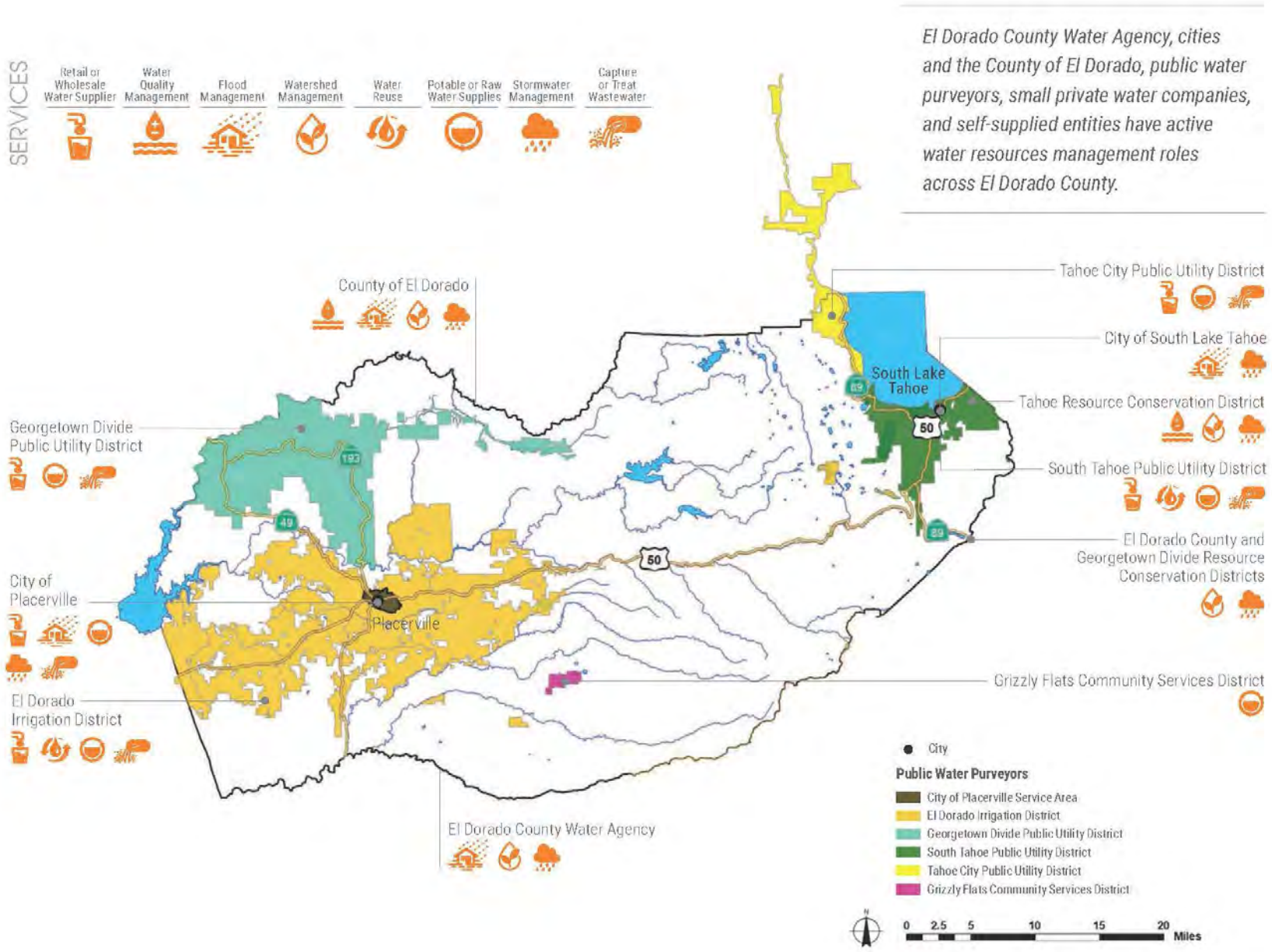
Overview of Countywide Water Resources Management

El Dorado County Planning Commission
December 8, 2022

El Dorado Water Agency

El Dorado Water Agency Mission Statement

"Ensuring that El Dorado County has adequate and affordable water to maintain economic prosperity, protect the environment, and support the rural-agriculture way of life for today and in the future."



6 Main Water Purveyors

1. El Dorado Irrigation District
2. Georgetown Divide PUD
3. City of Placerville
4. Tahoe City PUD
5. South Tahoe PUD
6. Grizzly Flats CSD

- Over 140 Small Water Systems
- Resource Conservation Districts

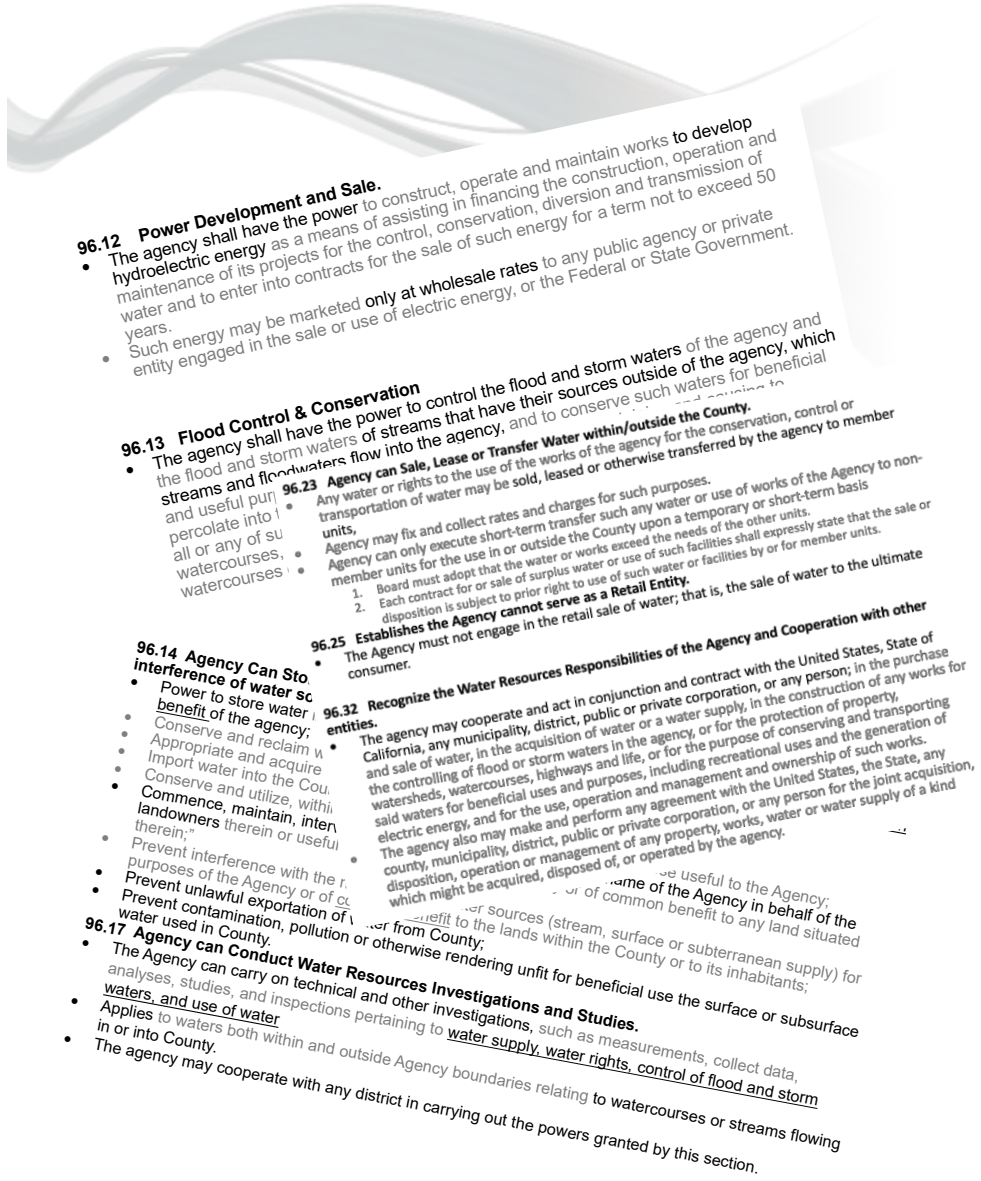
Chapter 96 - 1959 El Dorado County Water Agency Act

The Agency primary assignments include:

- Countywide water plan
- Storage, Conservation, Appropriate Water and Water Rights
- Power Development & Flood Control
- Participate in statewide Water Planning.
- Cooperation with the DWR, the U.S.B.R. and other local, state and federal agencies for water management and facility construction

The Agency is distinguished from Retailers:

- EDWA is <u>not</u> a Retail Water Agency
  - Primary Role is Water Resources Management
- Countywide perspective for best interest of County to <u>economically consider and manage resources</u>



96.12 Power Development and Sale.

- The agency shall have the power to construct, operate and maintain works to develop hydroelectric energy as a means of assisting in financing the construction, operation and maintenance of its projects for the control, conservation, diversion and transmission of water and to enter into contracts for the sale of such energy for a term not to exceed 50 years.
- Such energy may be marketed only at wholesale rates to any public agency or private entity engaged in the sale or use of electric energy, or the Federal or State Government.

96.13 Flood Control & Conservation

- The agency shall have the power to control the flood and storm waters of the agency and the flood and storm waters of streams that have their sources outside of the agency, which streams and floodwaters flow into the agency, and to conserve such waters for beneficial and useful pur
- percolate into
- all or any of su
- watercourses,
- watercourses

96.23 Agency can Sale, Lease or Transfer Water within/outside the County.

- Any water or rights to the use of the works of the agency for the conservation, control or transportation of water may be sold, leased or otherwise transferred by the agency to member units,
- Agency may fix and collect rates and charges for such purposes.
- Agency can only execute short-term transfer such any water or use of works of the Agency to non-member units for the use in or outside the County upon a temporary or short-term basis
  1. Board must adopt that the water or works exceed the needs of the other units.
  2. Each contract for or sale of surplus water or use of such facilities shall expressly state that the sale or disposition is subject to prior right to use of such water or facilities by or for member units.

