

**PLUMAS COUNTY BOARD OF SUPERVISORS**

**RESOLUTION NO. 18-8343**

**A RESOLUTION OF THE PLUMAS COUNTY GROUNDWATER SUSTAINABILITY AGENCY FOR THAT PORTION OF THE SIERRA VALLEY GROUNDWATER BASIN OUTSIDE OF THE BOUNDARY OF THE SIERRA VALLEY GROUNDWATER MANAGEMENT DISTRICT INITIATING A BASIN BOUNDARY MODIFICATION REQUEST**

**WHEREAS**, the Plumas County Groundwater Sustainability Agency (PCGSA) was formed by the Board of Supervisors for that area of the Sierra Valley Groundwater Basin (5-012.01) not within the Sierra Valley Groundwater Management District on March 21, 2017 by Resolution 17-8237; and

**WHEREAS**, the Plumas County Board of Supervisors is the Board of Directors for the Plumas County Groundwater Sustainability Agency; and

**WHEREAS**, the Sustainable Groundwater Management Act (SGMA) requires a local Groundwater Sustainability Agency (GSA) to adopt a Groundwater Sustainability Plan (GSP) by January 21, 2020, for all medium and high priority basins as being subject to critical overdraft; and

**WHEREAS**, SGMA requires a basin's boundaries shall be those boundaries identified in the California Department of Water Resources (DWR) Bulletin No. 118; and

**WHEREAS**, SGMA establishes a process for local agencies to request that DWR revise the boundaries of a basin; and

**WHEREAS**, the Plumas County Sustainable Groundwater Agency has identified a scientific revision of the Sierra Valley Groundwater Basin excluding the area north of Highway 70 and west of Grizzly Ranch Road, which is an isolated island area shown in Bulletin 118, that is disconnected from the northwest corner of the main Sierra Valley Groundwater Basin; and

**WHEREAS**, the Plumas County Sustainable Groundwater Agency has until June 30, 2018 to submit a Basin Boundary Modification application to the Department of Water Resources requesting changes to the Sierra Valley Groundwater Basin; and

**WHEREAS**, requesting a Basin Boundary Modification is exempt from the California Environmental Quality Act (CEQA) because such modification is not a project under CEQA, and even assuming that such modification constitutes a project, the project would be exempt because the Basin Boundary Modification will not result in direct or indirect physical changes in the Environment CEQA Guidelines Section 15378(b)(5).

**THEREFORE**, be it resolved that the Plumas County Board of Supervisors acting as the Board of Directors for the Plumas County Sustainable Groundwater Agency authorizes the filing of the "Initial Notification" and "Basin Boundary Modification Request" to the Department of Water

Resources to modify the existing Bulletin 118 boundaries of the Sierra Valley Groundwater Basin as allowed by the Sustainable Groundwater Management Act of 2014 and as amended in 2015 by June 30, 2018.

The foregoing Resolution was duly passed by the Plumas County Board of Supervisors at a regular meeting of said Board of Supervisors held on June 12, 2018.

**AYES:** SUPERVISORS SIMPSON, THRALL, GOSS, SANCHEZ, ENGEL

**NOES:** SUPERVISORS NONE

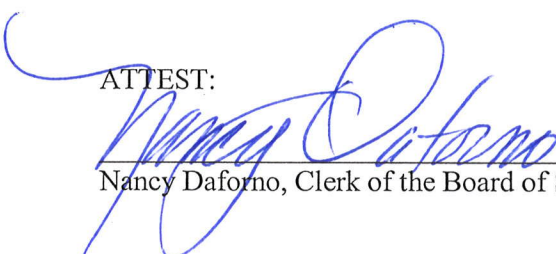
**ABSENT:** SUPERVISORS NONE

PLUMAS COUNTY, a political subdivision  
of the State of California



Jeff Engle, Chair of the Board of Supervisors

ATTEST:

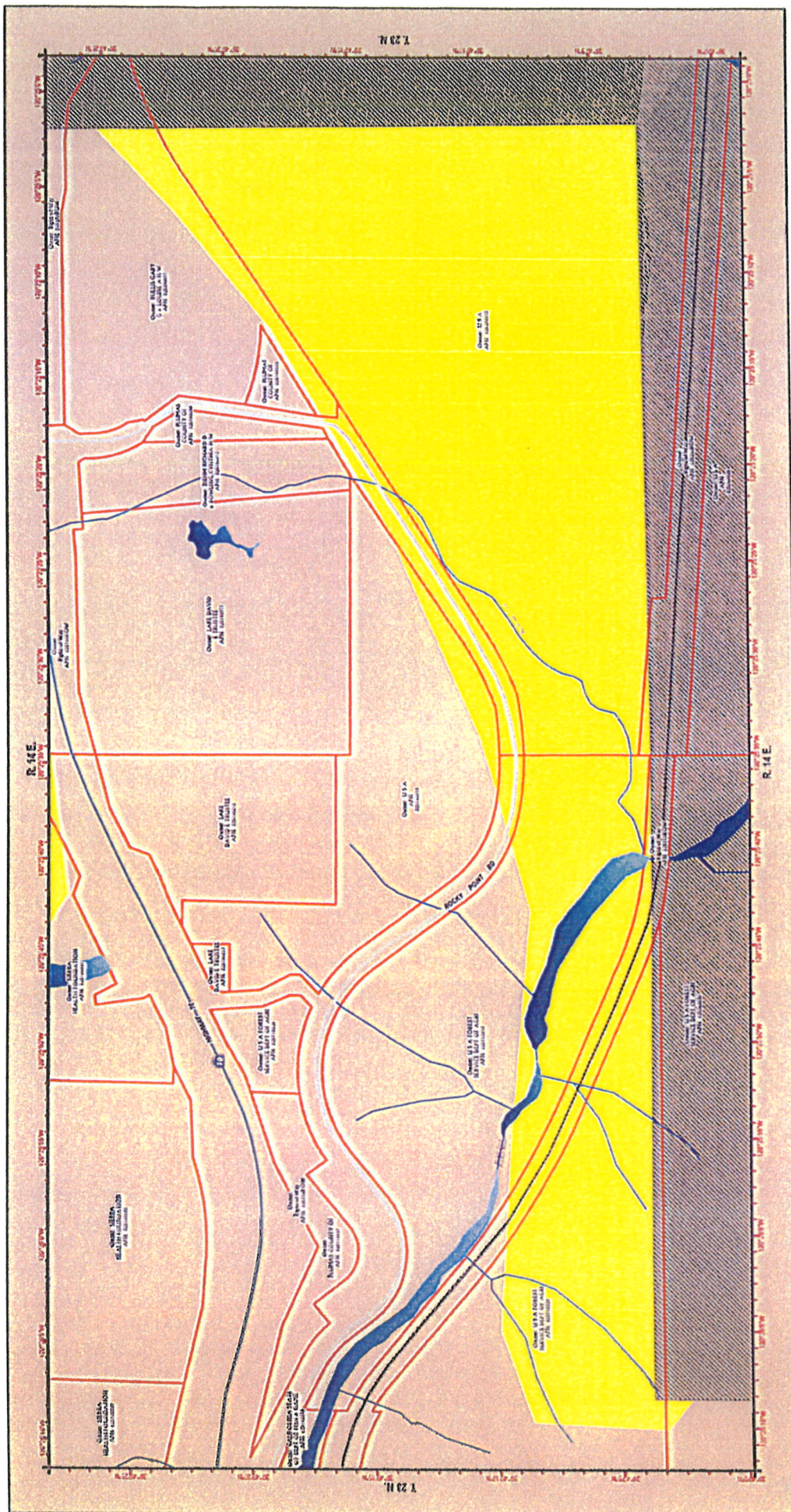


Nancy Daformo, Clerk of the Board of Supervisors



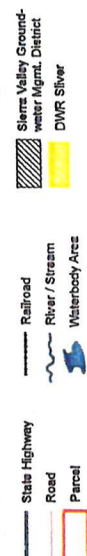






**Protesters**  
Although a mass rally in Plumas County failed to attract the hoped-for thousands, the protesters did manage to present a strong case for their cause. They met with local, state and federal representatives to whom they submitted an 80-page petition. The protesters also met with the local media, and their message was widely and accurately relayed. The protesters also met with the local media, and their message was widely and accurately relayed. The protesters also met with the local media, and their message was widely and accurately relayed.

DWR "Sliver" South of Hwy 70



**PLUMAS COUNTY GIS**  
555 Main Street, Quincy, CA 95971  
(530) 283-7011 / [www.plumascounty.us](http://www.plumascounty.us)

Map produced by Plumas County GIS Division  
Mapper: Becky Osborn Date: 11/16/2016  
Data Sources: Plumas County Framework Data  
Projection: California State Plane, Zone 1, NAD 1983



Plot Date: 11/16/2016

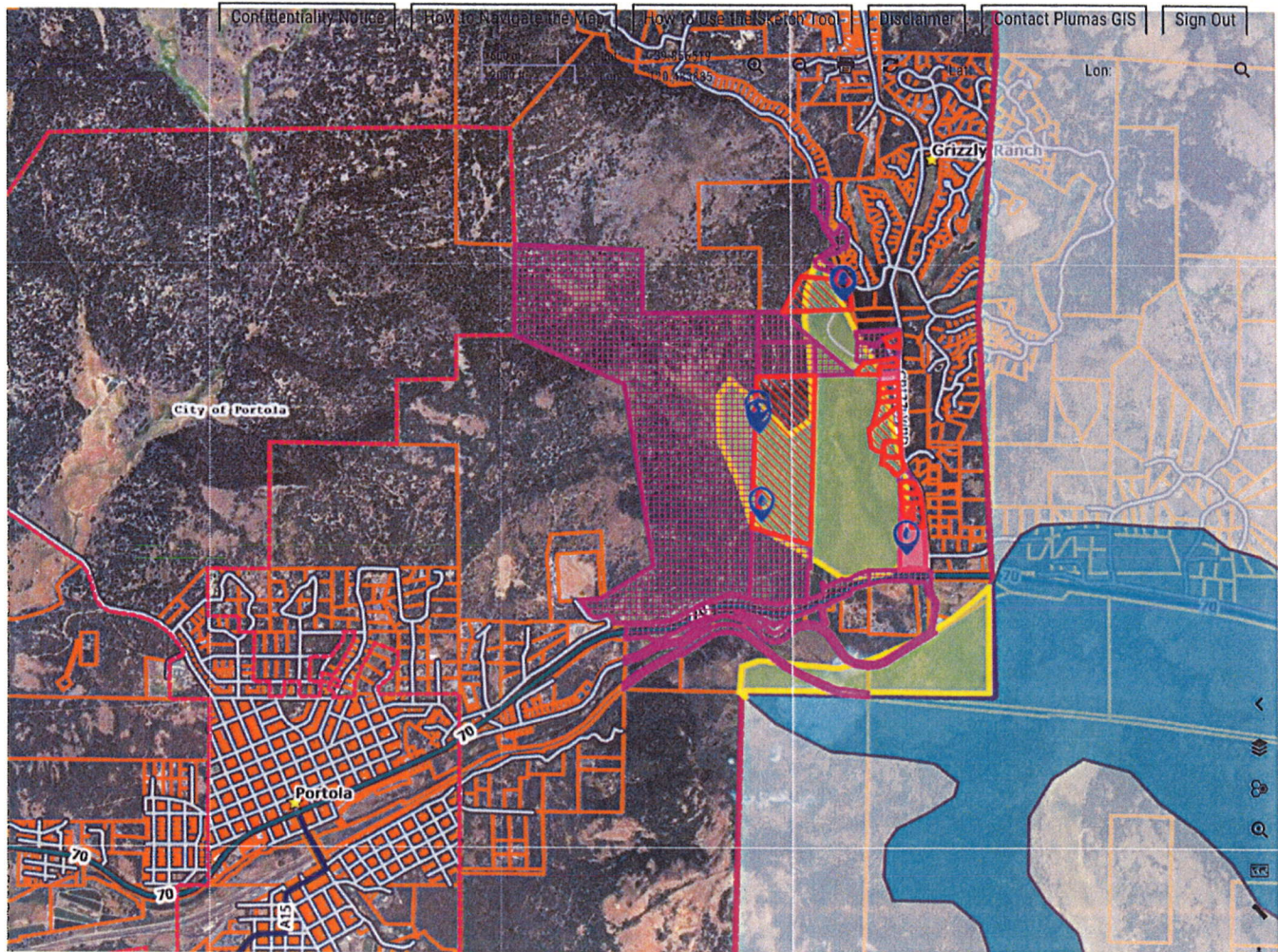




## SGWM Project

Wells within DWR "Sliver" or "Cat's Head" (This Map is CONFIDENTIAL and is NOT PUBLIC as it contains images of well completion reports)

