707)
 - From a water right perspective
 - Change in Point of Diversion, Point of Use, Purpose of Use
 - Cannot increase the amount or season
 - Follow the water not the trades

Water Transfers

- Water Transfer Policies
 - Water belongs to the people of the State
 - A water right is a usufruct right
 - Right to use water is real property
 - To transfer water the transferor must have underlining rights to the water (water right or contract right)
 - Water transferred legally cannot be lost

Water Transfers

- Types of Transfers

- Surface Water

- Stored Water

- Reduction in Direct Use of Surface Water

- Crop Idling

- Water Conservation

- Alternative Source of Water (e.g. groundwater not directly connected to the surface system)

Water Transfers

■ Types of Transfers (Con't)

■ Groundwater

■ Direct Use Transfer of Groundwater

- Basically a groundwater appropriation
- Restrictions - WC 1220 for Sacramento Basin

■ “Banked” Groundwater

- Use of Groundwater in lieu of Surface Water (actually a surface water transfer see above)

Water Transfers

- Measuring Legally Transferrable Water
 - Point of Diversion
 - Transmission losses
 - Return Flow
 - Groundwater
 - Point of Use
 - Consumptive Use

Water Transfers

- Three Rules Related to Water Transfers
 - **“No injury”** to any legal user of water (Water Code 1702, 1706, 1727, 1736, 1810)
 - **“No unreasonable effects”** to fish or wildlife (Water Code 1727, 1736, 1810)
 - **“No unreasonable economic impacts”** to overall economy of the county from which the water is transferred. (Use of SWP - Water Code 1810)

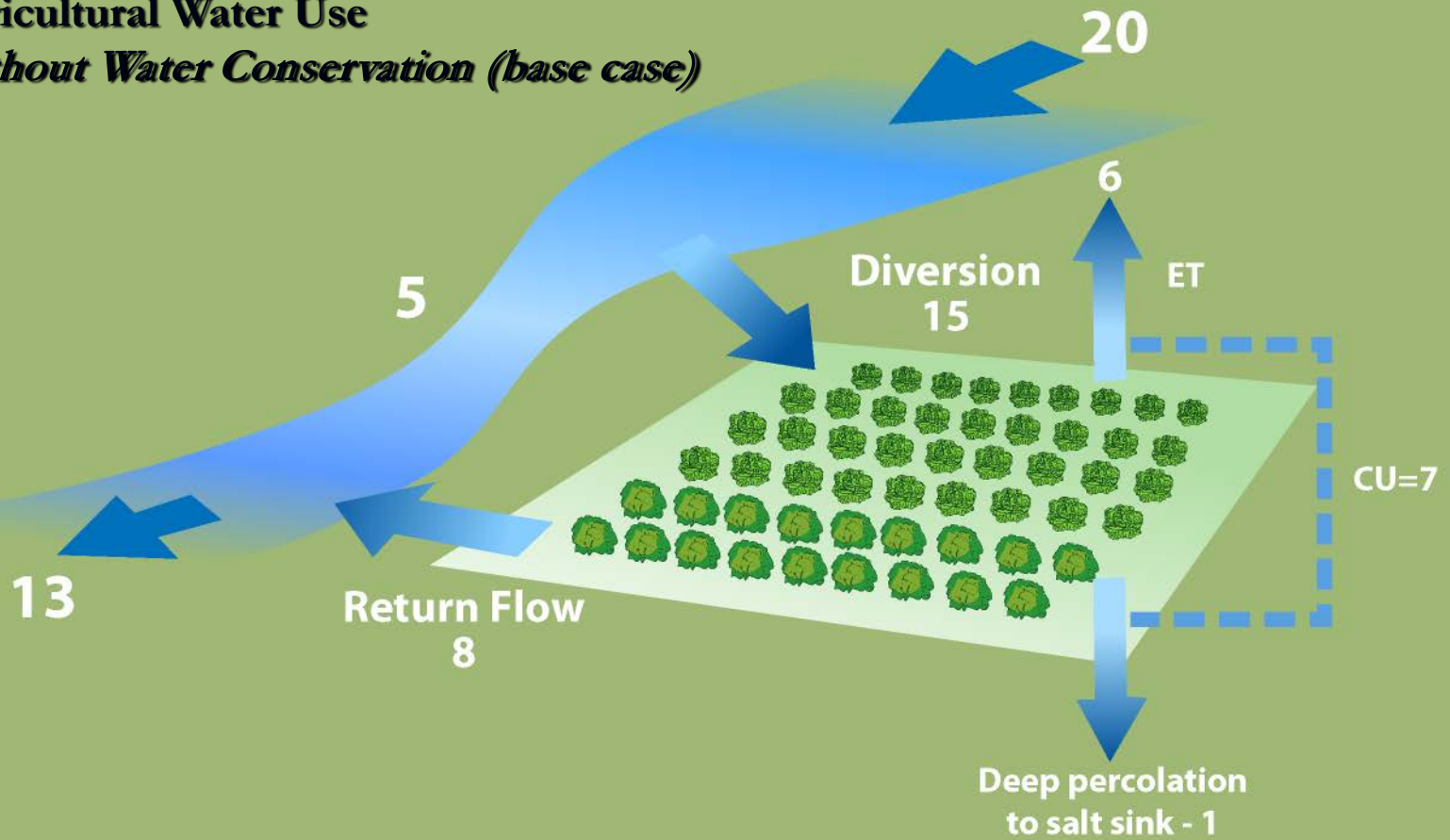
Water Transfers

■ No Injury Rule

- No injury to other legal users of water
- Not just prior users - any other user
- Protects juniors from seniors
- Based in old court cases, now in statute
- Applies to both pre and post 1914 rights (1706, 1702, 1727, 1736)
- What's legal injury vs. impact- Imported water/ watershed protection

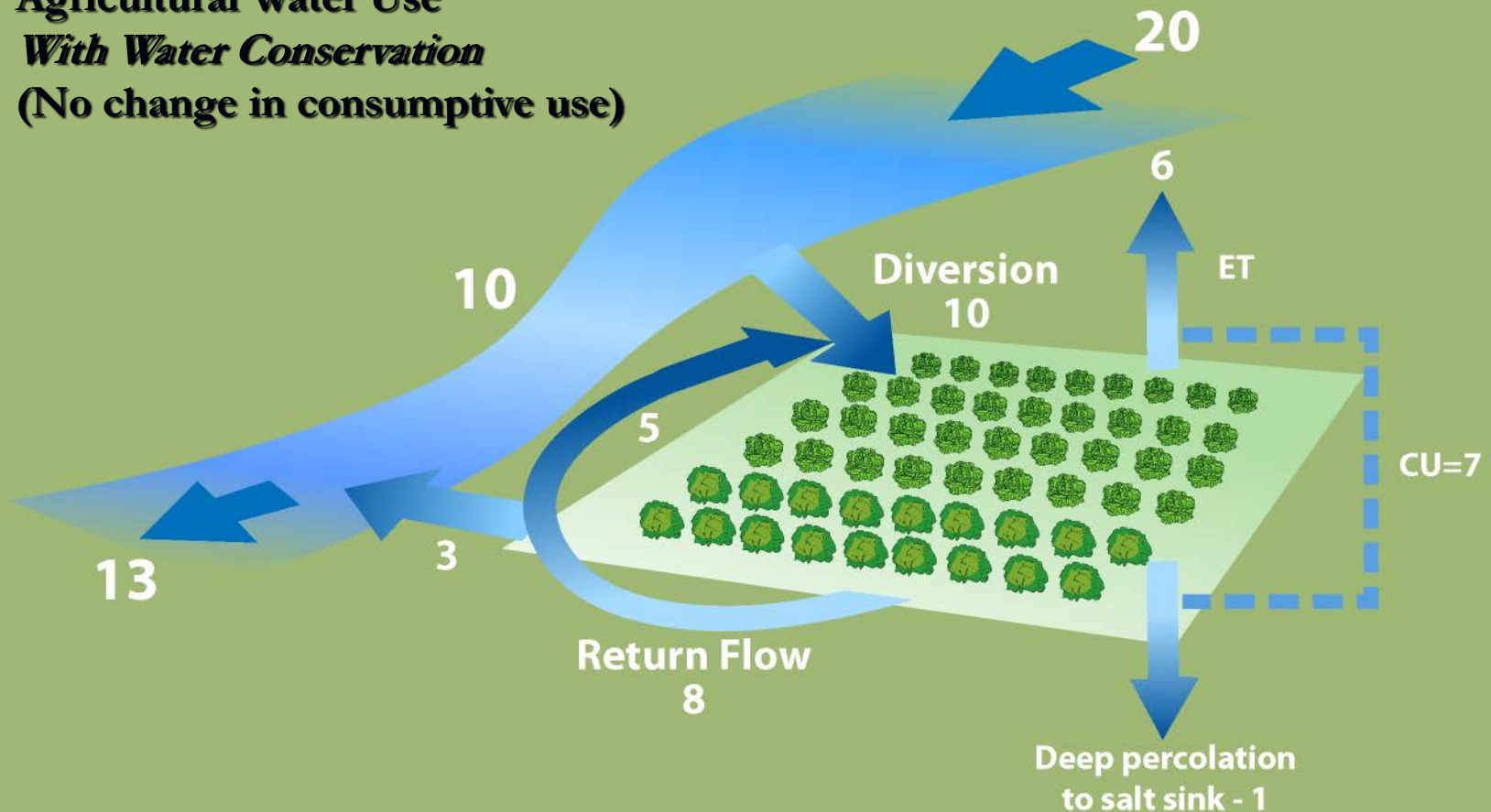
Water Transfers

Agricultural Water Use
Without Water Conservation (base case)



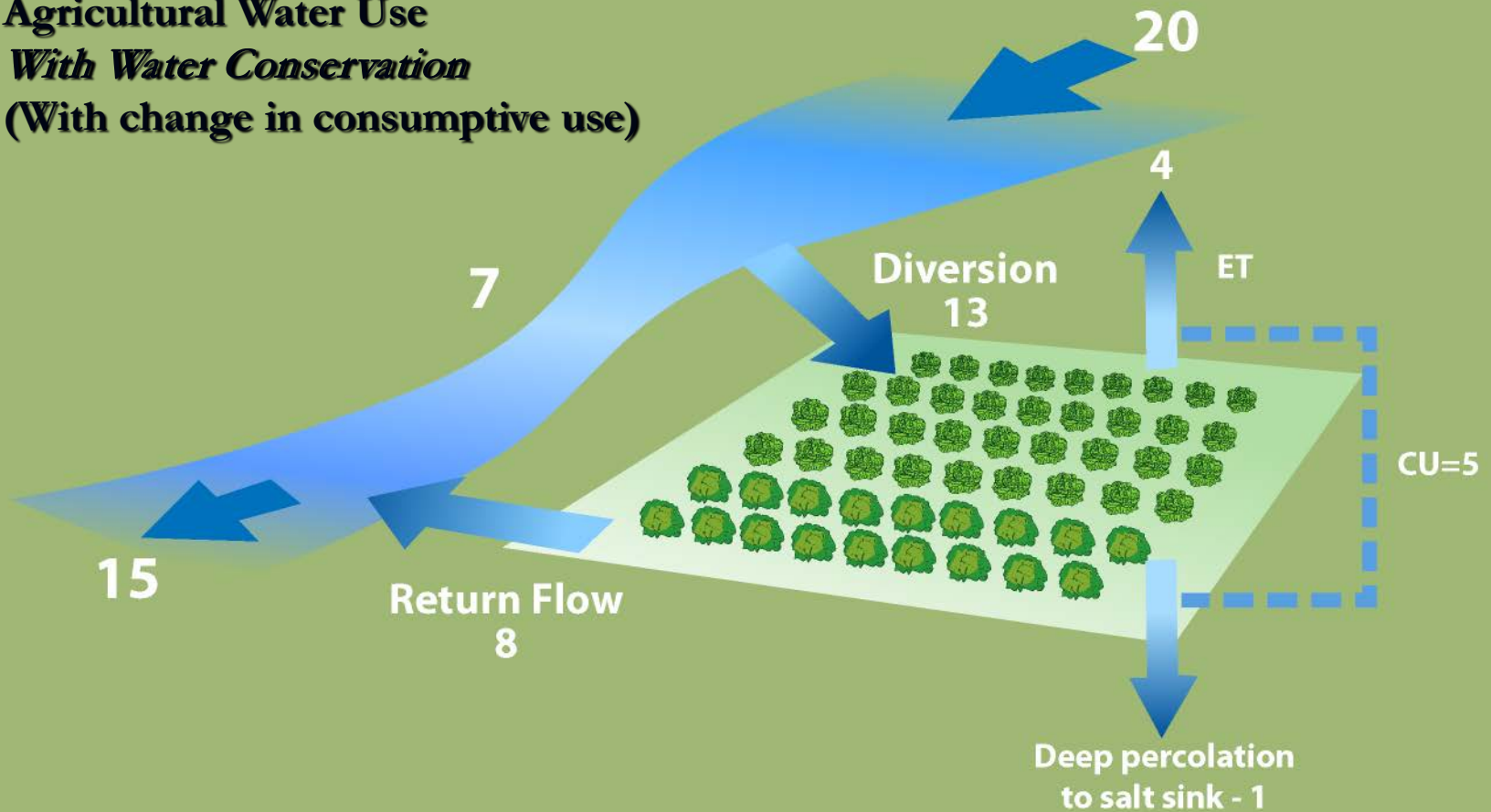
Water Transfers

**Agricultural Water Use
With Water Conservation
(No change in consumptive use)**



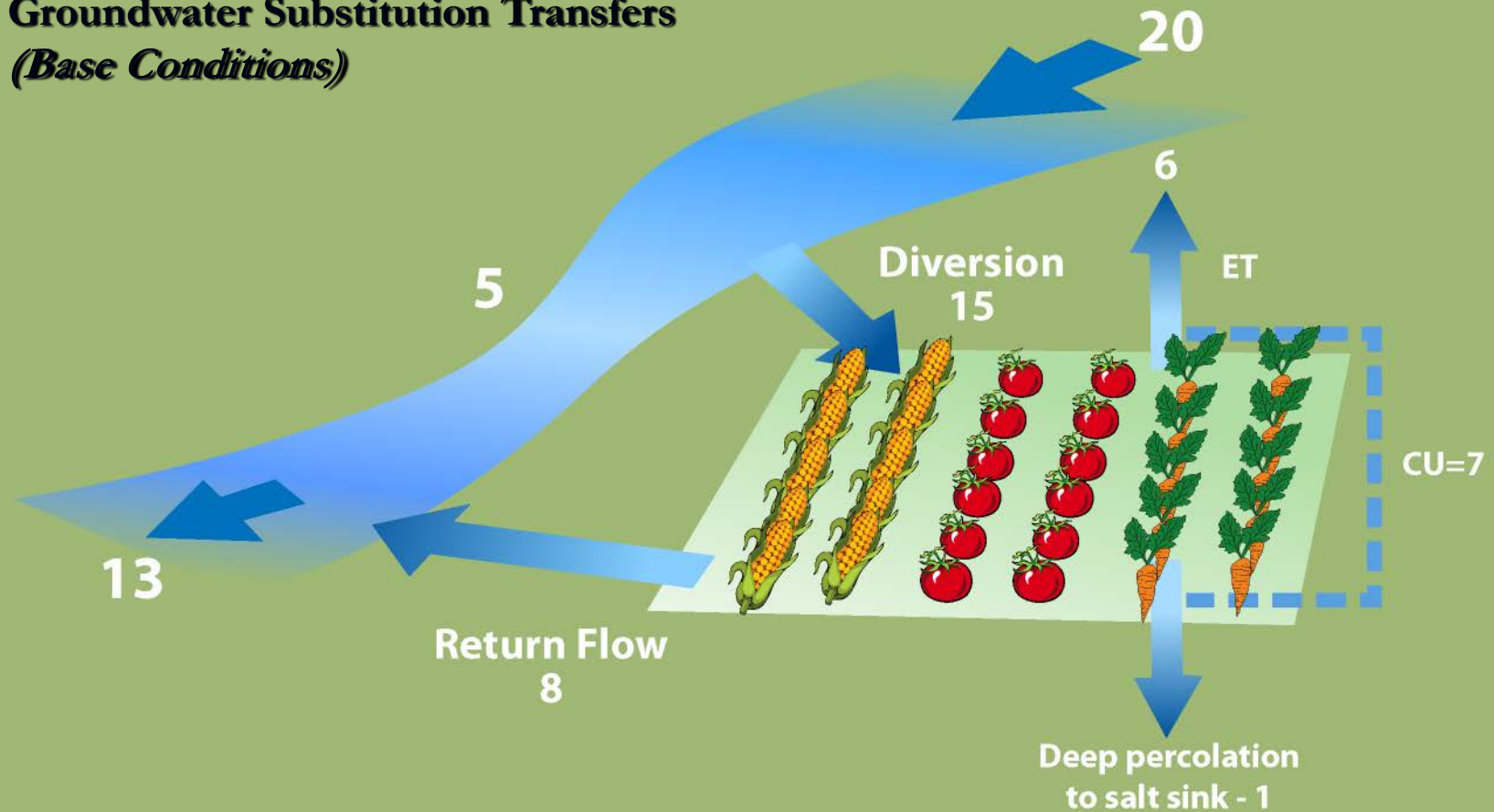
Water Transfers

**Agricultural Water Use
With Water Conservation
(With change in consumptive use)**



Water Transfers

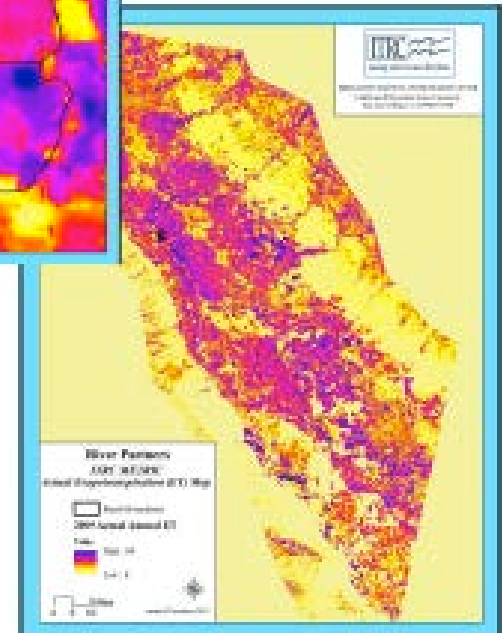
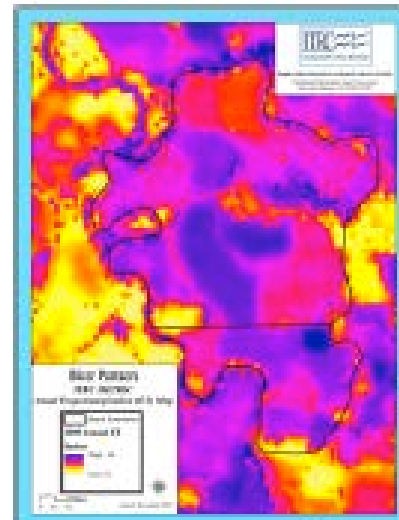
Groundwater Substitution Transfers
(Base Conditions)



Consumptive Use Report

River Partners hired Irrigation Training and Research Center (California Polytechnic State University) to produce a consumptive use report for Dos Rios and Hidden Valley Ranches to determine riparian water rights (completed: January, 2016).

Actual Evapotranspiration from Vegetation on Dos Rios and Hidden Valley Ranches in 2009



FINAL

The study used an ITRC Mapping EvapoTranspiration process to collect data from the LandSAT 5, 7, and 8 missions to compute 2009 evapotranspiration from vegetation (consumptive use).

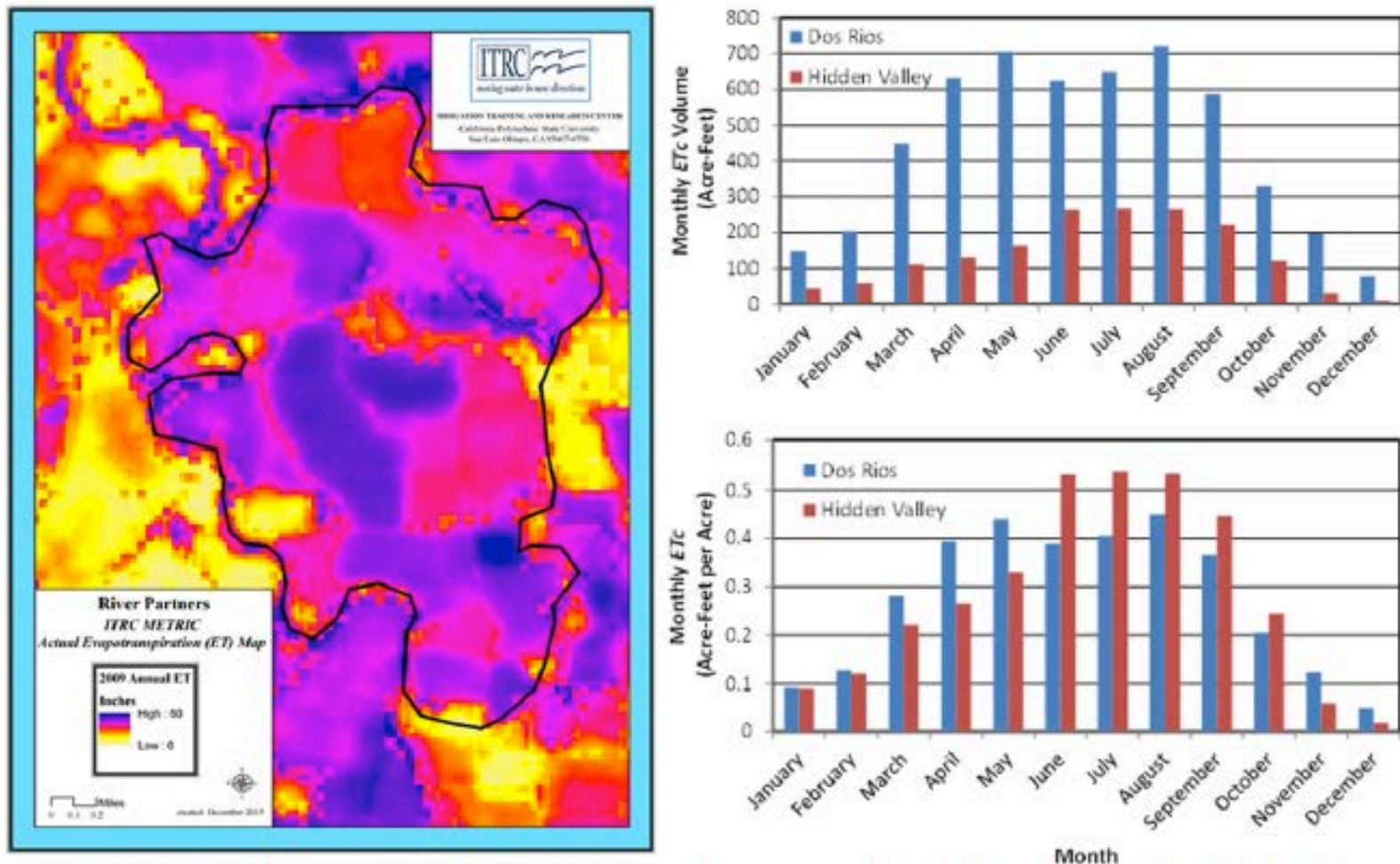
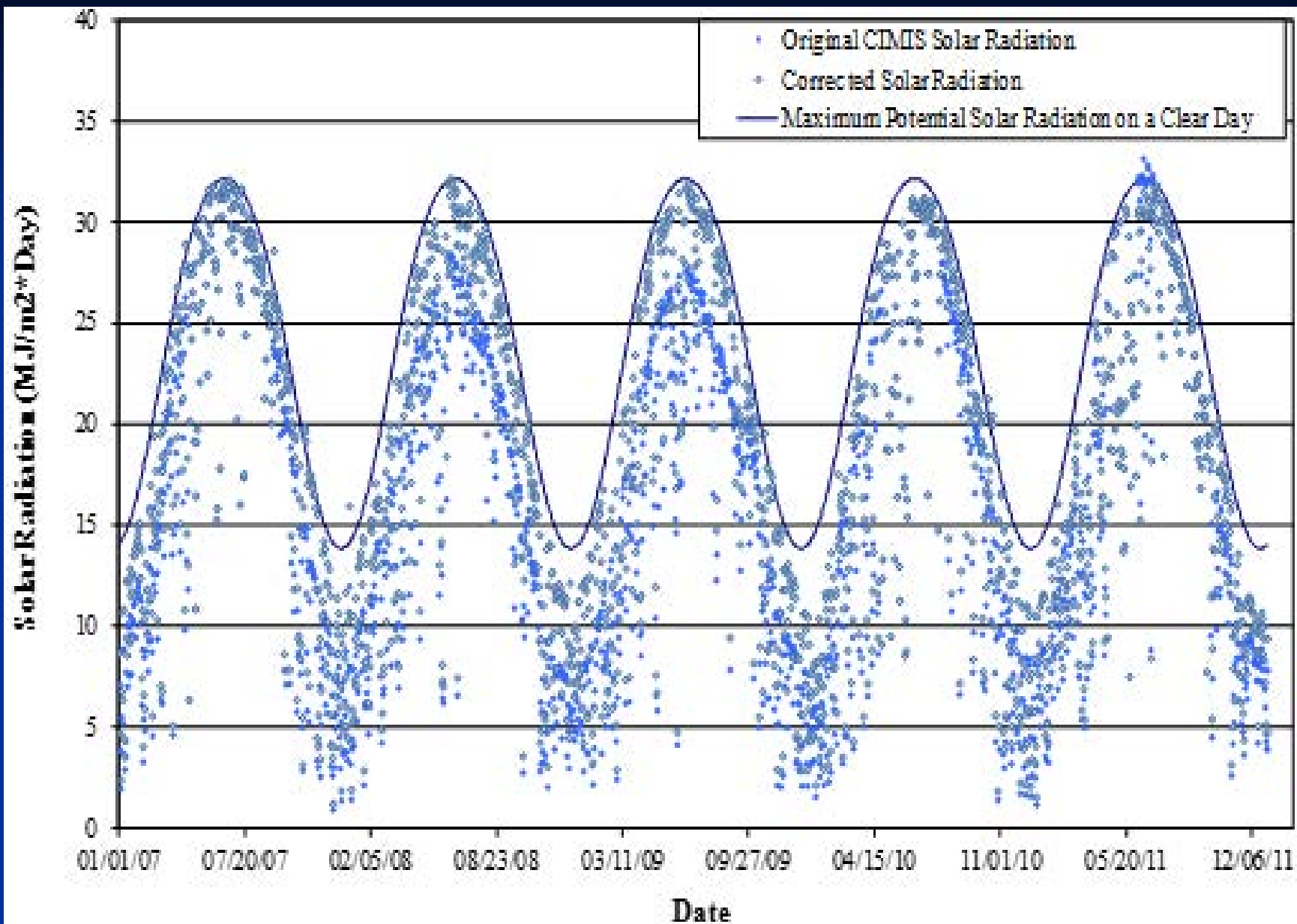


Figure ES-1. Annual *ETc* map, monthly total volume of evapotranspiration (Acre-Feet), and monthly relative *ETc* (Acre-Feet/Acre) for each ranch





Water Transfers

- Physical Challenges to Water Transfers
 - Infrastructure capacity issues, e.g. conveyance or link to water markets with high-value demand
 - Regulatory and ESA constraints
 - Transferred water can't always be stored
 - During dry years potential sellers and buyers are uncertain of their water supplies
 - Evaluating water transfer amounts as instream flow

Water Transfers

- Environmental Challenges
 - NEPA/CEQA more complex with more transfers
 - More constraints on projects reduces flexibility
 - Endangered Species Acts
 - Giant Garter Snake and rice habitat
 - Delta Fisheries
 - Red-legged frog
 - Groundwater substitution creates concern for groundwater levels
 - Air Quality

Water Transfers

- Water Transfers that work best are those that
 - avoid injury to water users
 - address fish and wildlife issues
 - sensitive to economic issues
- Long-term water transfers are in our future
 - ESA restrictions have reduced some water supplies by about 30%
 - Waterfowl refuges
 - **Instream flows (“Section 1707”)**
 - Reliable water supply for urban users and permanent crops

Water Transfers

- Water Code Section 1707:
 - (a) (1) **Any person** entitled to the use of water, whether based upon an appropriative, riparian, or other right, may petition the board . . . for a **change for purposes** of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water.
 - (b) The board may approve the petition . . . whether or not the proposed use involves a diversion of water.



