

*Rio Dell City Hall
675 Wildwood Avenue
Rio Dell, CA 95562
(707) 764-3532
cityofriodell.ca.gov*



August 5, 2025

TO: Rio Dell City Council

FROM: Kyle Knopp, City Manager

SUBJECT: Discussion and Possible Action Authorizing the City Manager to Execute a Comment Letter to the Federal Energy Regulatory Commission related to the Surrender Application and Decommissioning Plan for Potter Valley Project as Submitted by Pacific Gas and Electric.

IT IS RECOMMENDED THAT THE CITY COUNCIL:

Authorize the City Manager to execute the attached correspondence; or,

Take no action.

BACKGROUND AND DISCUSSION

On July 25, PG&E filed its Surrender Application and Decommissioning Plan for the Potter Valley Project with the Federal Energy Regulatory Commission (FERC). The application includes the removal of the Scott Dam.

The Potter Valley Project is located in the Upper Eel River in Lake and Mendocino counties. The main storage reservoir for the Project, Lake Pillsbury, is formed behind Scott Dam, which is located on the Eel River. Water captured and stored in Lake Pillsbury is released into the Eel River and then captured again in Van Arsdale Reservoir, an approximately 65-acre reservoir formed behind Cape Horn Dam. Water captured in Van Arsdale Reservoir is diverted and conveyed to the Potter Valley Powerhouse, which is located just north of a predominately agricultural area known as the Potter Valley.

In summary, the letter recognizes that there are benefits to the dam removal but also some possible negative side effects. Those potential considerations are (1) release of stored sediment behind the dam, (2) possible mercury contamination in those soils, (3) water rights equity considerations and (4) economic considerations.

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Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

DRAFT

RE: PG&E Surrender Application and Decommissioning Plan for Potter Valley Project

Dear,

The City of Rio Dell has been actively monitoring the developments related to the Scott Dam since 2018, when PG&E announced its intent to divest the century-old hydroelectric facility known as the Potter Valley Project. As documented in our City Council meetings of November 6, 2018, and September 17, 2019, this project directly affects our community's water security and long-term sustainability. The proposed removal of Scott Dam, while offering significant ecological benefits to the Eel River watershed, presents both opportunities and challenges for Rio Dell's water security, systems, sustainability and overall water quality management.

Background and Stakeholder Context

The Potter Valley Project, constructed beginning in 1905, represents a complex water management system that diverts Eel River water to the Russian River watershed through Scott Dam (creating Lake Pillsbury) and Cape Horn Dam. Historical diversions averaged 152,600 acre-feet annually until 1979, subsequently reduced to 64,400 acre-feet by 2007-2016. This massive out-of-basin transfer supports agricultural development in Potter Valley and provides water supply to Mendocino and Sonoma Counties.

Following PG&E's 2018 announcement, a Coalition formed to pursue a "Two-Basin Solution" with co-equal goals: improving fish passage and habitat on the Eel River while minimizing adverse impacts to water supply reliability in both river basins.

Rio Dell's position in this complex stakeholder landscape is unique. Unlike downstream counties that benefit from the water diversions, our community depends directly on Eel River flows for municipal water supply. The 2014 state water curtailment, which restricted our residents to 50 gallons per person per day until we could demonstrate adequate river flows, underscores our vulnerability to water supply disruptions.



Direct River Interface with the City

The Eel River flows for approximately four (4) miles through Rio Dell. The river provides tremendous recreation opportunities for residents of the City and region. Fishing, camping, swimming, boating and all other typical river related recreation occurs mostly in the summer months. The City has recently built a ¼ mile non-motorized riparian trail with environmental education components. As one of the largest draws for outside visitors, the river is a major driver of economic activity for Rio Dell.

Additionally, the City's main source of water is an infiltration gallery located along the west bank of the river. Due to budget constraints at the time of construction, the gallery does not extend across the river. This design leaves the gallery vulnerable to changes in flow location during the summer months as there is potential for the flow to move towards the east and away from the gallery. This problem would be compounded by increases in sedimentation in the river, not to mention potential increases in localized flooding from additional sedimentation.