96.25 Establishes the Agency cannot serve as a Retail Entity.

- The Agency must not engage in the retail sale of water; that is, the sale of water to the ultimate consumer.

96.14 Agency Can Sto
interference of water sc

- Power to store water
- benefit of the agency;
- Conserve and reclaim w
- Appropriate and acquire
- Import water into the Cou
- Conserve and utilize, withi
- Commence, maintain, inter
- landowners therein or usefu
- therein;"
- Prevent interference with the r
- purposes of the Agency or of co
- Prevent unlawful exportation of
- Prevent contamination, pollution or otherwise rendering unfit for beneficial use the surface or subsurface water used in County.

96.32 Recognize the Water Resources Responsibilities of the Agency and Cooperation with other entities.

- The agency may cooperate and act in conjunction and contract with the United States, State of California, any municipality, district, public or private corporation, or any person; in the purchase and sale of water, in the acquisition of water or a water supply, in the construction of any works for the controlling of flood or storm waters in the agency, or for the protection of property, watersheds, watercourses, highways and life, or for the purpose of conserving and transporting said waters for beneficial uses and purposes, including recreational uses and the generation of electric energy, and for the use, operation and management and ownership of such works.
- The agency also may make and perform any agreement with the United States, the State, any county, municipality, district, public or private corporation, or any person for the joint acquisition, disposition, operation or management of any property, works, water or water supply of a kind which might be acquired, disposed of, or operated by the agency.
- useful to the Agency;
- ame of the Agency in behalf of the
- or of common benefit to any land situated
- er sources (stream, surface or subterranean supply) for
- efit to the lands within the County or to its inhabitants;
- er from County;

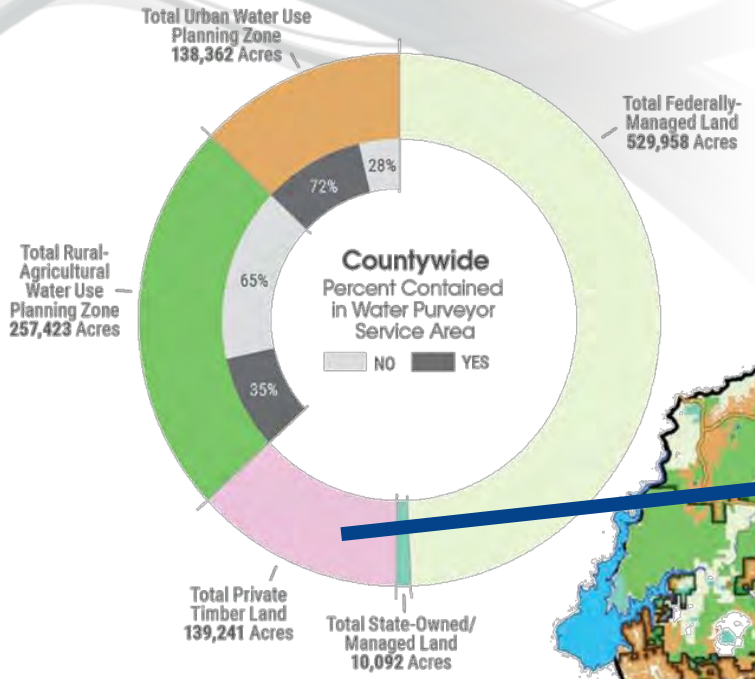
96.17 Agency can Conduct Water Resources Investigations and Studies.

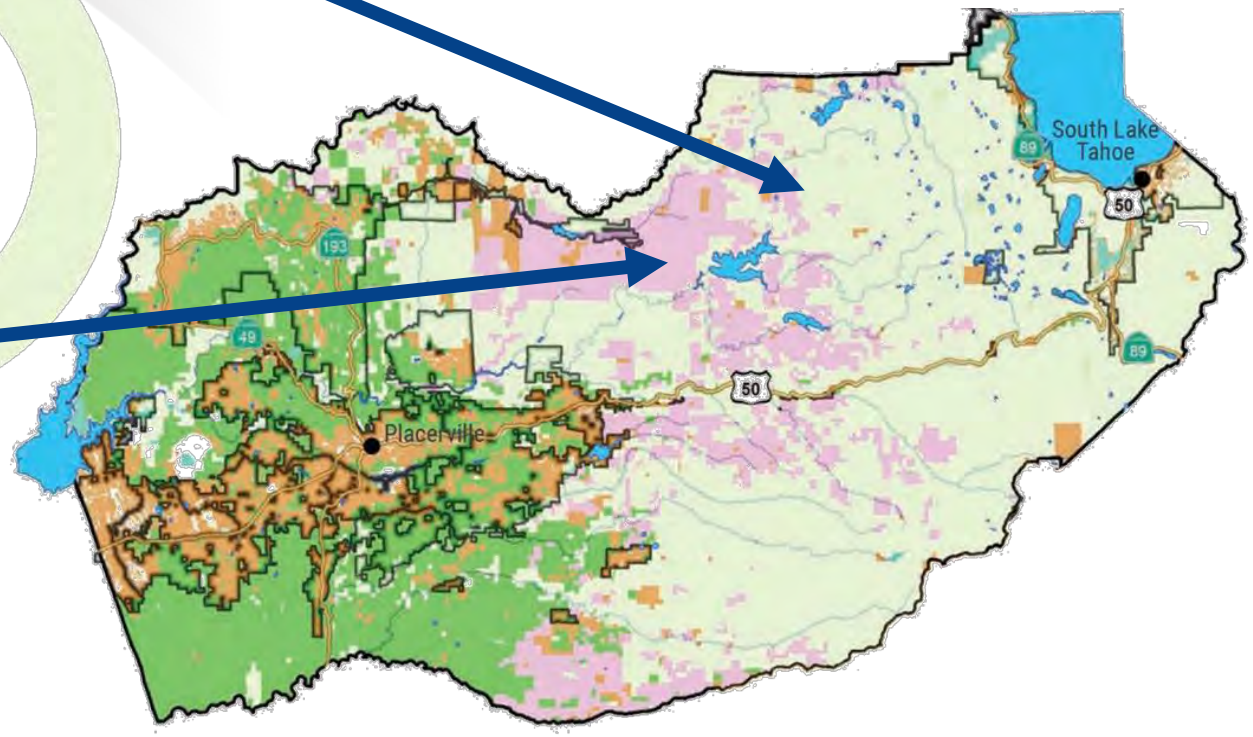
- The Agency can carry on technical and other investigations, such as measurements, collect data, analyses, studies, and inspections pertaining to water supply, water rights, control of flood and storm waters, and use of water
- Applies to waters both within and outside Agency boundaries relating to watercourses or streams flowing in or into County.
- The agency may cooperate with any district in carrying out the powers granted by this section.

1959 Water Act Outlined Roles & Responsibilities

Authorization
96-11. Acquire sufficient water for beneficial use of properties within the Agency
96-12. Generate and sell **hydroelectric power**
96-13. Flood and storm water inside and outside of Agency
96-14. Water run-off into creeks and streams & use of **reclaimed water**
96-14. Prevent contamination & pollution creeks and streams
96-17. Conduct water resources **investigations & studies**

EDWA Focus on General Plan Land-Use Capacity Level



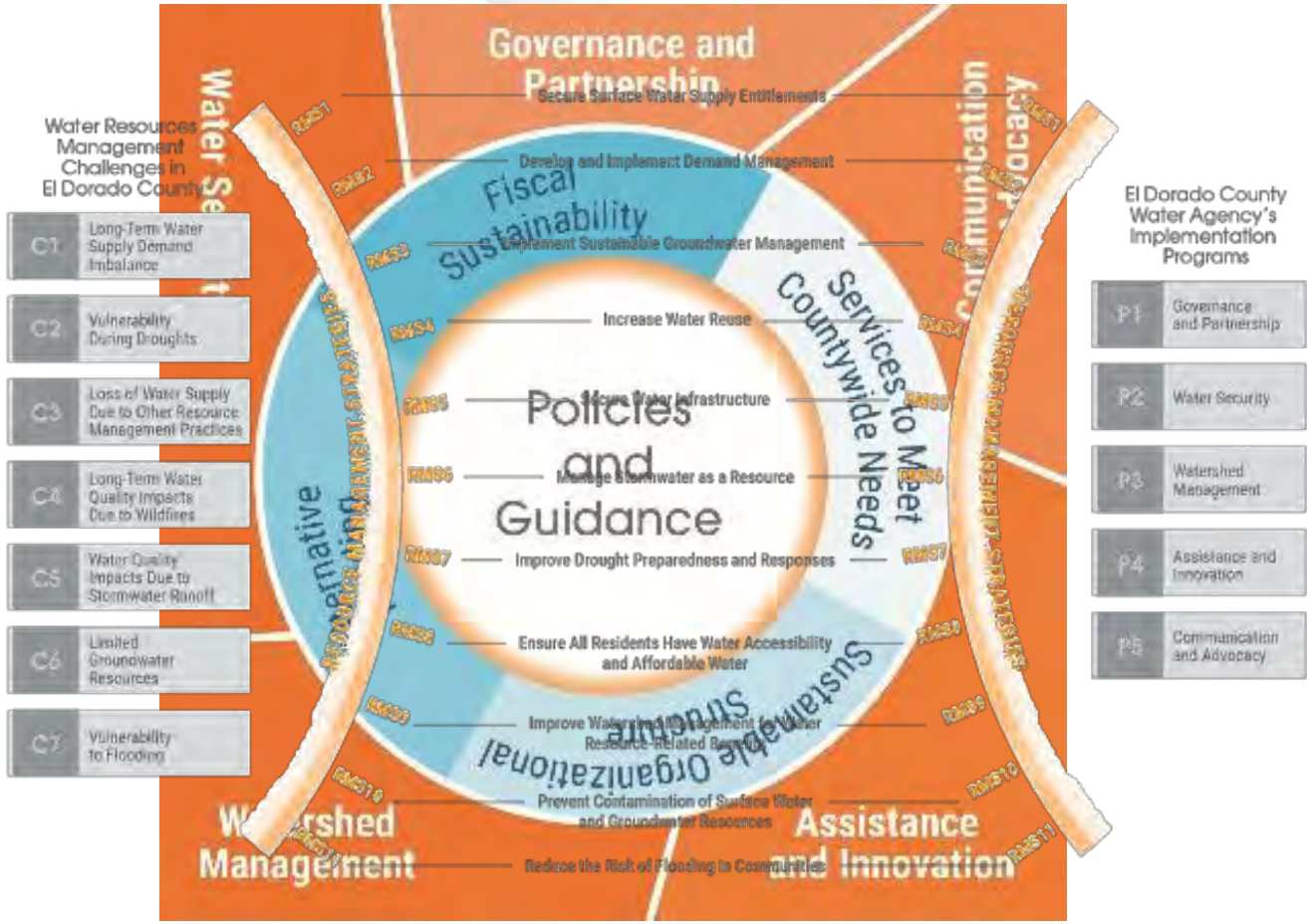


Water Use Planning Zone
- Rural-Agricultural
- Urban

Areas Not in General Plan Land Use Designation
- Private Timber
- Federally-Managed Land
- State-Owned/Managed Land
- City
- Existing Water Purveyor Service Area

