

NAME EVIDENCE

The first written evidence we can find for Comptche is that a man named James Rice begins a ranch in 1857. The first homestead grants were made to his successor, Newman Hoak in 1871.¹

"Among the first to settle in the Comptche area were four young men from Denmark. They were Charles H. Oppenlander, Chris Ottoson and Chris' two brothers, Hans and John. Charles and Chris were working in the Big River logging camp until 1872. One of their duties was to get the hay for the ox teams used in Logging operations.

In their search for feed they discovered the large valley which is now the Surprise Valley Ranch, and the smaller valley to the south, now the Sai Poma Ranch, through which the present route of the Comptche-Ukiah county road runs.

In 1866 they both took up homesteads. Charles took the large valley and John the small one. The land survey had been made in 1863, so there weren't any obstacles. These two homesteads and the Hoak homestead were the earliest taken up after the survey went through this area."² Today, by coincidence, all of the Comptche vineyards are on those earliest homesteads and still farmed by their descendants.

In 1877, the first Comptche Post Office was opened.³ The first Comptche school was a rough split-redwood building in 1884, for about 40 students. In 1896 a new school was built and in 1925 a better one. Then, in 1984, the present Comptche School was built and has K-5 and three teachers.⁴

Comptche is a vigorous community. Because of its' distance from medical help and law enforcement (45 minutes- if everything goes perfectly) and the threat of fire from the surrounding forest, Comptche residents are very aware of the importance of the kind of cooperation

which creates a real community. The Comptche Volunteer Fire Department is a fine example of that commitment.^{5,6,7} The Comptche Community Organization has restored the 1912 Comptche Grange into a modern well-equipped community center which hosts a variety of events year around. Senior Lunch, Bingo, The Art Show, memorial services, Halloween Costume Party, Christmas Party, etc., etc. The Comptche Store has a sophisticated inventory of foods and supplies which might be expected in a much larger town. The Chapel of the Redwoods draws its' congregation from all over the Mendocino Coast. Comptche has quite deliberately resisted any tourism- there are no public facilities, no restaurant, no bar, no motel. The Comptche Directory is produced by the community for the community.⁸

A large color graphic which shows the places and pictures of these Comptche features is enclosed. Comptche is shown on most maps, including of course, the USGS Topographic Map entitled "Comptche Quadrangle".

REFERENCES

1. *James Rice Homestead*. Kelley House Museum. Object ID 2007-03-1398-24. Print photographic.
2. *Early Settlers of Comptche Along it's Many Roads*. Thompson, Elsa E. Page 29.
3. *First Comptche Post Office*. Kelley House Museum. Object 2007-03-1398-22. Print photographic.
4. *All Roads Lead to Comptche*. Tahja, Katy. Tahjanjoki Press 1999. Page 11.

5. *With Pride, Californians Step Up to Fight Fires*. New York Times. July 7, 2008. Members of the volunteer fire department in Comptche, Calif., fought a 2,000-acre blaze for nine days. (with color photo and quotes from Comptche firefighters).

6. *Father's Day Chicken B.B.Q.* Poster. Annual event serves about 1,500 dinners. The annual quilt made by Comptche quilters, making one square each as art, raffled off at a dollar a ticket, last dinner made \$10,000. All volunteer preparation, service, cleanup.

7. *Comptche Volunteer Fire Department*. Kelley House Museum. Object 2004-01-75. DVD.

8. *Comptche Directory*. 2020-2022. Produced locally every other year. All volunteer listings. Shows community organizations.

9. Business listings. Yellow Pages. Area Code 707. Page 6.

10. *Comptche, California*. Wikipedia. 1-8-2020. Correct on Geography and History. Population actually higher- more like 650 from local census and mailbox count.

SOIL

Comptche valley-floor soils which are used for agriculture (formerly oat hay, now wine grapes) consist primarily of two different types: Bearwallow/Wolfey soils which are similar and occur together and Perrygulch Loam which is very different.^{1,5,6,7}

The relatively few acres of vineyard-suitable soils in the Comptche valley are surrounded by a vast forest of Coast Redwood and Douglas Fir growing on a mixture of Ornbaun, Zeni and smaller amounts of other forest soils, usually on 30-75% slopes, perfect for growing huge trees but unsuitable for agriculture.^{1,2}

Because Comptche's vineyard-suitable soil is completely different from the forest soils surrounding it, SOIL is a distinguishing feature of this petition.²

Briefly, Bearwallow/Wolfey is shallow, relatively infertile soil over fractured sandstone. This shallow soil with low fertility means little competition from other plants and the fractured stone beneath it allows for effective root penetration. Excellent conditions for grapevines.³ This is a well-drained soil, but thin, so in the rainy Winter season erosion can be a problem unless cultivation practices minimize it. Comptche vintners practice "no tillage" once the vines are planted. The natural plants on Bearwallow/Wolfey soils such as wild oats, soft chess and other grasses and forbs are shallow-rooted annuals⁴ and they are managed by mowing so they are not killed and can act as erosion control in the rainy season.

Perrygulch Loam is a very different proposition: this is deep, rich bottomland which is fertile and doesn't drain well. Although the native plant species are much the same as on the Bearwallow/Wolfey soil they can present more vigorous competition to the grapevines and are controlled by herbicides. There is little risk of

erosion but there is no tillage after the vines are planted so as to minimize soil compaction. Perrygulch Loam is also quite rare.^{2,6,8}

The previous sections describe the valley-floor soils used for viticulture. The very different soils of the Redwood forest are described under the Ornbaun/Zeni series. Where the valley soils end the forest soils begin. The primary use of these soils is to grow merchantable timber. Where the trees are large enough to shade the soil very little else grows. When openings occur the sunny space is soon filled with madrone, huckleberry, tan oak and similar shrubby plants. These soils are relatively shallow and steep in a rainy Winter climate so the primary management concern is erosion prevention.¹

References:

1. *Custom Soil Resource Report for Mendocino County, Western Part, California.* United States Department of Agriculture Natural Resources Conservation Service. 1988. The definitive mapping and description of all the soil types in the Area of Interest (AOI, outlined in blue) which here includes the proposed Comptche AVA and the area surrounding it. The Report assigns a number to each soil type and locates it on a full-color soil map (enclosed).