Menu



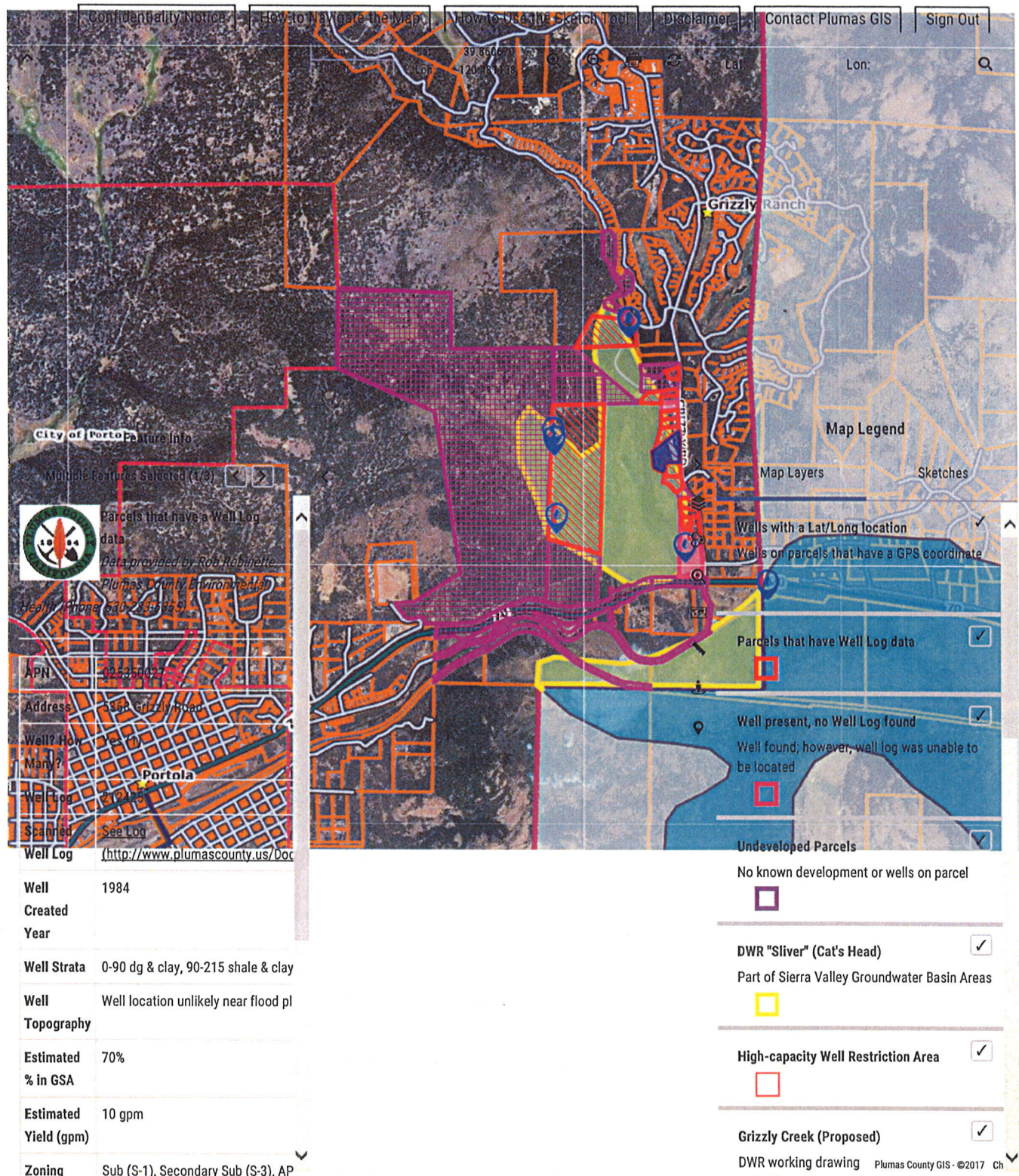




## SGWM Project

Wells within DWR "Sliver" or "Cat's Head" (This Map is CONFIDENTIAL and is NOT PUBLIC as it contains images of well completion reports)

Menu







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**PLUMAS COUNTY PLANNING & BUILDING SERVICES**

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555 Main Street, Quincy, CA 95971  
(530) 283-7011

[www.countyofplumas.com](http://www.countyofplumas.com)

**DATE:** March 21, 2017

**TO:** Honorable Chair and Members of the Board of Supervisors

**FROM:** Randy Wilson, Plumas County Planning Director

**RE:** Public Hearing and Approval of a Resolution to form a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin outside of the Sierra Valley Groundwater Management District.

**Background**

The State of California passed the Sustainable Groundwater Management Act of 2014. This act permits the formation of Groundwater Sustainable Agencies (GSAs) for all groundwater basins and requires the development and adoption of Groundwater Sustainability Plans for basins designated as medium-high priority by the Department of Water Resources (DWR) found in Bulletin 118. The Sierra Valley Groundwater Basin is identified as a medium priority basin in DWR Bulletin 118.

Upon an analysis of the boundaries of the Sierra Valley Groundwater Basin (SVGB) and the boundaries of the Sierra Valley Groundwater Management District (SVGMD), a small area of the SVGB was found to be outside of the SVGMD boundaries. Plumas County is required to address the area outside of the SVGMD with the formation of its own GSA.

The Department of Water Resources has set forth GSA formation guidelines, which are attached. Part of these GSA formation Guidelines requires public notice and a public hearing. Staff has advertised a public hearing for the past two weeks, in accordance with DWR guidelines. The SVGMD has also done a public notice and has done a public hearing to form a GSA for its portion of the SVGB on March 13, 2017.

**Staff Comment**

This is the first step in the formation of a GSA for that portion of the Sierra Valley Groundwater Basin outside the Sierra Valley Groundwater Management District and this



step is necessary in order to meet the timelines in DWR's guidelines for formation of GSAs. At this point the County must take this action. The future regarding management of groundwater within the Sierra Valley Groundwater Basin, in accordance with the Sustainable Groundwater Management Act of 2014, may include:

- The Development of a Memorandum of Understanding (MOU) with the Sierra Valley Groundwater Management District whereby the District takes over this area currently under the County and includes this area within the eventual Groundwater Management Plan for the Sierra Valley Groundwater Basin;
- DWR may review the boundaries of the Sierra Valley Groundwater Basin and determine the area of the Basin found to be outside of the Sierra Valley Groundwater Management District is not hydrologically related to the Basin management by the District and drop this area from the requirement of being within a Groundwater Management Plan;
- The County and the Sierra Valley Groundwater Management District both form GSAs and develop Groundwater Management Plans separate from each other; or
- Other Actions unknown at this time.