EDWA Priorities

Water Resources Development and Management Plan



WRDMP Advisory Groups

Plan Advisory Group

- Plan content and recommendations
- General Plan consistency and capacity level focus
- Countywide focus (Tahoe Basin and West Slope)
- Participation by water purveyors and County

Agricultural Advisory Group

- Opportunity and water use for agricultural economics
- Following the County General Plan policies and practices
- Participation by growers, County, and subject matter experts

M&I Advisory Group

- Opportunity and water use for community and business development
- Following County General Plan policies and practices
- Participation by water purveyors and County

Acknowledgements

EDCWA Board of Directors

Brian Veerkamp	County Board of Supervisors
Shiva Frentzen	County Board of Supervisors
Lori Parlin	County Board of Supervisors
Kelly Sheehan/Jim Jones	Tahoe Basin Purveyor
George Osborne/Lori Anzini	West Slope Purveyor

Plan Advisory Group Members

Brian Mueller – El Dorado Irrigation District
Charlene Carveth (LeeAnne Mila: Alternate) – County of El Dorado
Jodi Lauther – Grizzly Flats Community Services District
Kenneth Payne – El Dorado County Water Agency
Sean Barclay – Tahoe City Public Utility District
Shannon Cotulla (John Thiel: Alternate) – South Tahoe Public Utility District
Steve Palmer (Adam Brown: Alternate) – Georgetown Divide Public Utility District
Tiffany Schmid (Anne Novotny, Brenden Ferry: Alternates) – County of El Dorado

Agricultural Advisory Group Members

Brian Mueller – El Dorado Irrigation District
Charlene Carveth (LeeAnne Mila: Alternate) – County of El Dorado
Christa Campbell (Tom Heflin: Alternate) – Rainbow Orchards, El Dorado County Chamber of Commerce
Dave Pratt – El Dorado County Farm Bureau
Dedrian Kobervig – El Dorado Agricultural Water Quality Management Corporation
Doug Leisz – Citizens for Water; El Dorado County Chamber of Commerce
Greg Boeger – Boeger Winery, El Dorado Wine Grape Growers Association
Kenneth Payne – El Dorado County Water Agency
Lloyd Walker – Walker Vineyard, El Dorado Wine Grape Growers Association
Lynn Wunderlich – University of California Cooperative Extension
Merv de Haas – El Dorado County Farm Bureau

Municipal and Industrial Advisory Group Members

Brian Mueller – El Dorado Irrigation District
Jodi Lauther – Grizzly Flats Community Services District
Kenneth Payne - El Dorado County Water Agency
Sean Barclay (Matt Homolka: Alternate) – Tahoe City Public Utility District
Shannon Cotulla – South Tahoe Public Utility District
Steve Palmer (Adam Brown: Alternate) – Georgetown Divide Public Utility District
Tiffany Schmid (Anne Novotny, Brendan Ferry: Alternates) – County of El Dorado

Topic-Specific Consultations

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Greg Stanton – County of El Dorado
Jeffrey Warren – County of El Dorado
Jose Crummett – County of El Dorado
Kathryn Jeanfreau – County of El Dorado
Olivia Byron-Cooper – County of El Dorado
Patty Moley-Dunn – County of El Dorado

Plan Development Team

Kenneth Payne – El Dorado County Water Agency
Maritza Flores Marquez – Stantec
Rebecca Guo – Stantec
Vanessa Nishikawa – Stantec
Yung-Hsin Sun – Stantec

Technical Support

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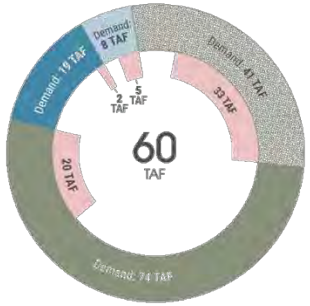
Duncan MacEwan – ERA Economics
Grant Davids – Davids Engineering
Harriett Ross – ESA
Kimberly Clyma – Stantec
Kristen Hunter – EN2
Leslie Moulton-Post – ESA
Raymond Hoang – Stantec
Rick Lind – EN2
Robert Eckard – ESA
Sachi Itagaki – Kennedy Jenks
Samuel Price – Stantec
Tracey Eden-Bishop – EN2

Identified Water Resource-Related Challenges

Water-Resource Related Challenges in the West Slope						
Water Supply			Water Quality			Public Safety
C1 Long-Term Water Supply-Demand Imbalance (3.1)	C2 Vulnerability During Droughts (3.2)	C3 Loss of Water Supply Due to Other Resource Management Practices (3.3, 3.4, 3.5)	C4 Long-Term Water Quality Impacts Due to Wildfires (3.3)	C5 Water Quality Impacts Due to Stormwater Runoff (3.5)	C6 Limited Groundwater Resources (3.6)	C7 Vulnerability to Flooding (3.7)

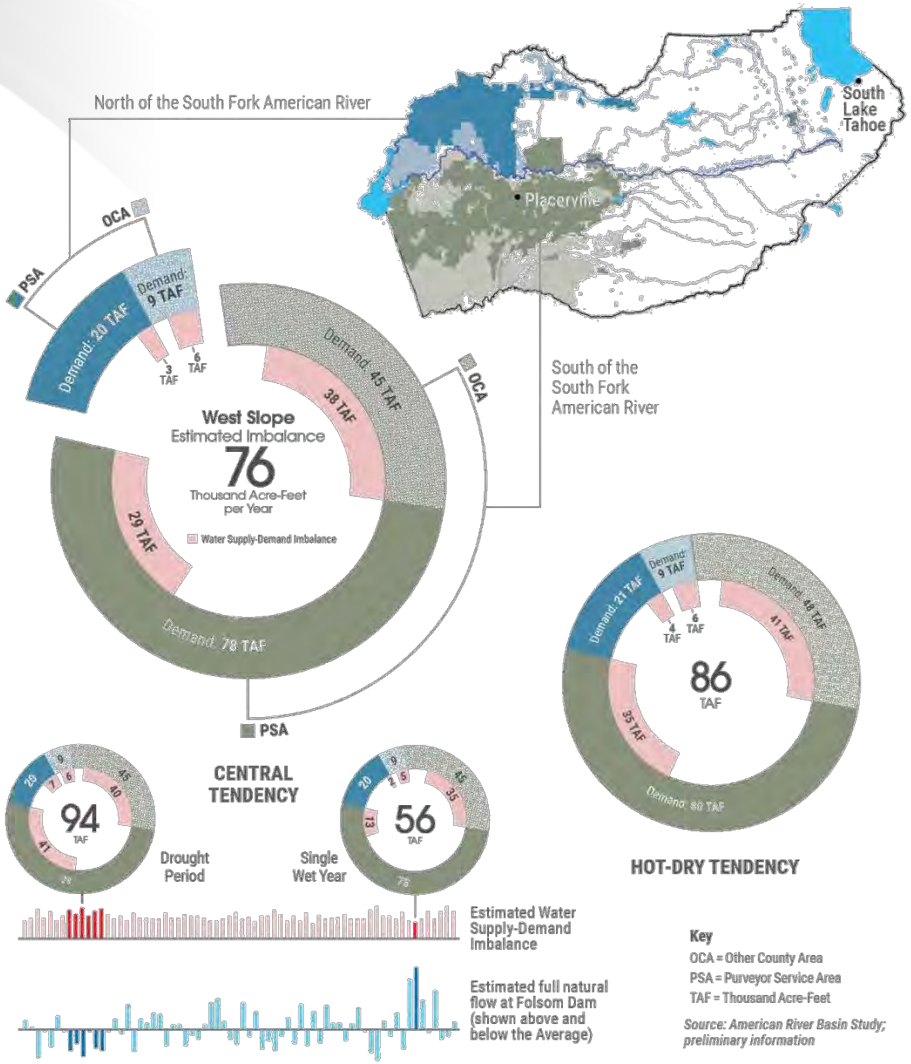
Water-Resource Related Challenges in the Tahoe Basin						
Water Supply			Water Quality			Public Safety
C1 Long-Term Water Supply-Demand Imbalance (3.1)	C2 Vulnerability During Droughts (3.2)	C3 Loss of Water Supply Due to Other Resource Management Practices (3.3, 3.4, 3.5)	C4 Long-Term Water Quality Impacts Due to Wildfires (3.3)	C5 Water Quality Impacts Due to Stormwater Runoff (3.5)	C6 Limited Groundwater Resources (3.6)	C7 Vulnerability to Flooding (3.7)

Evolving Changes - Water Supply-Demand Imbalance (West Slope)