In addition, this most valuable document describes each soil type found in the AOI, but for purposes of this petition only the relevant soils suitable for viticulture and how they are differentiated from the surrounding forest soils are shown in complete detail. The petition arranges Series 103 and 104 agricultural soils as pairs to illustrate their similarity and likewise Series 187,188,189 forest soils are compared for the same reason.

2. *Series Extent Explorer.* California Soil Resources Lab. Color maps which show the distribution of Ornbaun and Zeni soils in and around the proposed Comptche AVA. The maps illustrate the vast

amount of forest soils and the small inclusions of agriculture-capable soils.

3. *Mendocino County Vineyard Soils*. University of California Agriculture and natural Resources NRCS. Wolfey. A thorough description and evaluation of Wolfey soils as suitable for viticulture.
4. *Wolfey Series*. National Cooperative Soil Survey U.S.A. 3/30/2019. A very complete analysis. The "Use and Vegetation" section describes the native plants usual on this soil.
5. https://soilseries.sc.egov.usda.gov/OSD_Docs/W/WOLFEY.html
6. *ibid. Bearwallow Series*. Docs/B/BEARWALLOW.html
7. *ibid. Perrygulch Series*. Docs/P/PERRYGULCH.html
8. *ibid. Ornbaun Series*. Docs/O/ORNBAUN.html
9. *ibid. Zeni Series*. Docs/Z/ZENI.html
10. *ibid. Custom Soil Resource Report*. Pages 282-283. the number of acres of each soil type and the percentage of the whole AOI that it represents is charted.

This chart's data indicates that, within the AOI, the Ornbaun/Zeni forest complex occupies 174,065 acres.

The Bearwallow/Wolfey and Perrygulch agricultural complex occupies 4,825 acres.

Anecdotal Evidence

Usually anecdotal evidence is considered weaker than hard scientific evidence but in this case the actual on-the-ground experience proves the point. All of the soils in each of the farms which would become vineyards were first ripped to a depth of 36". After that, some subterranean drains and irrigation pipelines were installed. There were no tree roots encountered.

The Comptche valley is a natural opening in the forest. It's not because of elevation- Redwood trees grow right down to sea-level. It's not because of climate- The Redwoods create their own environment and Comptche is in that environment. It's the SOIL.

Redwoods don't like the Bearwallow/Wolfey series. It's too thin, too shallow, too infertile for the big trees so they just don't grow there and never did. The aerial photo makes it possible to infer the soil types by the vegetation cover. The difference between the forest soils and the vineyard-suitable soils couldn't be clearer.

An effect of ELEVATION and TOPOGRAPHY on viticulture in the proposed Comptche AVA

The following charts show three year's of LOW TEMPERATURE readings from three weather stations¹: the first is Sai Pomo Ranch-KCAMENDO11 located in central Comptche at an elevation of 177 feet. The second is Rancho Navarro- KCACOMPT8 located south of town at an elevation of 1,168 feet. The third is Huckleberry Hill-KCACOMPT4 located north of town at an elevation of 525 feet. High Temperature readings have been omitted since they are virtually the same (the sun shines equally on the ridge and in the valley in the middle of the day). The chart shows 12 months but the few degrees different in the Winter months hardly matter because the vines are dormant. The months to pay attention to are the April-to-October months when the vines are biologically active.

The nighttime temperature is colder in the valley than on the ridges (just as hot air rises, cold air falls- the colder night air flows down and pools on the valley floor). So the vines in the Comptche valley at 200-250 feet elevation are several degrees colder at night than vines planted on a ridge would be. This proposed AVA is not in open rolling hills- it is under short steep ridges² around a small valley. The steep ridge to the east² delays the sun at dawn and early morning so the valley is in shadow for an hour or two longer- the vines are colder to begin with and stay colder longer than

higher elevation vines would. The same effect occurs in the late afternoon- the steep ridges to the west² cut off sunlight earlier than open or ridgetop land would. This is the practical effect of low elevation in steep terrain on climate.

References:

- 1 wunderground.com/dashboard/pws/KCAMENDO11 and [/KCACOMPT8](http://wunderground.com/dashboard/pws/KCACOMPT8) and [/KCACOMPTC4](http://wunderground.com/dashboard/pws/KCACOMPTC4). Years 2017, 2018 and 2019 January-December.
- 2 USGS map COMPTCHE QUADRANGLE (enclosed)

Local Weather Stations (source Weather Underground)

Sai Pomo Ranch-KCAMENDO11 Rancho Navarro-KCACOMPT8
 (Downtown Comptche) (ridgetop south of Comptche)

Elevation 177'

Elevation 1,168'

20192019

January low 25.2

January low 36.3

February 26.2

31.1

March 28.3

36.0

April 34.1

41.4

May 33.5

40.8

June 37.8

XXX

July 43.4

49.1

August 46.6

51.1

September 35.9

42.6

October 26.0

42.8

November 27.1

31.3

December 30.5

37.8

20182018

January 32.2

36.1

February	22.6	29.8
March	28.7	33.8
April	32.7	36.3
May	36.0	41.5
June	37.1	44.2
July	41.7	46.4
August	43.1	48.6
September	36.9	47.8
October	31.0	41.7
November	22.4	43.5
December	29.3	36.5