Water Transfers

- Water Code Section 1707:
 - Allows existing appropriative and riparian water rights to be *not-diverted* and left instream for fish and wildlife beneficial uses without risk of abandonment or forfeiture.
 - Preserves the seniority of the right and gives the owner of the water right an enforceable right to protect that water from other junior appropriators and other diversions.
 - Is an increasingly important tool that simultaneously respects existing property rights while generating an effective and "drought-proof" instream flow tool.

Water Transfers

- Water Code Section 1707:
 - Who Can Hold a Right Changed to Instream Uses?
 - Any person or entity capable of owning real property.
 - Wat. Code, § 1252.5
 - Major distinction between California and other western states which only allow certain state agencies to hold instream rights.

Water Transfers

- SWRCB Approval Procedures:

- Instream changes with no transferee (Wat. Code, § 1700)
- Ordinary Changes (Wat. Code, § 1701 et seq.)
- Temporary Urgency Changes (Wat. Code, § 1435 et seq.) Expedited procedures
- Short-Term Transfers (Wat. Code, § 1725 et seq.)
 - Expedited procedures, with exemption from CEQA. Limited to one year, but may be repeated.
- Long-Term Transfers (Wat. Code, § 1735 et seq.)
- Changes in Adjudicated Rights. May use any of the above procedures, or procedures authorized in adjudication decree.

Water Transfers

1707 Approval Procedures:

- (a) (1) Any person . . . may petition the board pursuant to [the provisions of the Water Code for changes in point of diversion, place of use or purpose of use]
- (b) The board may approve the petition . . . subject to any terms and conditions which, in the board's judgment, will best develop, conserve, and utilize, in the public interest, the water proposed to be used as part of the change . . . If the board determines that the proposed change meets all of the following requirements:
 1. Will not increase the amount of water the person is entitled to use.
 2. Will not unreasonably affect any legal user of water.
 3. Otherwise meets the requirements of this division.

Intermission



TU Tax and Water Legal Team

- Tom Hicks, *Of Counsel*, TU Western Water Project
- Laura Ziemer, TU Senior Counsel and Water Policy Advisor
- Bill Silberstein, *Kaplan Kirsch & Rockwell LLP*, Colorado
- Peter Nichols, *Berg, Hill, Greenleaf, Ruscitti LLP*, Colorado
- Bill Hutton, *Coblentz, Patch, Duffy & Bass*, California
- Pat Byorth, TU Western Water Project



Background

- “Can you donate an appropriative water right for a tax deduction?”
- Entire Interest or
- Three partial interest deductions:
 1. Contribution of a *remainder interest* in a personal residence or farm;
 2. Contribution of an *undivided portion of the taxpayer's entire interest in property*; and
 3. A *qualified conservation contribution*.

Entire and Partial Interests

- A partial interest is any interest in property that consists of less than the donor's entire interest in the property.
- If a donor who owns property outright transfers every right and interest that the donor has in the property to a permissible donee, the issue of a partial interest does not arise.
- If a donor retains some right or interest or control over donated property, there is potential the deduction will be disallowed because the donee only received a partial interest.

Revenue Ruling Focus: Entire Interest

- **Threshold Question #1:** A gift of taxpayer's entire interest in an Appropriative Water Right to an organization described in § 170(c) qualifies for a charitable deduction under § 170(a).
- For example, a taxpayer owns the right to divert two cubic feet per second of water from a stream for taxpayer's use. Taxpayer makes a gift of this water right to an organization described in § 170(c). This qualifies as a charitable deduction under § 170(a).

Donated Entire Interest: National Precedent

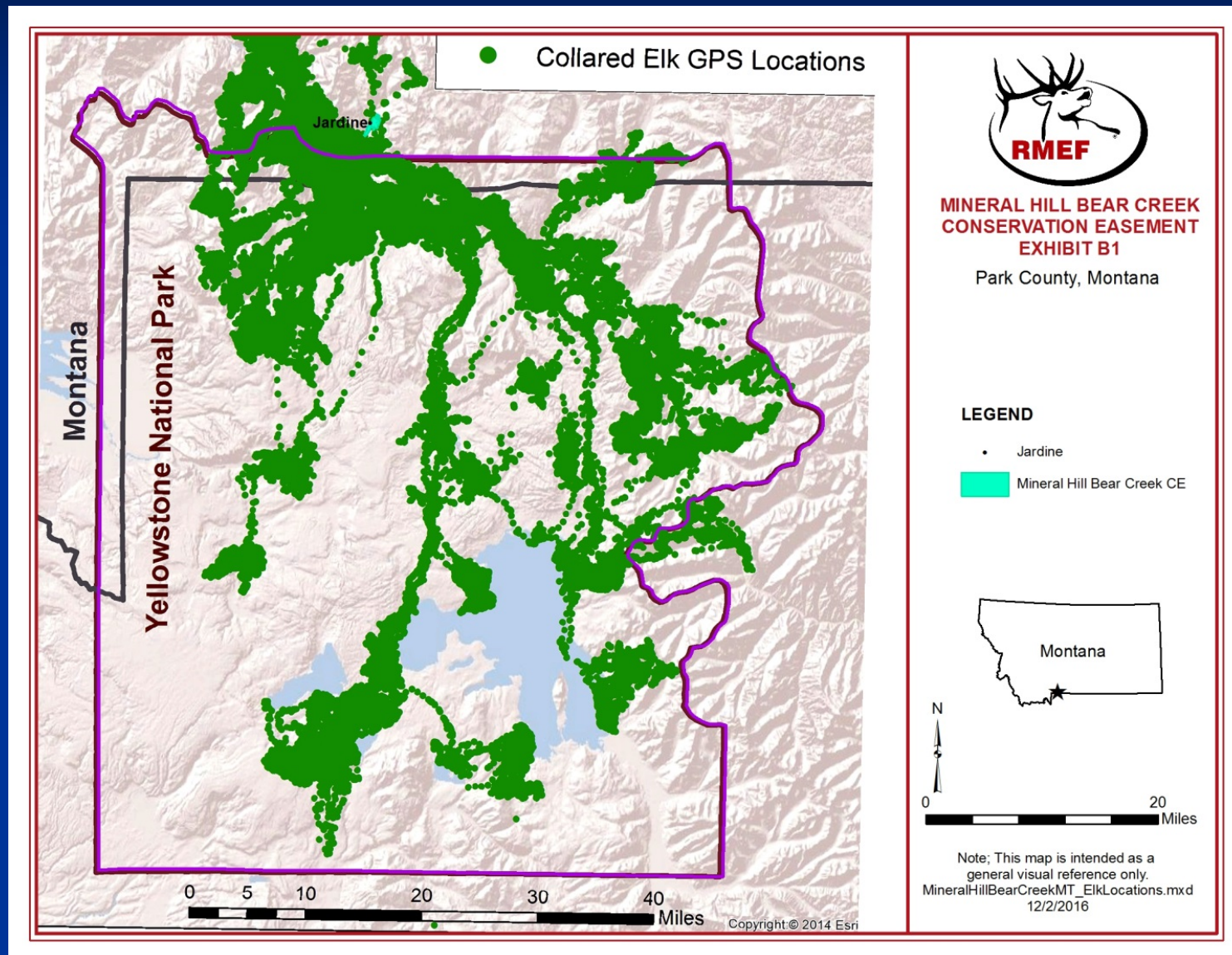
On Thursday, August 17, 2017, a formal ceremony brought Trout Unlimited, Kinross Gold, Inc., and the Rocky Mountain Elk Foundation together to celebrate two conservation transactions that included:

- (1) a donated conservation easement on the fee interest from Kinross to RMEF; and
- (2) an outright donation of the Jardine Mine water right from Kinross to TU.

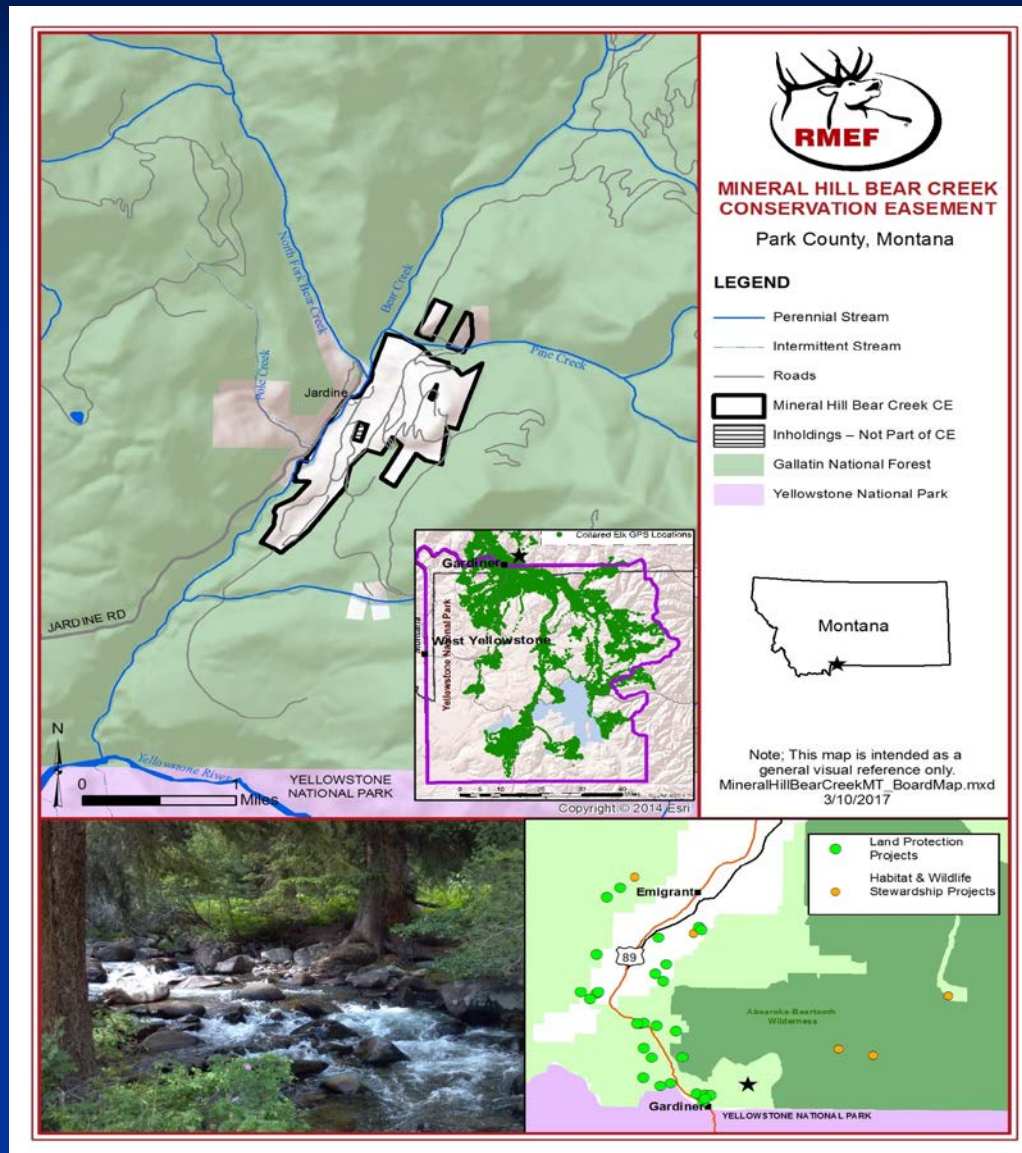
Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



(from left to right: Chris Wood, President and CEO of Trout Unlimited; David Allen, President and CEO, Rocky Mountain Elk Foundation; U.S. Congressman Greg Gianforte (MT); Dan Wenk, Superintendent Yellowstone National Park; J. Paul Rollinson, President and CEO, Kinross Gold; David Bernhardt, Deputy Secretary Department of the Interior; U.S. Sen. Jon Tester (MT); Gov. Steve Bullock (MT); U.S. Sen. Steve Daines (MT).

Donated Entire Interest: National Precedent

The conclusions of the Water Rights Due Diligence:

1. Pine Creek Water Right: Evidence supported protection of the Pine Creek water right with up to 2.5 cfs of consumptive use from April 1 - August 31, and 1.4 cfs from September 1 – March 31, with a volume of up to 1,345 acre-feet
2. Bear Creek Water Right #1: Evidence supported protection of Bear Creek's contribution to 4.0 cfs of consumptive use with a volume of 1,079 acre-feet.
3. Bear Creek Water Right #2: Evidence supported protection of up to 10 cfs of non-consumptive use based on historic mine hydropower production, relying on the Bear Creek water right of up to 6,404.0 acre-feet.
4. Valuation of the donation was based on the aggregate total of approximately 8,828 acre-feet of protected volume, or approximately 2.88 billion gallons of water.
5. The proposed protected reach will extend from the upstream-most point of diversion on Bear Creek and Pine Creek to their confluence with the Yellowstone River and beyond.

Donated Entire Interest: National Precedent



Figure 1. Map of the project area at Gardiner, MT at Mineral Hill, T9S R9E, Park County, MT. Blue circles are historic points of diversions, red lines are ditch locations. The Bear Creek Ditch (Biglow Chapman Ditch) is red line west of Bear Creek, and power plant location red circle. Proposed protected reach is green line. Source: USGS Gardiner Quadrangle (1955).

Legal Focus: Narrow Scope

- The Request does not concern a gift of either:
 - a *remainder interest* in an appropriative water right under I.R.C. § 170(f)(3)(B)(i) or
 - a *qualified conservation contribution* of the qualified real property interest in an appropriative water right to a qualified organization given exclusively for conservation purposes in perpetuity under I.R.C. § 170(f)(3)(B)(iii) and I.R.C. § 170(h).
- The Request does not concern gifts of riparian rights or groundwater rights.

Revenue Ruling Focus: Partial Interest

- **Question #2:** A gift of an undivided portion of a taxpayer's entire interest in an Appropriative Water Right to an organization described in § 170(c) qualifies for a charitable deduction under § 170(a).
- For example, a taxpayer owns the right to divert two cubic feet per second of water from a stream for taxpayer's use. Taxpayer makes a gift of a fifty percent undivided interest of this right to an organization described in § 170(c). The taxpayer has conveyed a fraction or percentage of each and every interest or right owned by the taxpayer in such property. The taxpayer has not retained any right, not even an insubstantial right, in the property conveyed. This qualifies as a charitable deduction under § 170(a).

Legal Focus: I.R.C. § 170(f)(3)(B)(ii)

- **Scenario:** Owner owns an entire interest in an appropriative water right. Owner makes a charitable contribution of an undivided 50% interest in his/her appropriative water right to an organization described in I.R.C. § 170(c).
- Donor permanently transfers all his/her interest in the 50% undivided interest in the appropriative right to the donee.
- Owner maintains and retains an unencumbered interest in the remaining 50% interest in his/her appropriative water right.
- **Deductible.**

Temporary: Forbearance Agreement

- Simply a contract between a landowner/water user and a local land trust or water trust (or other entity)
- Water user agrees to forego withdrawals of water pursuant to the terms and conditions set forth in the contract.
- The main advantage of a forbearance agreement is its simplicity and efficiency, as the terms of the agreement can be structured to fit the needs of the parties.
- Often, the key term is *seasonal* (not year-round) forbearance from withdrawing water. That is, the landowners retain the right to withdraw water during the wetter or higher-flow seasons, but give up the right to withdraw water during the dry season when flows are critically low.
- Forbearance Agreements are not permanent. They typically extend for a term of years agreed to by the parties.
- **Non-deductible.**

Permanent: Fractional Use Agreements

- To qualify for a federal tax deduction the water right owner must permanently relinquish a fractional or partial interest in an appropriative water right.
- Fractional Use Agreements can be considered an evolutionary progression of and are *permanent* Forbearance Agreements.
- Bargain sale transactions (that have both cash and donative components) or outright donations of a partial right can be structured for:
 - (1) full temporal use and limited quantity, e.g. April 1 - October 15 and 25% of the total water diversion; or
 - (2) limited temporal use of the entire quantity, e.g. August 1 - October 15 and 100% of the total water diversion; or
 - (3) limited temporal use and limited quantity, e.g. August 1 - October 15 for 25% of the total water diversion.

I.R.C. § 170(h): Qualified Conservation Contribution

The I.R.S. provides income tax and estate tax deductions for a qualified conservation contribution:

- of a qualified real property interest;
- to a qualified organization; and
- donated exclusively for conservation purposes.

I.R.C. § 170(h)(2): Easement must be a Qualified Real Property Interest

A qualified real property interest is any of the following interests in real property:

- (1) The entire interest of the donor other than qualified mineral interest;
- (2) A remainder interest; and
- (3) A restriction (granted in perpetuity) on the use which may be made of the real property.

State Defined Property Right

- Conservation easements are negotiated, voluntary agreements to permanently restrict an otherwise full right of *future, potential* uses of the real property interest, e.g. subdivision, commercial development, etc., enforceable under state law.

Limitations on the Real Property Interest in a Water Right

- Reasonable and beneficial use
- Public Trust Doctrine
- Water Quality
- Area of Origin Protections
- Fish & Game Code § 5937 and § 5946
- Endangered Species Act (“ESA”)
- Nuisance

1983 National Audubon Society v. Superior Court



I.R.C. § 170(h)(3): Easement must be given to a qualified organization

- A qualified conservation contribution of the qualified real property interest in an appropriative water right must be permanently dedicated to either:
 - A government unit or
 - A publicly supported 501(c)(3) charitable organization or
 - Both

I.R.C. § 170(h)(4)-(5): Easement must be donated exclusively for "conservation purposes"

- The qualified conservation contribution of the qualified real property interest in an appropriative water right permanently dedicated to a qualified organization is donated for *conservation purposes* when it will:
 - (1) preserve land areas for outdoor recreation by, or the education of, the general public;
 - (2) protect a relatively natural habitat of fish, wildlife, or plants or similar ecosystem; or
 - (3) preserve open space.

Perpetuity

- The conservation purpose must be protected in perpetuity.

I.R.C. § 170(h)(4)(A)(i): Outdoor Recreation or Education

- The preservation of a *water area* for the use of the public for boating or fishing is a conservation purpose.
- The preservation of a *land area* [or an instream appropriative right, e.g. river] will not meet the conservation purposes test unless the recreation or education is for the substantial and regular use of the general public.



I.R.C. § 170(h)(4)(A)(ii): Relatively Natural Habitat/Protection of Environmental System

- The protection of a relatively natural habitat of fish is a conservation purpose.
- Significant habitats or ecosystems include, but are not limited to, habitats for rare, endangered, or threatened species of fish.
- The donated property must contribute to the ecological viability of a local, state, or national park or other conservation area or otherwise represent a high quality aquatic ecosystem.
- The fact that habitat has been altered to some extent by human activities will not result in a denial of a deduction if fish continue to exist in a relatively natural state.



I.R.C. § 170(h)(4)(A)(iii): Preservation of Open Space

- The preservation of open space (including farmland or forest land) qualifies where such preservation is
 - (I) for the scenic enjoyment of the enjoyment of the public, or
 - (II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit.

I.R.C. § 170(h)(4)(A)(iii)(I): Scenic Enjoyment

- The preservation of open space for the scenic enjoyment of the public is a conservation purpose.
- Preservation may be for scenic enjoyment if development would impair the scenic character of the landscape or significantly interfere with the "scenic panorama" that could be enjoyed *from* a road, waterbody or transportation way utilized by the public.
- Regional variations require flexibility in the application of the scenic enjoyment test, which balances and evaluates different scenic factors.

I.R.C. § 170(h)(4)(A)(iii)(II): Pursuant to Governmental Conservation Policy

- The preservation of open space pursuant to clearly delineated governmental conservation policy that states it is in the public interest to preserve a certain type of property is a conservation purpose.



Distinctions Between Permanent Forbearance Agreements and Conservation Easements

- Exclusive focus on gift of the real property interest pursuant to state law, measured as the fractional reduction of the full right of diversion, at the time of the gift;
- Not contingent upon the secondary state administrative transfer of the water right to an instream fish and wildlife reasonable and beneficial use or other conservation purposes, which can take years;
- The burden of monitoring a non-diversion in perpetuity is an obligation that should not casually be taken on by private, non-profit, or public entities;
- The difficulty of attaching an "exclusively conservation purpose" in perpetuity to a particular right, which may accomplish multiple municipal, environmental or agricultural beneficial uses as water flows downstream.

Drafting Guidance: Permanent Forbearance Agreements

- Separate real property interest.
- Permanent Term.
- Fraction or percentage of each and every substantial interest.
- No Retainer Substantial Interest.
- Right of possession, dominion and control.
- Time of accrual of right of deduction.
- Perpetual Nature of Appropriative Water Right.
- Retained Uses of Water Right.
- **Deductible**

Intro to Water Law, Water Bond, Voluntary Water Transactions, and Instream Transfers

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Water Rights 101: An Overview of California Water Law with an Emphasis on Instream Flow Projects



Water Rights

- Background on water law and water rights in CA
- Discussion of specific legal provisions that often apply to permitting of instream flow projects



Water Rights in CA

- Riparian Water Rights
- Appropriative Water Rights

(plus groundwater)



Riparian Water Rights

Basic principle:

All owners of property adjacent to a stream have the right to reasonable use of water from the stream

(or lake)

- Comes from English common law
- Prevailing system in wetter states (eastern US)



Riparian Water Rights

Features:

- Exist through **ownership of land** abutting stream
- Can be put to any **reasonable, beneficial use** on **riparian property**
- All riparian right holders have **co-equal** priority
- Usually have **priority** over appropriative rights



Riparian Water Rights

Limits:

- Limited to use **on riparian land** within watershed (can't transfer)
- Right to **natural streamflow only** (not imported or stored water)
- Can't **store** water for use later in the year (30-day rule)



Riparian Water Rights

Can be lost by:

- Splitting a parcel to **separate land from the stream** (unless rights reserved)
- Signing them away by **contract** (e.g., Delta)
- Can lose priority in a **stream adjudication** (rare)
- But generally **not by failing to use them**



Appropriative Water Rights

Basic principle:

You get the right to use water by **putting it to beneficial use**, regardless of location

- Prevailing rule in more arid states (western US)
- Developed by CA miners/ Mormon settlers



Appropriative Water Rights

- Priority: **first in time, first in right**
- Use must be **reasonable** and **beneficial**
- Limited to **amount** historically used
- **Use it or lose it**: can lose the right due to non-use (more than 5 years)
- Can **store** water if your right says so
- Can **transfer** to another user and/or place, if won't harm other users



Appropriative Water Rights

- Pre-1914: Provide notice & put water to use.
 - Established by court system
- Post-1914: Apply to Water Board for permit



Limitations on Both Riparian and Appropriative Rights

- Water itself **belongs to the state**; the holder has only the right to **use** it
- Use must be a **beneficial use**
- Use must be **reasonable**
- Subject to the **public trust doctrine**



Beneficial Uses

- Domestic
- Irrigation
- Stock watering
- Municipal
- Industrial/ commercial
- Hydropower
- Fish and wildlife
- Frost protection
- Heat control
- More



Reasonable Use

- Depends on circumstances – what is reasonable at one time/place may not be at others
- Classic example: ditch loss
- Water Board can define by rule (e.g., frost protection rule)
- Broad source of WB authority



Public Trust Doctrine

- Rooted in state ownership of water
- Protects streamflow needed to support public uses of navigation/ fishing/ environment
- Water Board: continuing jurisdiction over all water rights to protect public trust
- Legislature: statutes such as § 5937 (dams)



Priority

Who gets water first?

- (1) Riparian rights (co-equal)
- (2) Appropriative rights (in order of seniority)

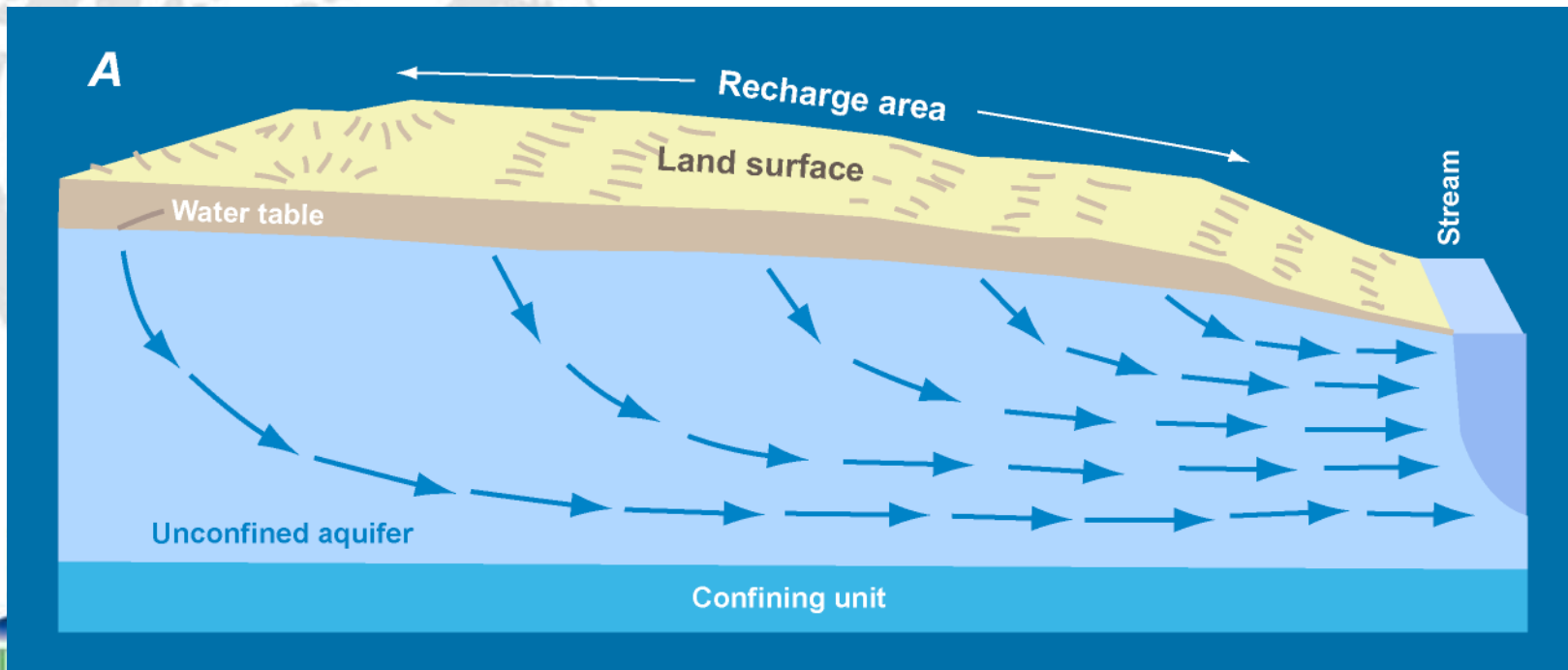
– But –

- Stored water (not available for diversion)
- Public trust doctrine (same)



Groundwater

- CA law presumes it's separate from surface water
- This is not true



Groundwater

“Percolating Groundwater”

- All groundwater not part of a subterranean stream
- Not regulated by the state
- Complex rules for use among neighbors



Groundwater

“Subterranean Streams”

- **Treated just like surface water**
- Four-part test:
 - subsurface channel
 - relatively impermeable
 - course/ location can be determined
 - has groundwater flowing in it
- Often applies to alluvial aquifers



Springs

- If a spring doesn't flow off your property, it's yours – no permits or obligations to other users
- If it flows off your property, it's surface water. All other riparian owners have a co-equal right, and storage requires an appropriative right.



CA Water Resources Control Board

(a.k.a. “State Water Board”)



Has Jurisdiction Over:

- Permitting & administration of **post-1914** water rights
- **Reasonable use** of **all** water rights, including pre-1914 and riparian
- Protection of the **public trust** with regard to **all** rights, incl. pre-1914 and riparian

Has No Jurisdiction Over:

- Groundwater (of the “percolating” variety)



Registrations

Small Domestic Use

Small Irrigation Use

- These are **appropriative water rights**
- File complete form/ pay fee to SWRCB
- Intended to allow rights for relatively small uses without full permitting process
- Commonly used for small storage projects
- DFW can impose § 1600 (SLA) conditions



Small Domestic Use Registration

- No more than 4500 gpd direct diversion
- No more than 10 acre-feet of storage
- Domestic use plus incidental uses (e.g., fire protection)
- Must be renewed every 5 years



Small Irrigation Use Registration

- No more than 42,000 gpd direct diversion or 20 acre-feet of storage
- Irrigation/ frost protection/ heat control
- Must be renewed every 5 years



Statements of Diversion & Use

- All riparian & pre-1914 users must file every 3 years
- Purpose: allow better understanding of water use and better administration of water rights
- Penalties: \$1,000 for failure to file, plus \$500 per day after notice from Water Board
- Post-1914s don't have to file (already have to report) – includes SDUs/SIUs



DFW Regulation of Water Use: Fish and Game Code Section 1602

“An entity may not substantially divert or obstruct the natural flow of . . . any river, stream, or lake, . . . unless . . .”