## **ACTIONS FOR CONSIDERATION**

Staff recommends the Board of Supervisors take the following action:

- I. Conduct a Public Hearing regarding the formation of a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin outside of the Sierra Valley Groundwater Management District.
- II. Approve the attached Resolution to form a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin outside of the Sierra Valley Groundwater Management District.

Attachments:

Resolution Establishing Plumas County as the GSA for that portion of the Sierra Valley Groundwater Basin outside of the Sierra Valley Groundwater Management District.

Maps of the area within the Sierra Valley Groundwater Basin outside of the Sierra Valley Groundwater Management District.

DWR GSA Formation Notification Guidelines for Local Governments.

PLUMAS COUNTY BOARD OF SUPERVISORS

RESOLUTION NO. 17-8237

A RESOLUTION FORMING A GROUNDWATER SUSTAINABILITY AGENCY BY PLUMAS COUNTY FOR THAT PORTION  
OF THE SIERRA VALLEY GROUNDWATER BASIN OUTSIDE OF THE BOUNDARIES OF THE SIERRA VALLEY  
GROUNDWATER MANAGEMENT DISTRICT

WHEREAS, in 2014 the State of California passed the Sustainable Groundwater Management Act; and

WHEREAS, the Department of Water Resources Bulletin 118 shows the boundaries of the Sierra Valley Groundwater Basin; and

WHEREAS, the Sustainable Groundwater Management Act of 2014 identifies the Sierra Valley Groundwater Basin as a medium priority basin;

WHEREAS, the Sustainable Groundwater Management Act of 2014 identifies Sierra Valley Groundwater Management District to develop a Groundwater Management Plan within the District's statutory boundaries;

WHEREAS, there is a small area of the Sierra Valley Groundwater Basin, identified in Bulletin 118 that lies outside of the statutory boundaries of the Sierra Valley Groundwater Management District and this area lies within Plumas County; and

WHEREAS, there is the need by Plumas County, at this time, to begin the procedure to form a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin that lies outside of the boundary of the Sierra Valley Groundwater Management District; and

Whereas, an appropriate notice of a public hearing with the Board of Supervisors has been placed in local newspapers notifying the public of the Board's intent to form a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin which lies outside of the boundary of the Sierra Valley Groundwater Management District.

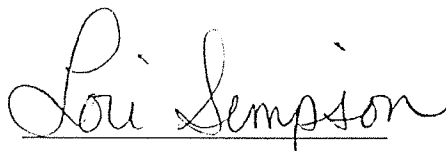
THEREFORE, be it resolved by the Plumas County Board of Supervisors, after a public hearing, has determined to form a Groundwater Sustainability Agency for that portion of the Sierra Valley Groundwater Basin that lies outside of the boundary of the Sierra Valley Groundwater Management District.

The foregoing Resolution was duly passed and adopted by the Plumas County Board of Supervisors at a regular meeting of said Board of Supervisors held on March 21, 2017.

AYES: SUPERVISORS ENGEL, THRALL, GOSS, SANCHEZ, SIMPSON

NOES: NONE

ABSENT: NONE



Lori Simpson - Chair of the Board of Supervisors

ATTEST:

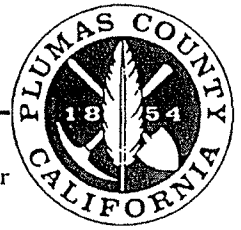


Nancy DaForno - Clerk of the Board of Supervisors



## PLUMAS COUNTY DEPARTMENT OF PUBLIC WORKS

1834 East Main Street, Quincy, CA 95971 – Telephone (530) 283-6268 Facsimile (530) 283-6323  
Robert A. Perreault Jr., P.E., Director John Mannle, P.E., Asst. Director Joe Blackwell, Deputy Director



To: Randy Wilson, Planning Director  
Agency: Plumas County

*Re: Cat's Head – Basin Boundary Modification*

To Whom It May Concern:

I have reviewed the attached documentation in support of modifying the basin boundary. After careful consideration, I concur with the findings in the *Summary of the Requested Modification* and the letter report prepared by Burkhard Bohm (Professional Geologist).

Please call with any questions or comments – 530.283.6493.



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Andrew Hammond, PE | P.E.  
Associate Engineer  
Plumas County, California

### Summary of Requested Modification

Plumas County, as one of the GSA's for Sierra Valley Basin (5-012.01), requests a scientific modification to the external basin boundary. The Department of Water Resources included a small island of alluvial-type material that is outside and disconnected from the northwest corner of the main basin within the delineated territory of the basin. Examination of the larger scale geologic mapping, well completion reports, and satellite imagery indicate that this isolated "island" area was not accurately mapped in smaller scale mapping efforts that were used to delineate Sierra Valley for Bulletin 118. The modification request proposes to remove the isolated "island" area from the official delineation of the Sierra Valley Basin.

The area does not meet the Bulletin 118 criteria used to map groundwater basins and it is not part of the Sierra Valley Groundwater Basin. Only the east side of the isolated "island" area has any hydrologic connection to the Sierra Valley Basin. Surface flow from Grizzly Creek flows from the isolated "island" area, across non-basin area, into the far northwestern corner of the basin as Grizzly Creek and the Sierra Valley Basin both discharge into the Middle Fork Feather River. If any subsurface flow exits the isolated "island" area and enters the main Sierra Valley Basin, it only commingles with the basin groundwater as both discharge into the Middle Fork Feather River at the terminal end of the basin. No management actions in the isolated "island" will impact groundwater conditions in the main area of the Sierra Valley Basin, and no management actions in the main area of the basin will impact groundwater water conditions in the isolated "island" area. Therefore, removing this area from the basin will not impact sustainable management of the Sierra Valley Basin. It will, however, improve the GSAs ability to focus monitoring and management efforts in the actual basin area.