2017

2017

January	26.9	33.1
February	31.3	30.7
March	33.5	30.7
April	32.2	36.1
May	35.7	41.9
June	XXX	45.1
July	44.4	46.8
August	44.7	48.6
September	35.8	46.8

October	27.8	43.3
November	32.9	37.0
December	28.0	32.2

Local Weather Stations (source Weather Underground)

Sai Pomo Ranch-KCAMENDO11

Huckleberry Hill-KCACOMPT4

Downtown Comptche

Ridge north of Downtown

Elevation 177'

Elevation 525'

2019

2019

January low 25.2

January low 27.5

February 26.2

27.9

March 28.3

31.3

April 34.1

39.0

May 33.5

37.4

June 37.8

41.0

July 43.4

46.2

August 46.6

50.4

September 35.9

40.6

October 26.0

31.3

November 27.1

28.0

December	30.5	32.9
<u>2018</u>		
January	32.2	30.7
February	22.6	25.9
March	28.7	29.7
April	32.7	33.6
May	36.0	37.2
June	37.1	38.7
July	41.7	45.1
August	43.1	46.2
September	36.9	42.6
October	31.0	37.4
November	22.4	29.3
December	29.3	30.4
<u>2017</u>		
January	26.9	27.7
February	31.3	29.3

March	33.5	30.7
April	32.2	33.1
May	35.7	38.1
June	XXX	42.3
July	44.4	46.0
August	44.7	47.5
September	35.8	41.2
October	27.8	39.2
November	32.9	XXX
December	28.0	36.5

Again, during the growing season months (here April, May, June, July, August, September and October) whether in south Comptche, north Comptche or central Comptche the low elevation and steep topography have a quite linear effect on temperature. Another cause of the low degree days.

CLIMATE is another distinguishing factor for comparing the proposed Comptche AVA with every other AVA that Comptche is either inside of (North Coast AVA) or nearest to (Mendocino AVA, Anderson Valley AVA, Mendocino Ridge AVA). Although several other features make Comptche unique, from a grape grower's perspective CLIMATE is the most important distinction¹. In every climate metric related to viticulture Comptche is quite different.

Vitis vinifera winegrapes will grow in a wide variety of soils, will grow on hillsides and in valleys. But winegrapes have definite temperature and insolation limits to produce anything that will make salable wine.

Comptche's climate is borderline for winegrapes². Only the cold-tolerant varieties have a chance to ripen sufficiently in this low-elevation place with its marine fogs inhibiting insolation. There are four methods of measuring climate that are in common usage by viticulturists to judge the suitability of any location for the production of marketable wine grapes.

The oldest, simplest assessment is the Growing Season Average Temperature (GST). The 7 months of the growing season (April-October) temperature is averaged together and the results are classified into five units from "cool" to "very hot".

The second system is Growing Degree Days (GDD) also called the Winkler Index (WI) which was "constructed to correlate wine quality with climate, focusing on California viticulture. Wine producing regions were broken into five climatic regions using heat summations above 50^o F. or growing degree days (GDD)...despite the common usage of the Winkler Index, the classifications offer greater uncertainty than the system suggests. An obvious drawback to the Winkler Index is the focus on temperature alone"².

The third system is the Huglin Index (HI) which was developed in Europe and uses "April 1st-September 30th as the growing season and sums the mean of the daily mean temperatures above 10^o C. multiplied by a co-efficient indicative of the latitude".³

The fourth system is called Biologically Effective Degree Days (BEDD) which is a newer, further refinement of the existing systems. Plant growth and phenological development respond to temperature in a non-linear fashion. BEDD adds other metrics – a diurnal temperature range adjustment and “The results show that each of the climate parameters depicts the broad structure across a range of cool to hot climates suitable for viticulture across the western United States. Overall, the HI and BEDD provide a more region-wide depiction of known climate suitability owing to the use of a latitude adjustment for increasing day lengths poleward. Furthermore, the HI and BEDD appear to better differentiate within the region climate structure, with the BEDD showing the greatest promise due to it’s tie to variety maturity groupings (Gladstones, 1992)”.⁴

All of these improvements to the age-old GST are attempting to become more specific about assessing particular areas rather than trying to describe whole eco-systems.

This is a much simplified description of each method. There is a thorough and exhaustive description of each of these systems in an important paper from the Department of Environmental Studies of Southern Oregon University entitled *Spatial Analysis of Climate in Winegrape Growing Regions in the Western United States* (attached at the end of this section). And to see actual comparisons of the results of each method read pages 318 – 321.¹

The important thing to recognize about all of these systems is not *how* they measure but *what* they all demonstrate. Whatever their method or metrics or units of measurement is, they all come to the same conclusion: Comptche’s climate is markedly different from other area AVAs.

Which this CLIMATE COMPARISON CHART using all four systems and adding the SOLAR RADIATION GROWING SEASON metric clearly demonstrates. All of the statistics in this chart are from an excellent resource called Everyvine⁵ which provides a meta analysis of AVAs derived from a fine-grained analysis from individual vineyards within the AVA.