[You get a Lake or Streambed Alteration Agreement from DFW]

- DFW may impose reasonable conditions to protect fishery resources
- DFW may conduct a site visit



§ 1707 Dedications

- Can petition the Water Board to dedicate water right to fish/wildlife, recreation, or wetlands, including ISF
- Can dedicate amount of actual, reasonable use – no “paper water”
- Protects against loss of right for non-use
- Must show no injury to other users
- Lengthy permitting process



Forbearance Agreements

- Rightholder signs a contract agreeing not to divert for a certain period
- Forbearance period can be calendar-based or flow-based
- **Not a water rights transaction;** no Water Board permitting necessary; no right to object
- Can't protect water from other diverters
- Very useful & practical alternative to dedications



Intro to Water Law, Water Bond, Voluntary Water Transactions, and Instream Transfers

TOM HICKS ATTORNEY AT LAW

Who is in the Audience?

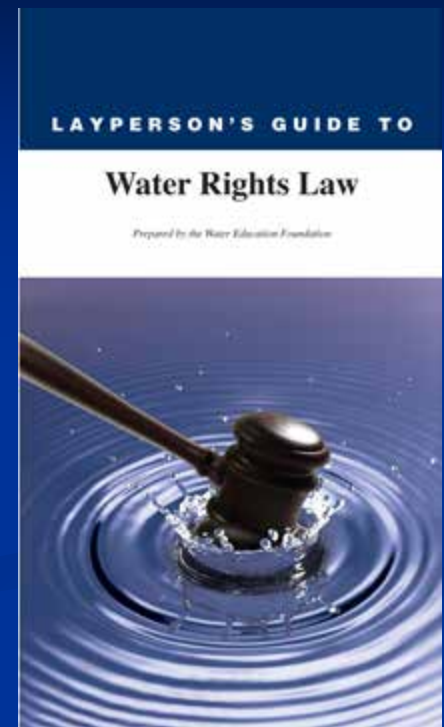
- n Land and water conservation professionals?
- n Land owners? Ranch managers?
- n Conservation attorneys?
- n Board members?
- n State or federal agencies?
- n Concerned citizens?
- n Others?

Outline and Overview

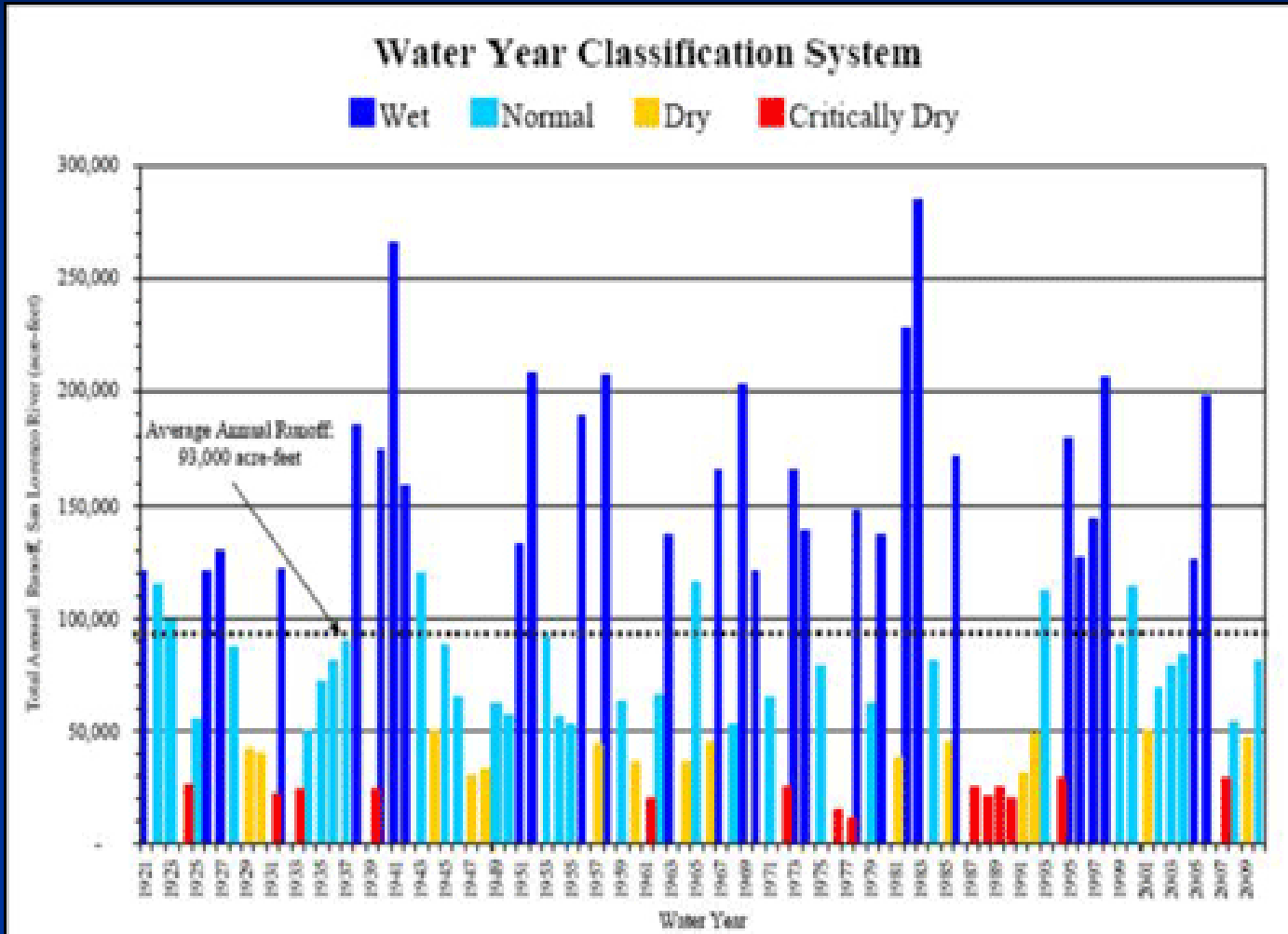
- n Executive Order: Mandatory Statewide Water Reductions
- n California Water Law Basics
- n Groundwater
- n Water Management
- n Water Bond
- n Water Transactions and Transfers
- n Federal Tax Deductibility of Water Right Donations
- n Disclaimer: More than can be covered in an hour!

Author, Layperson's Guide to Water Rights Law

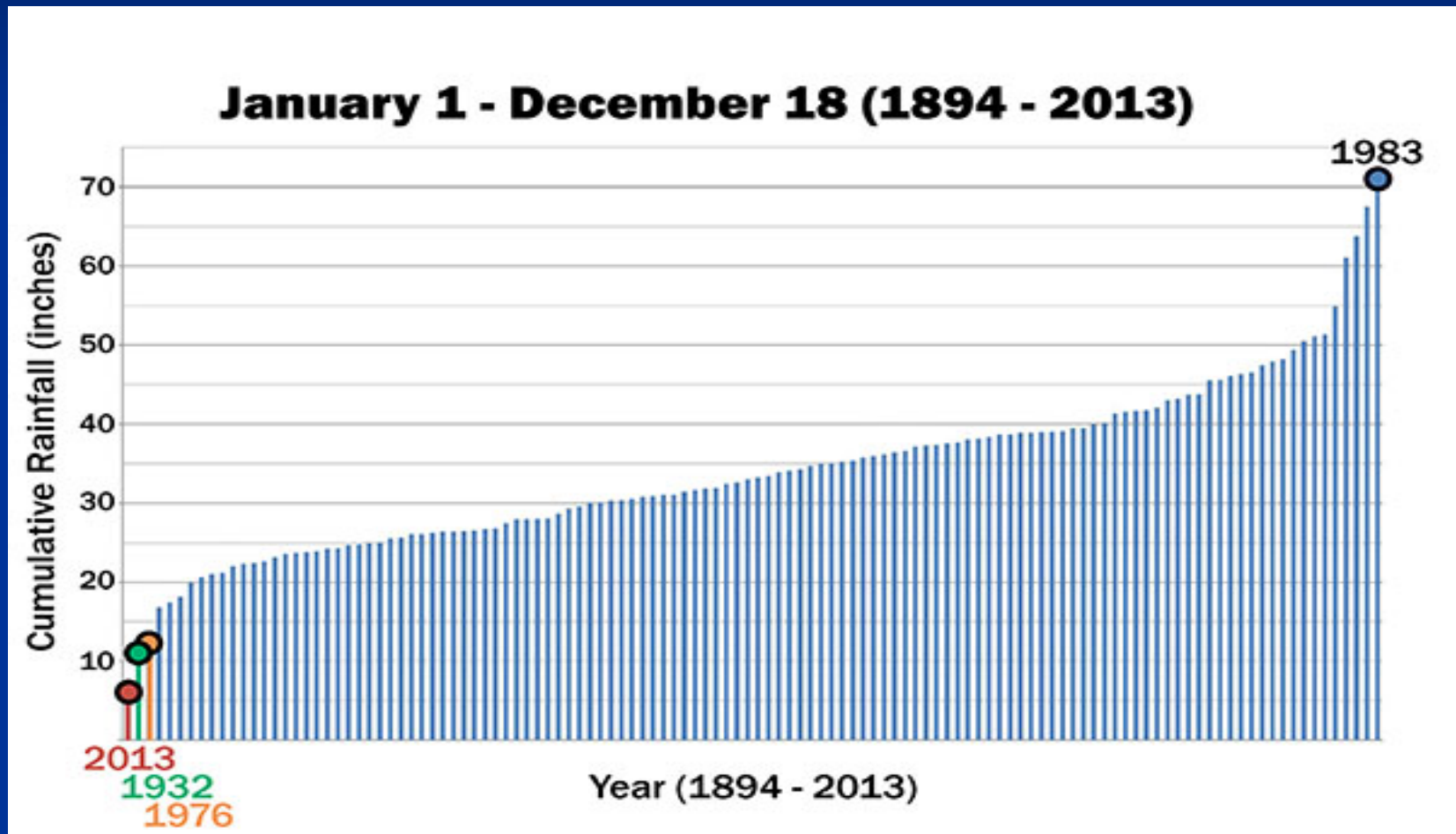
- n The 28-page, recognized as the most thorough explanation of California water rights law available to non-lawyers, traces the authority for water flowing in a stream or reservoir, from a faucet or into an irrigation ditch through the complex web of California water rights.
- n It includes historical information on the development of water rights law, sections on surface water rights and groundwater rights, a description of the different agencies involved in water rights, and a section on the issues not only shaped by water rights decisions but that are also driving changes in water rights. Includes chronology of landmark cases and legislation and an extensive glossary.
- n <http://www.watereducation.org/publication/laypersons-guide-water-rights-law>



Dry & Critically Dry Years



Drought (Does not include '14-15)



Drought Conditions



Executive Order B-29-15: Mandatory Statewide Water Reductions

- n On April 1, 2015, Gov. Brown announces actions that will:
 - n save water,
 - n increase enforcement to prevent wasteful water use,
 - n streamline the state's drought response, and
 - n invest in new technologies that will make California more drought resilient.

Mandatory Statewide Water Reductions

n Save Water

For the first time in state history, the Governor has directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent. This savings amounts to approximately 1.5 million acre-feet of water over the next nine months, or nearly as much as is currently in Lake Oroville.

Mandatory Statewide Water Reductions

n Increase Enforcement

- n The Governor's order calls on local water agencies to adjust their rate structures to implement conservation pricing, recognized as an effective way to realize water reductions and discourage water waste.
- n Agricultural water users will be required to report more water use information to state regulators, increasing the state's ability to enforce against illegal diversions and waste and unreasonable use of water under today's order.
- n Additionally, the Governor's action strengthens standards for Agricultural Water Management Plans submitted by large agriculture water districts and requires small agriculture water districts to develop similar plans. These plans will help ensure that agricultural communities are prepared in case the drought extends into 2016.

Executive Authority

- n The state is taking steps to make sure that water is available for:
 - n human health and safety,
 - n growing food,
 - n fighting fires, and
 - n protecting fish and wildlife.

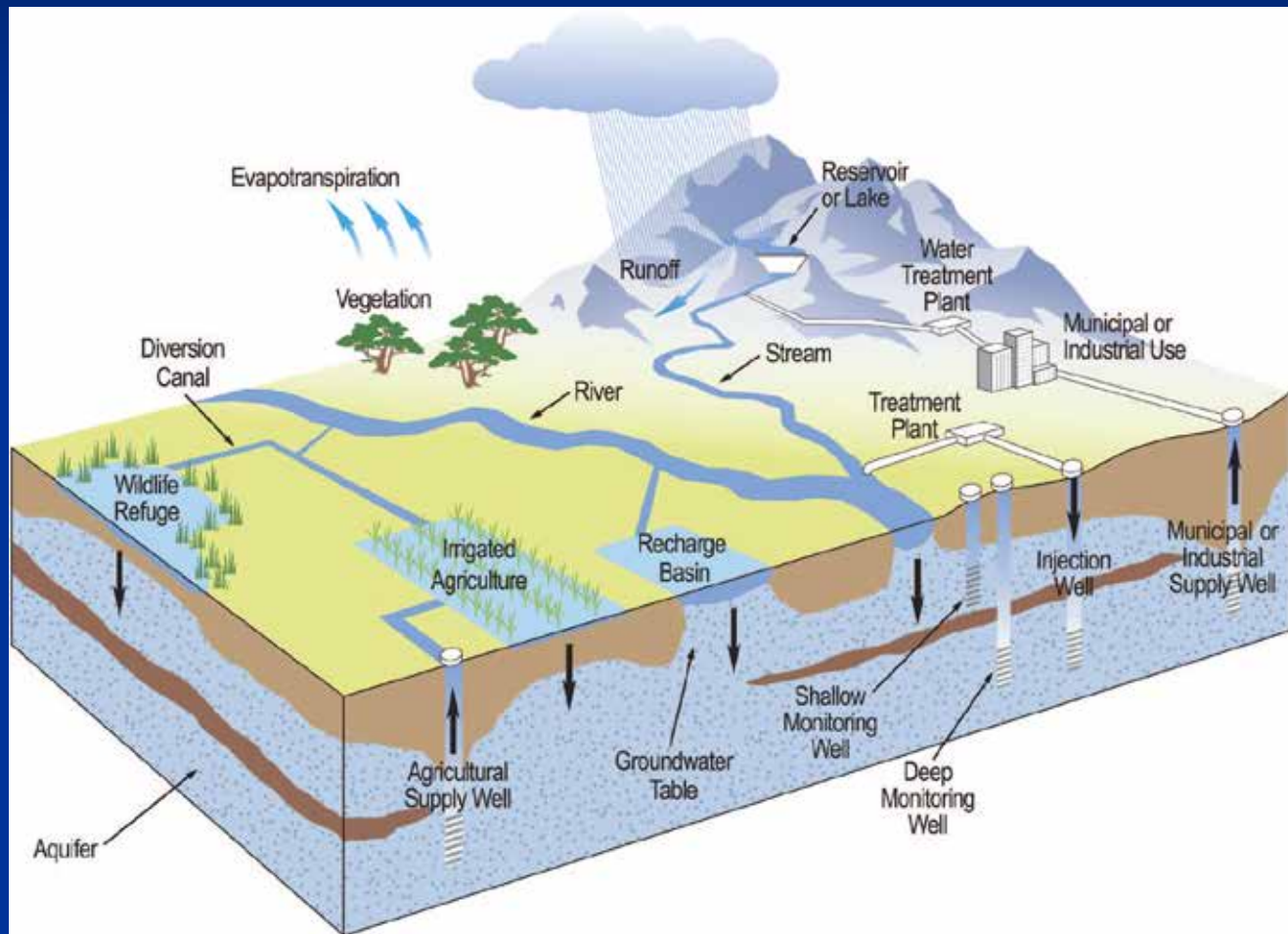
Capistrano Tax Payers Assoc v. City of San Juan Capistrano (April 2015)

- n 4th District Court of Appeal invalidates tiered-rate program for water service.
- n Gov. Brown claims the court's opinion puts "a straitjacket on local government at a time when maximum flexibility is needed."
- n The Constitution requires public water agencies charge rates that reflect the actual "cost of service" to a given customer.
- n The Court says the Constitution does not prohibit tiered pricing, it just requires that such pricing be based on cost of service.

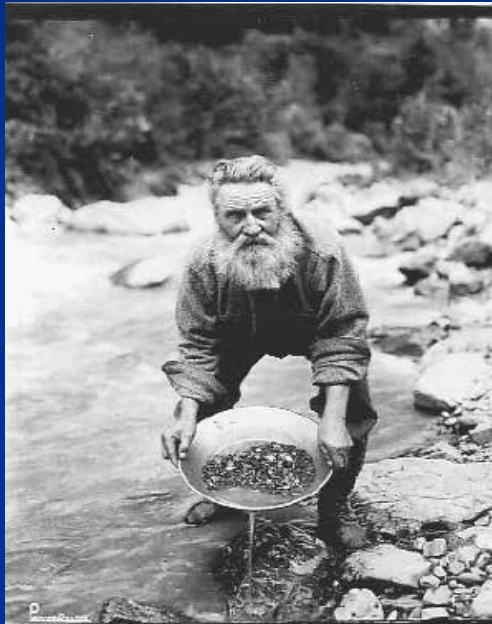
California Water Law

- Many Legal Definitions & Issues:
 - Appropriative water rights
 - Riparian water rights
 - Groundwater rights
 - Beneficial use
 - Public Trust Doctrine
 - Property rights
 - Environmental law
 - Federal water law authorities
 - Hydropower development

Water Law in the Watershed



1848 Gold Discovered



California Water Law

- n **Doctrine of Prior Appropriation** system spreads from California east and north across the West wherever miners diverted water from natural creeks, streams, and rivers passing through federally-owned lands;
- n Water was severed from riparian use on public lands and re-directed overland towards capital-intensive mining claims on land the miners did not own.
- n Ever since, the appropriative water right does not arise from land ownership, but instead from the beneficial use of water for a particular purpose and place of use;
- n “**First in time, first in right,**” which, unlike riparian rights, does not apportion water shortages equally. There is no “equitable apportionment” of shared scarcity;
- n *Usufructuary* right of use: “**Use it or lose it.**”

1849 Gold Rush



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MERCHANTS' EXPRESS LINE OF CLIPPER SHIPS!
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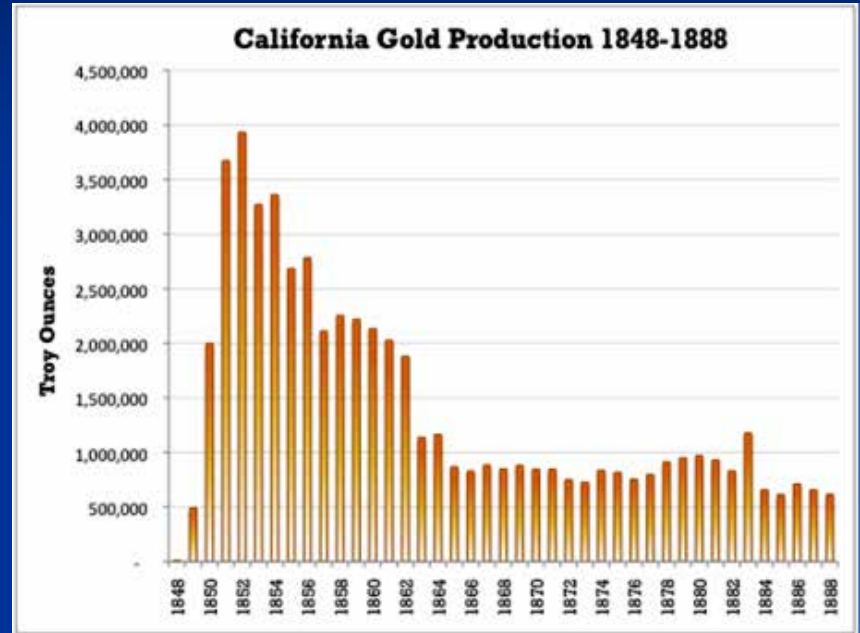
RANDOLPH M. COOLEY, 88 Wall Street, Textile Building.



California Water Law

- Essential elements of an appropriative right:
 1. intent to take the water and apply it to a use;
 2. actual diversion from the natural channel; and
 3. application of the water within a reasonable time to **beneficial use**;

1853 Hydraulic Mining



1884 End of an Era



California Water Law

- "Pre-1914" water rights
 - appropriator must be able to prove "continuous, beneficial use" of the water
 - not always recorded = hard to prove
 - right would not attach or vest until the water was actually put to beneficial use.
- Post-1914 appropriative water rights
 - applications are filed with the SWRCB for a water right permit to develop a water diversion and use project within specified conditions and timeframes.
 1. annual quantity measured in acre-feet ("AF");
 2. rate of diversion (often measured in cubic feet per second ("cfs"));
 3. season of diversion;
 4. point(s) of diversion;
 5. purpose of use; and
 6. place of use.

California Water Law

n **Riparian water right:**

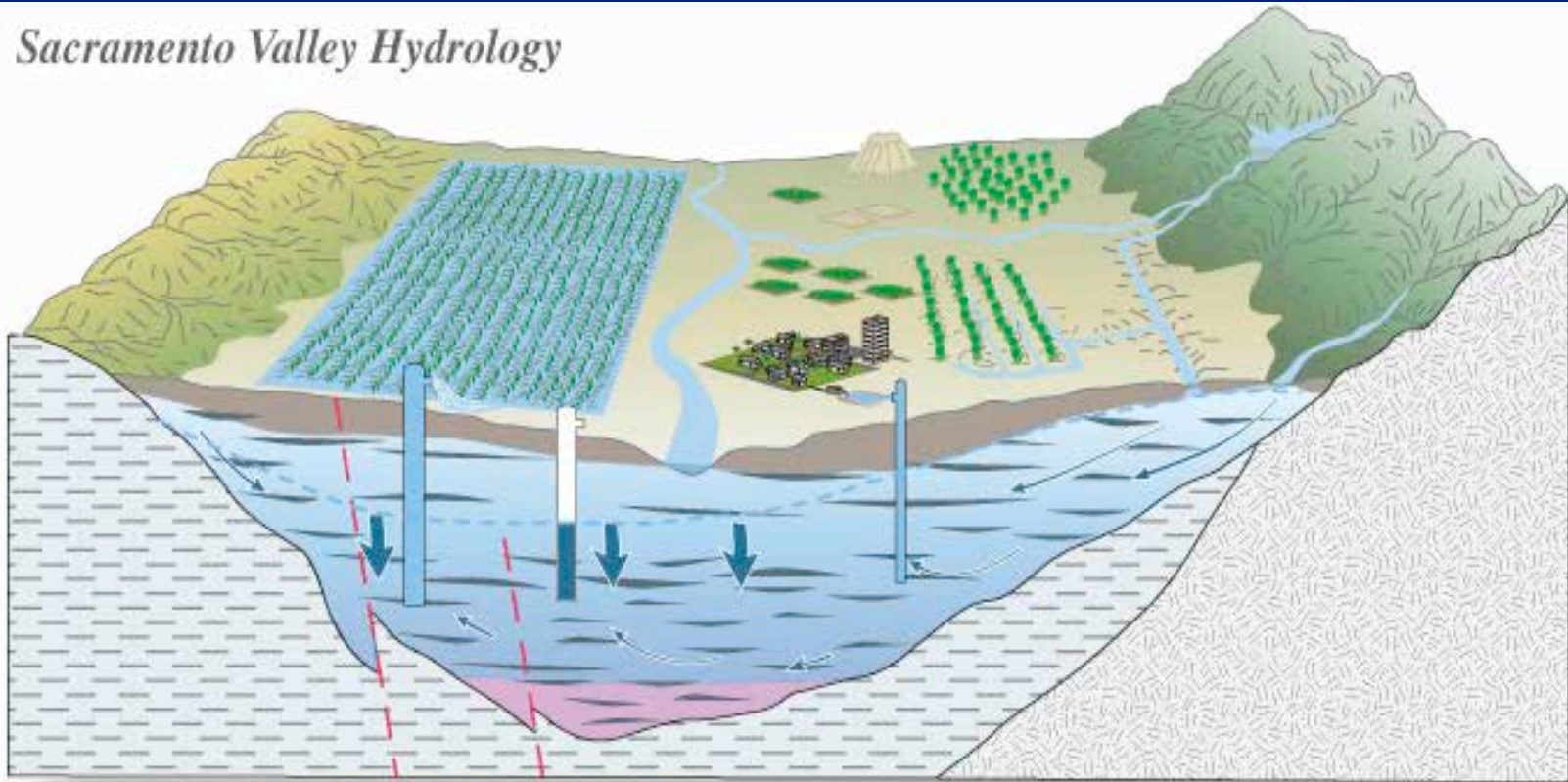
- n is a right to use the natural flow of water within a natural watercourse on riparian land;
- n depend entirely on the ownership of riparian land adjacent to a water course, e.g. land that touches a lake, river, stream, or creek;
- n correlative in time of shortage, such that no user has priority over others and water use reductions are shared equally;
- n is not created by actual use or lost by non-use of water, but are partial interests in the bundle of property sticks that are "**part and parcel**" of the land;
- n cannot be stored for longer than thirty days and that water can only be used on land that drains back to the lake, river, stream, or creek from which the water was taken;
- n does not require state approval or permitting.

California Water Law

- Reasonable and Beneficial use
- Waste and unreasonable use
 - California Constitution, Article X, Section 2
 - All water rights: surface + groundwater
- **Trend:** more reasonable and more beneficial
- **How:** use of price and transfer infrastructure to move water to more valuable uses per unit of consumption

California Groundwater

Sacramento Valley Hydrology



Groundwater Rights

Five types:

- (1) **Overlying rights** based on ownership of land that lies above a groundwater source (the largest category);
- (2) **Appropriative or non-overlying rights** (the right to divert groundwater from its source to a non-overlying area, or for municipal use);
- (3) Prescriptive rights;
- (4) Pueblo rights; and
- (5) Federal reserved rights.

State Groundwater Regulation

- n Water Code Section 1200 allows appropriation of groundwater that is part of “subterranean streams flowing in known and definite channels.”
- n In 1899, the California Supreme Court held in *Los Angeles v. Pomeroy* that subterranean streams are governed by the same rules that apply to surface streams, giving the State Water Board authority to require permits for appropriation of groundwater in subterranean streams.