### Description of Geologic Setting

In 1963 the Department of Water Resources released Bulletin 98, Northeastern Counties Groundwater Investigation. A 1:126,720 scale geologic map of the Sierra Valley Basin area was completed and released as part of Bulletin 98. This mapping effort was much more detailed and area-specific than the smaller-scale, regional or statewide mapping that was used to delineate the current basin boundary. Evaluation of Bulletin 98 area-specific geologic mapping, and satellite imagery indicates that the isolated "island" area delineated within the Sierra Valley Basin actually consists of two separate creek drainages, Grizzly Creek to the east and an unnamed drainage to the west. The creek drainages are separated by an elevated ridge. (Figures 1, 2, & 3)



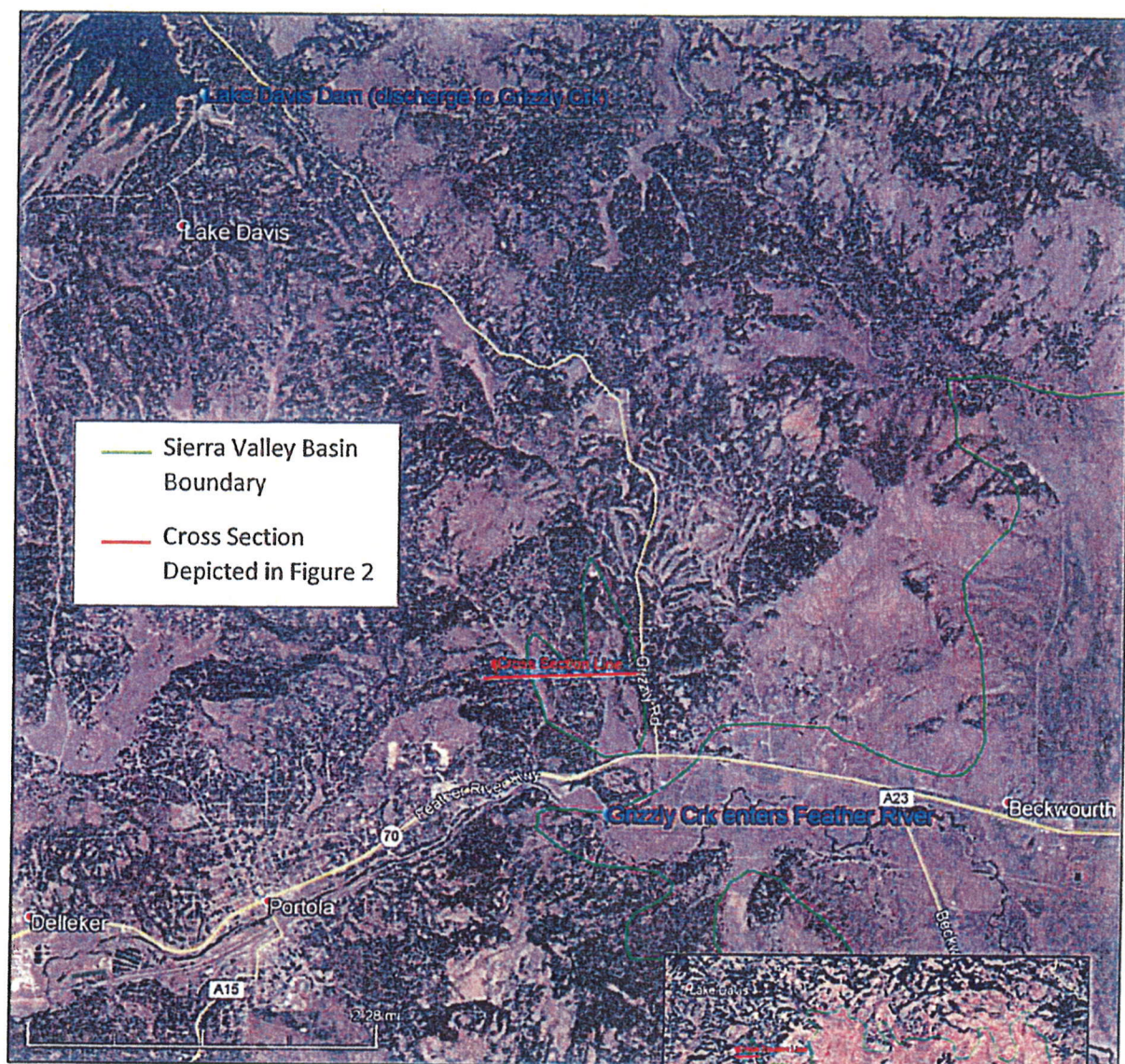


Figure 1. Map of northwest portion (above) and the entire (right) Sierra Valley Basin as defined in Department of Water Resources Bulletin 118 (2016). (Google Earth)