Table 2

Climate Comparison Chart

	NORTH COAST AVA	MENDOCINO AVA	ANDERSON VALLEY AVA	MENDOCINO RIDGE AVA	COMPTCHE proposed
BEDD	1798.84	1805.09	1699.14	1543.05	1395.05
GDD	3080.43	3034.06	2738.92	2680.08	2258.85
HI	2342.98	2399.82	2185.79	2051.00	1835.81
GST	79.6	80.4	78.2	76.1	74.2
SOLAR RAD GS	145523.98	145422.15	144271.18	152519.04	142159.95

References

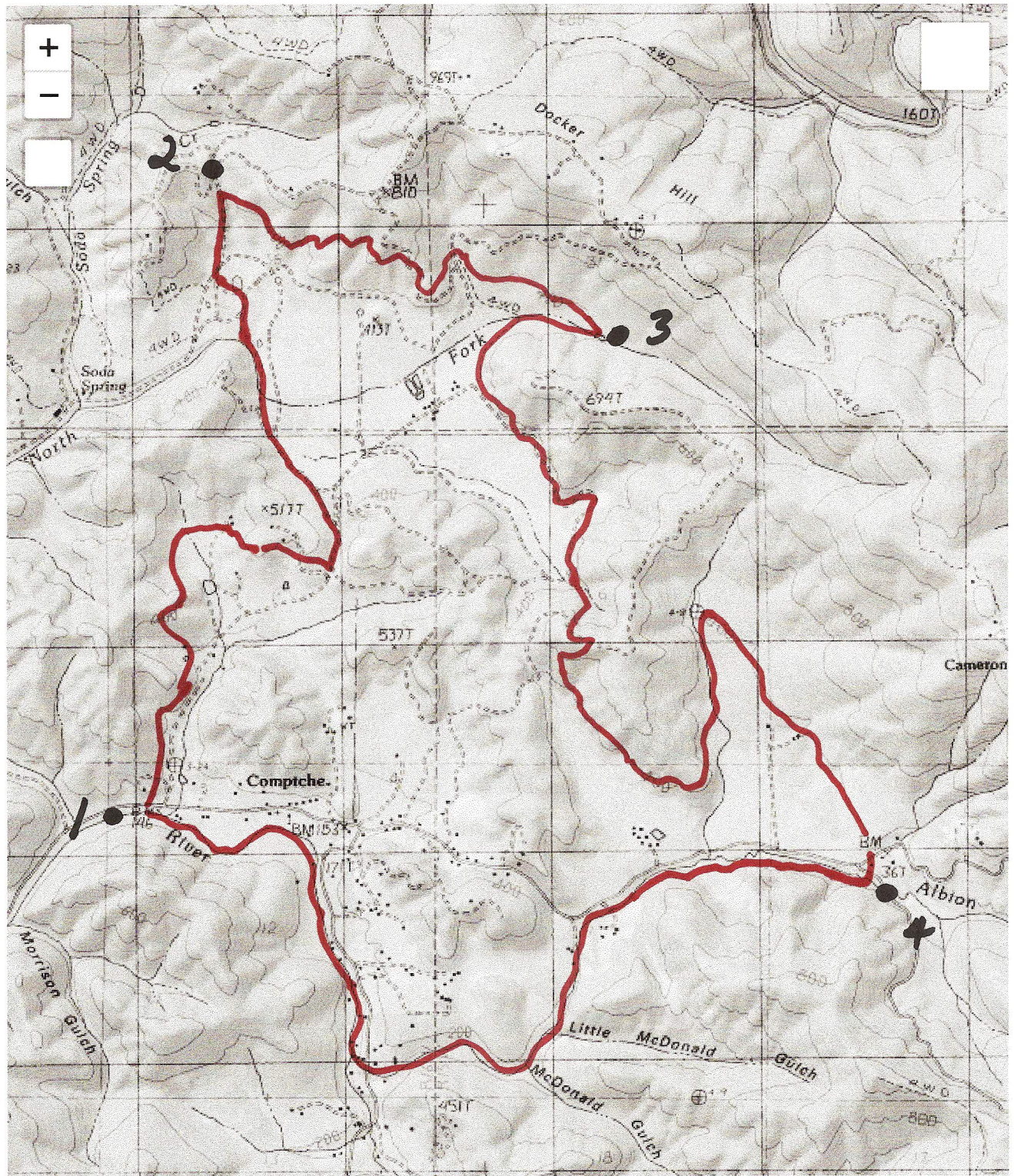
1. *Spatial Analysis of Climate in Winegrape Growing Regions in the Western United States*. Gregory V. Jones, Andrew A. Duff, Andrew Hall and Joseph W. Myers. Article in American Journal of Enology and Viticulture. January, 2010. Reference is to the first sentence in the body of work.
ibid. Page 313. Pages 318-321 include full-color maps comparing all four methods.
2. *Winkler index*. Wikipedia. Reference is to Region 1b
3. *The Limitations of the Winkler Index*. Patrick L. Shabam. Wines and Vines. January, 2019. Reference is to the first paragraph and first sentence in the second paragraph.
4. *Updated Analysis of Climate-Viticulture Structure and Suitability in the Western United States*. G. Jones, A. Duff, A. Hall. Department of Environmental Studies, Southern Oregon University. Undated. Reference is in "Conclusions"
5. www.everyvine.com/wine-regions/region
Also useful
Huglin index. Wikipedia

BOUNDARY NARRATIVE

The south boundary of the proposed Comptche AVA is the Albion River from its' intersection on the west with Surprise Valley Road to its' intersection on the east with Mattila Road.

This narrative description begins at the intersection of Surprise Valley Road and the Albion River. Proceed north on Surprise Valley Road along the 400 foot elevation on the west side of the road. Bear left (northwest) along North Fork Road to its' intersection with Docker Hill Road. Turn right (north) proceed up to the 400 foot elevation on Docker Hill Road. Turn right (east) proceed east along the 400 foot elevation across the whole north side of Surprise Valley to it's intersection with the Little North Fork of the Albion River. Turn right (south) and follow the 400 foot elevation southeast to it's intersection with the Albion River. Follow the Albion River west to it's intersection with Surprise Valley Road, the point of beginning.