Possible Impacts on Rio Dell

Scott Dam currently regulates Eel River flows, providing some consistency in water availability particularly in the late summer and early fall season. Dam removal will restore natural flow patterns, characterized by higher winter/spring flows and potentially lower summer/fall flows. Our water infiltration system, which relies on consistent river-groundwater interaction, may require operational adaptations during periods of reduced natural flow.

Sediment, Clay & Gravel

The removal process will release approximately 40 million cubic yards of accumulated sediment, presenting both immediate and long-term considerations:

Possible Impacts:

- Changes in flow channelization, diverting water away from the City's main water intake, the Infiltration Gallery.
- Significant increases in river turbidity during initial dam removal phases
- Fisheries impact from summer deep pools being filled from new wave of sedimentation.
- Potential clogging or blocking of infiltration galleries and wells due to fine sediment loads
- Temporary disruption to water treatment processes requiring enhanced filtration capacity



- Need for increased monitoring and potential municipal system shutdowns during peak sediment release periods

Possible Mercury Contamination

Our understanding is that recent studies analyzing sediments in Lake Pillsbury provide encouraging results. Laboratory analysis indicates that sediment contamination levels generally do not require manual removal prior to dam removal. However, several concerns remain:

- Temporary Exposure Risk: Initial sediment flushing may create localized spikes in suspended particles potentially carrying bound mercury
- Methylation Potential: Newly exposed organic-rich sediments under anaerobic conditions could enhance mercury methylation, converting inorganic mercury to more toxic methylmercury
- Bioaccumulation Monitoring: Enhanced surveillance of mercury levels in both water supplies and local food webs will be essential

Water Rights Equity

Rio Dell possesses only junior water rights to the main stem of the Eel River, which is the city's primary water source. This is a critical vulnerability for the community. In times of shortage, the most recent ("junior") right holder must be the first to discontinue such use

The implications of Rio Dell's junior status became clear during the 2014 drought:

- The State Water Resources Control Board issued a June 30 curtailment notice, saying Rio Dell no longer had legal rights to draw water out of the Eel River
- This imposed a 50 gallon per person per day limitation on residents, with state-imposed fines for failure to achieve conservation objectives
- Rio Dell residents reduced water use by 56 percent toward the end of July
- The curtailment was eventually rescinded, but only after the city demonstrated there were no registered senior water rights holders being affected by its use

The city remains vulnerable because:

1. Primary Source Dependency: The Eel River is Rio Dell's primary water source
2. Junior Priority Status: During shortages, Rio Dell must cease diversions before senior rights holders
3. Climate Variability: Future droughts could trigger similar curtailments
4. Potter Valley Project Impact: Changes to upstream water management could affect downstream flows



The removal of the Scott Dam adds complexity to Rio Dell's water rights position:

- The current "Potter Valley" project diverts water from the Eel River to the Russian River watershed
- While dam removal might improve natural flows, it could also create short-term disruptions
- Rio Dell's junior status means the community has limited leverage in negotiations about project modifications

Rio Dell's water security depends heavily on maintaining adequate Eel River flows, but our junior status leaves us vulnerable during any water shortage periods. This vulnerability may increase as a result of dam removal.

Economic Considerations

Rio Dell's economic situation reflects broader challenges facing small rural communities in Northern California's former timber regions. The community's dependence on the Eel River with junior rights status compounds its economic vulnerabilities, as demonstrated during the 2014 drought when residents faced severe water restrictions.

The combination of below-average incomes, higher-than-national poverty rates, aging infrastructure, and limited economic diversity positions Rio Dell as a community facing significant socioeconomic challenges compared to both state averages and urban California communities.

This economic profile helps explain why issues like the Scott Dam removal are so critical for Rio Dell - the community has limited financial resources to adapt to major infrastructure changes or invest in alternative water sources, making reliable access to Eel River water essential for both residential needs and any potential economic development.