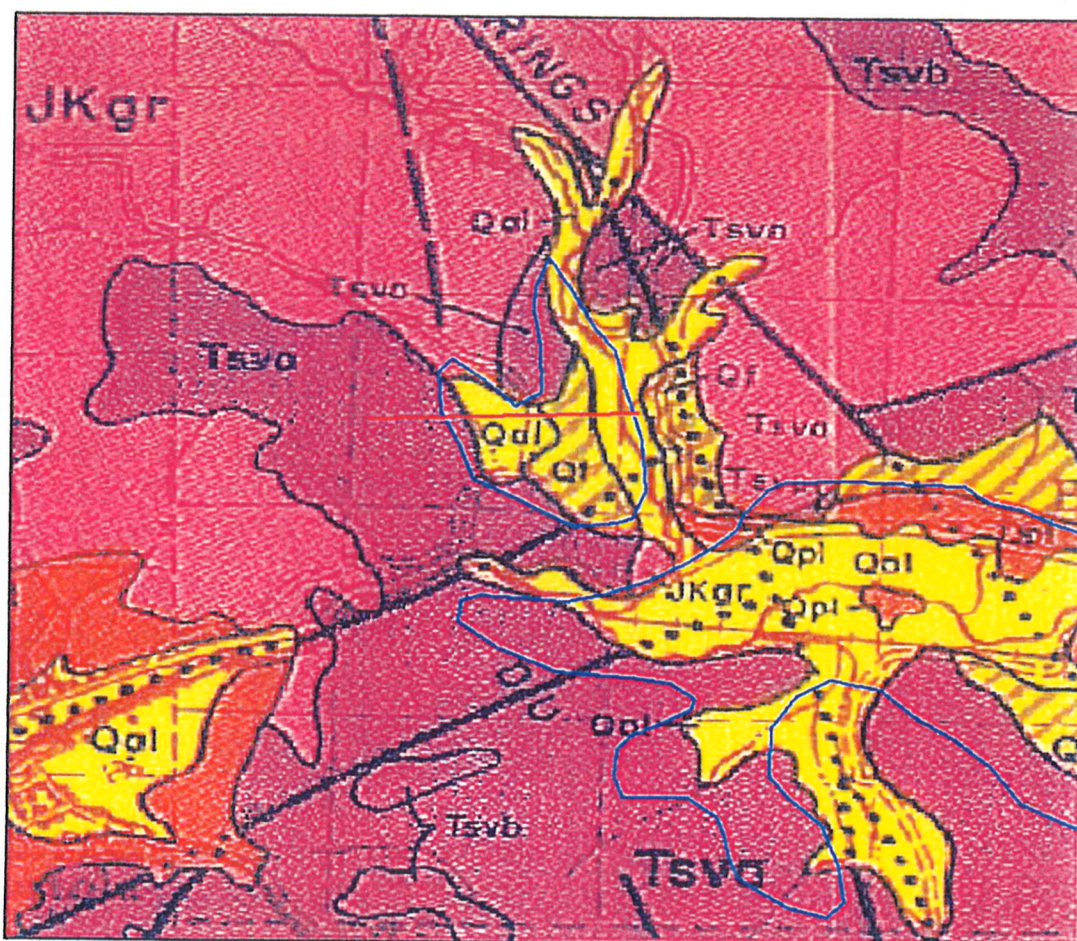


Figure 2. Geologic Map from DWR Bulletin 98 of northwestern portion of the Sierra Valley Basin. Red line indicates the location of the cross section diagram, Figure 3.



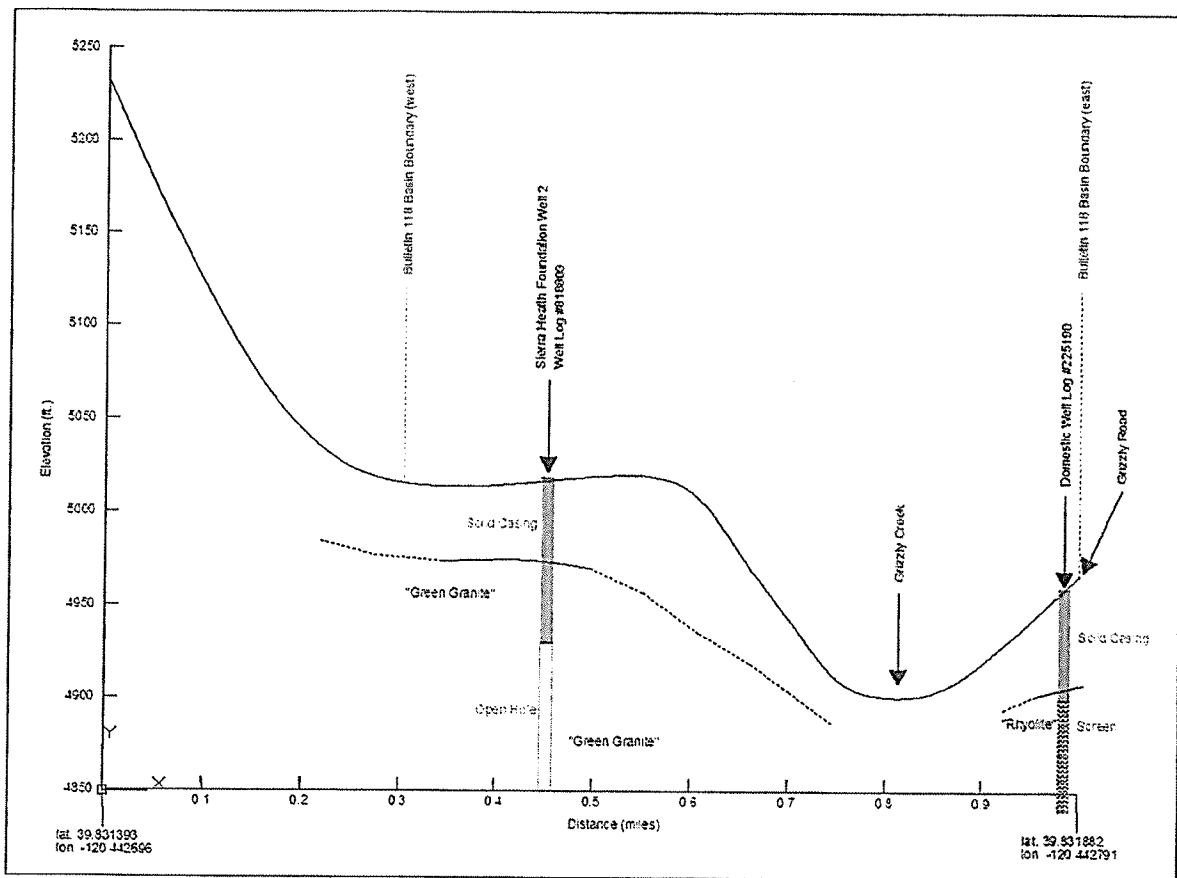


Figure 3. Cross section diagram of the subsurface geology as described on well logs along the line depicted on Figures 1 and 2.

Examination of the drainage via satellite imagery through Google Earth, indicates the unnamed western drainage does not discharge into the Sierra Valley Basin and, therefore, has no hydrologic connection to the basin. (Figure 4)