Little North Fork Albion River Topo Map in Mendocino County California

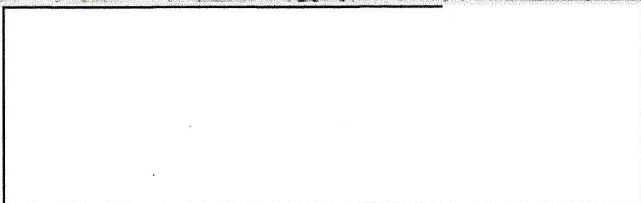
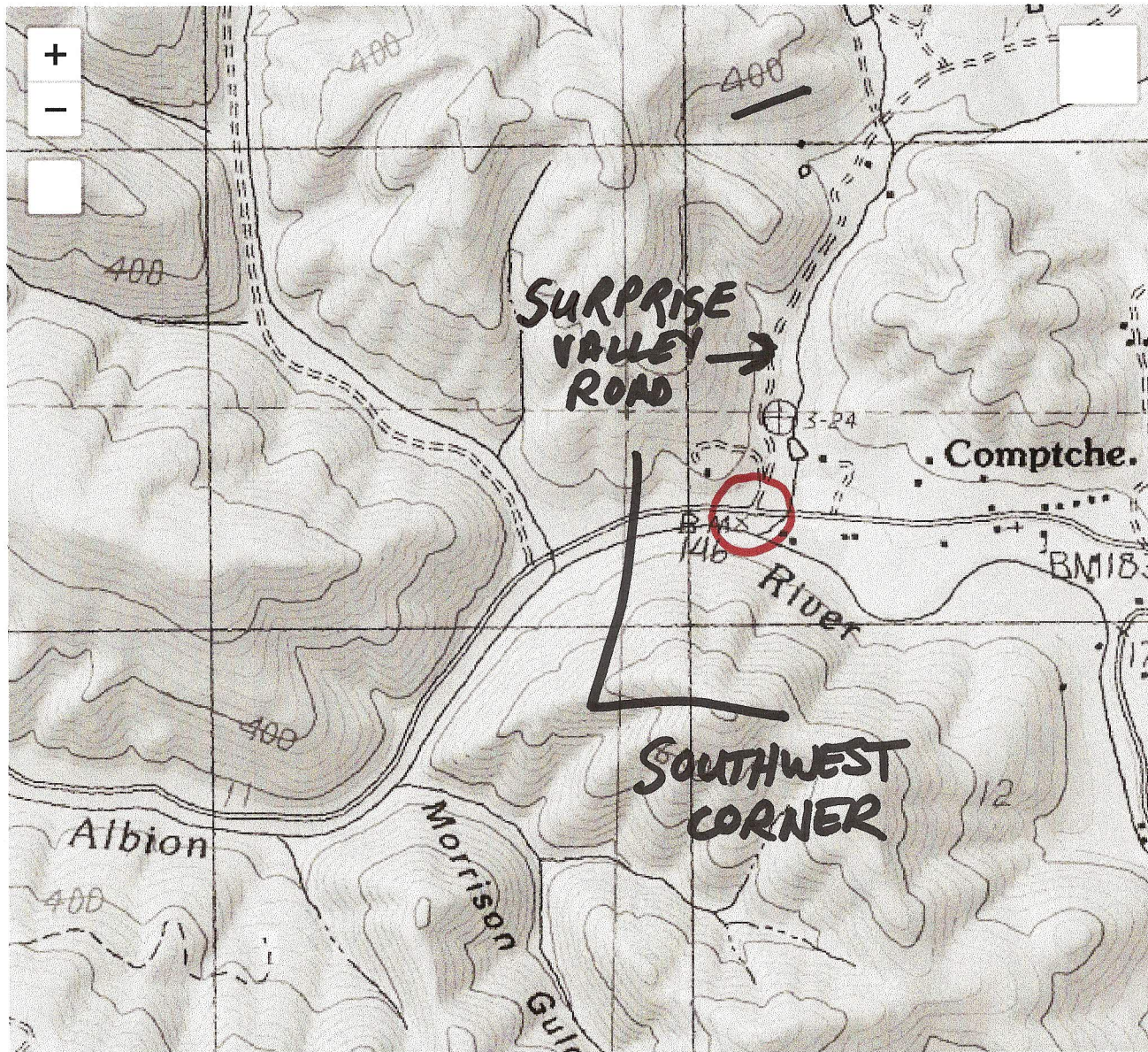


 [Print this map](#)