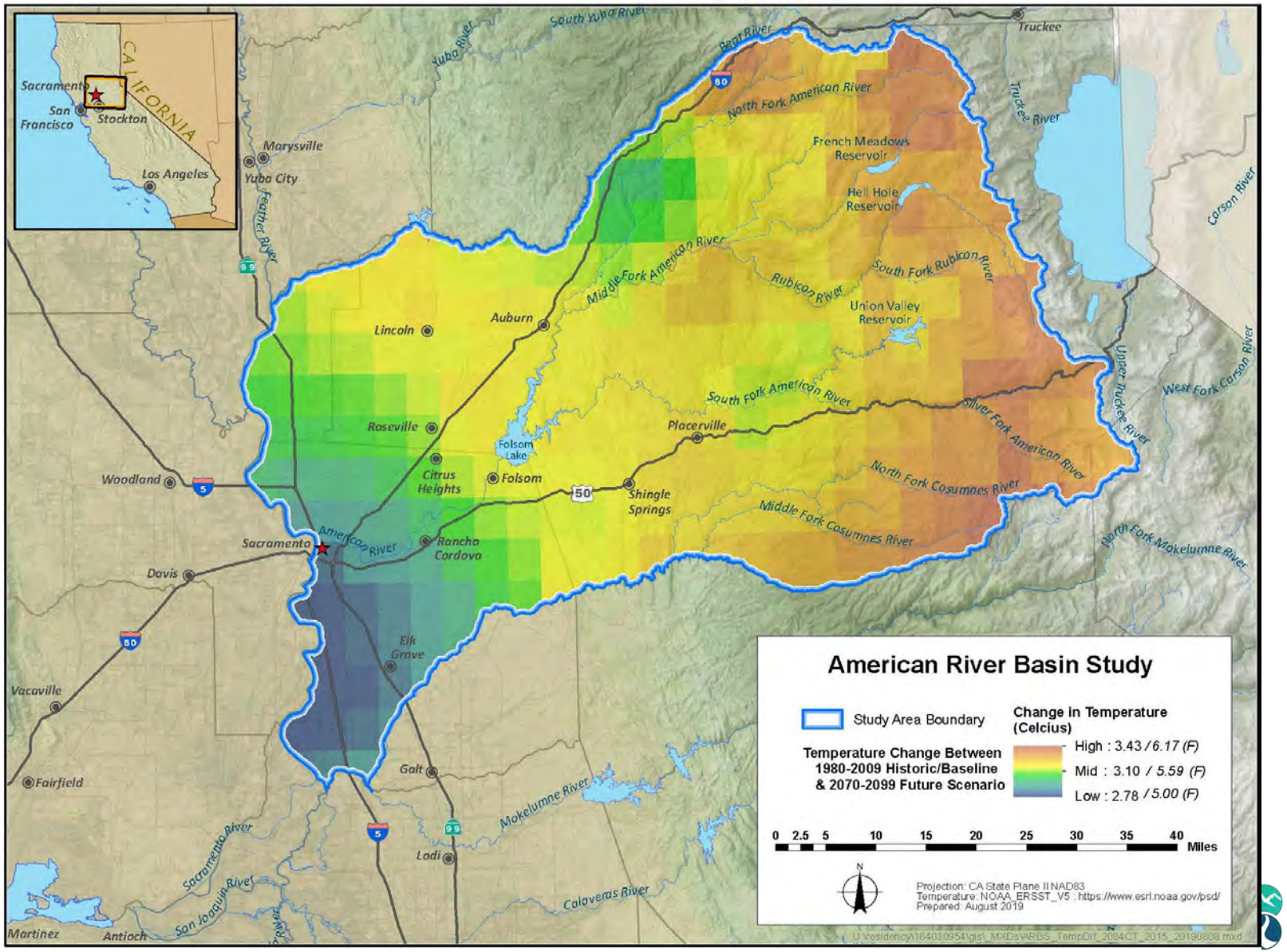
WARM-WET TENDENCY

The preliminary results from applying the demand projection and climate hydrology in 2070 suggest a significant water supply-demand imbalance, especially during drought conditions, based on existing facilities and operations. Additional adaptation strategies are required for sustaining the socioeconomic conditions and way of life in the West Slope.

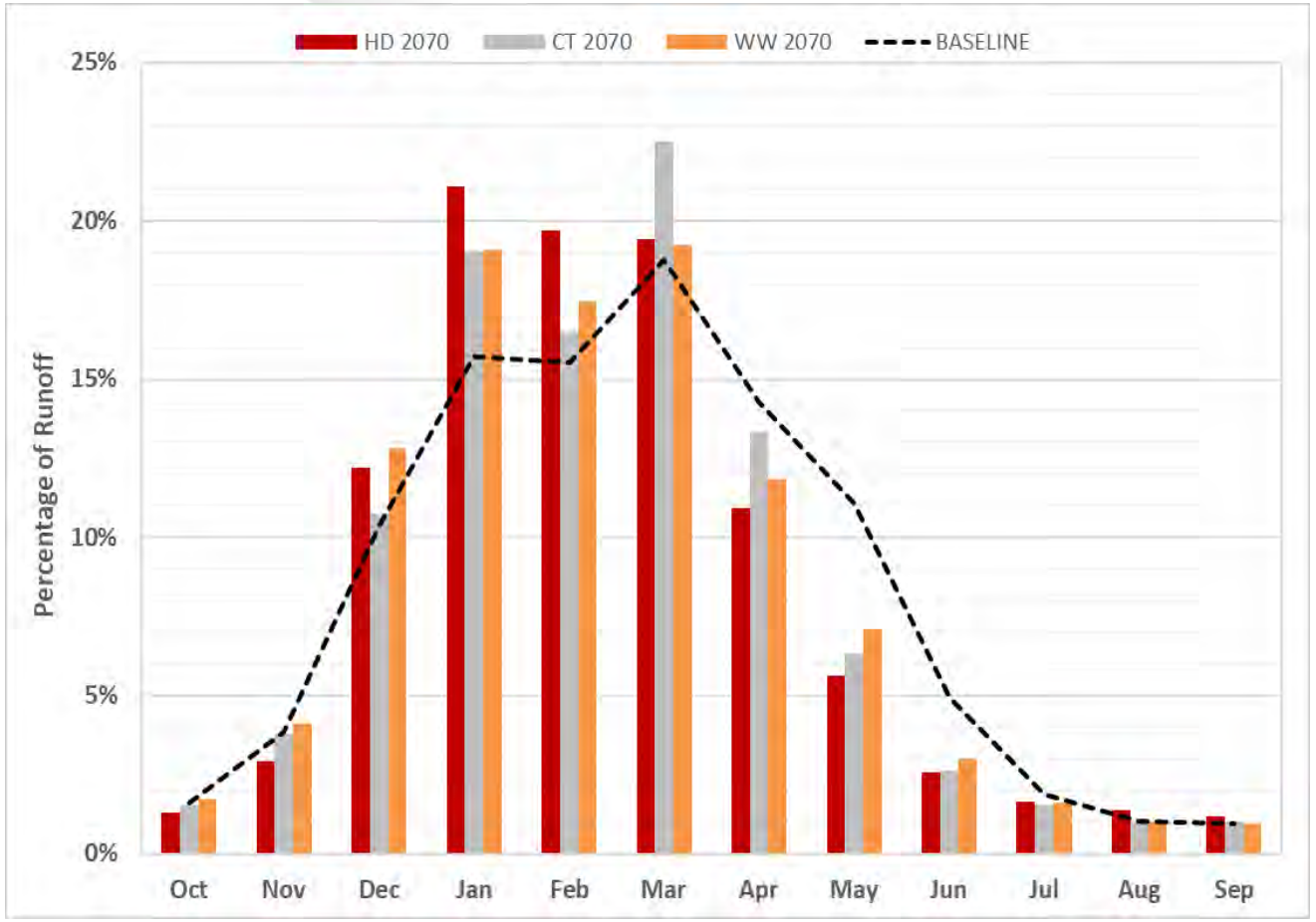


ARBS Results: Future Changes in Temperature

5 to 6 °F increase in temperature by end of the century (**central tendency scenario**).

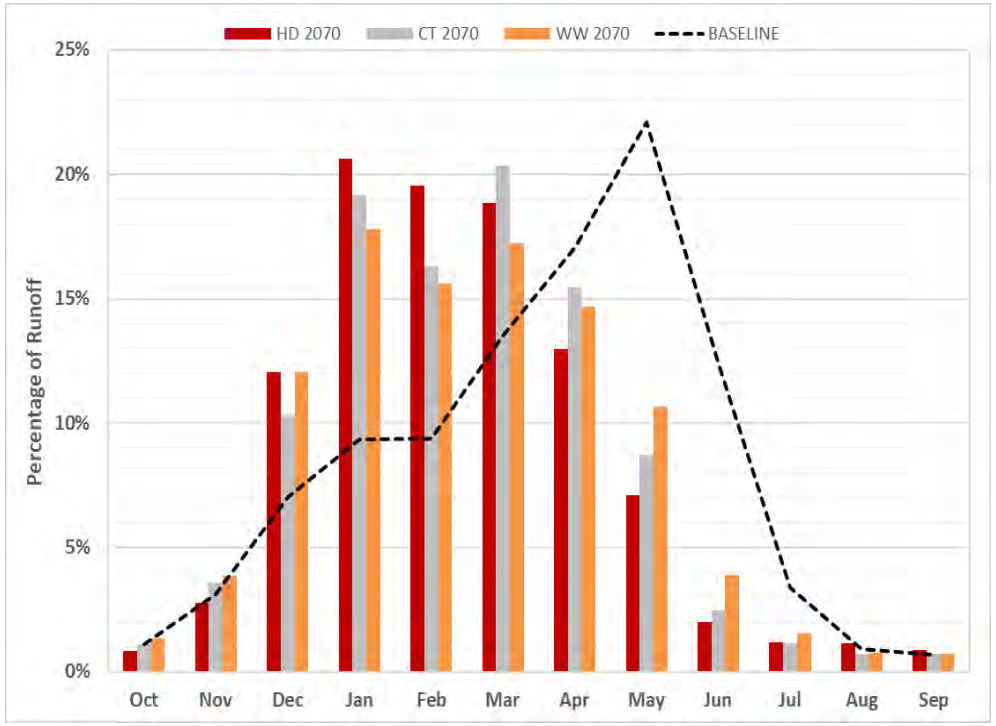


Monthly Distribution of Total Runoff in the Study Area for Elevations Less than 3,000 Feet Under 2070 Climate Scenarios (Hot-Dry, Central Tendency, Warm-Wet) Compared to Baseline Historic Conditions