Rio Dell's economic situation shows concerning disparities compared to state averages:

- 2023 Median Household Income: \$46,055
- Per Capita Income: \$24,427

State Comparison:

- California's median household income is \$96,334
- Rio Dell's income is approximately 48% of the state average
- Median household income below state average and median house value below state average



Potential Solutions and Mitigating Factors

Projects such as the decommissioning of the Scott Dam often create divides where both detractors and supporters can become absolute in their positions. While I believe Rio Dell is generally supportive of the decommissioning of the dam, there are potential negative consequences as listed above. We also believe there are some solutions to these problems that can be implemented to either solve or mitigate these issues.

Sediment, Clay & Gravel:

1. Fund the design and construction of an extension to the Rio Dell infiltration Gallery to cross the span between both west and east banks.
2. Fund the design and construction of a flocculation / sedimentation basin at the water treatment facility to reduce turbidity and improve the pre-processing of water into the main water filters.
3. Fund the design and construction of an enhanced water backup well system, currently located at Metropolitan.

Possible Mercury Contamination:

4. Conduct a comprehensive study of Mercury in lakebed soils.
5. Fund ongoing and continuing mercury monitoring along the Eel River, both during the deconstruction phase and for an appropriate period of years or decades following decommissioning. Include monitoring for other hazardous materials that may exist in the lakebed.

Water Rights Equity:

6. With expected changes to water draws that result from the decommissioning of Scott Dam, where possible a reasonable portion of existing senior water rights should be expropriated to the City of Rio Dell in anticipated of the increase of variability in seasonal water flows.

Economic Considerations:

7. By enacting the above factors, Rio Dell feels confident that negative impacts from the decommissioning of the dam will have been reasonably mitigated and in some circumstances, potentially solved.

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Conclusion

The Potter Valley Project's transformation represents both significant opportunity and considerable risk for Rio Dell. While Scott Dam removal promises substantial long-term ecological and water quality benefits for the Eel River watershed, the transition period will require careful planning, enhanced monitoring, and potential infrastructure modifications to protect our community's water security.

Our city's experience during the 2014 drought demonstrates both our vulnerability to water supply disruptions and our community's capacity for conservation and adaptation. By working on these issues we can help ensure that the ecological restoration of the Eel River supports rather than compromises our long-term water sustainability.

The success of the Two-Basin Solution depends on meaningful inclusion of all watershed communities, including those like Rio Dell that rely directly on the river's natural flows. Our continued participation in this process is essential not only for protecting our immediate interests but for contributing to a genuinely sustainable regional water management framework.

Sincerely,

Kyle Knopp
City Manager
City of Rio Dell

cc. Congressman Jared Huffman
Round Valley Indian Tribes
Wiyot Tribe
County of Humboldt
PG&E
California Department of Fish & Wildlife
Sonoma Water
Mendocino Inland Water and Power Commission
National Marine Fisheries Service
Trout Unlimited
California Trout
Friends of the Eel River
Humboldt Fishermen's Marketing Association
Humboldt County Farm Bureau