Map provided by TopoZone.com

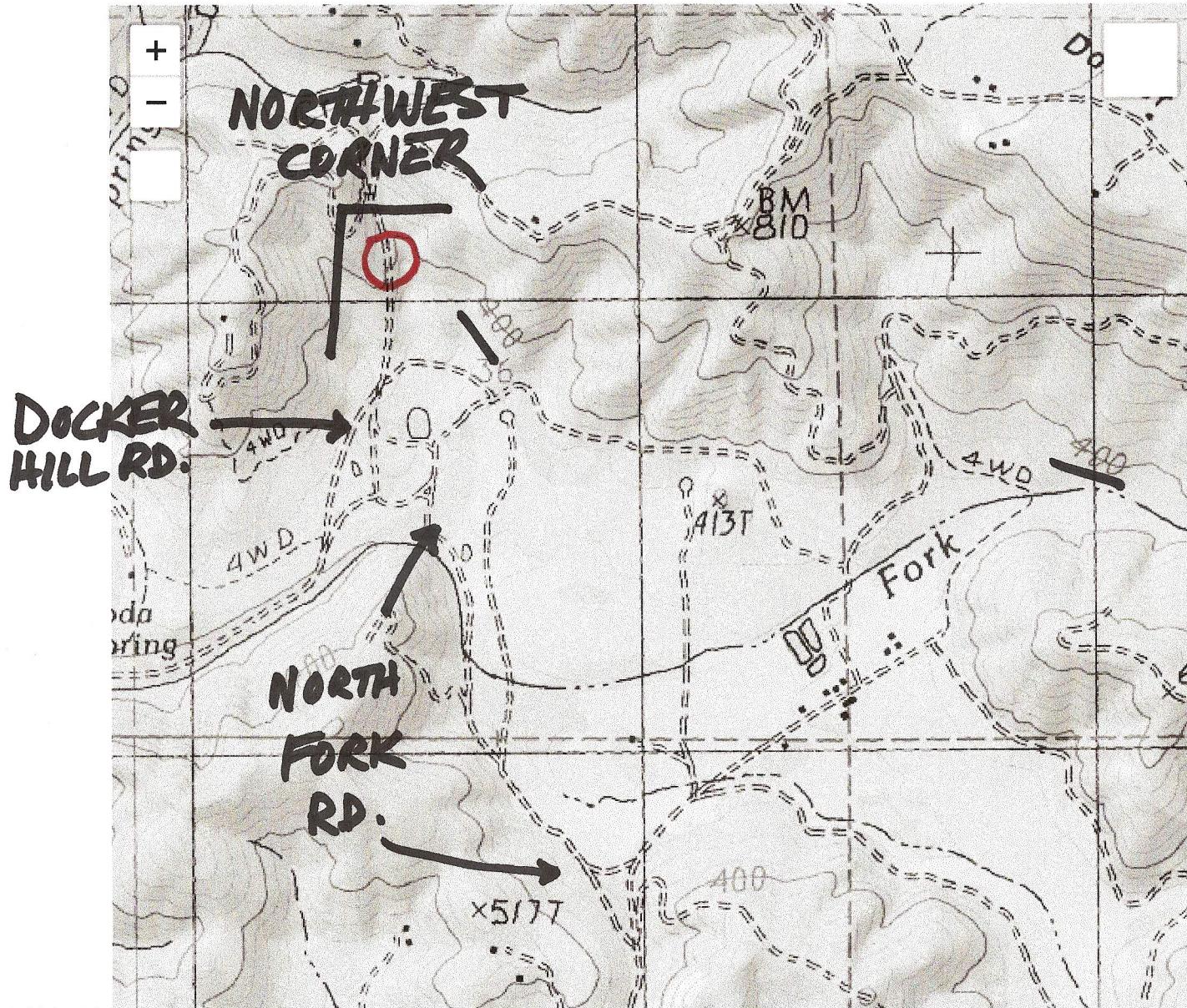
Little North Fork Albion River Topo Map in Mendocino County California

1.



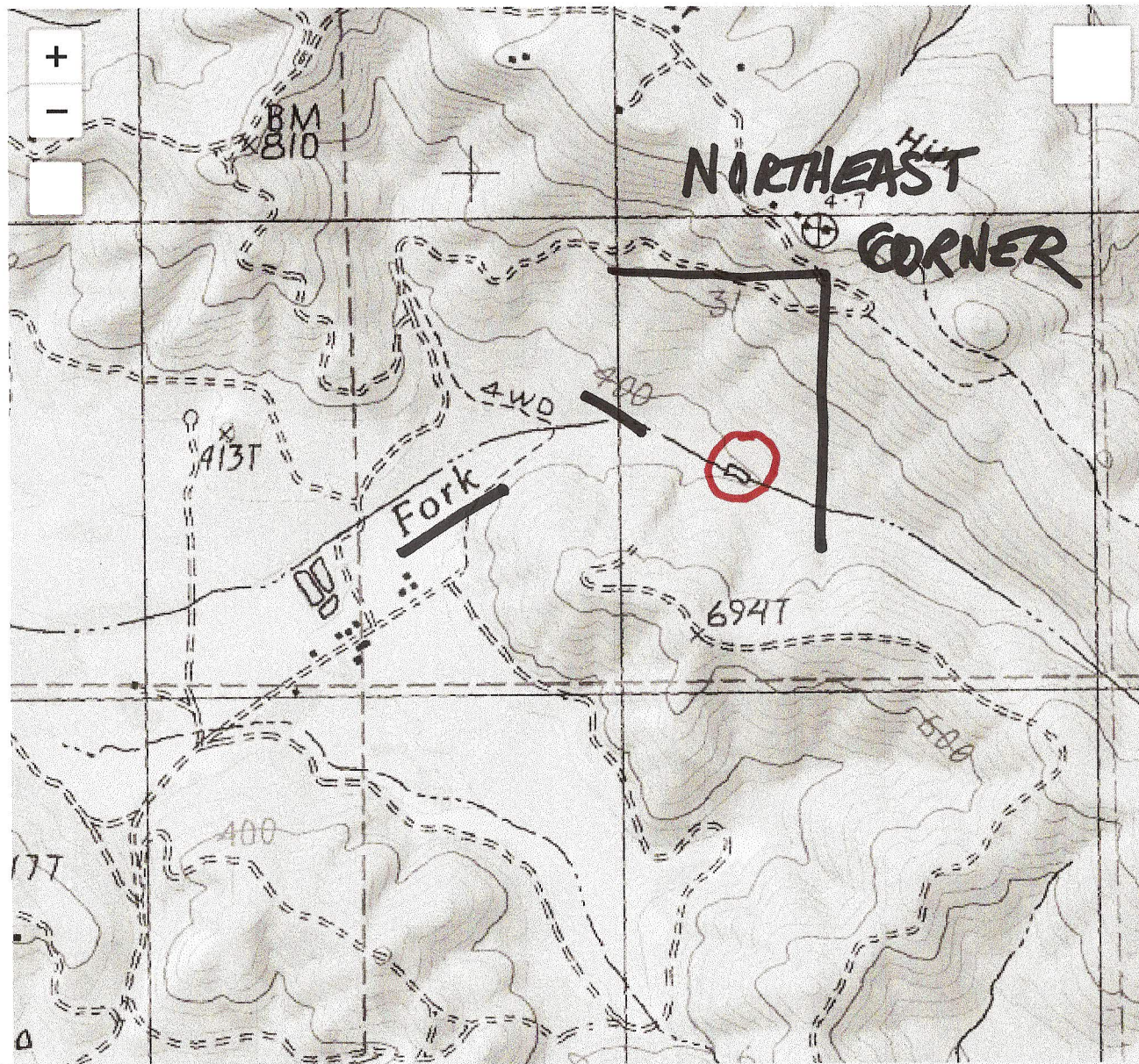
Little North Fork Albion River Topo Map in Mendocino County California