Water Rights Decision-1639

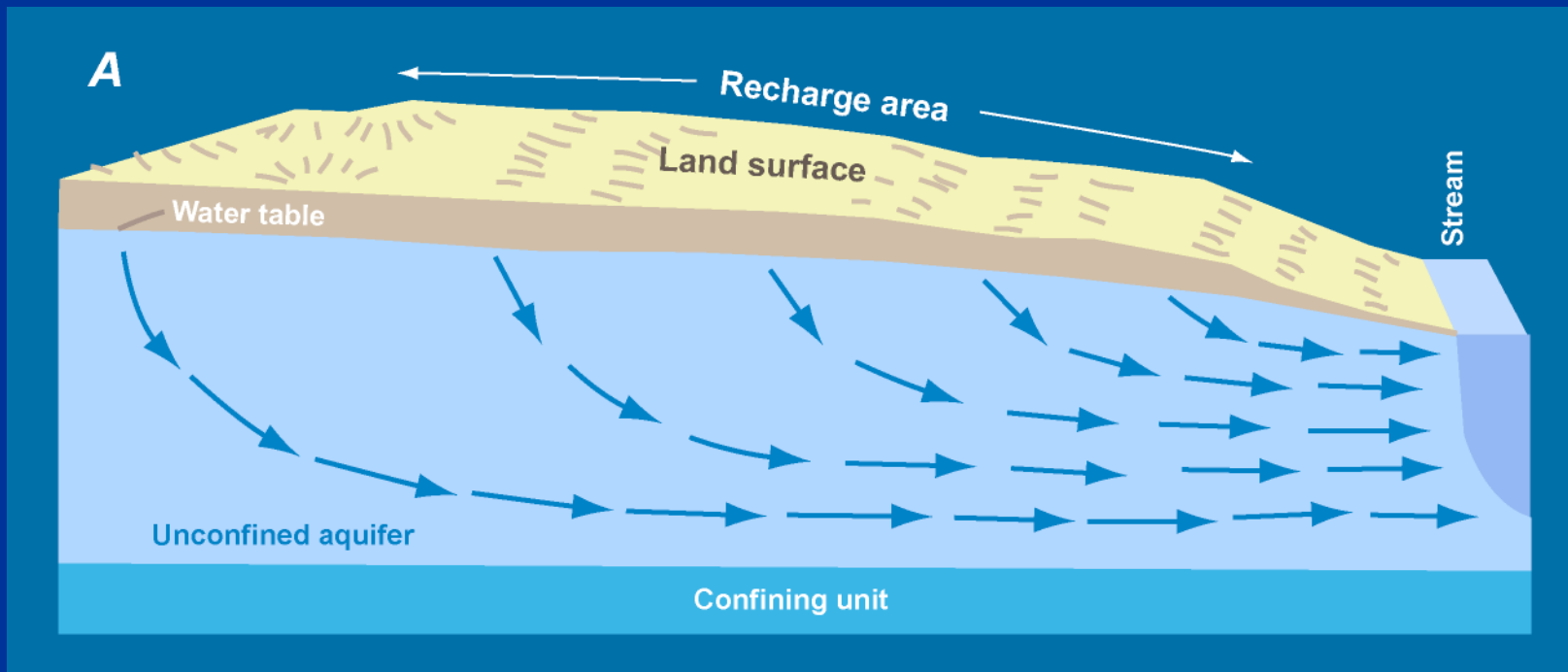
- n In a 1999 decision, the State Water Board clarified its authority over groundwater and developed a four-part test to support a finding that groundwater is a “subterranean stream flowing through a known and definite channel.”
 1. the presence of a subsurface channel with
 2. relatively impermeable bed and banks,
 3. whose course is known or capable of being determined by reasonable inference, and
 4. groundwater is flowing in the channel.
- n The California Court of Appeal upheld the SWRCB’s assertion that a water company must obtain an appropriative water right permit in order to pump groundwater from two production wells located near a stream. *North Gualala Water Company v. SWRCB*, 139 Cal.App.4th 1577 (1st Dist. 2006).

Limits of State Groundwater Regulation

- n The vast majority of California's groundwater resource is treated as "percolating groundwater" from precipitation or surface water that collects underground in tiny spaces between soil particles. This water moves through soil by gravity along the path of least resistance.
- n The State Water Board has little authority to regulate percolating groundwater. Until 2014, there has been no comprehensive, statewide regulatory scheme governing the extraction or use of groundwater.
- n Groundwater regulation is within a county's police powers and is not otherwise preempted by general State law.
- n *Baldwin v. County of Tehama*, 31 Cal.App.4th 166 (1994).

Integrated Surface-Groundwater

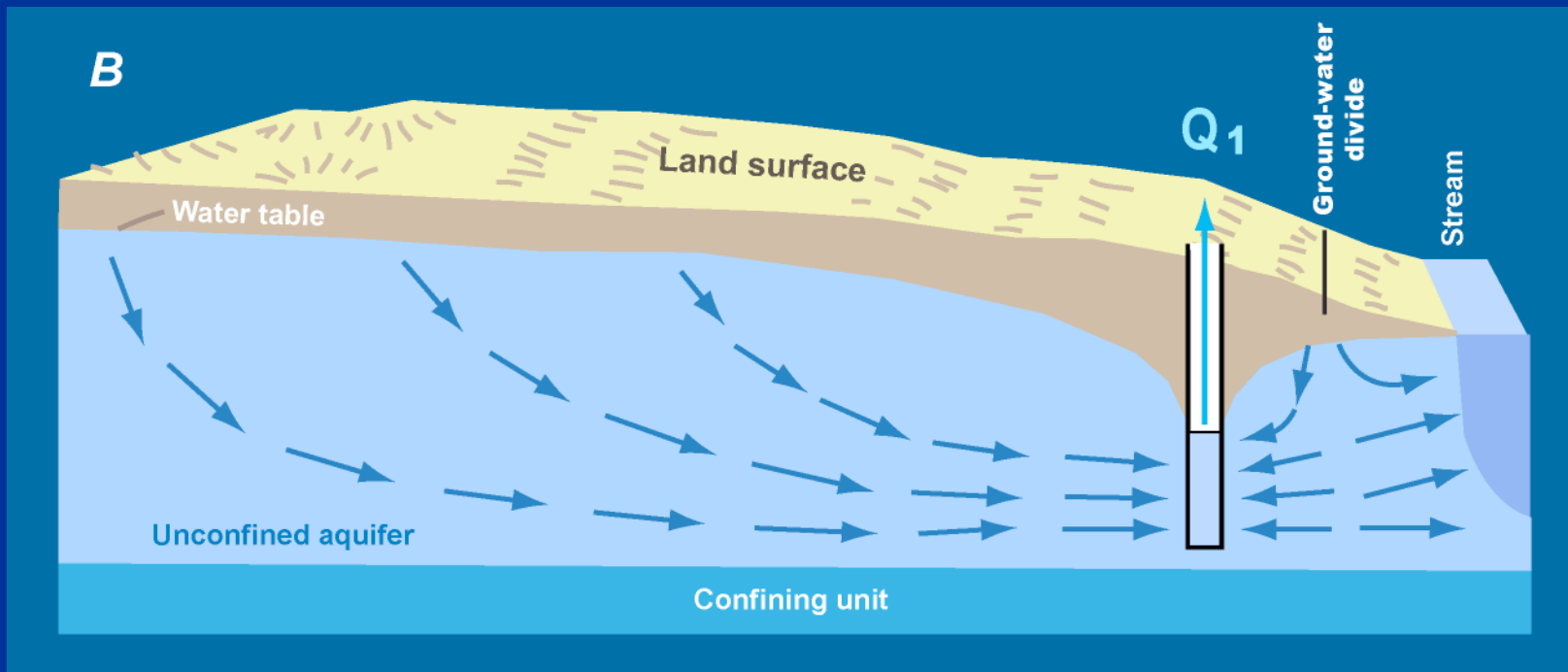
- Normal Groundwater Flow
 - No groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

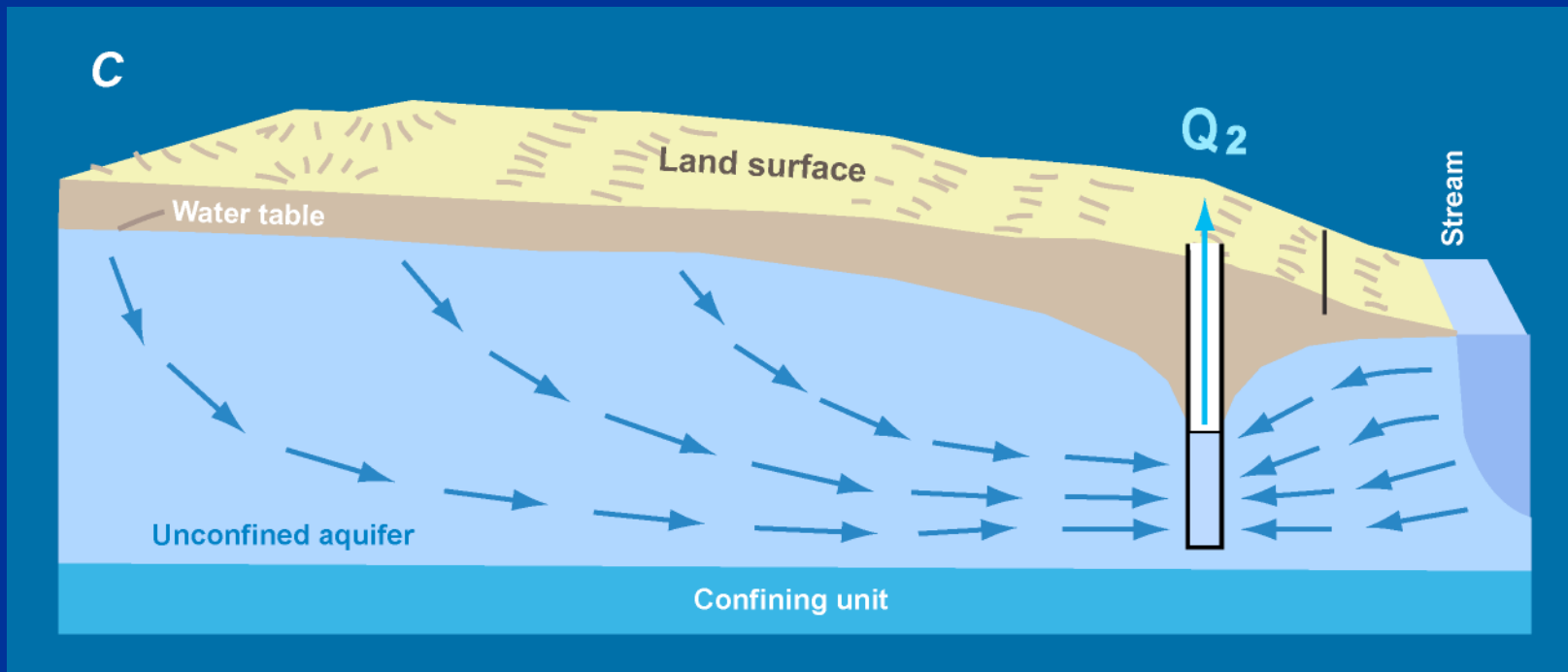
- n Groundwater Flow
- n With low groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

- Groundwater Flow
 - With high groundwater pumping



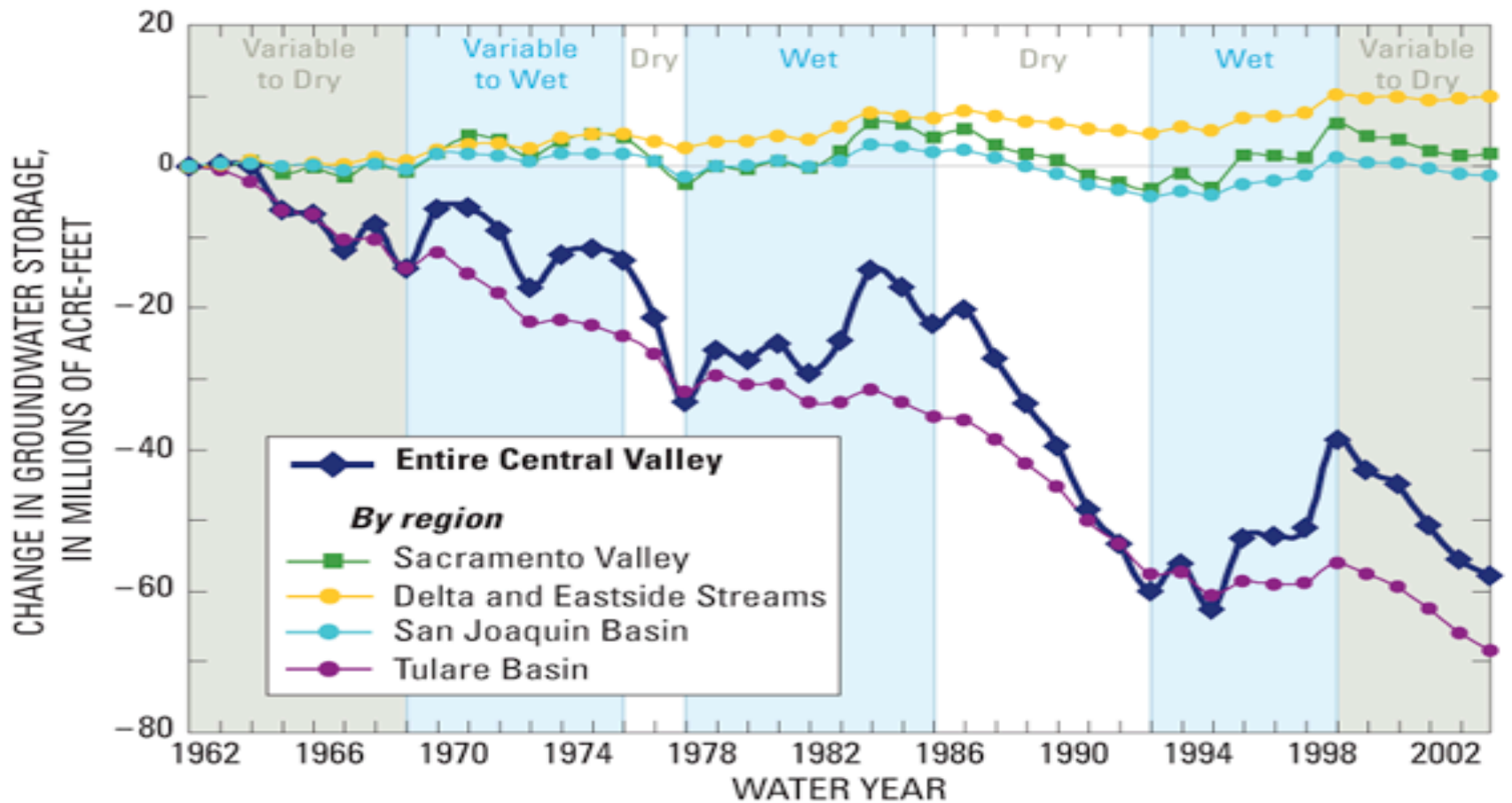
USGS Circular 1139

Local Groundwater Jurisdiction & Groundwater Management Plans

Groundwater Management Plans (AB 3030)

- “The planned and coordinated monitoring, operation and administration of a groundwater basin...with the goal of long-term groundwater resource sustainability.”
- Locally administered
- But local management failure can lead to State or judicial intervention

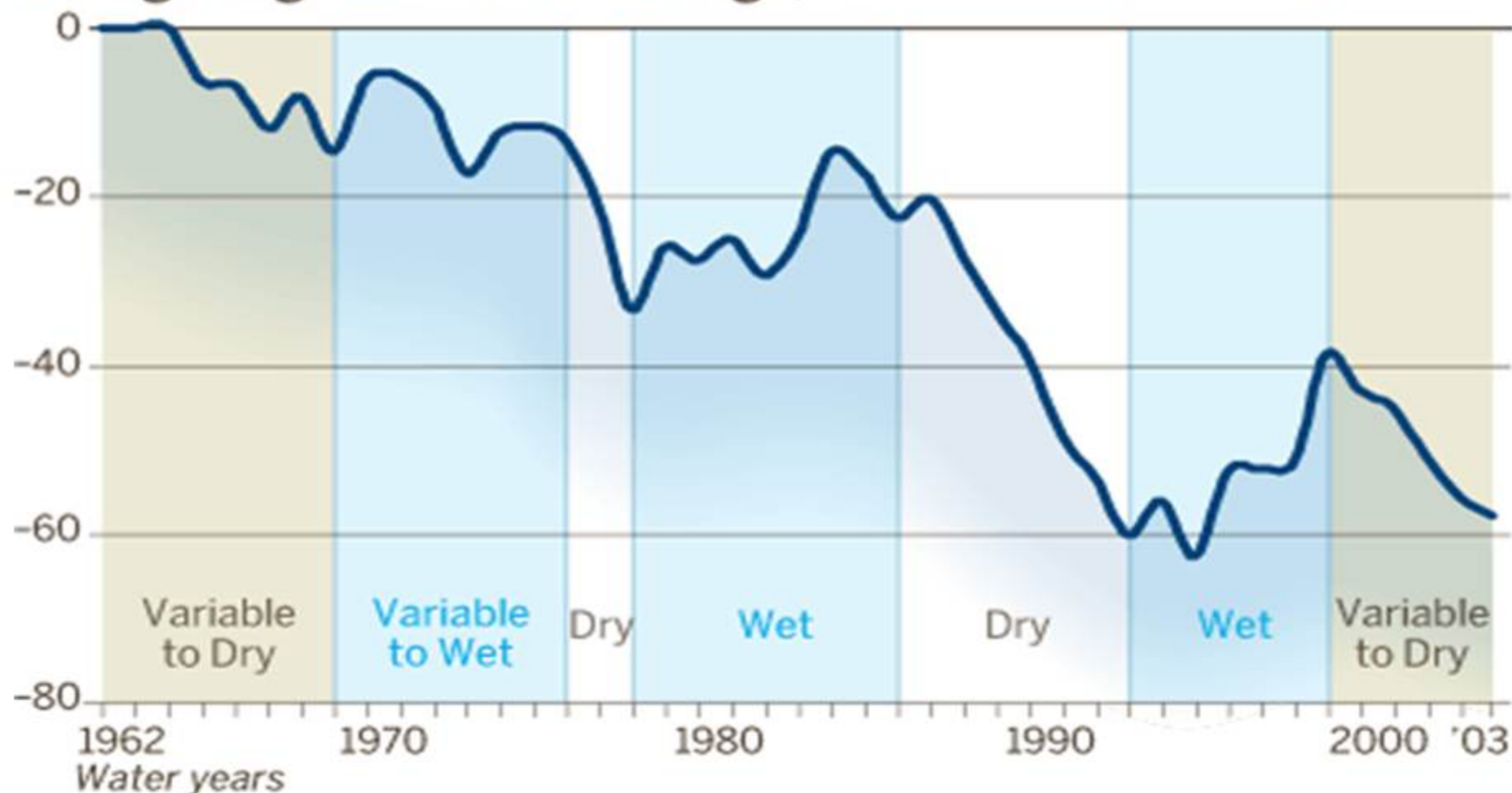
Groundwater Depletions



GROUNDWATER LOSS

Groundwater levels in the Central Valley from 1962 to 2003 during wet and dry years.

Change in groundwater storage, in millions of acre-feet



Source: U.S. Geological Survey

Sacramento Bee

California Statewide Groundwater Elevation Monitoring

- n In 2009, the State Legislature passed SB 6 X7, which established a statewide groundwater elevation monitoring program, but not individual groundwater well extraction monitoring, to track seasonal and long-term trends in groundwater elevations in California's groundwater basins.
- n The amendment requires collaboration between local monitoring entities and the **California Department of Water Resources (DWR)** to collect groundwater elevation data.
- n DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) program to establish a permanent, locally-managed program of regular and systematic monitoring in all of California's alluvial groundwater basins.
- n The CASGEM Program relies and builds on the many, established local long-term groundwater monitoring and management programs. DWR coordinated the CASGEM program, to work cooperatively with local entities, and to maintain the collected elevation data in a statewide public database.

SBX7 6

- n Local parties may assume responsibility for monitoring and reporting groundwater elevations.
- n DWR work cooperatively with local Monitoring Entities to achieve monitoring programs that demonstrate seasonal and long-term trends in groundwater elevations.
- n DWR accept and review prospective Monitoring Entity submittals, then determine the designated Monitoring Entity, notify the Monitoring Entity and make that information available to the public.
- n DWR perform groundwater elevation monitoring in basins where no local party has agreed to perform the monitoring functions.
- n If local parties (for example, counties) do not volunteer to perform the groundwater monitoring functions, and DWR assumes those functions, then those parties become ineligible for water grants or loans from the state.

Groundwater Management Plans

- n monitoring of groundwater levels in storage;
- n mitigation of conditions of overdraft;
- n replenishment of ground-water extracted by water producers;
- n facilitation of conjunctive use operations;
- n administration of a well abandonment and well destruction program;
- n identification of well construction policies;
- n construction and operation of groundwater contamination, clean-up, recharge storage, conservation, water recycling, and extraction projects;
- n development of relationships with state and federal regulatory agencies; review of land-use plans to assess activities which could create a risk of groundwater contamination;
- n reductions in the amount of water pumped from specific wells.

2014 Groundwater Legislation

- **Sustainable Groundwater Management Act (2014) (AB 1739, SB 1168, SB 1319)**
 - Creates a framework for sustainable, local groundwater management for first time in CA
 - Applies to medium or high priority basins to be delineated by DWR Bulletin 118
 - Existing GMPs must be replaced or augmented

2014 Groundwater Legislation

- n Three historic groundwater bills (SB1168, SB1319 and AB1739) were signed by Governor Jerry Brown on September 16, 2014, which create a framework for sustainable, local groundwater management for the first time in California history.

The bills establish a definition of sustainable groundwater management and require local agencies to adopt management plans for the state's most important groundwater basins. The legislation prioritizes groundwater basins and sets a timeline for implementation:

- n By 2017, local groundwater management agencies must be identified;
- n By 2020, overdrafted groundwater basins must have sustainability plans;
- n By 2022, other high and medium priority basins not currently in overdraft must have sustainability plans; and
- n By 2040, all high and medium priority groundwater basins must achieve sustainability.

2014 Groundwater Legislation

- **Sustainable Groundwater Management Act**
 - 2017 local Groundwater Sustainability Agency delineated
 - 2020 overdrafted basins must have Sustainability Plans
 - 2022 other medium and high priority basins must have Sustainability Plans
 - 2040 ALL BASINS must achieve sustainability
 - Any existing GMPs must be replaced or augmented

Groundwater Law

- **Sustainable Groundwater Management Act**
 - Plans must include monitoring and articulate measurable objectives to be achieved every 5 years.
 - The Act authorizes the designated agency to limit or curtail groundwater production, monitor withdrawals, track wells and assess regulatory fees to fund management.
 - The Act does not determine or quantify existing water rights.

Federal Agencies & Jurisdictions

- n U.S. Army Corps of Engineers
- n U.S. Environmental Protection Agency
- n U.S. Federal Energy Regulatory Commission
- n National Marine Fisheries Service (NMFS)
- n U.S. Fish and Wildlife Service (USFWS)
- n U.S. Bureau of Reclamation
- n U.S. Department of Agriculture
- n Others

State Agencies & Jurisdictions

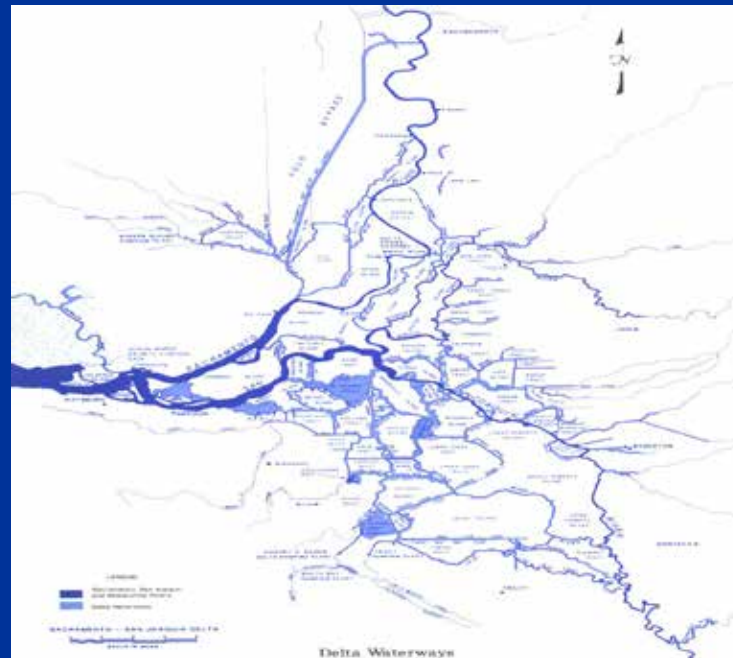
- n State Water Resources Control Board
 - n Water Rights measured by reasonable and beneficial use per California Constitution Article X, Section 2
 - n Water Quality and 9 regional boards
- n Department of Fish and Wildlife
- n Department of Water Resources
- n Department of Conservation
- n Wildlife Conservation Board
- n Others

California Water Law

- 2009 California Legislation
 - Co-equal goals:
 - Water supply reliability;
 - Protecting, restoring, and enhancing the Delta ecosystem

California Water Law

- Statements of Diversion
 - New penalties for not filing amount of diversion
 - Non-filing creates presumption of non-use



Water Bond: Bottom Line

- n The voters authorize the issuance of bonds in the amount of \$7.12 billion to finance a water quality, supply, and infrastructure improvement program.
- n In addition, the Bond reallocates \$425 million of bonds already authorized for the purposes of Propositions 1E, 13, 44, 50, 84, and 204 to consolidate and further finance AB 1471.

Water Bond: Nov '14 – July '15

- 1. Bond Grant Guidelines:** Guidelines that will define how billions of Bond money will be spent through a competitive grant programs.
- 2. Interagency Coordination:** Multiple California agencies are implicated across the chapters of the Bond without clarification on how they will coordinate.
- 3. Monitoring:** State investments are needed to create a robust system to account for, monitor, and protect voluntary water transactions and transfers.
- 4. Leveraging Federal and Other Money:** Local and Federal dollars, and other sources of public and private money will magnify the scope and scale of individual local transactions.

Water Bond: Chapters

- n Chapter 1. Short Title
- n Chapter 2. Findings
- n Chapter 3. Definitions
- n Chapter 4. General Provisions
- n Chapter 5. Clean, Safe, and Reliable Drinking Water
- n **Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds**
- n Chapter 7. Regional Water Security, Climate, and Drought Preparedness
- n Chapter 8. Statewide Water System Operational Improvement and Drought Preparedness
- n Chapter 9. Water Recycling
- n Chapter 10. Groundwater Sustainability
- n Chapter 11. Flood Management

Chapter 3. Definitions

- n 79702. Unless the context otherwise requires, the definitions set forth in this section govern the construction of this division, as follows:
 - n (a) “**Acquisition**” means obtaining a **fee interest or any other interest in real property, including, easements, leases, water, water rights, or interest in water obtained for the purposes of instream flows and development rights.**
 - n (m) “**Instream flows**” means a **specific streamflow**, measured in cubic feet per second, at a particular location for a defined time, and typically follows seasonal variations.
 - n (o) “**Long-term**” means for a period of not less than 20 years.
 - n (p) “**Nonprofit organization**” means an organization qualified to do business in California and qualified under Section 501(c)(3) of Title 26 of the United States Code.
 - n (s) “**Public agency**” means a state agency or department, special district, joint powers authority, city, county, city and county, or other political subdivision of the state.
 - n (ab) “**Water right**” means a legal entitlement authorizing water to be diverted from a specified source and put to a beneficial, non wasteful use.

Chapter 5. Clean, Safe and Reliable Drinking Water

- n 79720. The sum of five hundred twenty million dollars (\$520,000,000) shall be available, upon appropriation by the Legislature from the fund, for expenditures, grants, and loans for **projects that improve water quality or help provide clean, safe, and reliable drinking water to all Californians.**

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- n 79730. The sum of one billion four hundred ninety-five million dollars (\$1,495,000,000) shall be available, upon appropriation by the Legislature from the fund, in accordance with this chapter, for **competitive grants for multibenefit ecosystem and watershed protection and restoration projects in accordance with statewide priorities.**

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- n 79732. (a) In protecting and restoring California rivers, lakes, streams, and watersheds, the purposes of this chapter are to:
 - n (4) Protect and restore aquatic, wetland, and migratory bird ecosystems, including fish and wildlife corridors and the acquisition of water rights for instream flow.

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

79733. Of the funds made available by Section 79730, the sum of two hundred million dollars (\$200,000,000) shall be administered by the **Wildlife Conservation Board** for projects that result in **enhanced stream flows**.

Wildlife Conservation Board

n August 2014 Strategic Plan: Key Trends

1. Future Climate Impacts to Wildlife and Their Habitats.
2. Natural Community Conservation Plans.
3. Protection and Conservation of Water Resources for Fish and Wildlife.
4. Greater Reliance on Conservation Partnerships.
5. Increasing Use of Conservation Easements.
6. Scrutiny Over Public Expenditures.

WCB August 2014 Strategic Plan: Goals

- n Goal A: Environmental Protection and Conservation
 - n A.1. Fund projects and landscapes that provide resilience for native wildlife and plant species in the face of climate change.
 - n A.2. Fund projects and landscape areas that conserve, protect, or enhance water resources for fish and wildlife.
 - n A.4 Invest in priority conservation projects recommended under CDFW's land acquisition evaluation process or within other conservation plans supported by CDFW.
 - n A.6. Coordinate acquisition application processes to ensure that WCB project evaluation is unified across programs to the fullest possible extent.

WCB August 2014 Strategic Plan: Goals

- n Goal B: Environmental Restoration and Enhancement
 1. B.1 Invest in projects and landscape areas that help provide resilience in the face of climate change, enhance water resources for fish and wildlife and enhance habitats on working lands.
 2. B.2 Strengthen the grant application process to further highlight the importance of the following factors in project design and selection: robustness and resilience to extreme weather events, ecosystem services (e.g. groundwater recharge, flood reduction, fire prevention, etc.), water quality and quantity, and compatible public use and access.
 3. B.4 Expand project monitoring and evaluation of restoration activities to assess long-term project success, moving beyond compliance monitoring.