ATTACHMENT 1



Eel River Watershed with County Boundaries

Map 1




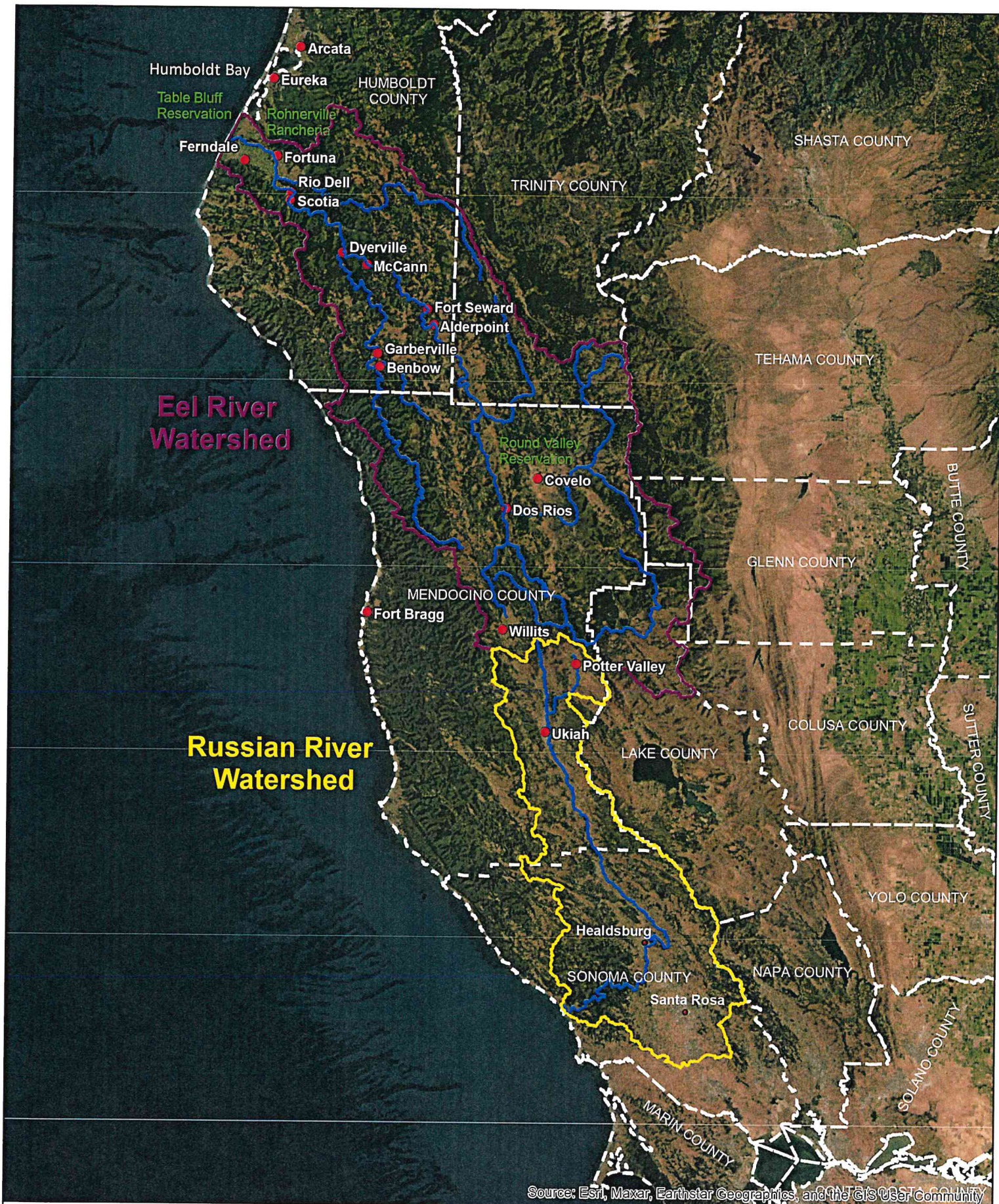
Imagery: ESRI Basemap Service
Created: May 31, 2018
Humboldt County Public Works