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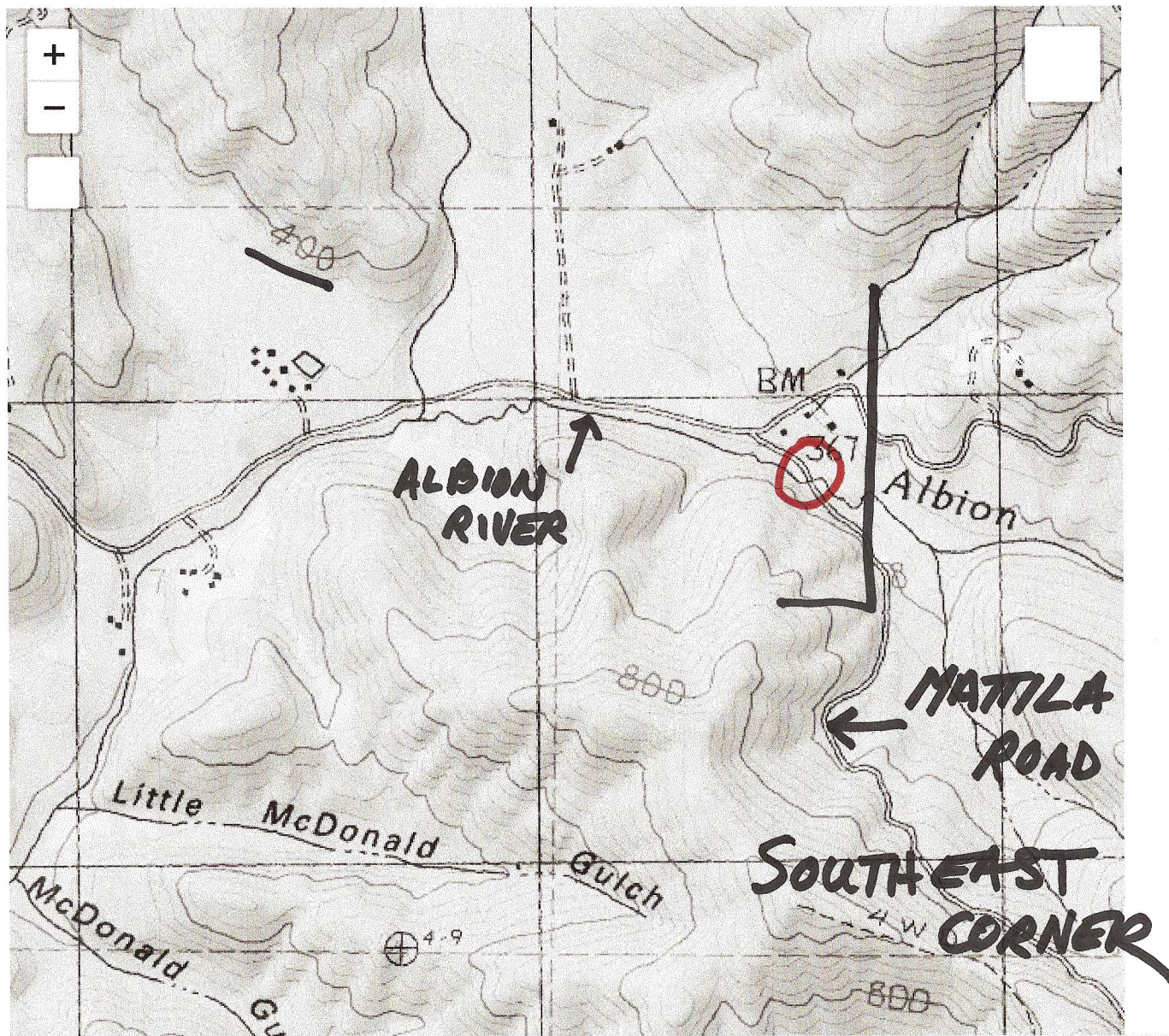
Little North Fork Albion River Topo Map in Mendocino County California

3.



Little North Fork Albion River Topo Map in Mendocino County California

4.