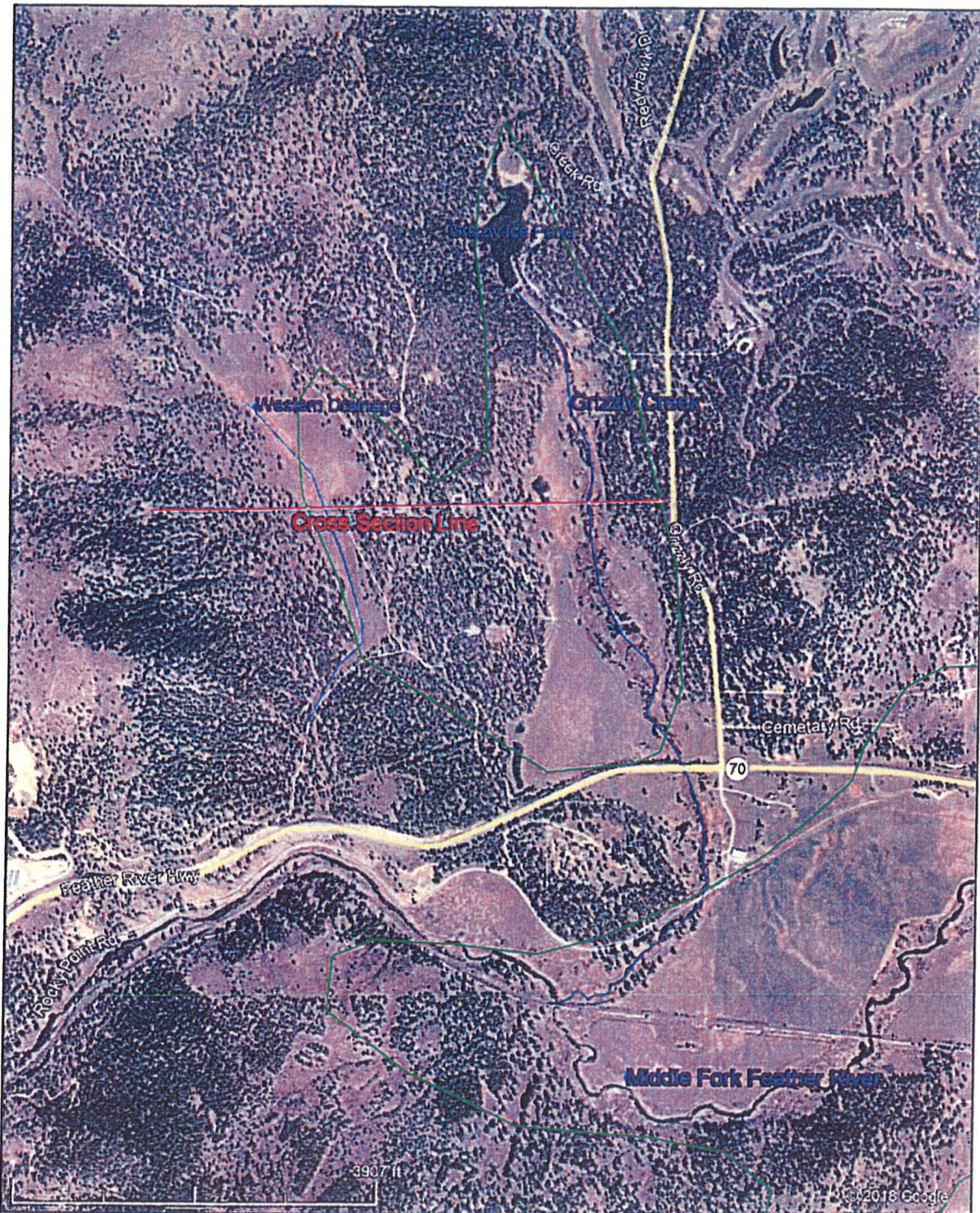


Figure 4. Map of northwest portion Sierra Valley Basin showing the separate drainages (Grizzly Creek on the east and an unnamed drainage on the west) that were incorrectly mapped as part of the Bulletin 118 Sierra Valley Basin. (Google Earth)



Grizzly Creek discharges from the dam gates at Lake Davis and flows southward through a deep and narrow canyon until it enters the northern boundary of the delineated isolated "island" area where the drainage gradually widens and flattens into a meadow. Surface flow from Grizzly Creek exits the area delineated in the isolated "island" area, flows across non-basin area, enters the far northwest corner of the delineated Sierra Valley Basin, "skirts" the main basin boundary to the west, and discharges into the west flowing Middle Fork Feather River within 2000 feet of the northwest corner of the main basin boundary. (Figure 1 and 4)

According to well log data from several wells drilled for water supply at Grizzly Creek Camp located on the ridge dividing the two drainages indicates the ridge is composed of granite. The granite was encountered at an approximate depth of 55' in three wells drilled on the property. All three wells were completed entirely within the granite for water production. The elevation of the top of the granite encountered in the wells indicates the granite stands approximately 80 feet above elevation of the meadow in the Grizzly Creek drainage. (Figure 3) The well completion report for a domestic well located on a parcel near the eastern end of the cross section line describes Rhyolite as is depicted on Figure 3, and the well is constructed to produce water solely from the hard Rhyolite formation.

No well records or subsurface data describe the nature and depth of the alluvial sediments (Qal unit Bulletin 98, Plate 17) (Figure 2) associated with the wider portion of the Grizzly Creek drainage. The Bulletin 98 geologic mapping limits the areal extent of the alluvial deposit (Qal) to the floor of the canyon, along the edges of Grizzly Creek and major tributaries. The lateral extent of the alluvial deposits (Qal) is limited by topographic relief, ridges formed by older granitic and volcanic rocks on each side of the canyon and at the southern end of the meadow. (Figure 2)

Although subsurface flow from the meadow area likely contributes a small amount of groundwater to the far northwest portion of the Sierra Valley Basin area, a survey of wells in the isolated "island" area indicates that the camps and residences are solely located along the ridges on each side of the meadow area. The wells drilled on these parcels were completed primarily within the hard rock under the ridges to gain appreciable amounts of water. (Plumas County Environmental Health's Supporting Documentation) (Figure 3) In addition, the potential subsurface flow that may be entering the basin enters at the far northwest point of the basin where it discharges to the Middle Fork Feather River and not into the main portion of the groundwater basin to the east. No management actions in the isolated "island" area would result in changes to groundwater conditions in the Sierra Valley Basin and vice versa. (Plumas Geo-Hydrology Memo)

***Plumas Geo-Hydrology***

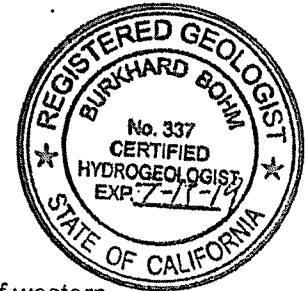
LAND AND WATER RESOURCES

P.O. Box 1922, Portola, CA 96122

tel. (530) 836-2208

December 19, 2016.

Mr. Randy Wilson, Director  
Plumas County Planning Department  
Quincy, CA 95971



*Reg.: Sierra Valley Groundwater Management District, review of western jurisdictional boundaries.*

Dear Randy,

I have been asked to render an opinion about the hydrologic rationale of the western jurisdictional Groundwater Sustainability Area (GSA) boundary in the Big Grizzly Creek (BGC) area near State highway 70 (H70) of Plumas County. The issue is an area of land isolated from the larger of the Sierra Valley Groundwater Management District (SVGMD) legislative boundary and within the DWR SGMA jurisdictional area. The Grizzly Creek Basin (GCB) portion of the SGMA GSA includes areas generally referred to as the "cathead" and "sliver" shaped areas as depicted in the map below.

The DWR Sierra Valley Groundwater Sustainability Area (GSA) as described in Bulletin 118 encompasses the 118,000 acre Sierra Valley Basin that is managed by the SVGMD by state legislation and also includes an additional 455 acres of the GSA which is not included within the SVGMD boundaries. Therefore, there are multiple scales of consideration for a hydrologic rationale: the watershed scale, the sub watershed scale, and the Sustainable Groundwater Management Area (GSA) scale in DWR's Bulletin 118.