0 5 10 Miles
1:750,000



 <p>Imagery: ESRI Basemap Service Created: February 6, 2025 Humboldt County Public Works</p>	<p>0 4.5 9 Miles</p> <p>1:600,000</p>	
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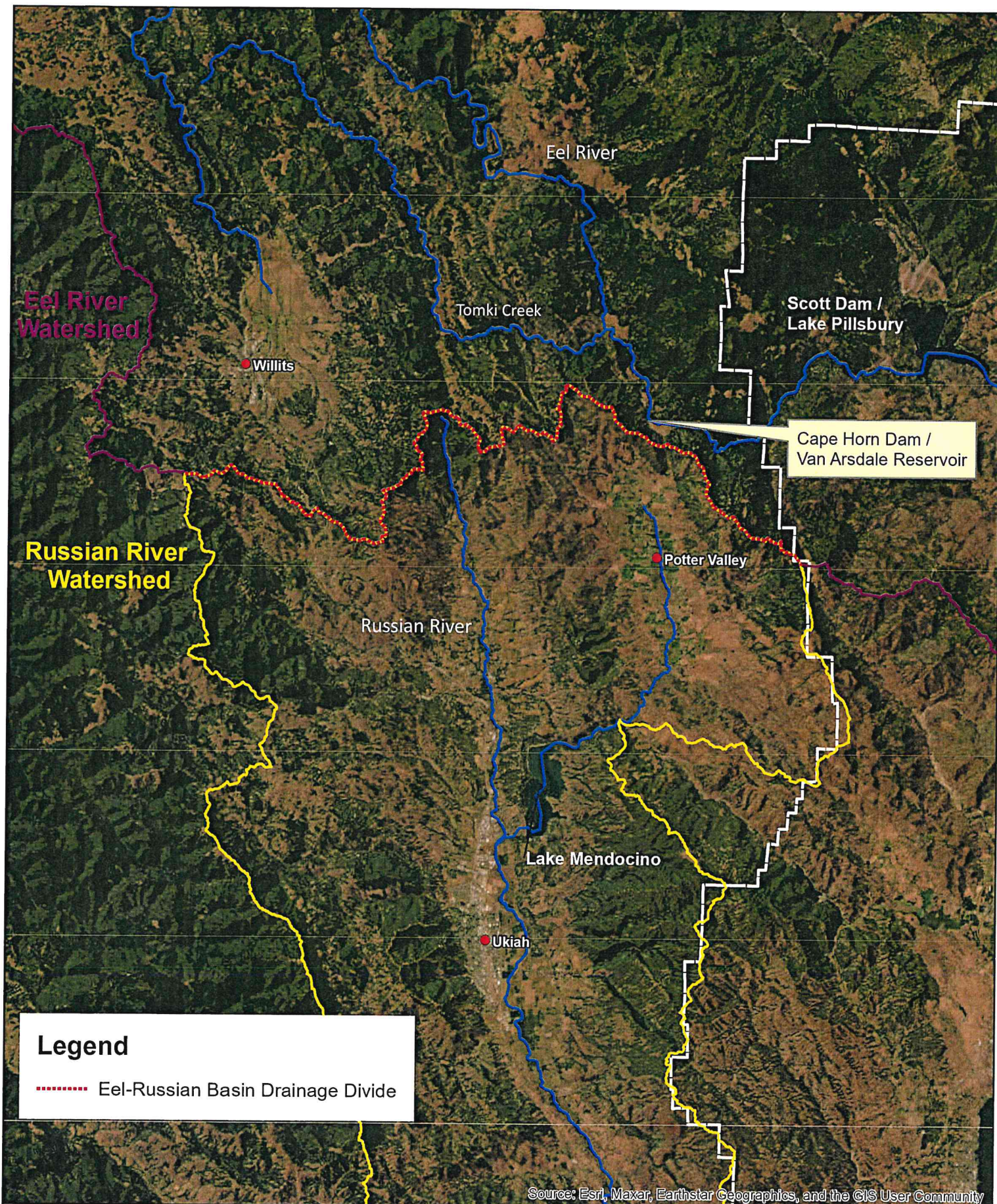
Eel River and Russian River Basins

Map 3



Imagery: ESRI Basemap Service
Created: February 6, 2025
Humboldt County Public Works

0 10 20
Miles
1:1,400,000



Eel-Russian Basin Drainage Divide

Map 4



Imagery: ESRI Basemap Service
Created: June 29, 2020
Humboldt County Public Works
All locations are approximate.

0 1.75 3.5
Miles
1:250,000