Chapter 6. Protecting Rivers, Lakes, Streams, Coastal Waters, and Watersheds

- n 79737. (a) Of the funds authorized by Section 79730, two hundred eighty-five million dollars (\$285,000,000) shall be available to the **Department of Fish and Wildlife for watershed restoration projects** statewide in accordance with this chapter.
- n (b) For the purposes of this section, **watershed restoration includes activities to ... restore or enhance riparian, aquatic, and terrestrial habitat... acquire from willing sellers conservation easements for riparian buffer strips.**
- n (c) For any funds available pursuant to this section that are used to provide grants under the **Fisheries Restoration Grant Program**, a priority shall be given to coastal waters.

Department of Fish & Wildlife

n Fisheries Restoration Grant Program

For FRGP to accomplish its goals applicants must submit proposals that address a task in one of the State or Federal recover plans listed below:

1. Steelhead Restoration and Management Plan for California (DFG 1996) (PDF);
2. Recovery Strategy for California Coho Salmon (DFG 2004) (PDF);
3. Southern California Steelhead Recovery Plan Final Version (NOAA January 2012)
4. South-Central California Steelhead Recovery Plan Public Review Final (NOAA September 2013);
5. Recovery Plan for the Evolutionarily Significant Unit of Central California Coast Coho Salmon Final Version (NOAA September 2012);
6. Recovery Plan for the Southern Oregon Northern California Coast Evolutionarily Significant Unit of Coho Salmon Public Review Draft (NOAA January 2012)

DFW Fisheries Restoration Grant Program

- n Forbearance Agreements and Instream Flow Leases are used to dedicate water, not the water right, to instream flow purposes and are established directly with water rights holders independently of the State Water Resources Control Board water rights process.
- n To date, forbearance agreements and instream flow leases have been limited to watersheds where there are established organizations with the capacity to coordinate and develop agreements and leases, water monitoring, and water use.

DFW Fisheries Restoration Grant Program

- n Water right holders with junior water rights must yield to diverters with more senior water rights, and thus may not be able to legally divert or transfer water in dry years or dry periods. Therefore, depending on the water year, a junior appropriative right dedication may not yield any actual flow increases to the stream. Diverters should review their water rights in relation to actual flows, and the seniority of upstream and downstream diverters, to determine how much water could actually be transferred through a Section 1707 dedication or realized through a forbearance or short-term lease agreement.

Chapter 7. Regional Water Security, Climate, and Drought Preparedness

- n 79740. The sum of eight hundred ten million dollars (\$810,000,000) shall be available, upon appropriation by the Legislature from the fund, for expenditures on, and competitive grants and loans to, **projects that are included in and implemented in an adopted integrated regional water management plan consistent with Part 2.2 (commencing with Section 10530) of Division 6 and respond to climate change and contribute to regional water security as provided in this chapter.**

Chapter 8. Statewide Water System Operational Improvement and Drought Preparedness

(b) Notwithstanding Section 13340 of the Government Code, the sum of **two billion seven hundred million dollars** (\$2,700,000,000) is hereby continuously appropriated from the fund, without regard to fiscal years, to the commission for public benefits associated with water storage projects that improve the operation of the state water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions, in accordance with this chapter...

Chapter 9. Water Recycling

- n 79765. The sum of seven hundred twenty-five million dollars (\$725,000,000) shall be available, upon appropriation by the Legislature from the fund, for grants or loans for **water recycling and advanced treatment technology projects**, including all of the following:
 - n (a) **Water recycling projects, including, but not limited to, treatment, storage, conveyance, and distribution facilities for potable and nonpotable recycling projects.**
 - n (c) **Dedicated distribution infrastructure to serve residential, commercial, agricultural, and industrial end-user retrofit projects to allow use of recycled water.**
 - n (e) **Multibenefit recycled water projects that improve water quality.**

Hicks Law and Water Bond

Hicks Law is counsel for:

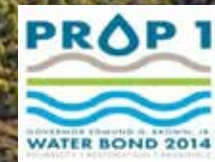
- one DFW conservation easement in Humboldt, and
- six WCB projects that enhance stream flow in Ventura, Santa Barbara, San Luis Obispo, Siskiyou, and Stanislaus Counties.

Hicks Law Prop One Projects

1. Central Coast Salmon Enhancement: *Integrated Water Strategies to Enhance Flows in Santa Barbara and Ventura Counties;*
2. Immaculate Heart Community/La Casa de Maria: *San Ysidro Flow Enhancement and Water Conservation*
3. Tuolumne River Trust: *Dos Rios Section 1707 Project*
4. The Thacher School: *The Thacher School Instream Flow Resiliency and Dormitory Conservation Project*
5. Marshall Family: *Marshall Ranch Conservation Easement – 2016*
6. National Fish and Wildlife Foundation (via Siskiyou Land Trust): *Spencer Ranch Permanent Instream Water Dedication and Conservation Easement*
7. Central Coast Salmon Enhancement: *Baseflow Monitoring for Stream Flow Enhancement Project Planning and Evaluation in San Luis Obispo County*

Tuolumne River Trust

Dos Rios Section 1707 Project



Instream Flow and Dormitory Conservation Project

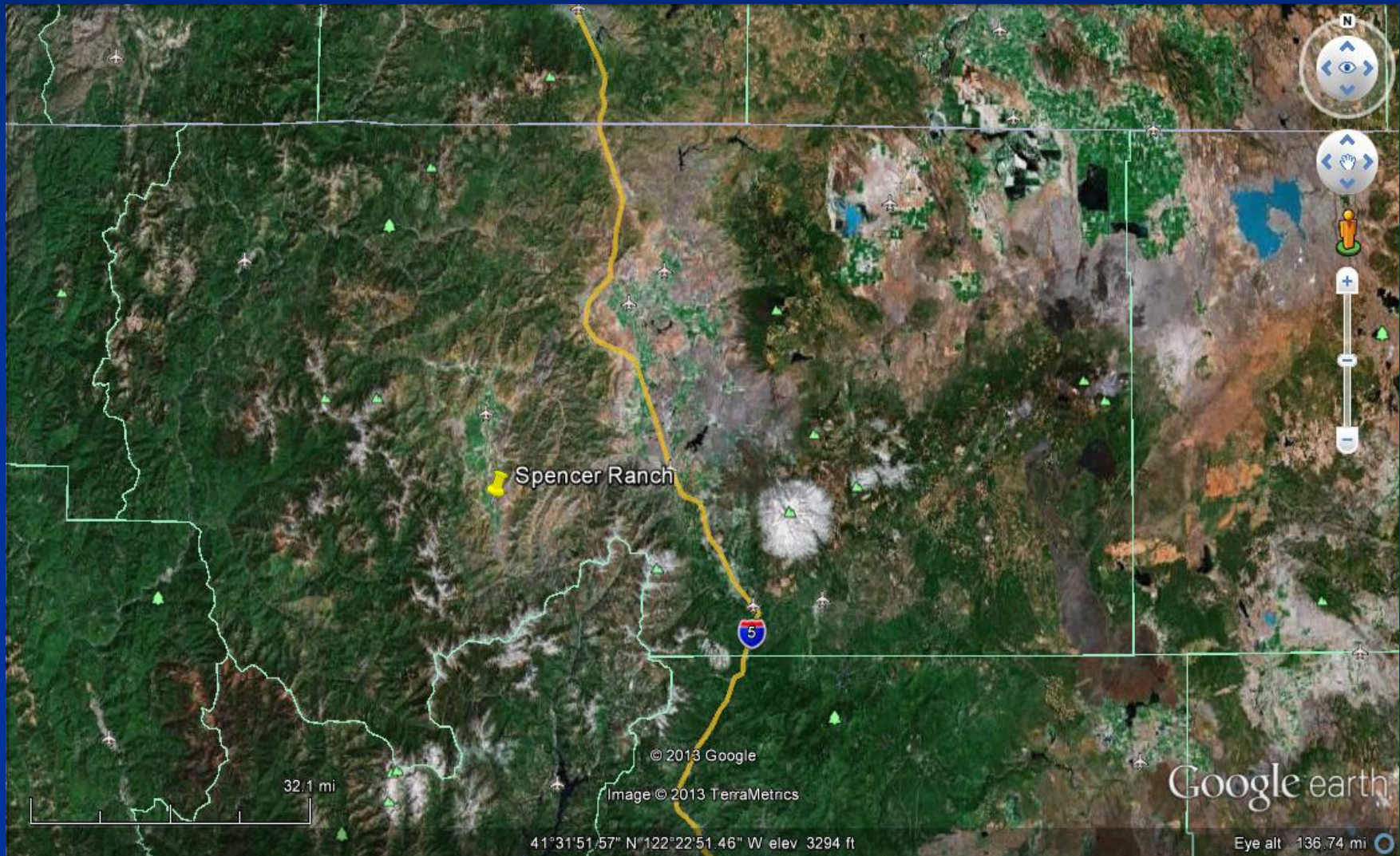
\$800,000 grant from the California Wildlife Conservation Board for an, which will install and capture 920,000 gallons of rainwater for dormitory toilet flushing.

In exchange, Thacher will forbear its right to divert up to 0.92 cfs from Thacher Creek to enhance stream flow for steelhead from March 1 to April 30 of each year.

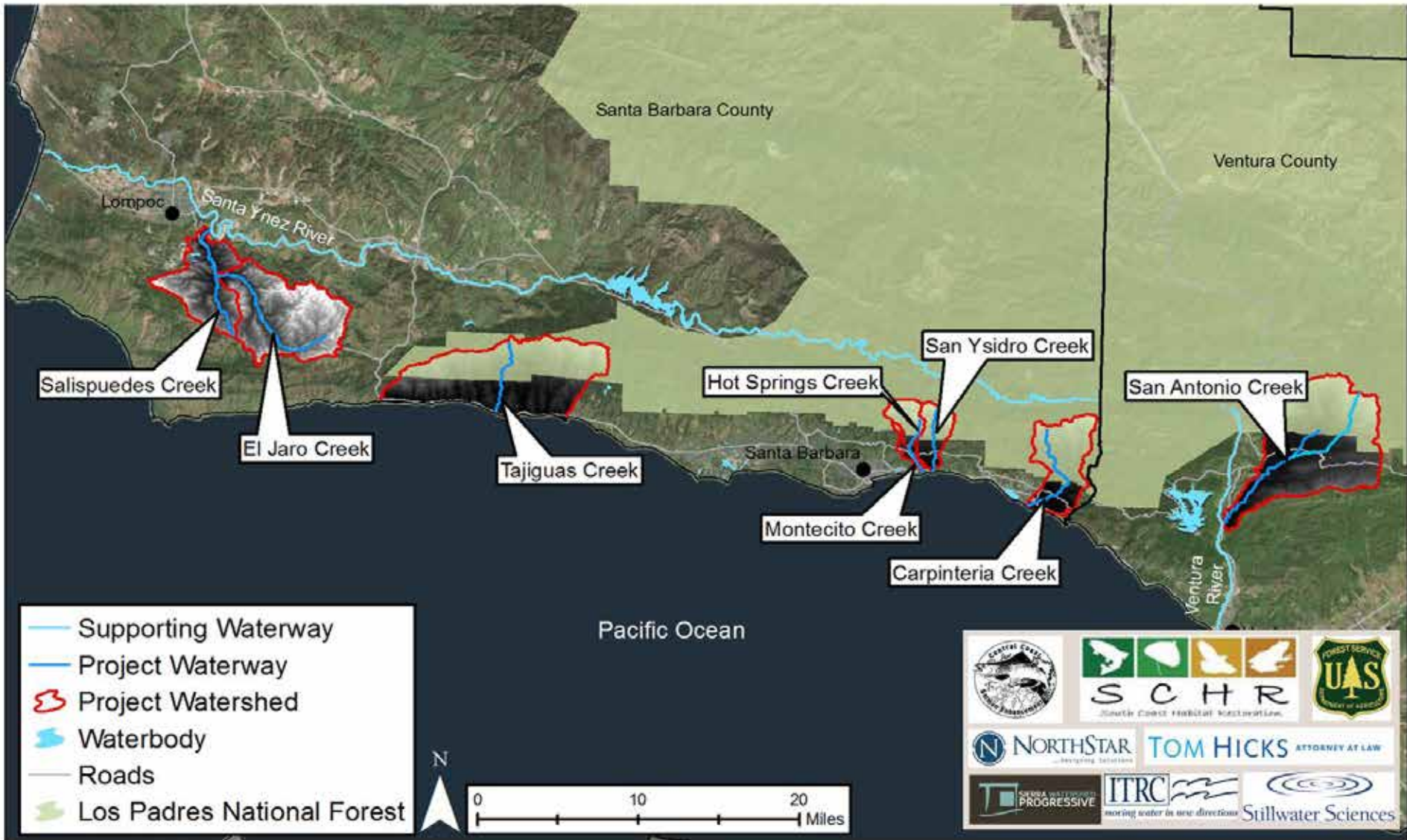


Spencer Ranch Conservation Project

Siskiyou County

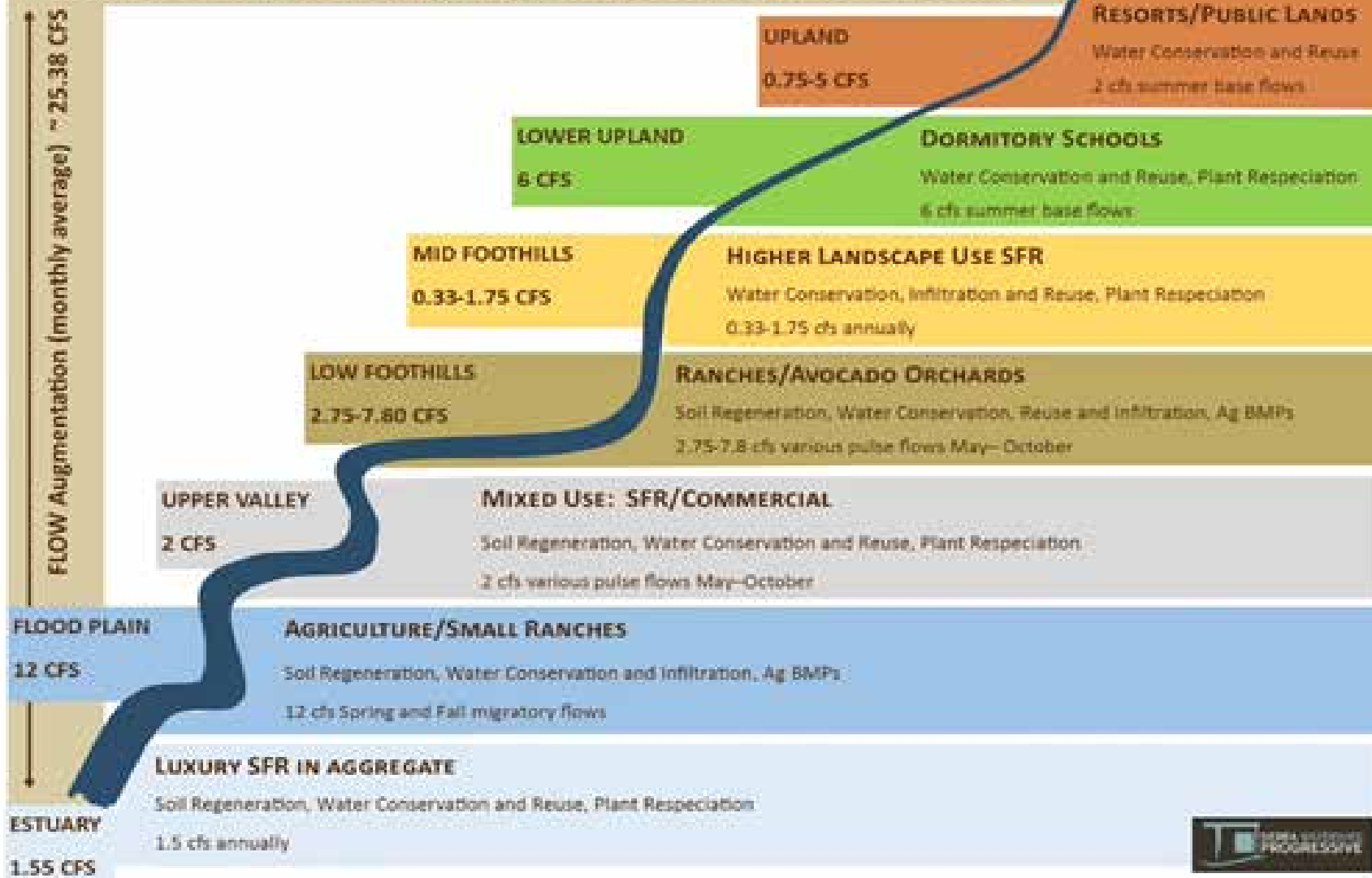


PLANNING AND FEASIBILITY STUDY FOR INTEGRATED WATER CONSERVATION, REUSE, AND TRANSACTIONAL STRATEGIES TO ENHANCE STREAMFLOWS IN SANTA BARBARA AND VENTURA COUNTIES



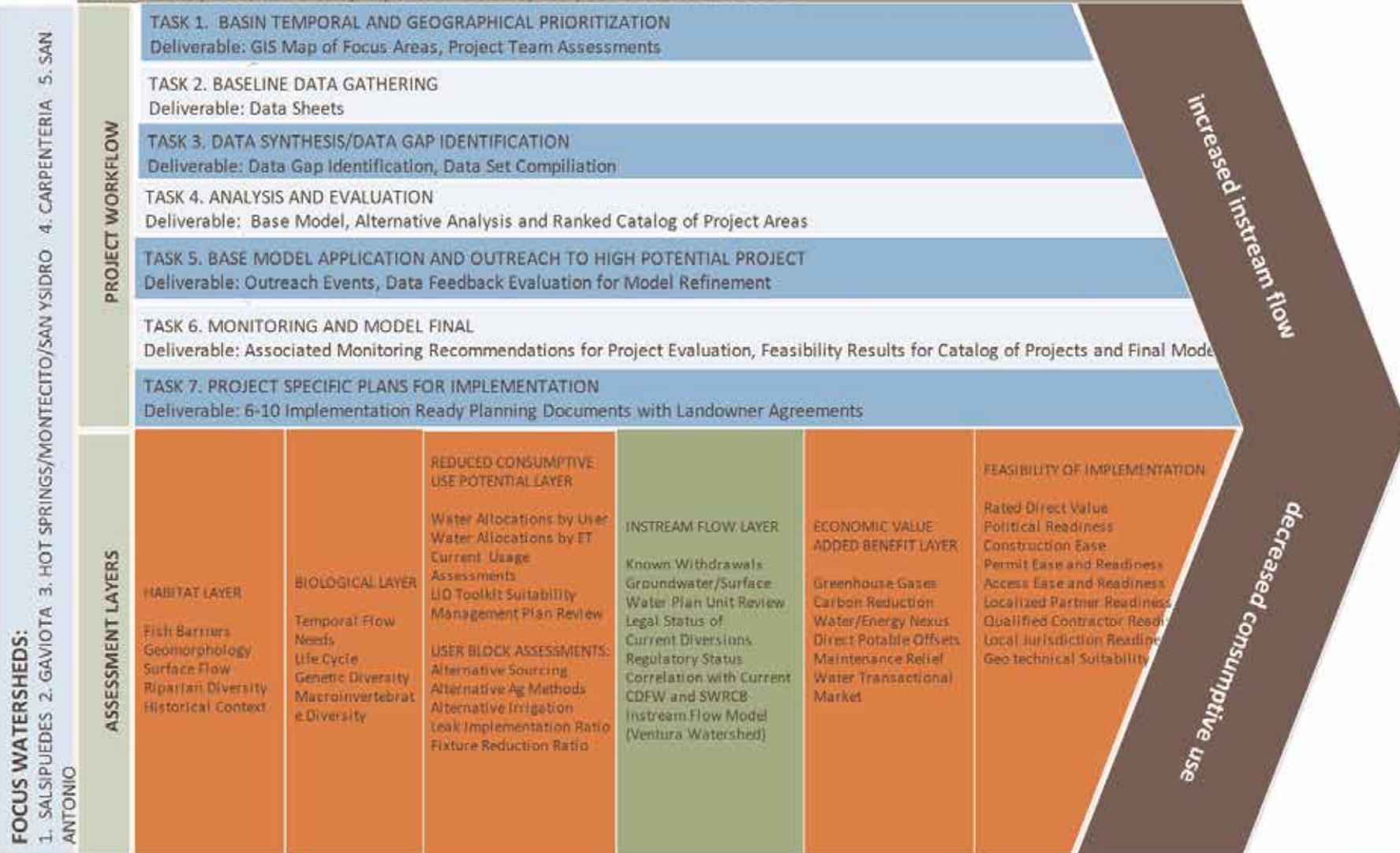
SOUTH COAST INSTREAM FLOW (MODEL)

Identified cumulative working land/water use conservation & reuse BMPs



South Coast Cumulative INSTREAM FLOW Project Prioritization

CANDIDATE PROJECT TEAM: South Coast Habitat Restoration, Santa Barbara Land Trust, Hicks Law, Sierra Watershed Progressive, Stoecher Environmental, UC Santa Barbara, City of Santa Barbara, USFS, Ventura Watershed Council



Water Right Transactions

- n **Acquisition** or sale between willing buyer and seller.
- n **Lease** such as a forbearance agreement or contract between a landowner/water user and a local water trust (or other entity), in which the water user agrees to forego withdrawals of water pursuant to the terms and conditions set forth in the contract.
- n **Donation** of all/portion of fair market value (\$)

Water Transfers

- What is a Water Transfer?
 - A change in the way water is allocated
 - Expand use to new areas
 - Allows alternative use without extensive additional facilities
 - Instream Flow (Water Code Section 1707)
 - From a water right perspective
 - Change in Point of Diversion, Point of Use, Purpose of Use
 - Cannot increase the amount or season
 - Follow the water not the trades

Water Transfers

- Water Transfer Policies
 - Water belongs to the people of the State
 - A water right is a usufruct right
 - Right to use water is real property
 - To transfer water the transferor must have underlining rights to the water (water right or contract right)
 - Water transferred legally cannot be lost

Water Transfers

▫ Types of Transfers

▫ Surface Water

▫ Stored Water

▫ Reduction in Direct Use of Surface Water

▫ Crop Idling

▫ Water Conservation

▫ Alternative Source of Water (e.g. groundwater not directly connected to the surface system)

Water Transfers

■ Types of Transfers (Con't)

■ Groundwater

■ Direct Use Transfer of Groundwater

- Basically a groundwater appropriation
- Restrictions - WC 1220 for Sacramento Basin

■ “Banked” Groundwater

- Use of Groundwater in lieu of Surface Water (actually a surface water transfer see above)

Water Transfers

- n Measuring Legally Transferrable Water
 - n Point of Diversion
 - n Transmission losses
 - n Return Flow
 - n Groundwater
 - n Point of Use
 - n Consumptive Use

Water Transfers

- Three Rules Related to Water Transfers
 - **“No injury”** to any legal user of water (Water Code 1702, 1706, 1727, 1736, 1810)
 - **“No unreasonable effects”** to fish or wildlife (Water Code 1727, 1736, 1810)
 - **“No unreasonable economic impacts”** to overall economy of the county from which the water is transferred. (Use of SWP - Water Code 1810)

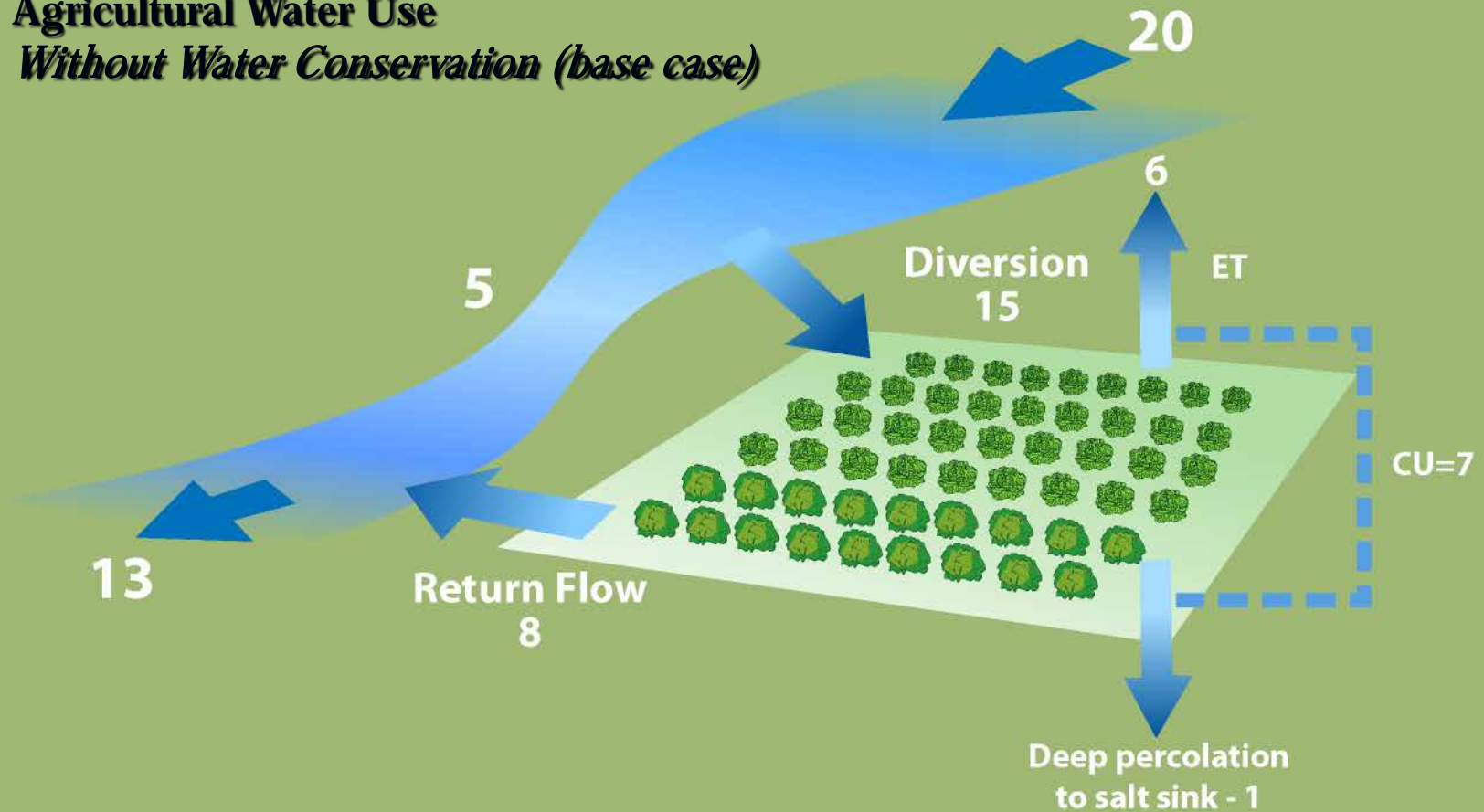
Water Transfers

■ No Injury Rule

- No injury to other legal users of water
- Not just prior users - any other user
- Protects juniors from seniors
- Based in old court cases, now in statute
- Applies to both pre and post 1914 rights (1706, 1702, 1727, 1736)
- What's legal injury vs. impact- Imported water/
watershed protection