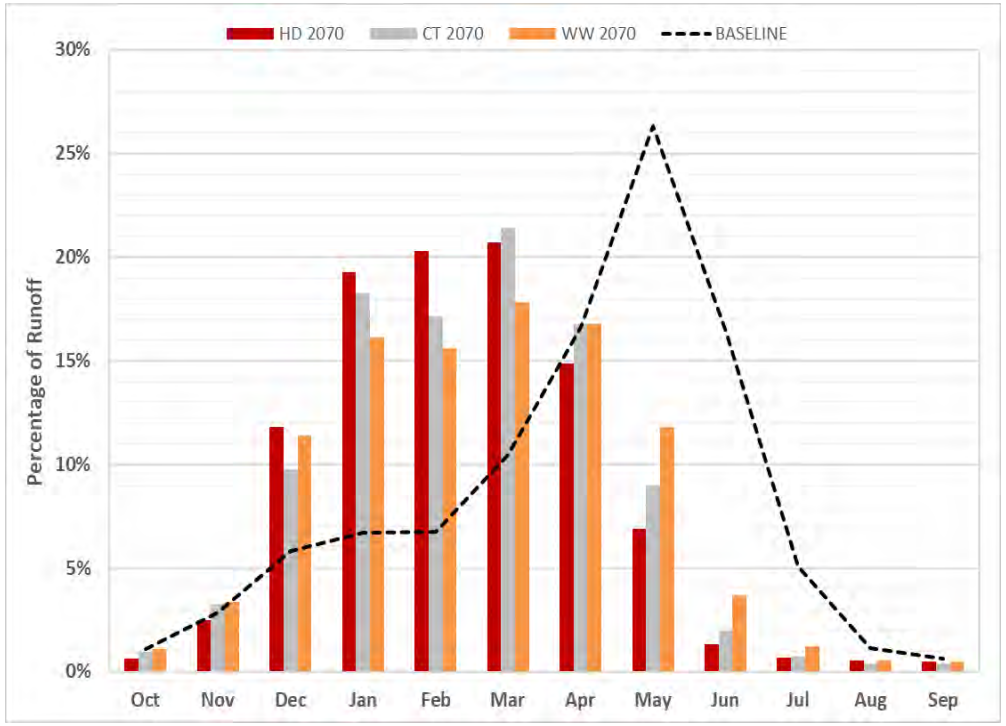


Monthly Distribution of Total Runoff (Hot-Dry, Central Tendency, Warm-Wet) Compared to Baseline Historic Conditions for 2070 Scenario

