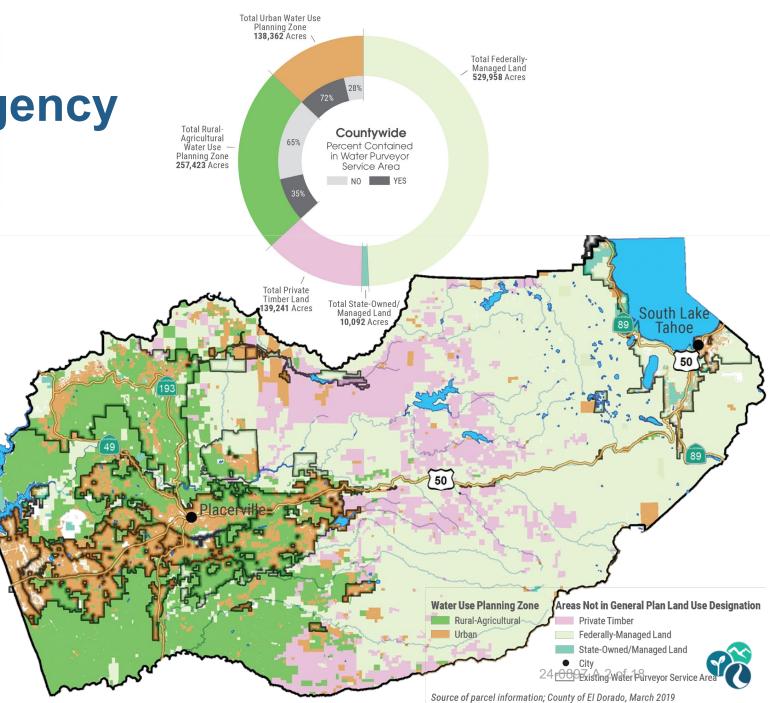
Rebecca Guo General Manager, El Dorado Water Agency Johnny Mojica Chief Operating Officer, Radbridge

Agenda

- Context Setting
- Methodology Overview
- Data Analysis Approach
- Analysis Findings
- Applications & Conclusion

El Dorado Water Agency

- Established in 1959
- Countywide water resources planning agency with broad authority
 - Water Supply
 - Storage
 - Hydropower
 - Water Quality
 - Stormwater
 - Flood control/storage
 - Water Quality
 - Negotiate with federal and state agencies for water management and facility construction
 - Support realization of County's General Plan
 - Not a water retailer



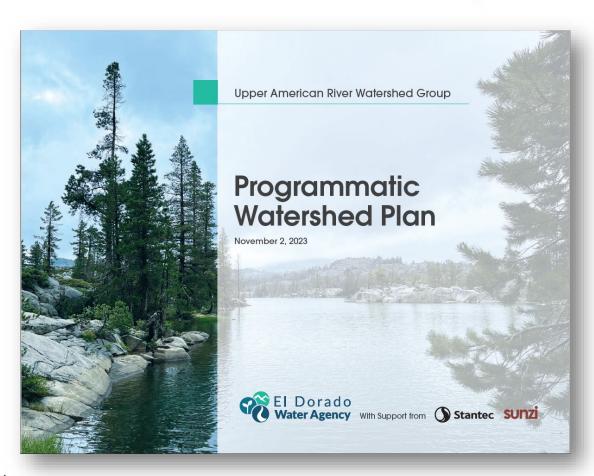
Why care about watershed management?

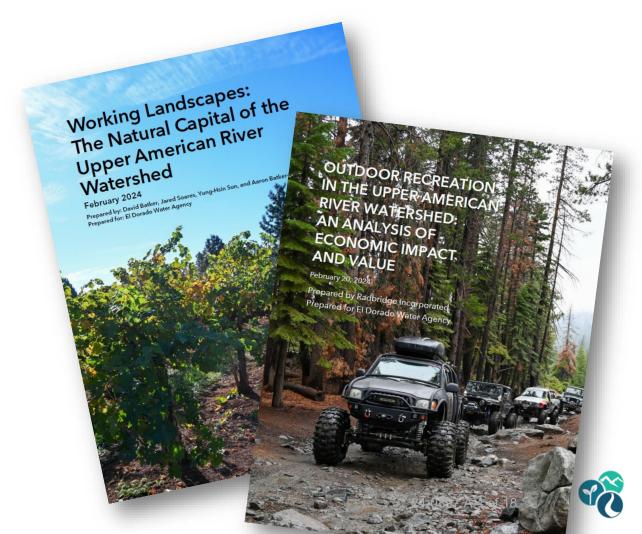
 Watershed management primary objective is to sustain and improve watershed's ability to provide for needs of communities that depend on it

- Protects our water supply reliability
- Stormwater resource management
- Promotes outdoor recreation
- And more