The GSA for the UMF Basin covers 118,000 acres of the Sierra Valley Basin and 455 acres in the Grizzly Creek Basin of the UMF watershed. The GCB covers 44 square miles of the 1,062 square mile Upper Middle Fork watershed. The GSA area within the GCB is 1.6% of the GCB and 0.065% of the UMF Basin. The GSA area within the SVB comprises 17.36% of the UMF Basin.

The Sierra Valley Groundwater Management District governs the portion of the GSA that is within the SVB (Sierra Valley Basin). Technically speaking, the District's existing boundaries generally follow the watershed boundaries (i.e. the ridge crest between the BGC watershed and the Sierra Valley watersheds). It is only at the confluence of the MFFR and BGC (lowest elevation points) that the SVB and the GVB are interconnected, which is at the eastern entry into Rocky Point Canyon. The groundwaters of the "sliver" and "cat head" portions of the GSA join at the same point, which is generally understood



Given the course of the BGC channel south of H70 and its confluence with the MFFR at the topographically lowest elevation its impact on the hydrologic balance of the SVB is for all practical purposes nil given its location and residence time in the SVB. In other words integrating that 455 acre GSA area into the jurisdiction of the SVGMD's SVB GSA area is hydrologically meaningless. It is impossible for BGC flow to affect the SVB water balance and the SVGMD's groundwater management options and responsibilities because water does not flow uphill.

Groundwater basin boundaries match surface watershed boundaries - unless additional groundwater flow enters from an adjacent watershed via a special pathway. Such a pathway conveying GW flow south has been invoked via the Hot Springs fault (HSF), in support of arguing for a boost to the hydrologic balance of a small sub-watershed inside the BGC watershed (Woodling, 1998).

Since typically the most favorable bedrock well drilling sites are near the intersection of NNW and NE striking faults, but not between such fault intersections, increased GW flow is not necessarily associated with NNW striking faults. Arguments based on groundwater table configuration, well test results and water chemistry data collected during testing, also speak against the HSF being a major pathway of GW flow (Bohm, 1998), supporting the argument that as a strike-slip and dip-slip fault (fault gouge) associated zones of high permeability are isolated, compared to NE striking faults which are extension features in Sierra Valley structural geology. Concluding, so far GW transfer from the BGC watershed into Sierra Valley has not been convincingly argued for.

Last but not least, if one decides to manage the 455 acre area based on a scientific rationale one should include the entire GVB, including Lake Davis. Yet, given the SVGMD's current management objectives and the lack of hydrologic connectivity this would be a rather arbitrary expansion of the SVGMD, which is not supported by a convincing hydrologic rationale.

Because it is hydrologically disconnected from the SVB, integrating the 455 acre area of the GSA into the jurisdiction of the SVGMD would require establishing a separate water management unit based on Grizzly Valley hydrologic connectivity and GVB-specific land and water management. Otherwise such an addition would become an expansion to the District's jurisdiction, without a scientific basis, and without the legislated authorities and boundaries. Alternatively, if the 455 acre area is managed as a hydrologically separate unit of the UMF GSA, then it also makes scientific sense to assess the surface and groundwater conditions for those 455 acres in terms of SGMA ranking criteria such as groundwater overdraft, land subsidence, well pumping data, water quality factors, etc.

If Plumas County forms a special GSA, specifically for the management of 455 acres under SGMA, then an evaluation of the vulnerability of groundwater water conditions for the 455 acres should be undertaken as part of future SGMA groundwater planning efforts in the UMF GSA.

I hope I was able to sufficiently explain the issue at hand. If you have any questions regarding this matter, please don't hesitate to contact me.

Sincerely yours,

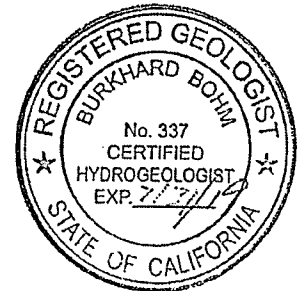
Burkhard Bohm  
Hydrogeologist, CCH Lic. No. 337





### References:

- Bohm B, 1998. Ground Water Resource Evaluation, Cedar Crest Development Project, Plumas County, California. Technical Summary Report. Plumas Geo-Hydrology prepared for QUAD Consultants, Sacramento. February 11, 1998.
- Oberdorfer J and D Hamilton, 1999. Reevaluation of the hydrogeology of the Lake Davis – Portola Region. Leland R. Gardner & Associates, Palo Alto, CA, for Plumas County Dept. of Public Works, Quincy, CA.
- Woodling JK, 1998. Ground water supply evaluation for the Cedar Crest Development Project, Plumas County, California. Administrative Draft Final Supplemental Environ. Impact Report, Planned Development Permit PD4-96/97-14, Cedar Crest. Prepared for QUAD-KNOPF, Roseville, CA. Submitted to Plumas County Planning Dept., April 1998.



NOTICE OF PUBLIC HEARING  
Election to Become Groundwater Sustainability Agency

NOTICE IS HEREBY GIVEN that, pursuant to Water Code section 10723, the Plumas County will hold a public hearing on Tuesday, March 21, 2017 commencing at 11:15 a.m. in the Board of Supervisors Board Room, Plumas County Courthouse, 520 Main St. Quincy, CA to hear comments from the public regarding Plumas County's proposed application to be the Groundwater Sustainability Agency (GSA) for the portion of the Sierra Valley Groundwater Basin outside of the area covered by the Sierra Valley Groundwater Management District (SVGMD) legal boundaries. A map of the proposed area can be viewed at <http://countyofplumas.com/index.aspx?nid=89>.

After the public hearing, the Board of Supervisors is anticipated to take a formal action to submit a notice of intent to the California Department of Water Resources to become the GSA for the aforementioned area. The notice of intent shall be posted pursuant to California Water Code Section 10723.8 and will include a description of the proposed boundaries of the Sierra Valley Basin which Plumas County intends to manage as the GSA in accordance with the Sustainable Groundwater Management Act of 2014.

Written comments may be submitted to Randy Wilson to [randywilson@countyofplumas.com](mailto:randywilson@countyofplumas.com). Comments can be sent via US mail to: Randy Wilson, 555 Main St., Quincy, CA 95971.

Submitted to Feather Publishing, for weeks of 3/8/17 and 3/15/17