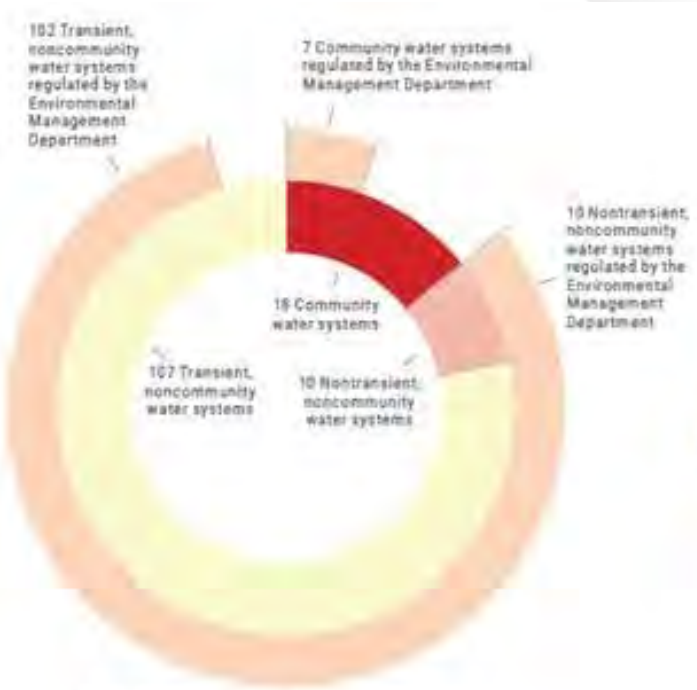
Elevations Between 3,000 and 5,000 Feet



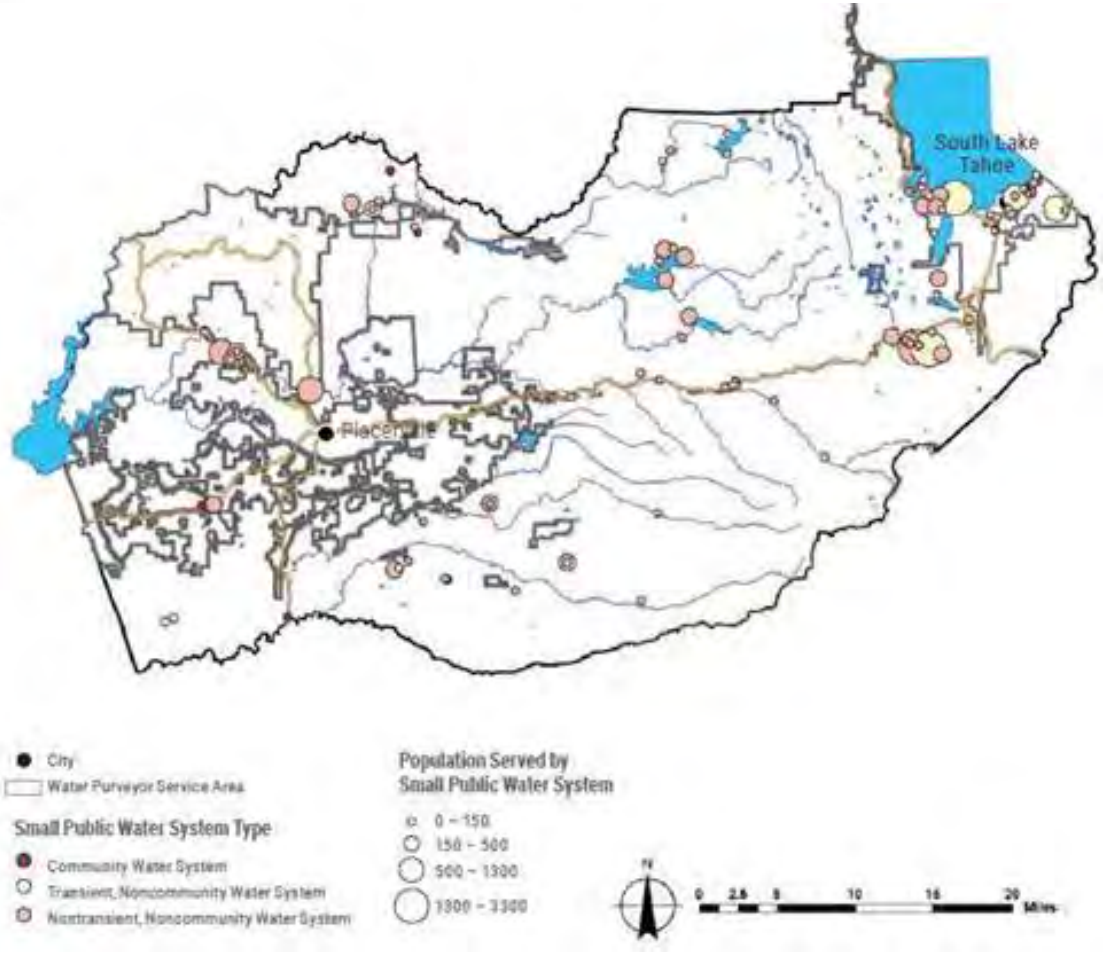
Elevations Greater than 5,000 Feet



Small Water Systems

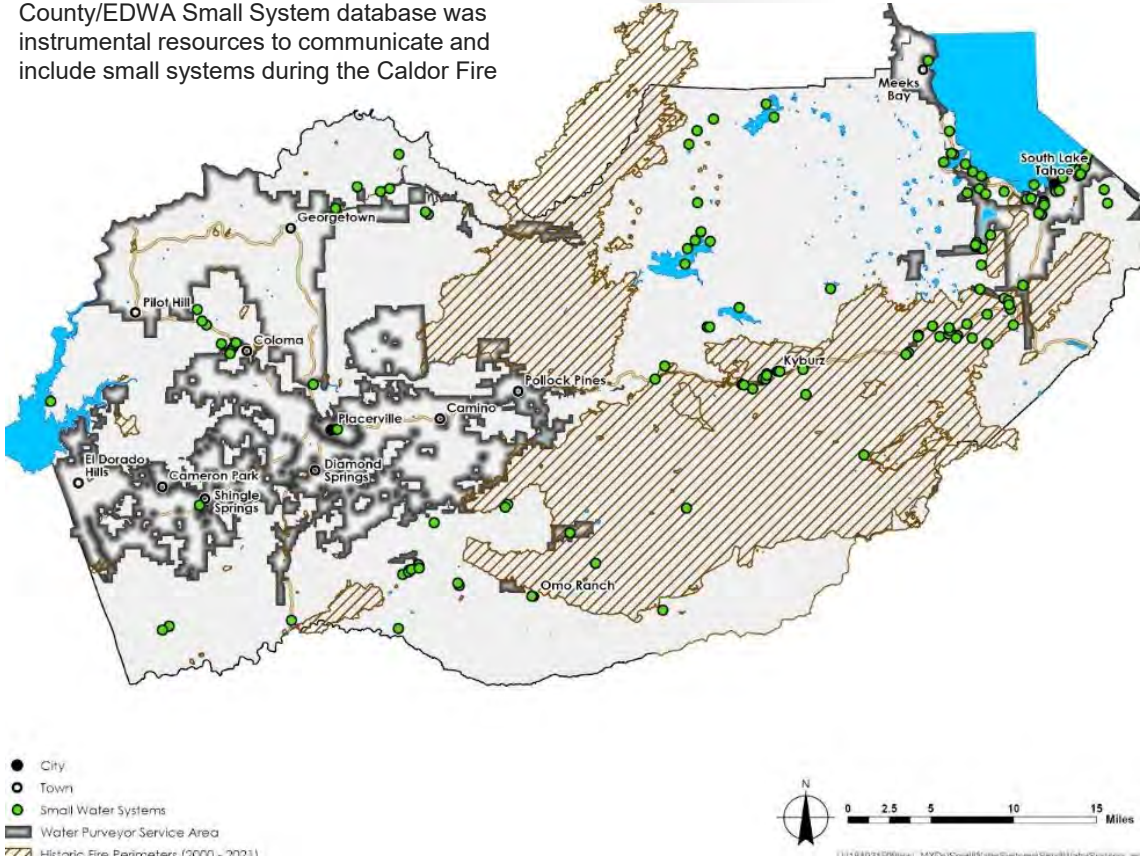


Source: June 2019 State Water Resources Control Board and County of El Dorado Environmental Management Department



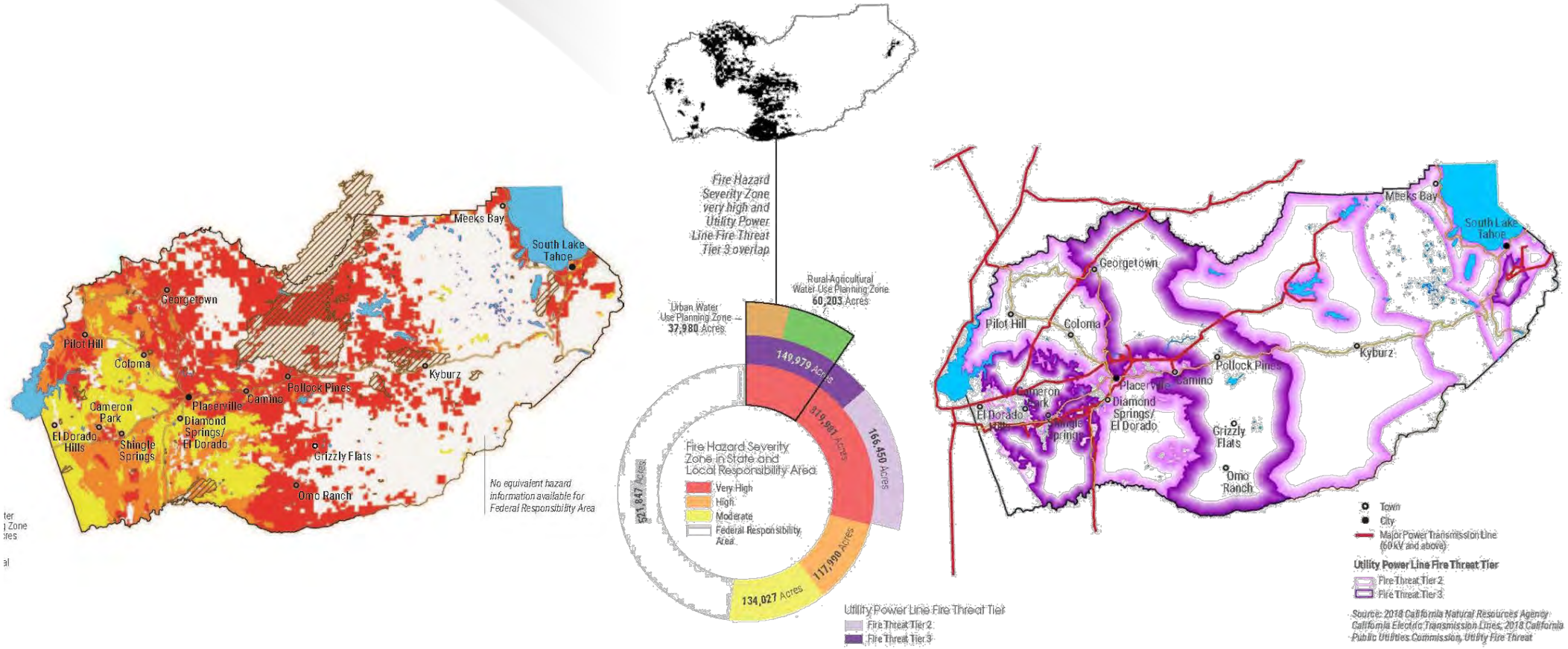
SB552 Requirements

County/EDWA Small System database was instrumental resources to communicate and include small systems during the Caldor Fire



- Facilitate drought & water shortage preparedness
  - State small water systems
  - Domestic wells within the county's jurisdiction
- Establish a standing task force
  - Alternative process to facilitate drought and water shortage preparedness
  - Deemed in compliance with these requirements as long as the task force continues to exist.
- Plan for drought and water shortage risk & proposed interim and long-term solutions
  - Build on Findings of 2019 WRDMP (Tahoe)
  - Build on RDCP (West Slope)
  - Build on Advisory Group & Plenary from WRDMP
  - Build on GIS Portal investment

Concise Display of Countywide Conditions – Wildfire Example



The Problems of Today are not New

"In planning the use of land, therefore, it is necessary to keep in mind the different points of view represented by:

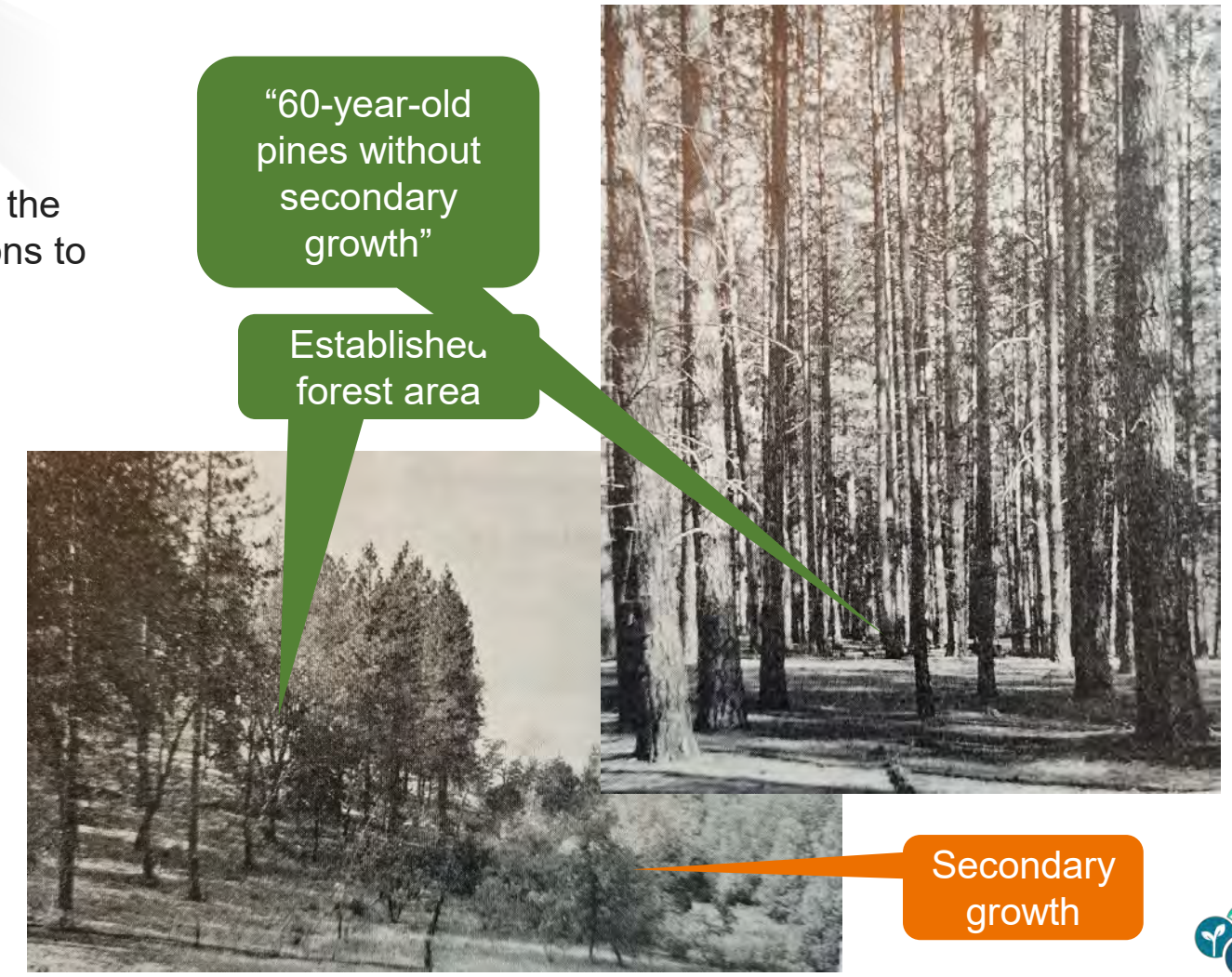
- the landowners,
- the resident farmers,
- the local business and industrial organizations,
- the holders of bonds and mortgages secured by local properties,
- the taxpayers of the county and state,
- the users of water having its source in El Dorado County, and
- the motoring, fishing, hunting and recreation-seeking public."

"… If it can be denied that the lovers of beauty have a real vested interest in the esthetic values of the forested hillsides, estimates of material economic values of future lumber supplies are sufficiently great to convince the more sober-minded citizen that there is a public interest in the maintenance and protection of the forest."