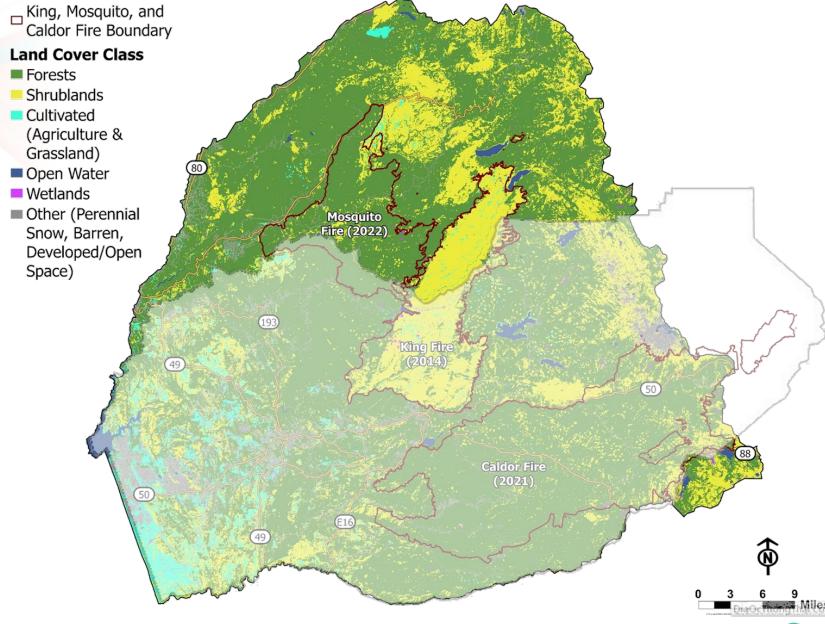


Our Watershed Management Program Approach





What is this working landscape's worth? (and it's changing)





Ecosystem Goods & Services in the Upper American River Watershed



Understand outdoor recreation use and **economic impacts** of visitor spending stemming from the UARW.

Assess the broader economic benefits supported by outdoor recreation lands in the UARW.

Inform decision making, resource allocation, and interested parties through a detailed accounting of visitation and use of recreational lands.

Mobile Location Data: Data from mobile devices indicating user location and movement, used to estimate visitation to outdoor recreation destinations.

Economic Impact Analysis: Assessing the significance of an industry within the overall economy.

Consumer Surplus: The extra value consumers receive from participating in a recreational activity.

Number of Visits x Average Spent per Visit

Total Outdoor Recreation Spending

Where does the visitor live?

Determining a visitor's residence allows us to distinguish between resident and tourist spending behaviors and their subsequent economic impacts.

What lands do they visit?

Identifying the lands
visitors frequent informs us
about which recreation
lands are attracting more
visitors and hence more
economic activity.

What do they spend their money on?

Understanding visitors' spending categories enables a nuanced analysis of economic contributions across different sectors like accommodation, food, and equipment.

Sparse and Inconsistent Visitation Data

Traditional visitor counting methods are costly, leading to sparse and inconsistent visitation data for recreational lands in the UARW.

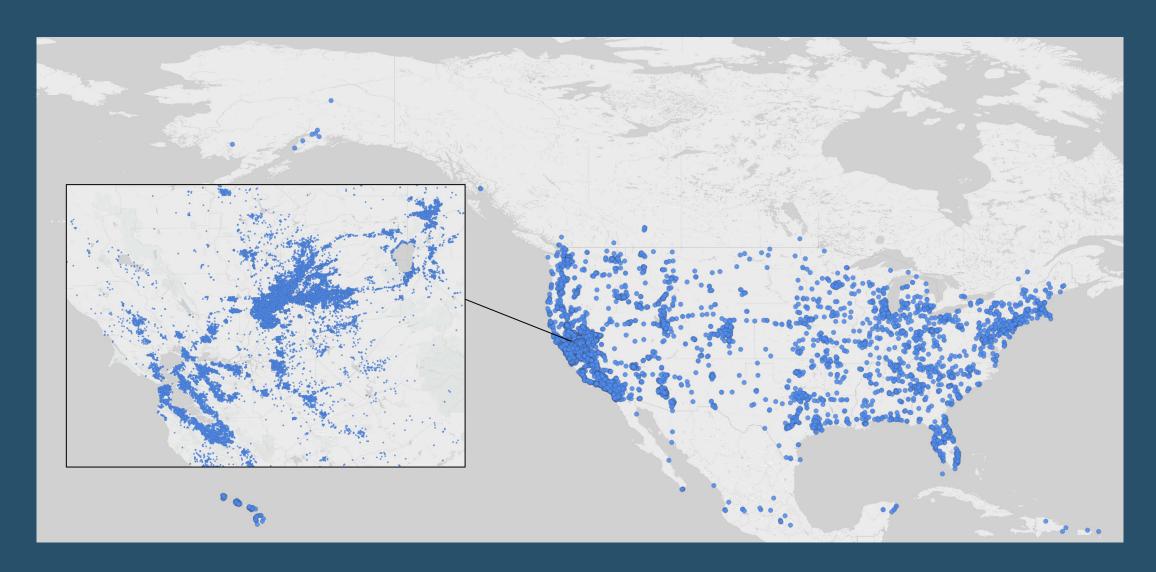
Advanced Data Analytics

To overcome the data limitations, advanced data analytics techniques were employed, integrating geospatial and mobile location data to enhance and augment the existing observed visitation data.