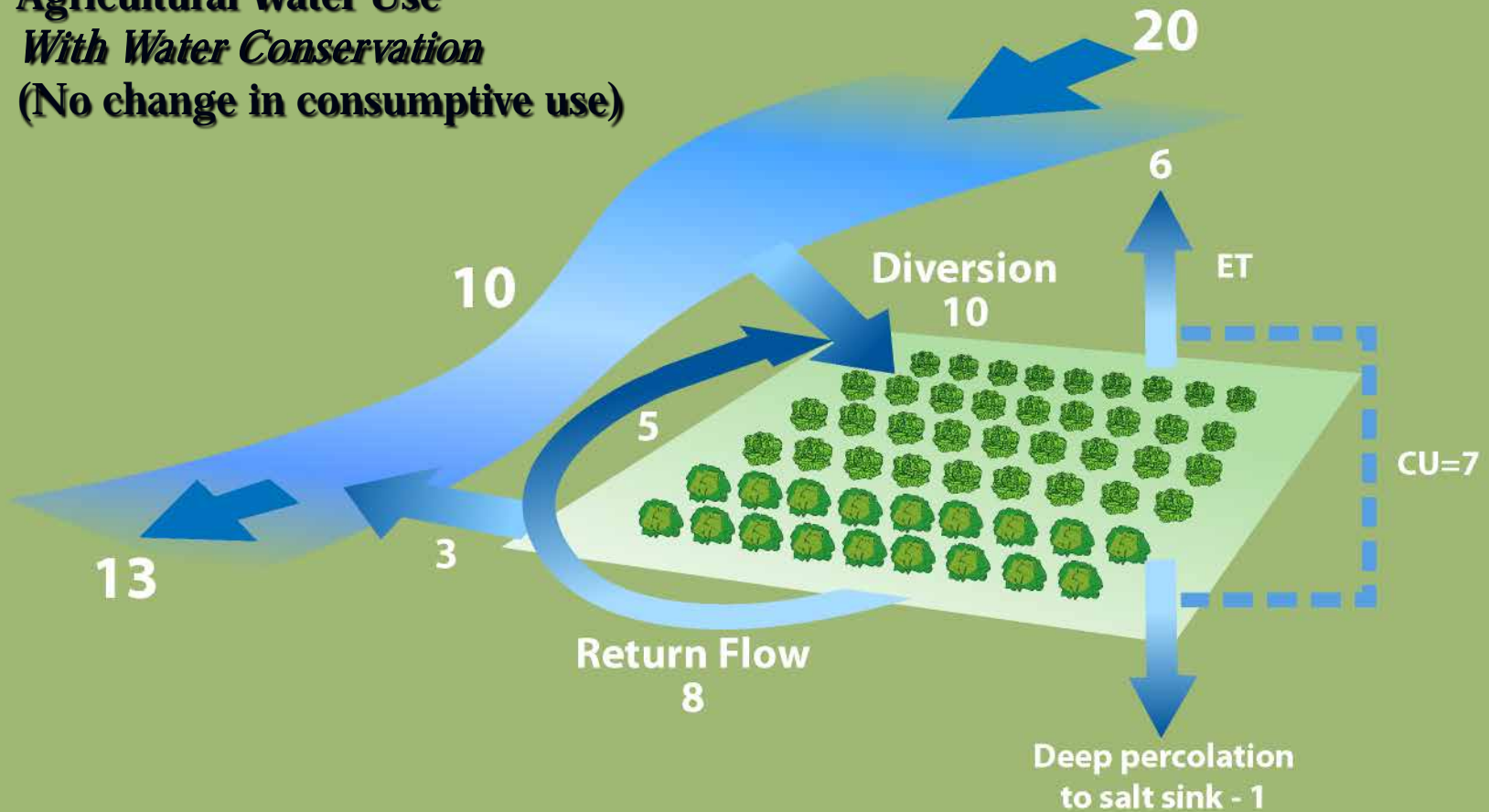
Water Transfers

Agricultural Water Use
Without Water Conservation (base case)



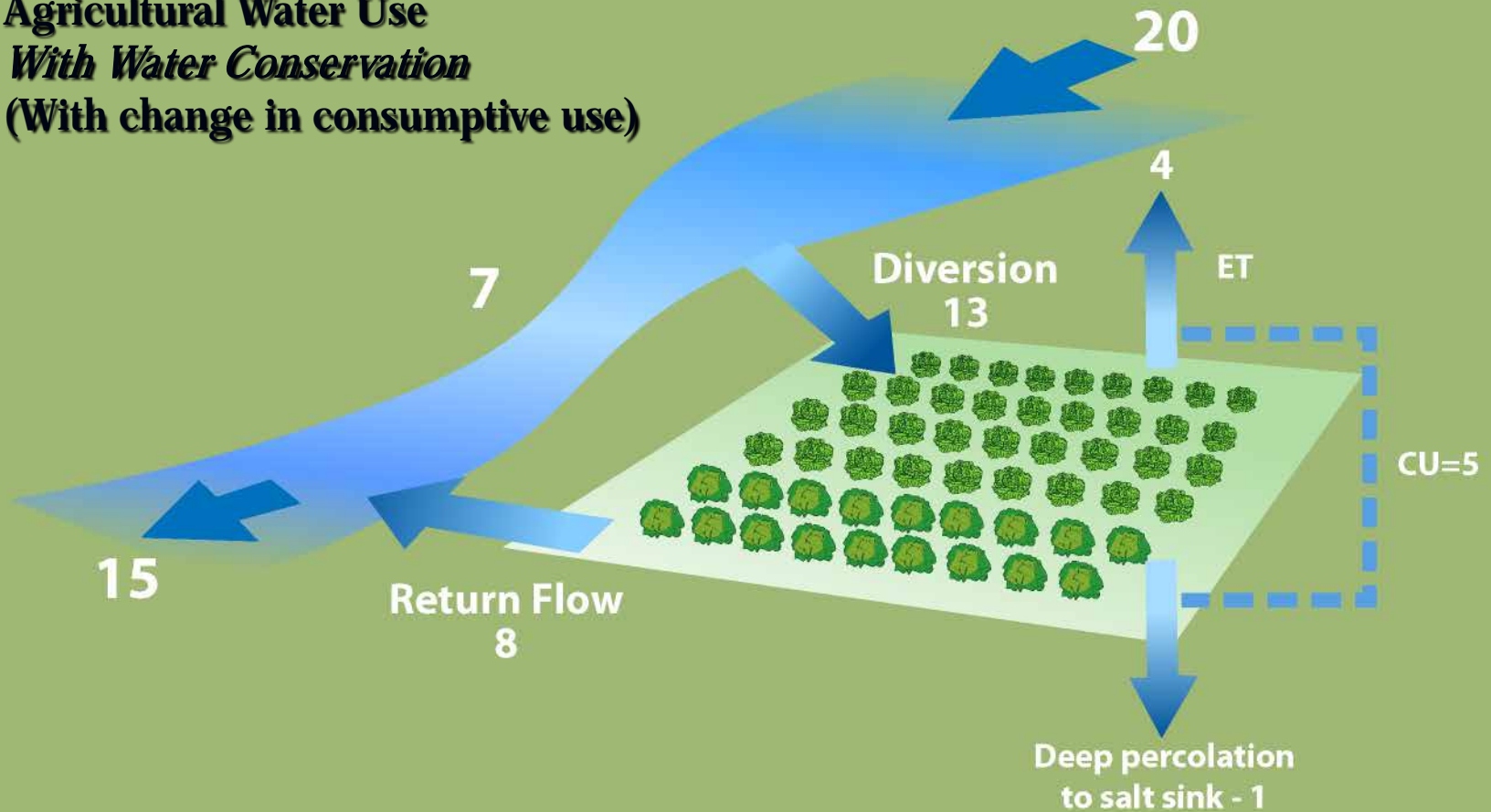
Water Transfers

**Agricultural Water Use
With Water Conservation
(No change in consumptive use)**



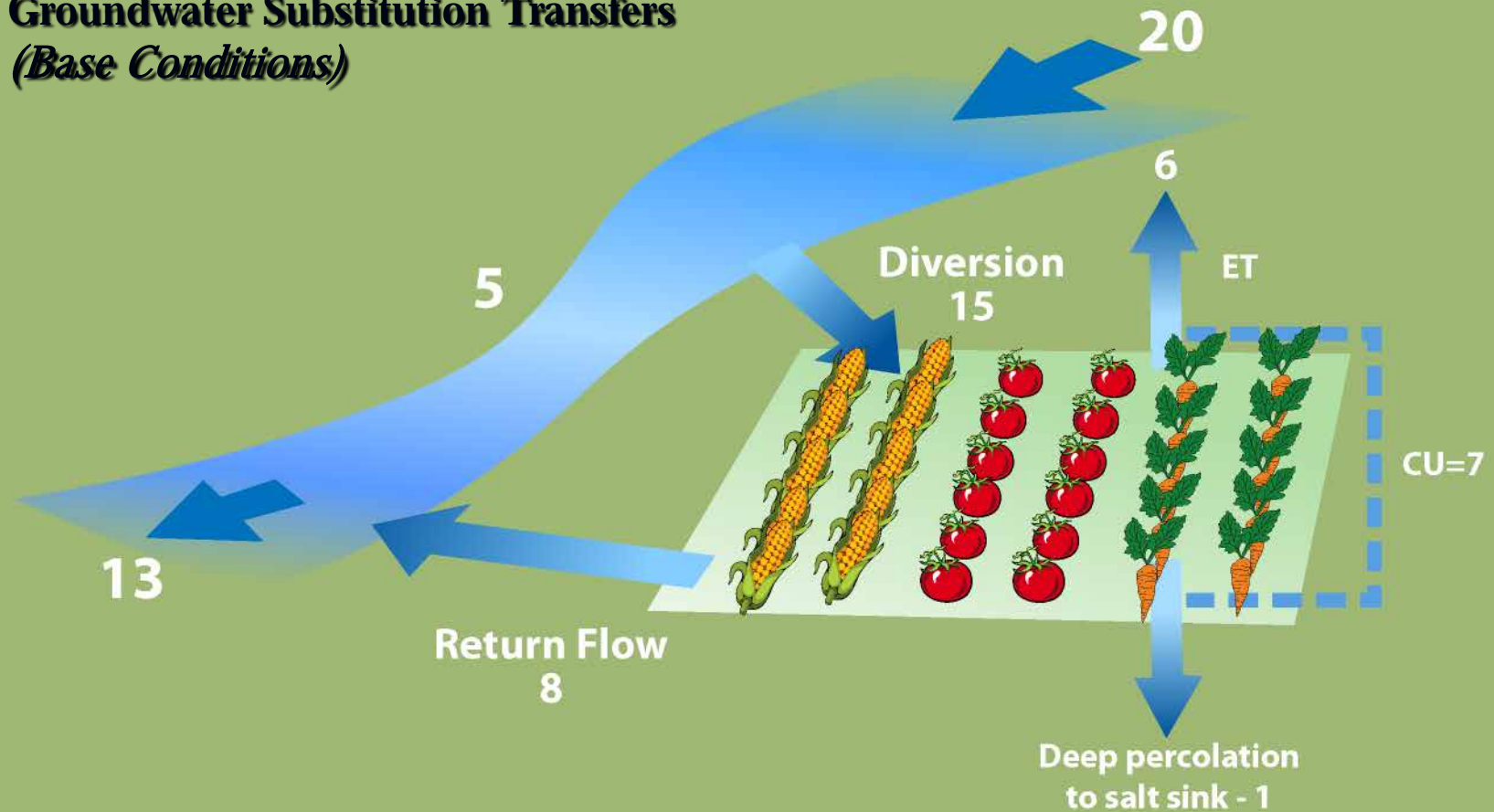
Water Transfers

**Agricultural Water Use
With Water Conservation
(With change in consumptive use)**



Water Transfers

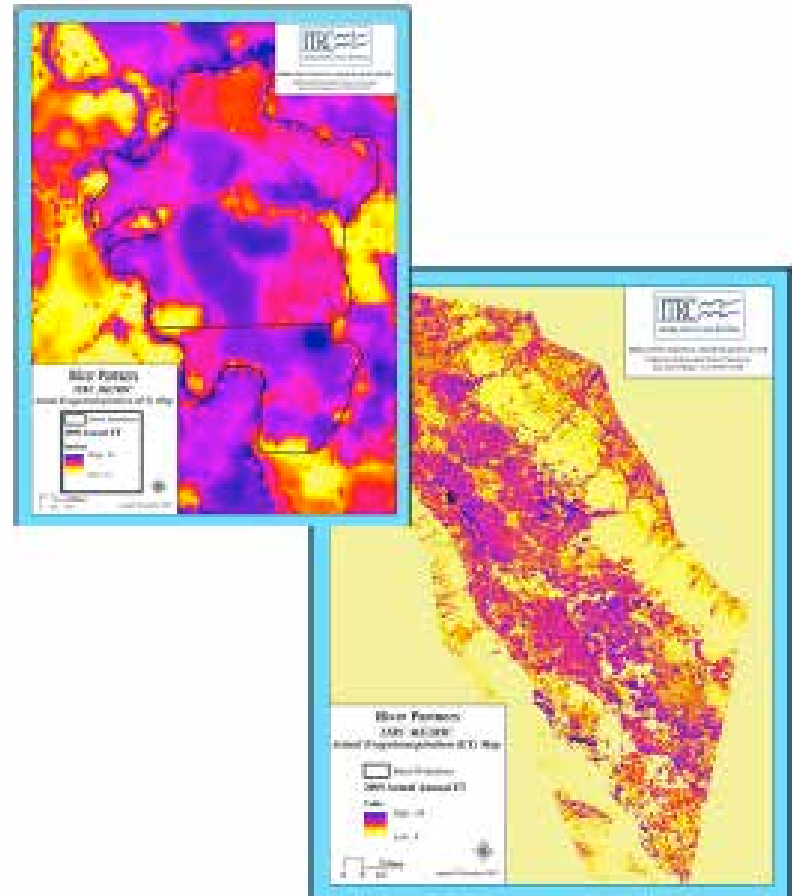
Groundwater Substitution Transfers (Base Conditions)



Consumptive Use Report

River Partners hired Irrigation Training and Research Center (California Polytechnic State University) to produce a consumptive use report for Dos Rios and Hidden Valley Ranches to determine riparian water rights (completed: January, 2016).

Actual Evapotranspiration from Vegetation on Dos Rios and Hidden Valley Ranches in 2009



FINAL

The study used an ITRC Mapping EvapoTranspiration process to collect data from the LandSAT 5, 7, and 8 missions to compute 2009 evapotranspiration from vegetation (consumptive use).

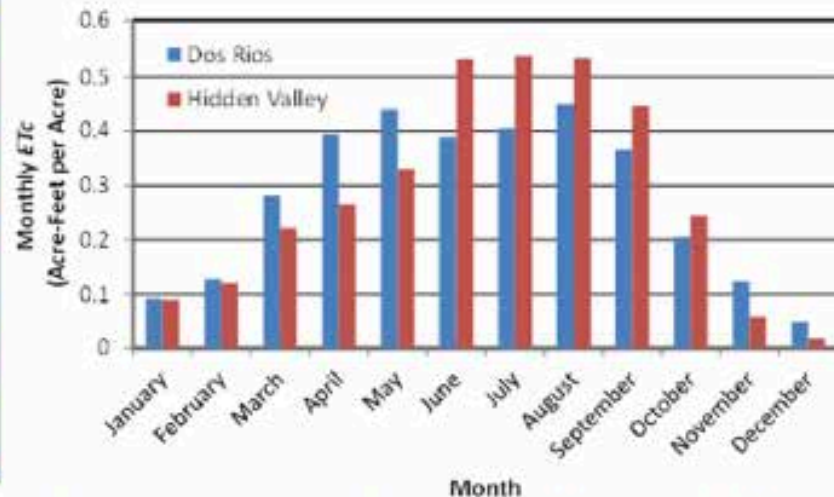
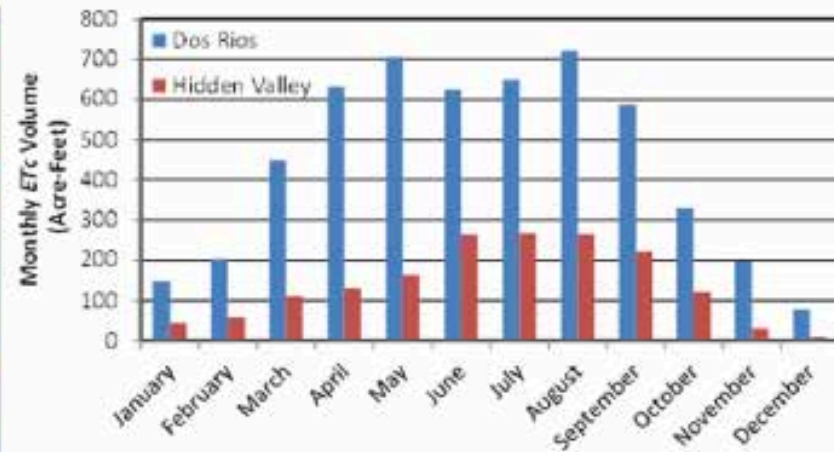
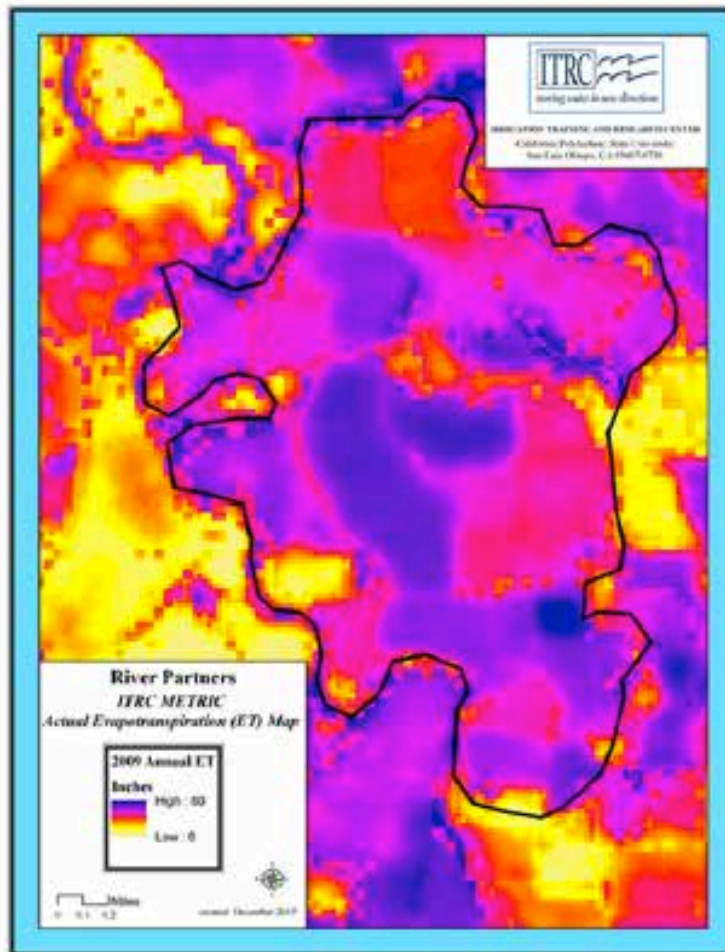
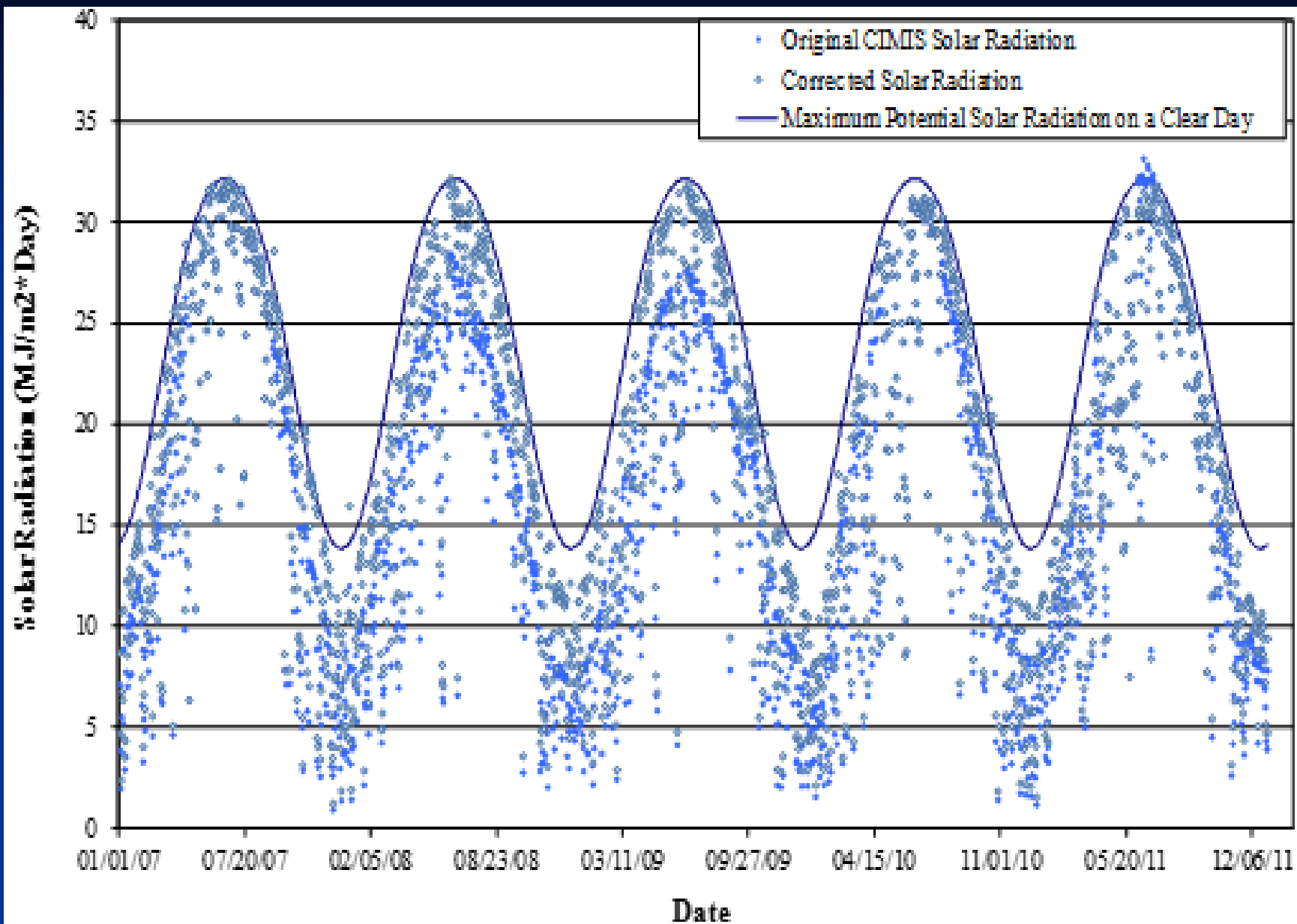


Figure ES-1. Annual *ETc* map, monthly total volume of evapotranspiration (Acre-Feet), and monthly relative *ETc* (Acre-Feet/Acre) for each ranch





Water Transfers

- Physical Challenges to Water Transfers
 - Infrastructure capacity issues, e.g. conveyance or link to water markets with high-value demand
 - Regulatory and ESA constraints
 - Transferred water can't always be stored
 - During dry years potential sellers and buyers are uncertain of their water supplies
 - Evaluating water transfer amounts as instream flow

Water Transfers

- Environmental Challenges
 - NEPA/CEQA more complex with more transfers
 - More constraints on projects reduces flexibility
 - Endangered Species Acts
 - Giant Garter Snake and rice habitat
 - Delta Fisheries
 - Red-legged frog
 - Groundwater substitution creates concern for groundwater levels
 - Air Quality

Water Transfers

- Water Transfers that work best are those that
 - avoid injury to water users
 - address fish and wildlife issues
 - sensitive to economic issues
- Long-term water transfers are in our future
 - ESA restrictions have reduced some water supplies by about 30%
 - Waterfowl refuges
 - **Instream flows (“Section 1707”)**
 - Reliable water supply for urban users and permanent crops

Water Transfers

- Water Code Section 1707:
 - (a) (1) **Any person** entitled to the use of water, whether based upon an appropriative, riparian, or other right, may petition the board . . . for a **change for purposes** of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water.
 - (b) The board may approve the petition whether or not the proposed use involves a diversion of water.



Water Transfers

- Water Code Section 1707:
 - Allows existing appropriative and riparian water rights to be *not-diverted* and left instream for fish and wildlife beneficial uses without risk of abandonment or forfeiture.
 - Preserves the seniority of the right and gives the owner of the water right an enforceable right to protect that water from other junior appropriators and other diversions.
 - Is an increasingly important tool that simultaneously respects existing property rights while generating an effective and "drought-proof" instream flow tool.

Water Transfers

- Water Code Section 1707:
 - Who Can Hold a Right Changed to Instream Uses?
 - Any person or entity capable of owning real property.
 - Wat. Code, § 1252.5
 - Major distinction between California and other western states which only allow certain state agencies to hold instream rights.

Water Transfers

- SWRCB Approval Procedures:

- Instream changes with no transferee (Wat. Code, § 1700)
- Ordinary Changes (Wat. Code, § 1701 et seq.)
- Temporary Urgency Changes (Wat. Code, § 1435 et seq.) Expedited procedures
- Short-Term Transfers (Wat. Code, § 1725 et seq.)
 - Expedited procedures, with exemption from CEQA. Limited to one year, but may be repeated.
- Long-Term Transfers (Wat. Code, § 1735 et seq.)
- Changes in Adjudicated Rights. May use any of the above procedures, or procedures authorized in adjudication decree.

Water Transfers

1707 Approval Procedures:

- (a) (1) Any person . . . may petition the board pursuant to [the provisions of the Water Code for changes in point of diversion, place of use or purpose of use]
- (b) The board may approve the petition . . . subject to any terms and conditions which, in the board's judgment, will best develop, conserve, and utilize, in the public interest, the water proposed to be used as part of the change . . . If the board determines that the proposed change meets all of the following requirements:
 1. Will not increase the amount of water the person is entitled to use.
 2. Will not unreasonably affect any legal user of water.
 3. Otherwise meets the requirements of this division.

Intermission



TU Tax and Water Legal Team

- n Tom Hicks, *Of Counsel*, TU Western Water Project
- n Laura Ziemer, TU Senior Counsel and Water Policy Advisor
- n Bill Silberstein, *Kaplan Kirsch & Rockwell LLP*, Colorado
- n Peter Nichols, *Berg, Hill, Greenleaf, Ruscitti LLP*, Colorado
- n Bill Hutton, *Coblentz, Patch, Duffy & Bass*, California
- n Pat Byorth, TU Western Water Project



Background

- “Can you donate an appropriative water right for a tax deduction?”
- Entire Interest or
- Three partial interest deductions:
 1. Contribution of a *remainder interest* in a personal residence or farm;
 2. Contribution of an *undivided portion of the taxpayer's entire interest in property*, and
 3. A *qualified conservation contribution*.

Entire and Partial Interests

- A partial interest is any interest in property that consists of less than the donor's entire interest in the property.
- If a donor who owns property outright transfers every right and interest that the donor has in the property to a permissible donee, the issue of a partial interest does not arise.
- If a donor retains some right or interest or control over donated property, there is potential the deduction will be disallowed because the donee only received a partial interest.

Revenue Ruling Focus: Entire Interest

- n **Threshold Question #1:** A gift of taxpayer's entire interest in an Appropriative Water Right to an organization described in § 170(c) qualifies for a charitable deduction under § 170(a).
- n For example, a taxpayer owns the right to divert two cubic feet per second of water from a stream for taxpayer's use. Taxpayer makes a gift of this water right to an organization described in § 170(c). This qualifies as a charitable deduction under § 170(a).