Google Maps

Comptche

Albion River at Mattila Road



Imagery ©2020 Maxar Technologies, USDA Farm Service Agency, Map data ©2020 500 ft

Google Maps

Comptche

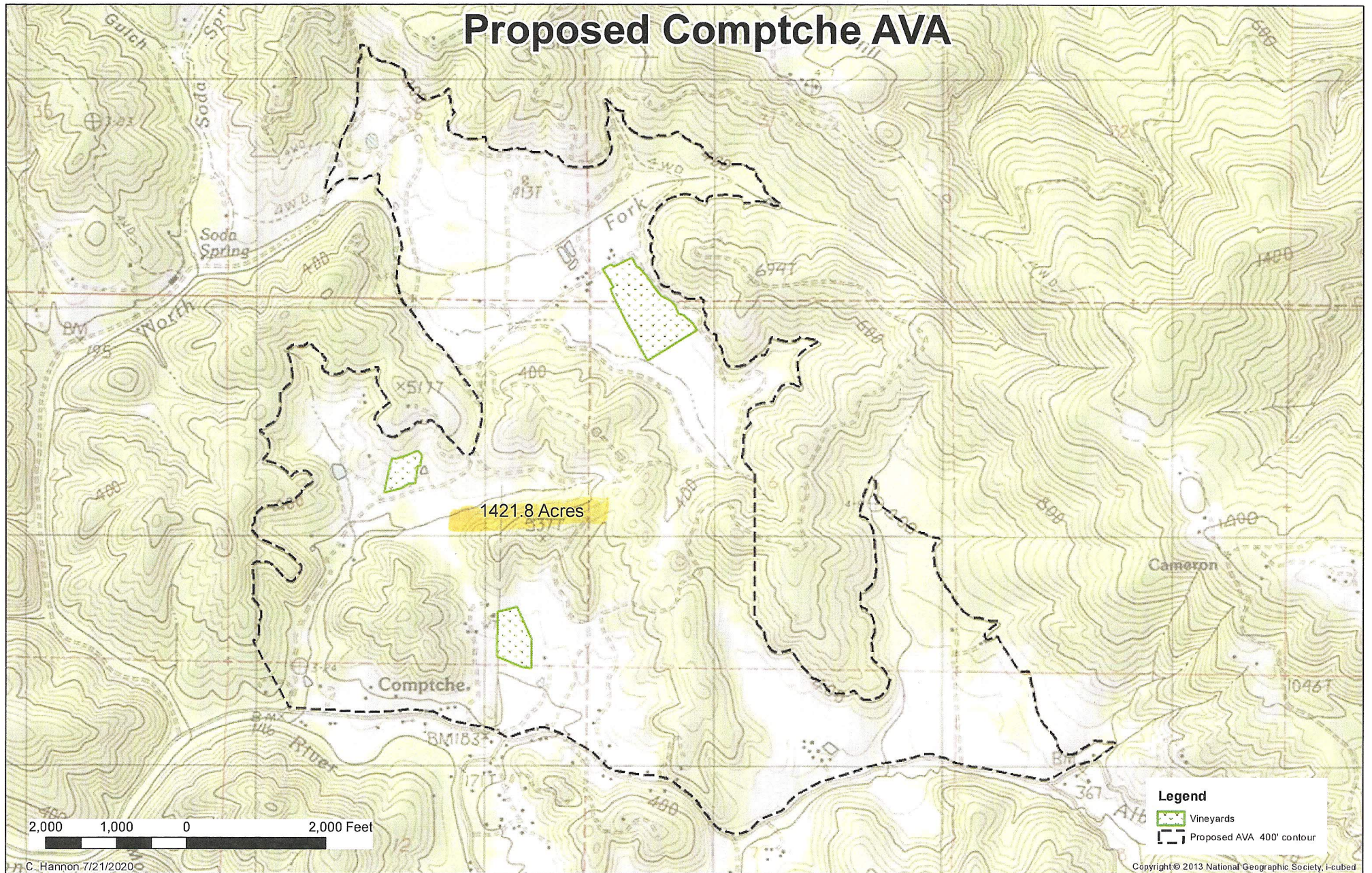
Albion River at Surprise Valley Road



Google

Imagery ©2020 Maxar Technologies, USDA Farm Service Agency, Map data ©2020 500 ft

Proposed Comptche AVA



COMPARISON TO THE NORTH COAST AVA The proposed Comptche AVA is physically located within the North Coast AVA and, as such, shares some of its characteristics: the weather is broadly the same two-season climate of Northern California, the general topography of the Western Slope of the Coast Range and the suitability for the production of winegrapes are all contained within the 3,251,042 acres of the North Coast AVA. That acknowledged, the North Coast AVA encompasses more than 2,000 vineyards located in 55 individually recognized (49 by the Tobacco Tax and Trade Bureau) AVAs. (Ref. Everyvine "North Coast AVA" and Wikipedia "North Coast AVA" attached). The microclimates of the North Coast AVA range from the cool, gentle, sea-level, protected shores of San Francisco Bay to the cold, windy and foggy cliffs on the open-ocean coast of Fort Bragg and Mendocino. Likewise a 2,825 foot elevation down to sea level presents very different conditions for the production of winegrapes.

Comptche is near the extreme end of these statistics with its low elevation- the vines are all planted between 200-250 feet- combined with the cold, foggy climate just inland from the Fort Bragg/Mendocino coast.

As for the grapes: there are no wineries in Comptche but its Pinot Noir grapes are sold at premium prices (grower-supplied

proprietary information) to local wineries such as Baxter, Phillips Hill, Lula and several others as far south as San Francisco. "The North Coast AVA designation is primarily used on bottles of wine created by blending wines from several counties or American Viticultural Areas" (ref. Wikipedia) The grapes from Comptche vineyards are the opposite of this. Wineries which pay extra for Comptche Pinot Noir grapes feature the originating vineyards on their labels (Exhibits attached). The other obvious difference is Comptche's location in the middle of the Redwood forest unlike any other AVA in the North Coast AVA (Map "Lands in Williamson Act and TPZ -Timber Production Zone- 2014, enclosed). Some AVAs are near the forest, some are on lands that used to be forest but only Comptche is in the forest.