Machine Learning Techniques

Machine learning techniques were utilized to refine the analysis, improving the accuracy and richness of visitor insights. This methodology demonstrates applicability and validity for use in the UARW and has the potential for future expansion.



Where Recreation Occurred in 2022

Agritourism

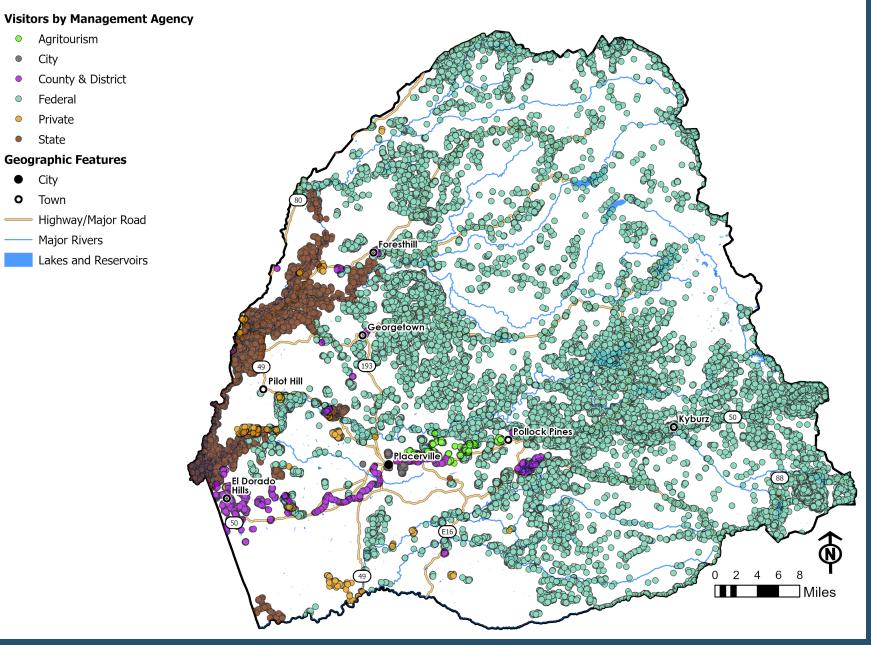
Federal Private State **Geographic Features**

County & District

Highway/Major Road

Lakes and Reservoirs

Major Rivers



\$348 million

Annual Visitor Spending

\$552 million

Economic Output

1.59

Output Multiplier

3,100

Jobs Supported

\$136 million

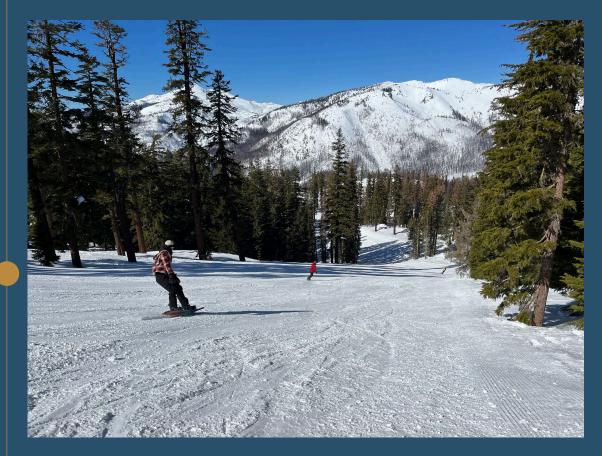
Wages

\$17 million

State and Local Tax Contributions

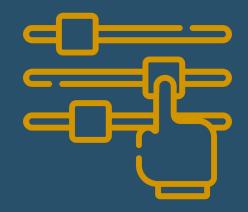
Consumer Spending on Outdoor Recreation

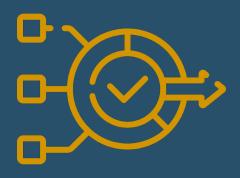
Manager Type	Residents	Tourists	Total
Agritourism Operator	r'S		
(Apple Hill only)	26%	74%	\$93,466,000
City	52%	48%	\$1,650,000
County	74%	26%	\$14,242,000
Federal	22%	78%	\$204,485,000
Private	65%	35%	\$835,000
State	15%	85%	\$67,646,000
Total	24%	76%	\$382,324,000



- The total consumer surplus value of outdoor recreation in the UARW is over \$660 million.
- This value represents the economic benefit that residents and tourists derive from outdoor recreation lands beyond market transactions.







Highlight multifaceted benefits of outdoor recreation lands

Tailor your message to different audiences

Translate the research insights into actionable strategies

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