Donated Entire Interest: National Precedent

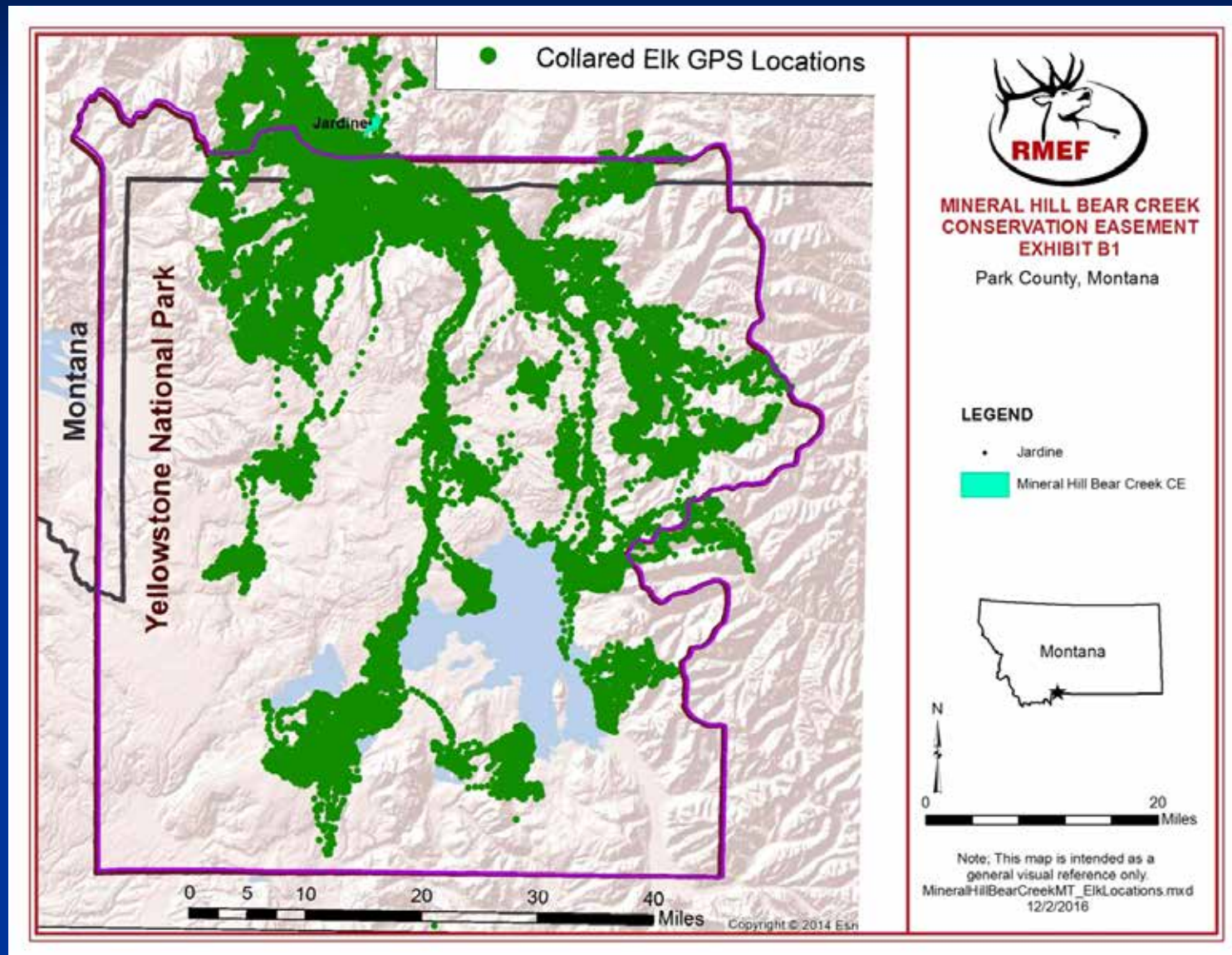
On Thursday, August 17, 2017, a formal ceremony brought Trout Unlimited, Kinross Gold, Inc., and the Rocky Mountain Elk Foundation together to celebrate two conservation transactions that included:

- (1) a donated conservation easement on the fee interest from Kinross to RMEF; and
- (2) an outright donation of the Jardine Mine water right from Kinross to TU.

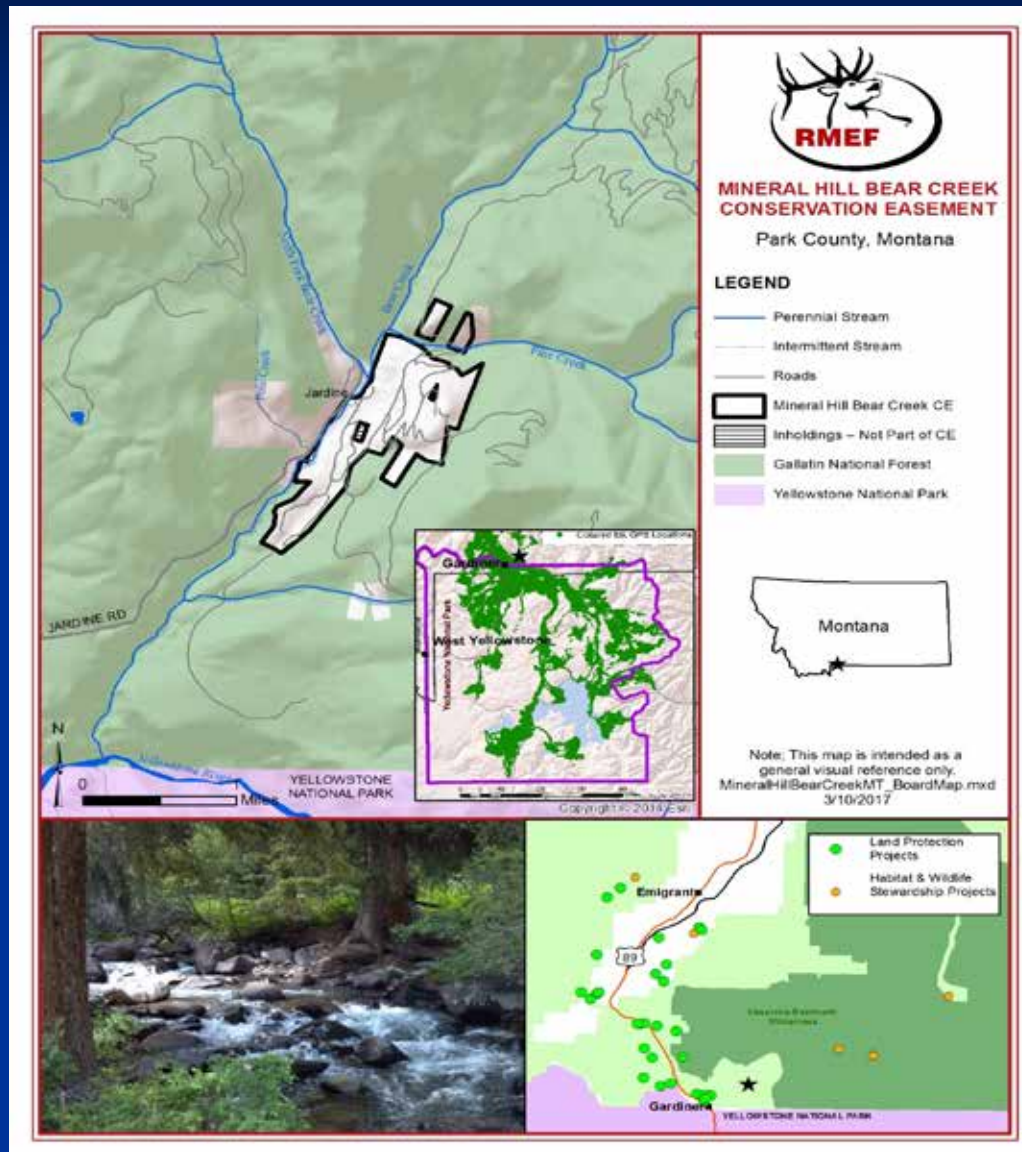
Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



Donated Entire Interest: National Precedent



(from left to right: Chris Wood, President and CEO of Trout Unlimited; David Allen, President and CEO, Rocky Mountain Elk Foundation; U.S. Congressman Greg Gianforte (MT); Dan Wenk, Superintendent Yellowstone National Park; J. Paul Rollinson, President and CEO, Kinross Gold; David Bernhardt, Deputy Secretary Department of the Interior; U.S. Sen. Jon Tester (MT); Gov. Steve Bullock (MT); U.S. Sen. Steve Daines (MT).

Donated Entire Interest: National Precedent

The conclusions of the Water Rights Due Diligence:

1. Pine Creek Water Right: Evidence supported protection of the Pine Creek water right with up to 2.5 cfs of consumptive use from April 1 - August 31, and 1.4 cfs from September 1 – March 31, with a volume of up to 1,345 acre-feet
2. Bear Creek Water Right #1: Evidence supported protection of Bear Creek's contribution to 4.0 cfs of consumptive use with a volume of 1,079 acre-feet.
3. Bear Creek Water Right #2: Evidence supported protection of up to 10 cfs of non-consumptive use based on historic mine hydropower production, relying on the Bear Creek water right of up to 6,404.0 acre-feet.
4. Valuation of the donation was based on the aggregate total of approximately 8,828 acre-feet of protected volume, or approximately 2.88 billion gallons of water.
5. The proposed protected reach will extend from the upstream-most point of diversion on Bear Creek and Pine Creek to their confluence with the Yellowstone River and beyond.

Donated Entire Interest: National Precedent



Figure 1. Map of the project area at Gardiner, MT at Mineral Hill, T9S R9E, Park County, MT. Blue circles are historic points of diversions, red lines are ditch locations. The Bear Creek Ditch (Biglow Chapman Ditch) is red line west of Bear Creek, and power plant location red circle. Proposed protected reach is green line. Source: USGS Gardiner Quadrangle (1955).

Legal Focus: Narrow Scope

- n The Request does not concern a gift of either:
 - n a *remainder interest* in an appropriative water right under I.R.C. § 170(f)(3)(B)(i) or
 - n a *qualified conservation contribution* of the qualified real property interest in an appropriative water right to a qualified organization given exclusively for conservation purposes in perpetuity under I.R.C. § 170(f)(3)(B)(iii) and I.R.C. § 170(h).
- n The Request does not concern gifts of riparian rights or groundwater rights.

Revenue Ruling Focus: Partial Interest

- n **Question #2:** A gift of an undivided portion of a taxpayer's entire interest in an Appropriative Water Right to an organization described in § 170(c) qualifies for a charitable deduction under § 170(a).
- n For example, a taxpayer owns the right to divert two cubic feet per second of water from a stream for taxpayer's use. Taxpayer makes a gift of a fifty percent undivided interest of this right to an organization described in § 170(c). The taxpayer has conveyed a fraction or percentage of each and every interest or right owned by the taxpayer in such property. The taxpayer has not retained any right, not even an insubstantial right, in the property conveyed. This qualifies as a charitable deduction under § 170(a).

Legal Focus: I.R.C. § 170(f)(3)(B)(ii)

- n **Scenario:** Owner owns an entire interest in an appropriative water right. Owner makes a charitable contribution of an undivided 50% interest in his/her appropriative water right to an organization described in I.R.C. § 170(c).
- n Donor permanently transfers all his/her interest in the 50% undivided interest in the appropriative right to the donee.
- n Owner maintains and retains an unencumbered interest in the remaining 50% interest in his/her appropriative water right.
- n **Deductible.**

Temporary: Forbearance Agreement

- n Simply a contract between a landowner/water user and a local land trust or water trust (or other entity)
- n Water user agrees to forego withdrawals of water pursuant to the terms and conditions set forth in the contract.
- n The main advantage of a forbearance agreement is its simplicity and efficiency, as the terms of the agreement can be structured to fit the needs of the parties.
- n Often, the key term is *seasonal* (not year-round) forbearance from withdrawing water. That is, the landowners retain the right to withdraw water during the wetter or higher-flow seasons, but give up the right to withdraw water during the dry season when flows are critically low.
- n Forbearance Agreements are not permanent. They typically extend for a term of years agreed to by the parties.
- n **Non-deductible.**

Permanent: Fractional Use Agreements

- n To qualify for a federal tax deduction the water right owner must permanently relinquish a fractional or partial interest in an appropriative water right.
- n Fractional Use Agreements can be considered an evolutionary progression of and are *permanent* Forbearance Agreements.
- n Bargain sale transactions (that have both cash and donative components) or outright donations of a partial right can be structured for:
 - n (1) full temporal use and limited quantity, e.g. April 1 - October 15 and 25% of the total water diversion; or
 - n (2) limited temporal use of the entire quantity, e.g. August 1 - October 15 and 100% of the total water diversion; or
 - n (3) limited temporal use and limited quantity, e.g. August 1 - October 15 for 25% of the total water diversion.

I.R.C. § 170(h): Qualified Conservation Contribution

The I.R.S. provides income tax and estate tax deductions for a qualified conservation contribution:

- n of a qualified real property interest;
- n to a qualified organization; and
- n donated exclusively for conservation purposes.

I.R.C. § 170(h)(2): Easement must be a Qualified Real Property Interest

A *qualified real property interest* is any of the following interests in real property:

- (1) The entire interest of the donor other than qualified mineral interest;
- (2) A remainder interest; and
- (3) A restriction (granted in perpetuity) on the use which may be made of the real property.

State Defined Property Right

- Conservation easements are negotiated, voluntary agreements to permanently restrict an otherwise full right of *future, potential* uses of the real property interest, e.g. subdivision, commercial development, etc., enforceable under state law.

Limitations on the Real Property Interest in a Water Right

- n Reasonable and beneficial use
- n Public Trust Doctrine
- n Water Quality
- n Area of Origin Protections
- n Fish & Game Code § 5937 and § 5946
- n Endangered Species Act (“ESA”)
- n Nuisance

1983 National Audubon Society v. Superior Court



I.R.C. § 170(h)(3): Easement must be given to a qualified organization

- A qualified conservation contribution of the qualified real property interest in an appropriative water right must be permanently dedicated to either:
 - A government unit or
 - A publicly supported 501(c)(3) charitable organization or
 - Both

I.R.C. § 170(h)(4)-(5): Easement must be donated exclusively for "conservation purposes"

- n The qualified conservation contribution of the qualified real property interest in an appropriative water right permanently dedicated to a qualified organization is donated for *conservation purposes* when it will:
 - n (1) preserve land areas for outdoor recreation by, or the education of, the general public;
 - n (2) protect a relatively natural habitat of fish, wildlife, or plants or similar ecosystem; or
 - n (3) preserve open space.

Perpetuity

- The conservation purpose must be protected in perpetuity.

I.R.C. § 170(h)(4)(A)(i): Outdoor Recreation or Education

- The preservation of a *water area* for the use of the public for boating or fishing is a conservation purpose.
- The preservation of a *land area* [or an instream appropriative right, e.g. river] will not meet the conservation purposes test unless the recreation or education is for the substantial and regular use of the general public.



I.R.C. § 170(h)(4)(A)(ii): Relatively Natural Habitat/Protection of Environmental System

- The protection of a relatively natural habitat of fish is a conservation purpose.
- Significant habitats or ecosystems include, but are not limited to, habitats for rare, endangered, or threatened species of fish.
- The donated property must contribute to the ecological viability of a local, state, or national park or other conservation area or otherwise represent a high quality aquatic ecosystem.
- The fact that habitat has been altered to some extent by human activities will not result in a denial of a deduction if fish continue to exist in a relatively natural state.



I.R.C. § 170(h)(4)(A)(iii): Preservation of Open Space

- The preservation of open space (including farmland or forest land) qualifies where such preservation is
 - (I) for the scenic enjoyment of the enjoyment of the public, or
 - (II) pursuant to a clearly delineated Federal, State, or local governmental conservation policy, and will yield a significant public benefit.

I.R.C. § 170(h)(4)(A)(iii)(I): Scenic Enjoyment

- The preservation of open space for the scenic enjoyment of the public is a conservation purpose.
- Preservation may be for scenic enjoyment if development would impair the scenic character of the landscape or significantly interfere with the "scenic panorama" that could be enjoyed *from* a road, waterbody or transportation way utilized by the public.
- Regional variations require flexibility in the application of the scenic enjoyment test, which balances and evaluates different scenic factors.

I.R.C. § 170(h)(4)(A)(iii)(II): Pursuant to Governmental Conservation Policy

- The preservation of open space pursuant to clearly delineated governmental conservation policy that states it is in the public interest to preserve a certain type of property is a conservation purpose.



Distinctions Between Permanent Forbearance Agreements and Conservation Easements

- n Exclusive focus on gift of the real property interest pursuant to state law, measured as the fractional reduction of the full right of diversion, at the time of the gift;
- n Not contingent upon the secondary state administrative transfer of the water right to an instream fish and wildlife reasonable and beneficial use or other conservation purposes, which can take years;
- n The burden of monitoring a non-diversion in perpetuity is an obligation that should not casually be taken on by private, non-profit, or public entities;
- n The difficulty of attaching an "exclusively conservation purpose" in perpetuity to a particular right, which may accomplish multiple municipal, environmental or agricultural beneficial uses as water flows downstream.

Drafting Guidance: Permanent Forbearance Agreements

- n Separate real property interest.
- n Permanent Term.
- n Fraction or percentage of each and every substantial interest.
- n No Retainer Substantial Interest.
- n Right of possession, dominion and control.
- n Time of accrual of right of deduction.
- n Perpetual Nature of Appropriative Water Right.
- n Retained Uses of Water Right.
- n **Deductible**

Intro to Water Law, Water Bond, Voluntary Water Transactions, and Instream Transfers

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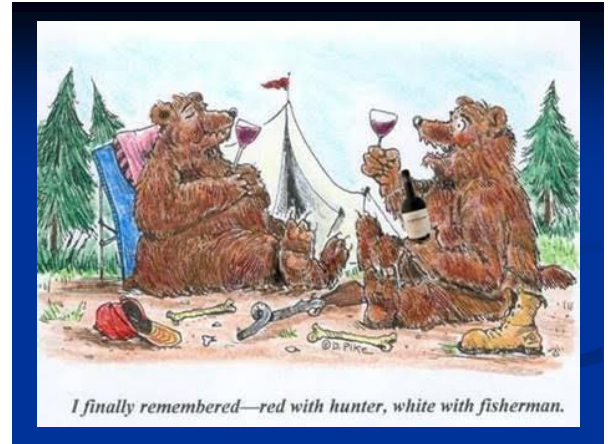
Water Bond Prop One
WCB Projects that
Enhance Stream Flow

2018 SRF Steelhead Summit

December 3-5, 2018
Ventura, California

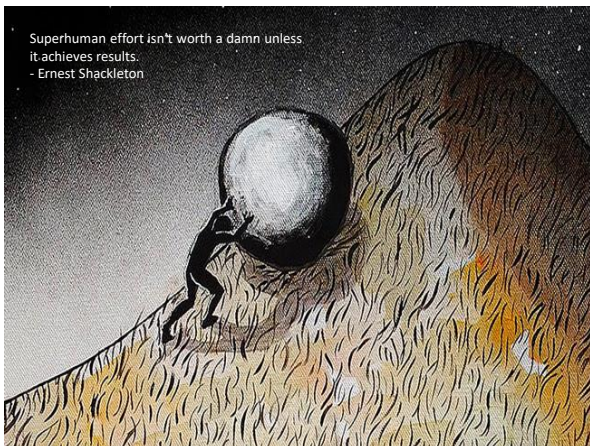


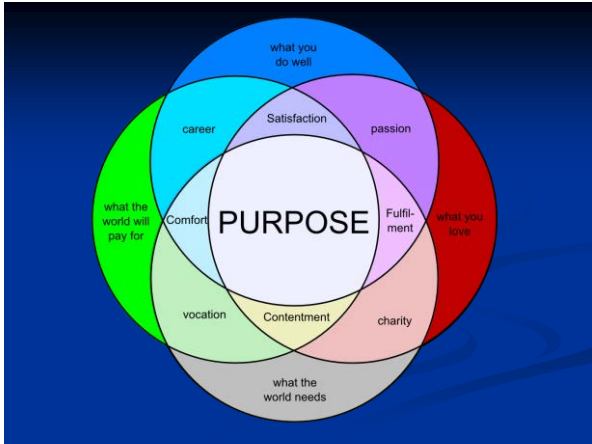
TOM HICKS ATTORNEY AT LAW



Who is in the Audience?

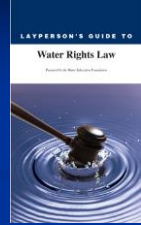
- Land and water conservation professionals?
- Land owners? Ranch managers?
- Conservation attorneys?
- Board members?
- State or federal agencies?
- Concerned citizens?
- Others?





Author, Layperson's Guide to Water Rights Law

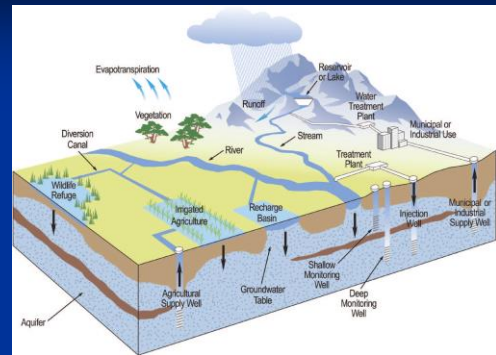
- The 28-page, recognized as the most thorough explanation of California water rights law available to non-lawyers, traces the authority for water flowing in a stream or reservoir, from a faucet or into an irrigation ditch through the complex web of California water rights.
- It includes historical information on the development of water rights law, sections on surface water rights and groundwater rights, a description of the different agencies involved in water rights, and a section on the issues not only shaped by water rights decisions but that are also driving changes in water rights. Includes chronology of landmark cases and legislation and an extensive glossary.
- <http://www.watereducation.org/publication/laypersons-guide-water-rights-law>



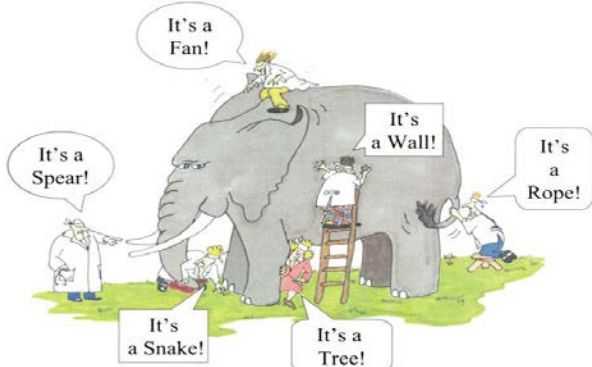
California Water Law

- Many Legal Definitions & Issues:
 - Appropriative water rights
 - Riparian water rights
 - Groundwater rights
 - Beneficial use
 - Public Trust Doctrine
 - Property rights
 - Environmental law
 - Federal water law authorities
 - Hydropower development
- Disclaimer: More than can be covered in 20 minutes!

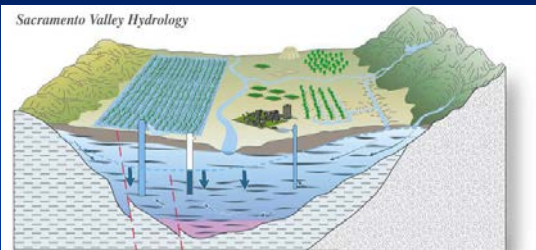
Water Law in the Watershed



California Water Law



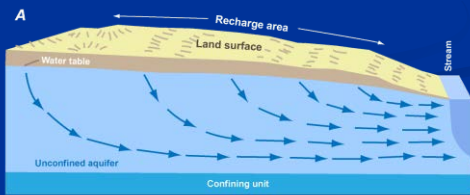
California Groundwater



USGS

Integrated Surface-Groundwater

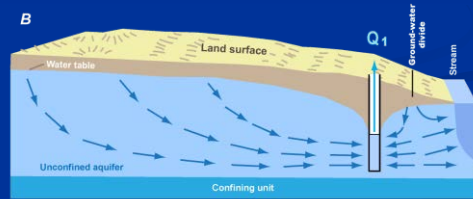
- Normal Groundwater Flow
 - No groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

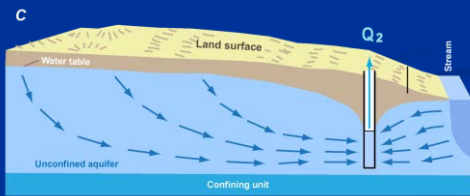
- Groundwater Flow
- With low groundwater pumping



USGS Circular 1139

Integrated Surface-Groundwater

- Groundwater Flow
 - With high groundwater pumping

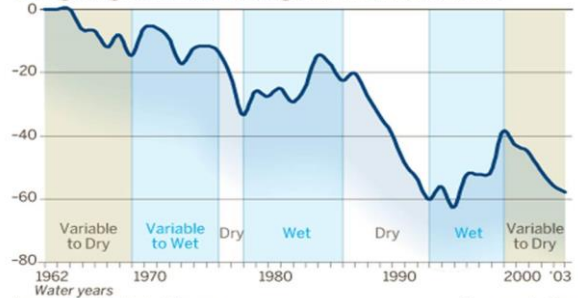


USGS Circular 1139

GROUNDWATER LOSS

Groundwater levels in the Central Valley from 1962 to 2003 during wet and dry years.

Change in groundwater storage, in millions of acre-feet



HICKS LAW PROP ONE PROJECTS

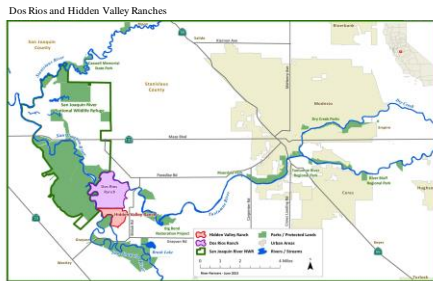
1. 2018 Wildlife Conservation Board (WCB) Prop One: Marshall Ranch Flow Enhancement Design
2. 2018 WCB Lower Battle Creek Scoping Study
3. 2018 WCB Santa Rosa Creek Flow Enhancement Pilot Project
4. 2018 WCB San Luis Obispo Creek Flow Enhancement
5. 2017 WCB Integrated Water Strategies to Enhance Flows in Santa Barbara and Ventura Counties
6. 2017 WCB San Ysidro Flow Enhancement and Water Conservation
7. 2016 WCB Dos Rios Section 1707 Project
8. 2016 WCB The Thacher School Instream Flow Resiliency and Dormitory Conservation Project
9. 2016 WCB Baseflow Monitoring for Stream Flow Enhancement Project Planning and Evaluation in San Luis Obispo County
10. 2016 WCB Spencer Ranch Permanent Instream Water Dedication and Conservation Easement



Hicks Law Conservation Easement Projects

1. 2017 DFW Prop One (Water Bond) Watershed Restoration Grant Program: Marshall Ranch Conservation Easement – 2016
2. 2018 Department of Conservation, Strategic Growth Council Sustainable Agricultural Lands Conservation Program (“SALC Program”): Marshall Ranch Conservation Easement
3. 2018 California Department of Forestry and Fire Protection (CALFIRE), California Climate Investments - Forest Health Grant Program: Marshall Ranch Conservation Easement

Tuolumne River Trust Dos Rios Section 1707 Project

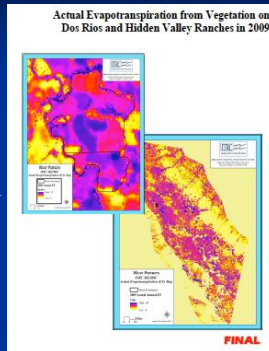


Location of Dos Rios Ranch and former Hidden Valley Dairy, Stanislaus County, CA.
Floodplain Easement and Ecosystem Restoration at Dos Rios Ranch
River Partners



Consumptive Use Report

River Partners hired Irrigation Training and Research Center (California Polytechnic State University) to produce a consumptive use report for Dos Rios and Hidden Valley Ranches to determine riparian water rights (completed: January, 2016).



The study used an ITRC Mapping EvapoTranspiration process to collect data from the LandSAT 5, 7, and 8 missions to compute 2009 evapotranspiration from vegetation (consumptive use).