The Problems of Today are not New

" … in California, of land utilization and of the complex problems arising out of its relations to the economic and social structure."

- Need to work with National Forest to address brush growth
- Secondary growth will continue to threaten forest lands
- Reconcile the conflicting interests
  - Preserve forest lands
  - Recreation
  - Agriculture
  - Communities
- Financial support from government institutions
- "Hasten the restoration of the land …"

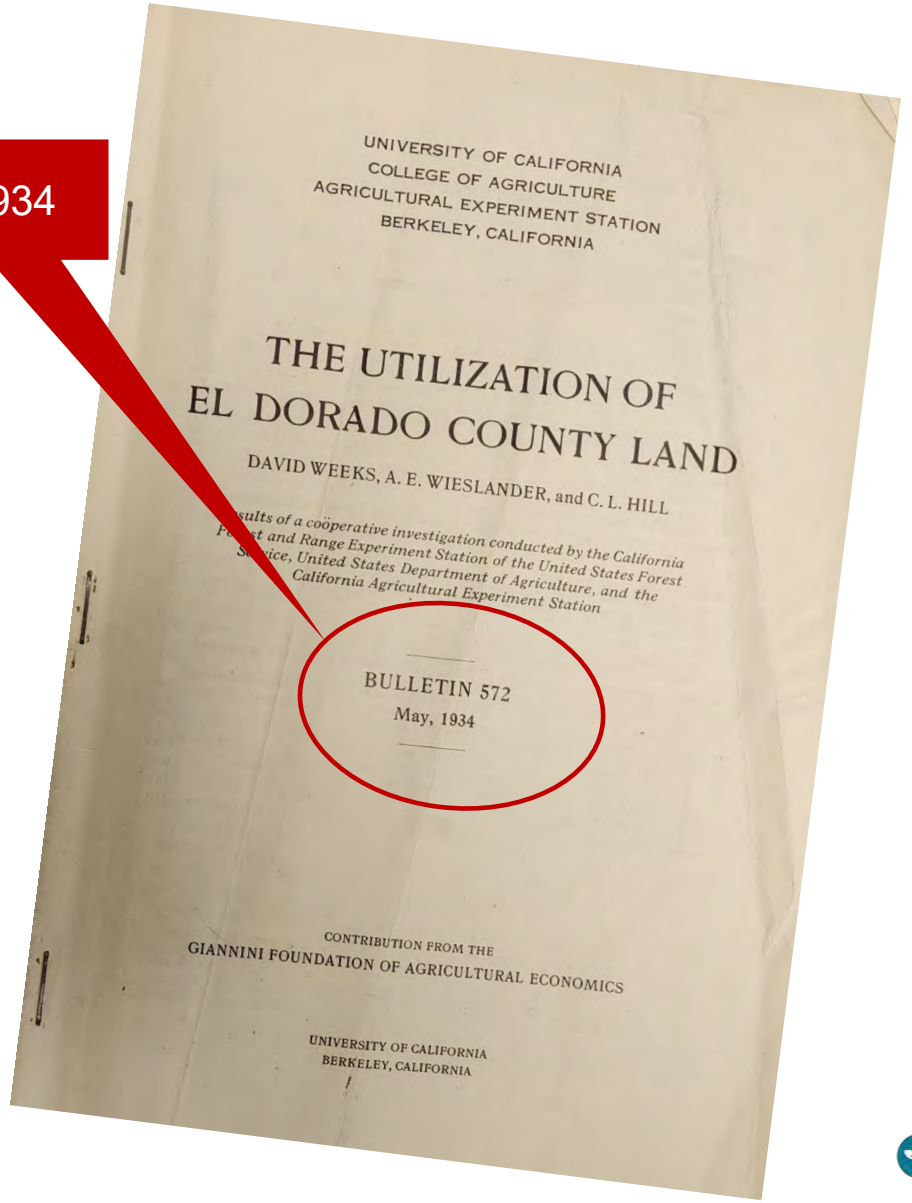


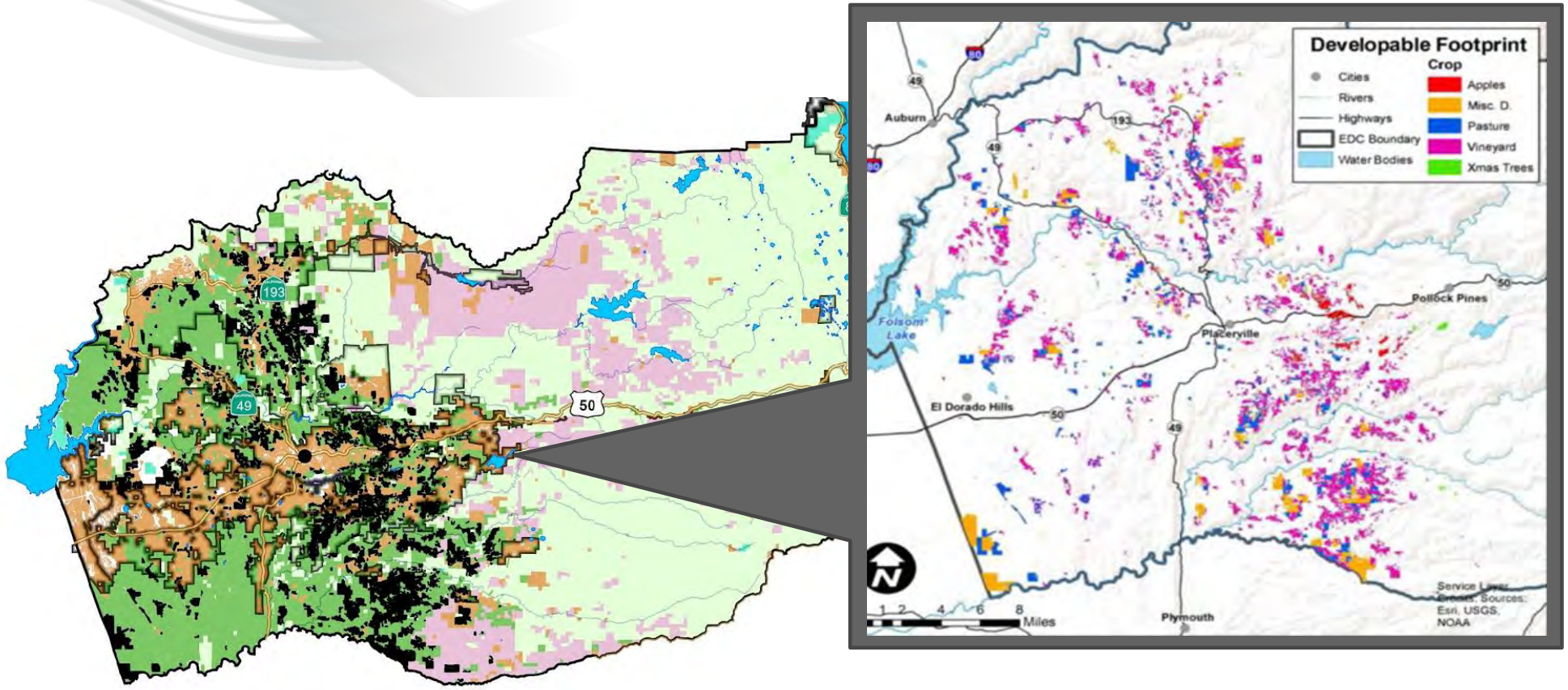
Bulletin 572:
The Utilization of El Dorado County Land

"Results of a cooperative investigation conducted by the California Forest and Range Experiment Station of the United States Forest Service, United States Department of Agriculture, and the California Agricultural Experiment Station

University of California Berkley, California College of Agriculture, Agricultural Experiment Station