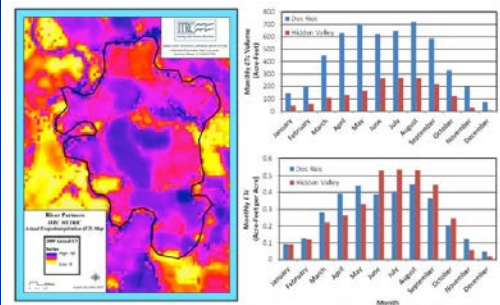
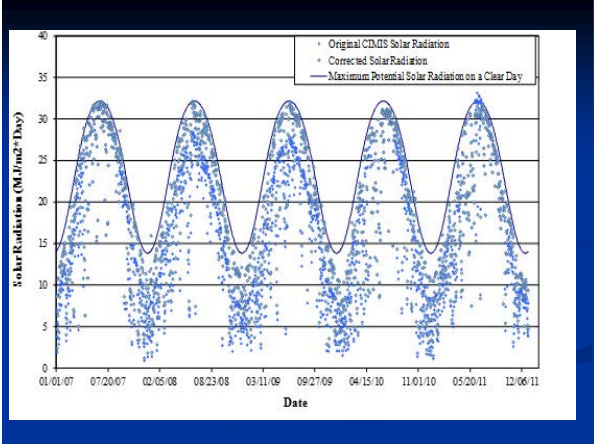


Figure ES-1. Annual ET map, monthly total volume of evapotranspiration (Acres-Foot), and monthly relative ET (Acres-Foot/Acre) for each ranch



Spencer Ranch Conservation Project Siskiyou County

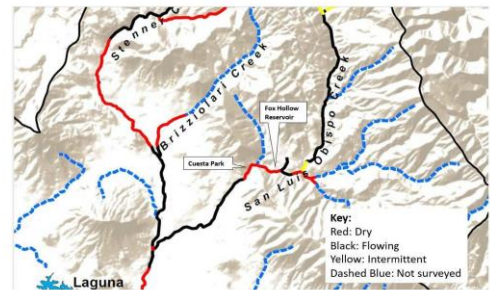


Figure 3. Map created from a baseflow survey conducted in July 2015, after multiple years of severe drought. (Map created by Shane Bennett for his senior project at Cal Poly, San Luis Obispo)

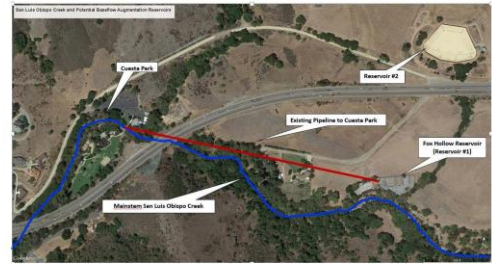
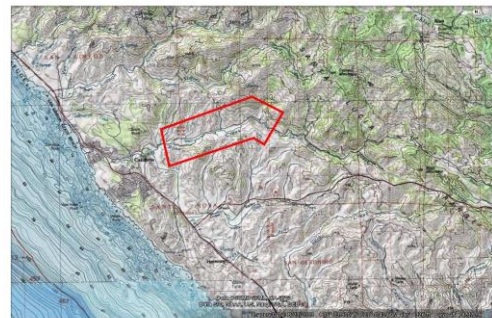


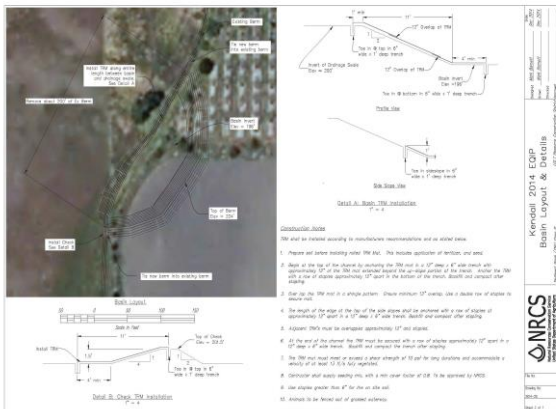
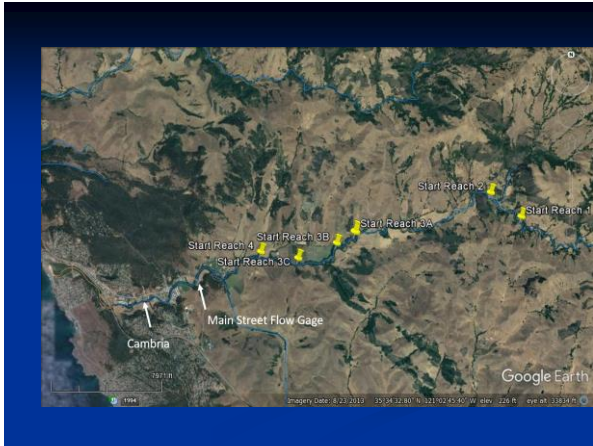
Figure 2. Location of Fox Hollow Reservoir #1, Reservoir #2, and Cuesta Park.



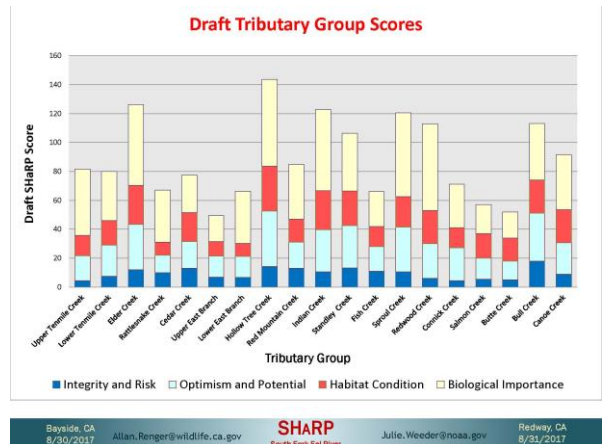
View inside cistern owned by the City of San Luis Obispo.
 Estimated capacity of 2,000,000 gallons winter storage

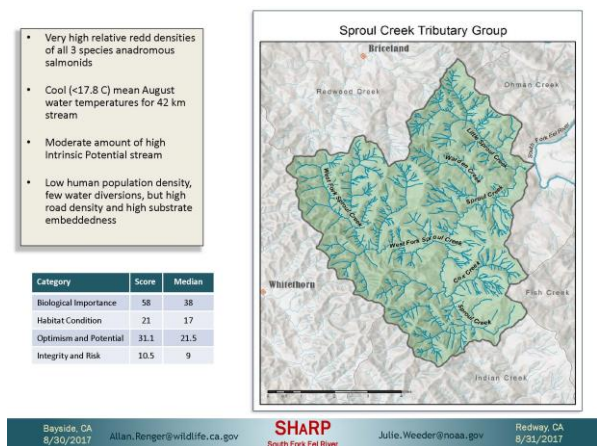
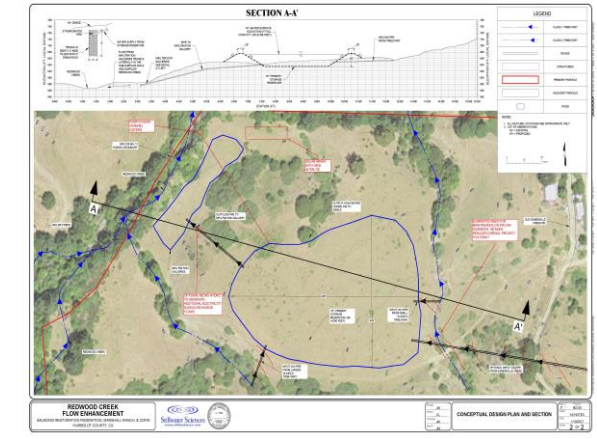
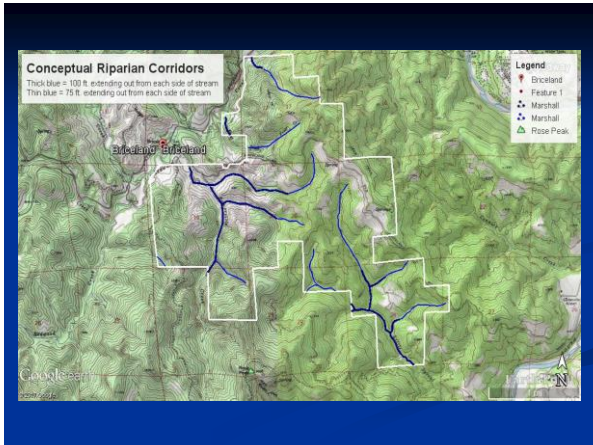
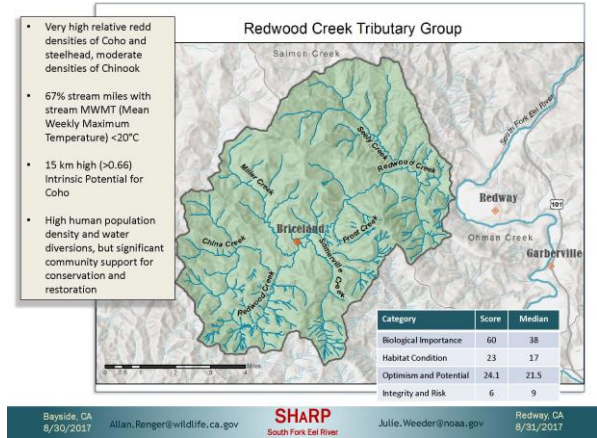


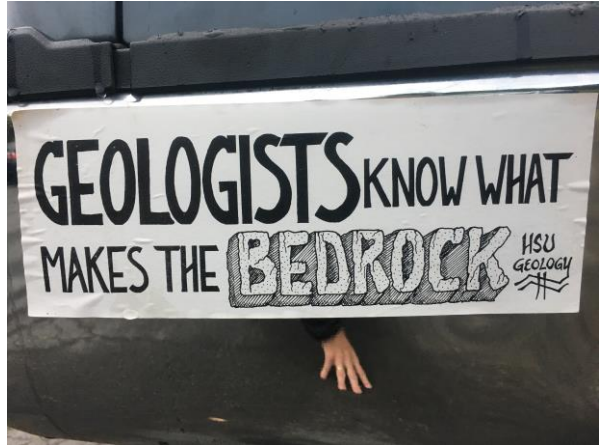
Location Map. The Middle Santa Rosa Creek Streamflow Enhancement Planning Project is located east of the town of Cambria, California. The Middle Reach is indicated by a red polygon. Several landowners within this project area will participate in various groundwater recharge project in key percolation zones.



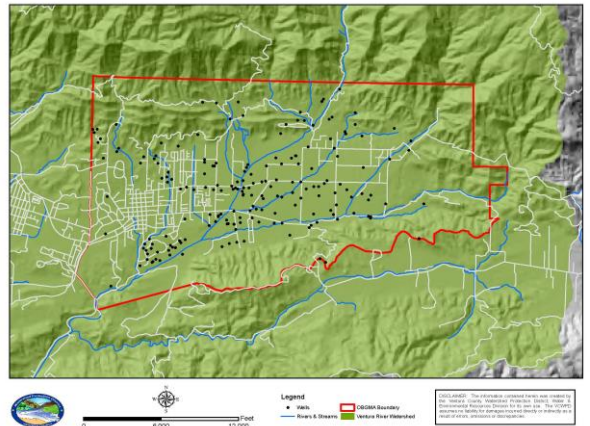
Photograph of a recharge basin under construction on a property adjacent to Santa Rosa Creek. This pilot project was completed in 2015 and is an example of one of the types of successful groundwater recharge projects that would be incorporated in the Middle Santa Rosa Creek Streamflow Enhancement Planning Project.



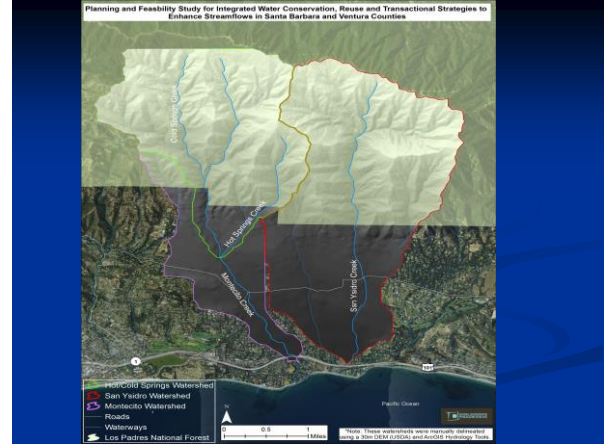
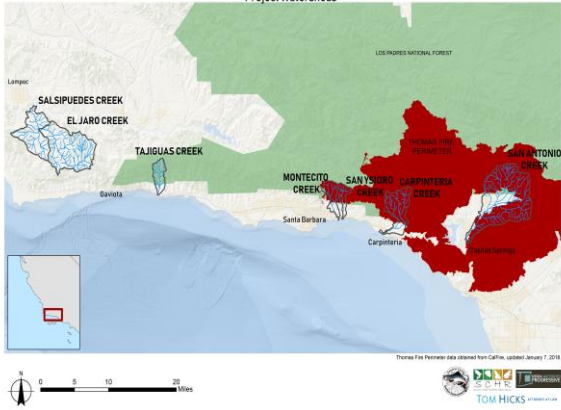




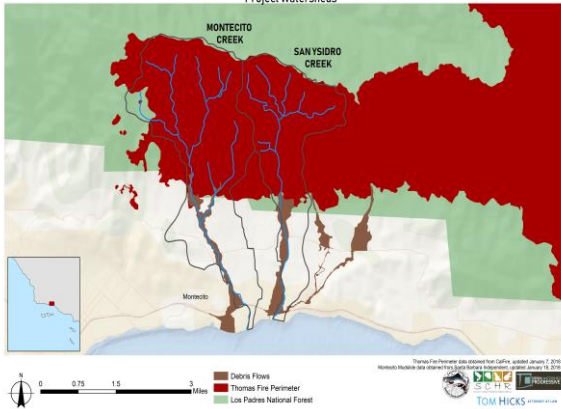
Instream Flow and Dormitory Conservation Project

 The logo for Thacher College. It features a stylized orange winged horse (Pegasus) in a rearing position. Below the horse, the word "THACHER" is written in a bold, orange, sans-serif font. The entire logo is set against a white background, which is itself on a dark blue gradient background.


Integrated Water Strategies to Enhance Streamflow in Santa Barbara and Ventura Counties:
Project Watersheds



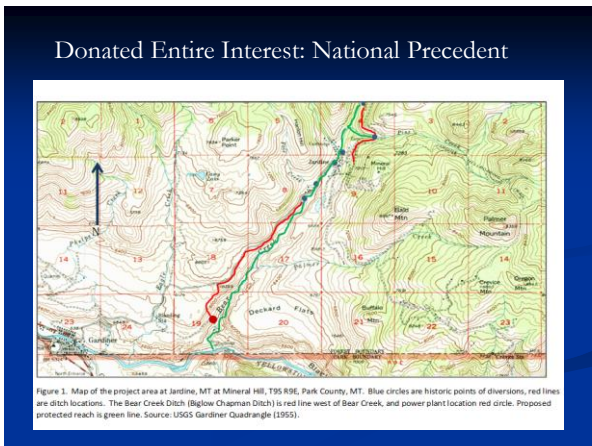
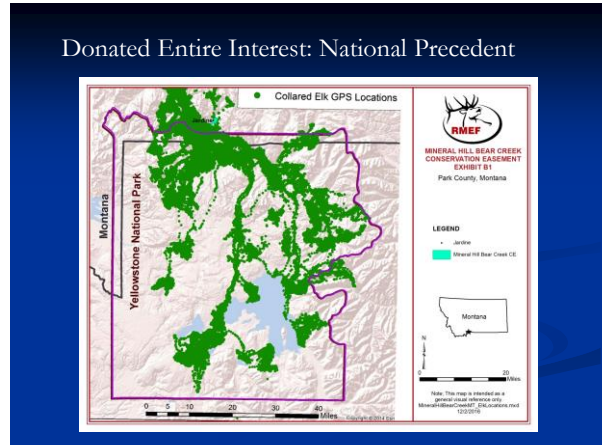
Integrated Water Strategies to Enhance Streamflow in Santa Barbara and Ventura Counties:
Project Watersheds







Donated Entire Interest: National Precedent



Advice from a TROUT

- Show Your True Colors
- Be a Good Catch
- Don't be Lured by Shiny Objects
- Scale Back
- Cherish Clean Water
- Know When to Keep Your Mouth Shut
- Don't Give Up Without a Fight!

—Iain Stewart

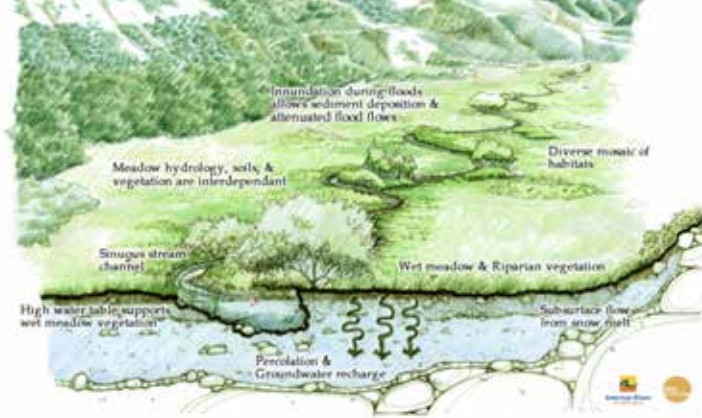
Water Bond Prop One
WCB Projects that
Enhance Stream Flow

TOM HICKS ATTORNEY AT LAW

415.309.2098
tdh@tomhickslaw.com

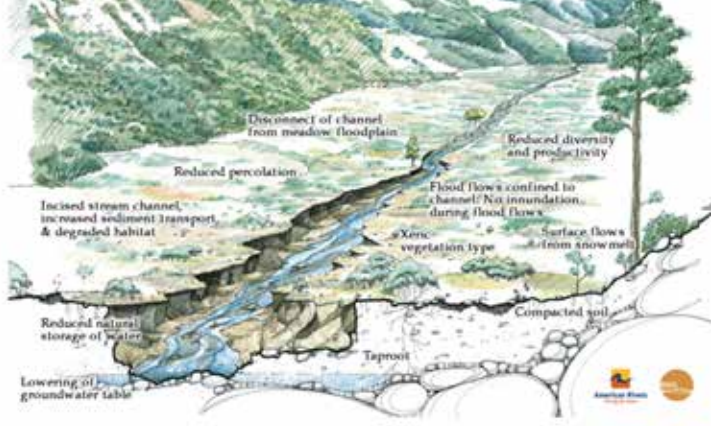
A

Healthy Meadow



B

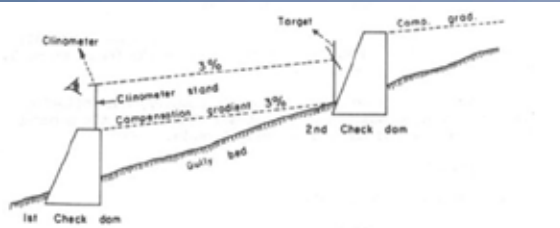
Unhealthy Meadow

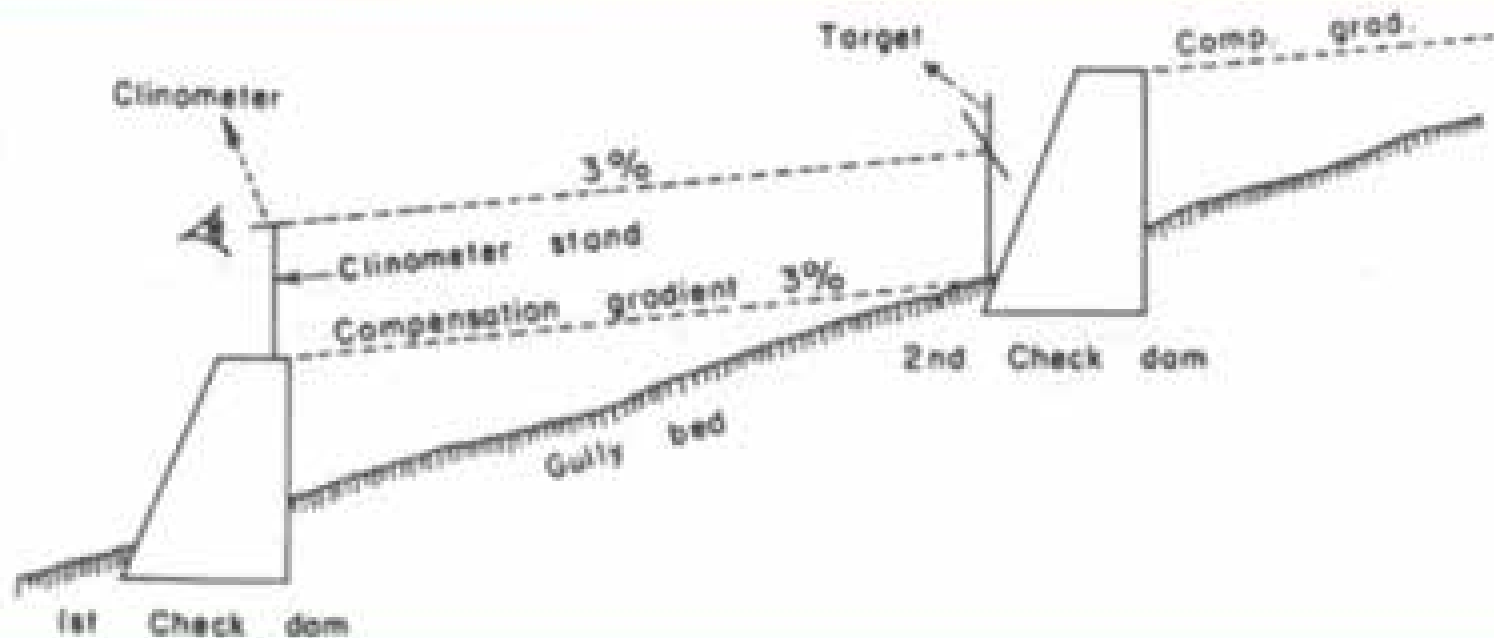


Navarro Groundwater Infiltration Project

Check dams:

- Rock or wood check dams
- Equipment or hand labor
- Road or no road access







*Shasta Dam - Shasta Lake
California, USA
April 15, 2006
Photo by Eric Cassano
ShastaLake.com*





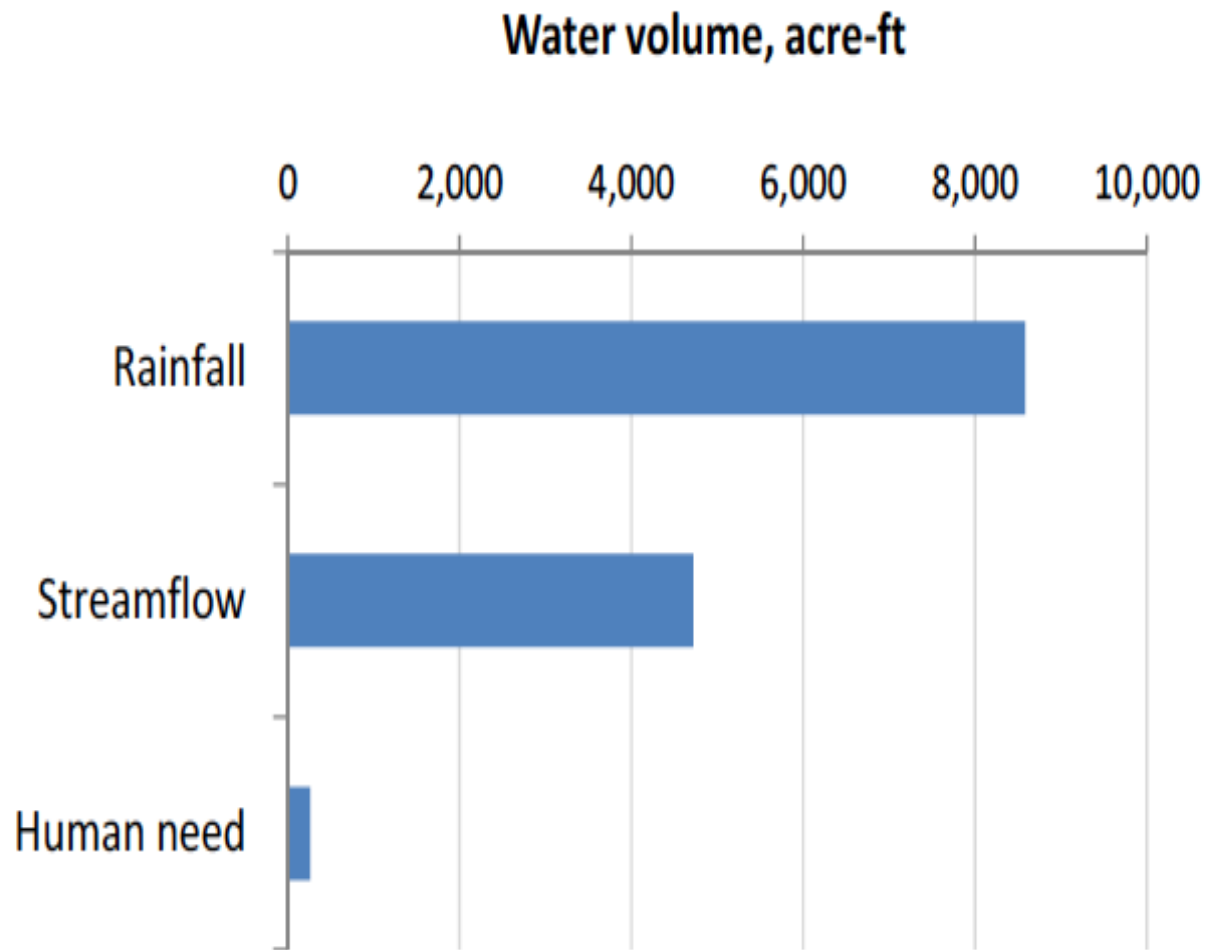


Figure 21. Comparison of average annual rainfall, streamflow, and human water need in the Grape Creek watershed

North Coast Instream Flow Policy

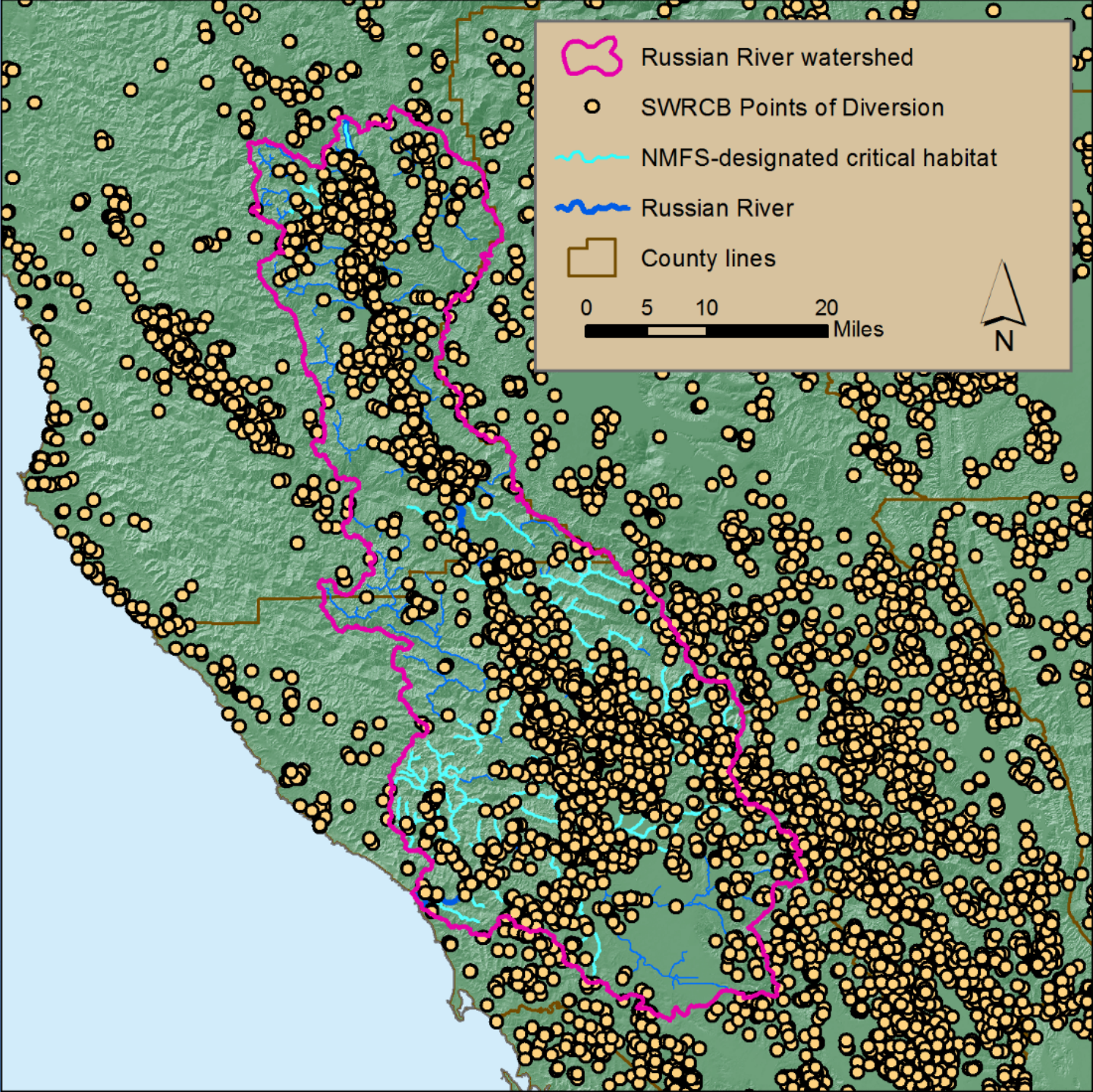
Principles (sec 2.1) – Policy is for **new** WR

1. Season restricted to Dec. 15- March 31)
2. Bypass threshold = minimum instream flows needed for fish spawning, rearing, and passage
3. Max cumulative rate of diversion = natural flow variability and channel forming flows
4. Cumulative effects considered
5. New onstream reservoirs restricted
 - Applicants may choose
 - regionally protective criteria (sec 2.2.1)
 - site-specific criteria (sec 2.2.2 and App C)



IFN Studies:

- Expensive
- Site-specific
- Do not preserve shape of natural hydrograph
- Tend to produce unrealistically high thresholds on Mediterranean coastal streams



In coastal CA, it takes **new** water rights to fix the problems
caused by too many **existing** water rights