May 1934





City
Existing Water Purveyor Service Area

Water Use Planning Zones

Rural-Agricultural
Urban

Developable Footprint

Other Land Use Areas

Private Timber
Federally Managed Land
State-Owned/Managed Land

N

0 2.5 5 10 15 20 Miles

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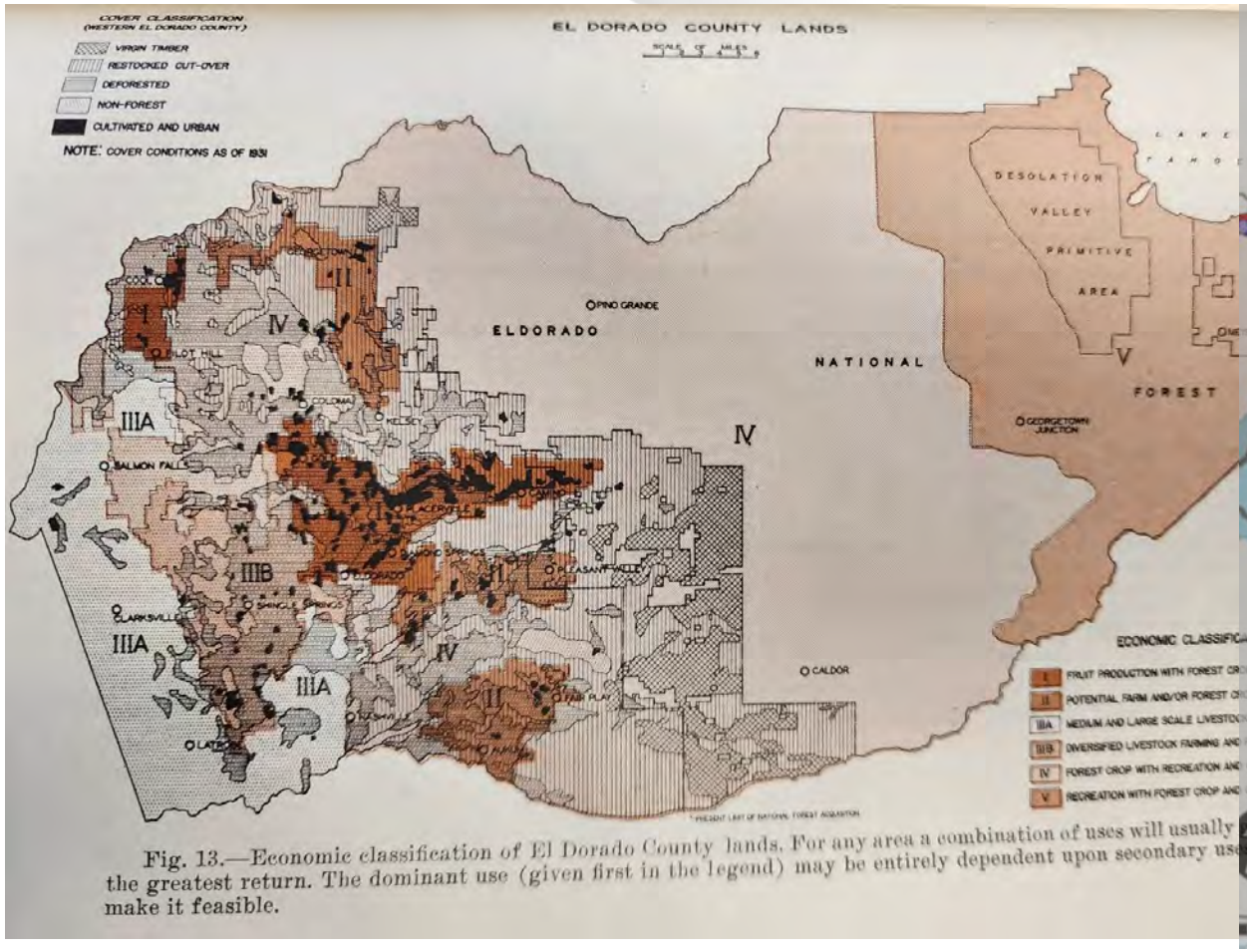
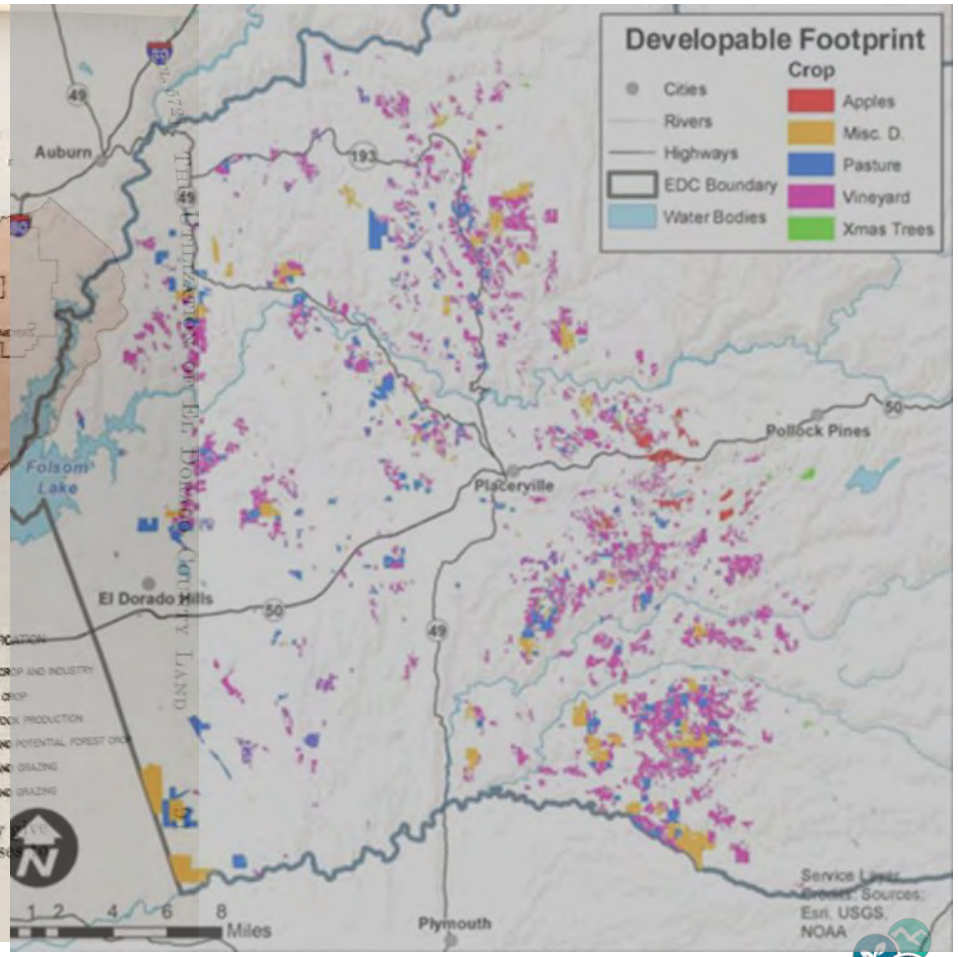
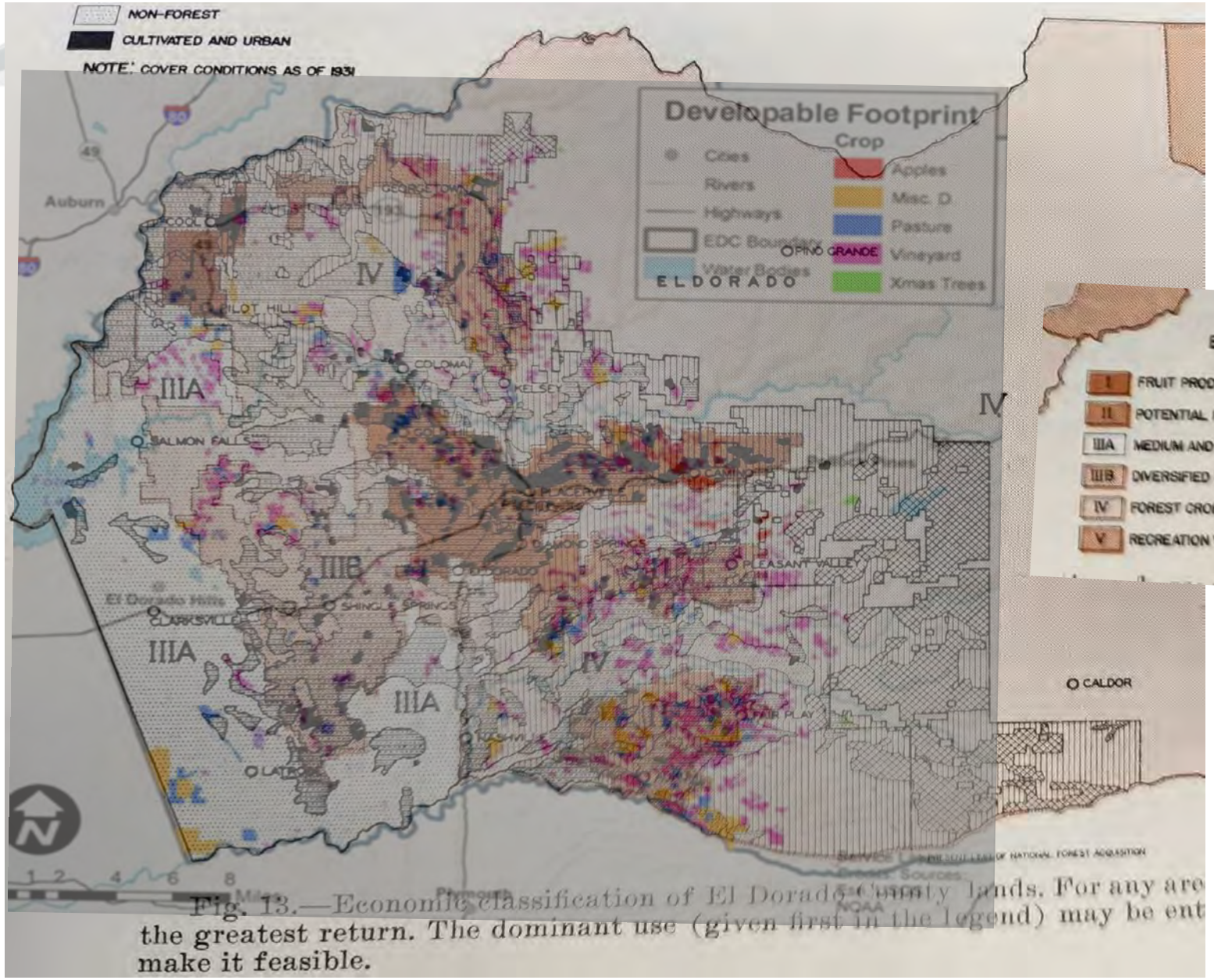


Fig. 13.—Economic classification of El Dorado County lands. For any area a combination of uses will usually the greatest return. The dominant use (given first in the legend) may be entirely dependent upon secondary use make it feasible.





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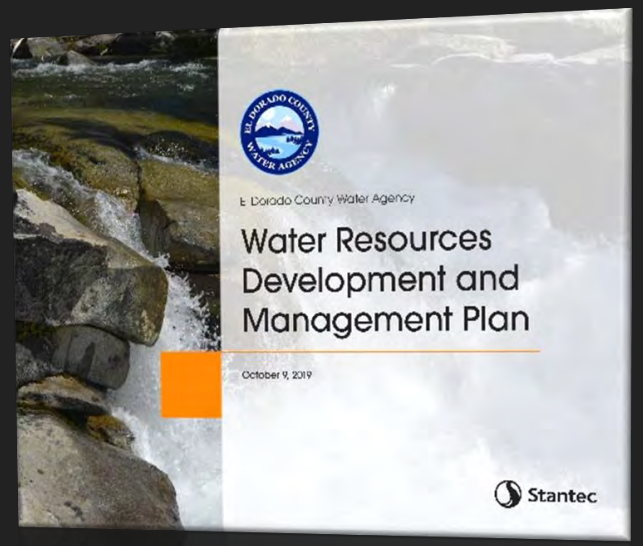

More Information:

https://edcgov.us/Water

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