HORSE HEAVEN HILLS

June 5, 2002

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DIRECTOR, BUREAU ALCOHOL, TOBACCO FIREAUSPS Priority Mail

WHAT 62

Mr. Bradley A. Buckles Director, Bureau of Alcohol Tobacco and Firearms 650 Massachusetts Ave. NW Room 8110 Washington, DC 20226

ATTN: Compliance Operations

RE: American Viticulture Area Petition Horse Heaven Hills, Washington State

Dear Director Buckles:

This letter is written pursuant to and permitted as outlined in the provisions of the Federal American Viticulture areas, 27 CFR, § 71.41 (c).

The wine grape growers of the Horse Heaven Hills wish to submit this petition to the BATF in consideration of a new American Viticulture Area (AVA) in Washington State to be known as the Horse Heaven Hills.

Attached you will find the following information:

- 1. Evidence that the name of the area is locally or nationally known as referring to the area specified in this application,
- 2. Historical or current evidence that the boundaries of the area are as specified in this application,
- 3. Evidence relating to the geographic features which distinguish the viticultural features of the area from surrounding areas,
- 4. Specific boundaries of the area can be found on the attached U.S.G.S. maps,
- 5. List of current wine grape growers and acres farmed within the area.

We ask that you please consider our petition for the establishment of this new Horse Heaven Hills AVA, and are available to provide any additional information you require.

Sincerely,

Paul D. Lukas Winemakers, LLC PO BOX 1019 Sunnyside, WA 98944 (509) 836-2524 phone (509) 836-2019 fax pauld@winemakersllc.com email

General Description of the Area

The 570,000 acres contained in the proposed AVA are generally south sloping open desert plains that contain mostly sage brush, native grasses, and agricultural crops. Elevations run from 1,800 feet at the northern most boundaries, to 200 feet at the southern boundary on the Columbia River.

The lay of land resembles a large bowl that funnels everything towards its center. There are dozens of drainages that run from the northern borders, south down to the Columbia River creating a watershed that centers around Lake Umatilla on the Columbia River.

North of the proposed AVA is the Yakima Valley. The crest of the Horse Heaven Hills and the North Slope of the Yakima Valley are a natural boundary with steep cliffs and only three Department of Transportation passes available to drive between the two.

The southern border is the Washington shore line of the Columbia River. This portion of the river is made up of two hydroelectric dammed lakes; Lake Umatilla and Lake Wallula. Construction on John Day Dam was completed in 1971 and created Lake Umatilla, McNary Dam was completed in 1954 and created Lake Wallula.

The West border is very extreme terrain that is predominantly South by South East slope. The 1,700 foot elevation line creates the border that follows the drainages in a south by southwest line to Pine Creek and back down to the Columbia River.

The East border uses the ridge line between the Horse Heavens and the Yakima Valley in most cases except from Johnson Butte to Jump off Joe Butte and the River. In these cases, straight lines of sight were used to determine the boundary. The topography of the land prohibits the use of following an elevation line, because the ground slopes in both directions and a given elevation line will not terminate in a south by southeast direction. By using line of sight based on physical positions, the south by southwest slopes of the east portion of the area are included.

The Horse Heaven Hills

SUMMARY:

The Horse Heaven Hills area is located in the Southern Portion of Washington State, East of the Cascade Mountain Range and West of the Columbia River which bisects the state. Currently the area is entirely within the Columbia Valley AVA in an area South of the Yakima Valley AVA and West of the Walla Walla AVA. Attached as Exhibit A, is a current Washington State AVA map with the proposed Horse Heaven Hills AVA superimposed to show its approximate location.

In the mid 1800's a local rancher referred to this area as "Horse Heaven" and the name has been used to describe this +/- 600,000 acre area ever since. The area is predominately South facing slope and has geographical characteristics of a watershed with dozens of drainages running from the Northern portion of the area South to the Columbia River in a basic spoke pattern.

Current vineyard development totals 6,040 acres made up of 20 different projects. The total acreage proposed under this petition is 570,000, of which approximately 90% could be planted to wine grapes if adequate irrigation was available. Attached as **Exhibit B**, is a table that details the current vineyards, owners, and contact information. A U.S.G.S. map with the vineyards located by GPS is included as well.

Climatological characteristics of the area are most accurately described as a desert climate with an average annual rainfall of 5 to 8 inches mainly in the winter months. Unique to the Horse Heaven Hills area is the amount of wind that runs up the Columbia River Valley directly affecting the viticultural aspects of the region. Average annual wind run miles are over 46,000 miles, 25% higher than the averages for the Red Mountain, Walla Walla, and Yakima AVA's.

The dominant soil types within the proposed AVA are the Quincy-Burbank Hezel, Mikkalo-Bakeoven-Lickskillet, Lickskillet-Cheviot-Stacker, the Warden-Shano-Esquatzel, and Ritzville-Kiona.

PETITION:

As permitted in the Federal American Viticulture areas, 27 CFR, Part 9, the growers within the Horse Heaven Hills present the following:

1. Evidence that the name of the viticulture area is locally and / or nationally known as referring to the area specified in the application.

Listed below are 8 (eight) sources which refer to the Horse Heaven Hills in local and national publications, mentioned both as a geographic area, and as a qualitative aspect. Copies of the sources are attached as Exhibit C.

- A. The Global Encyclopedia of Wine, Second Edition, 2001: Reference is made to the Yakima Valley AVA and describes it as, "The region is bounded by the evocatively named Rattlesnake Hills and Horse Heaven Hills".
- B. Hugh Johnson's Modern Encyclopedia of Wine, 4th Edition, 1998: "...several companies have now built wineries near the vineyards, between the ridges of such unvinous-sounding ranges as the Rattlesnake and the Horse Heaven Hills". Huge Johnson is regarded as the world's favorite wine writer and is published globally.
- C. Yakima Herald-Republic, March 7, 2001: Stan Clark writes about Northwest Wines and the wine industry, in a review- "The 1998 Sagelands Cabernet Sauvignon is an interesting mélange of fruit from five different Columbia Valley vineyards. Horse Heaven Ranch (26 percent) Sagelands Estate (21 percent)"

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- D. Chateau Ste Michelle, Horse Heaven Vineyard 1999 Sauvignon Blanc, and Chateau Ste Michelle, Horse Heaven Vineyard 1995 Cabernet Sauvignon. Marketing brochures provided as a reference to show name recognition. Distribution is Nationwide. "As the name suggests, Horse Heaven Vineyard is located in the Horse Heaven Hills adjacent to the Columbia River, approximately 20 miles south of Prosser, Washington."
- E. Score Report By Score, 2/19/02, Stimson Lane Vineyards & Estates. This report shows 96 records of Horse Heaven Wines and the related vintages, wine scores, National publication, and the date.
- F. Sagelands Vineyard, Yakima Valley, 2000, Cabernet Sauvignon & Merlot. Marketing brochures provided as a reference to show name recognition. "The Horse Heaven Hills rise up dramatically from the Yakima River a short distance from where the Yakima and Columbia Rivers meet. As they gently slope off to the South, the Horse Heaven Hills overlook Canoe Ridge and the Columbia River".
- G. Snoqualmie's Columbia Valley Vineyards, 2001, Paterson, WA. Marketing brochures provided as a reference to show name recognition. Distribution is Nationwide. "Located along the Columbia River in the South Central part of the Columbia Valley, Horse Heaven white grapes are marked by a 'dribble-down-your-chin' juicy character".
- H. Wines Northwest, Woodward Canyon Winery, 2/14/02. Winery description on terrior diversity, "old-block vineyards of Mercer Ranch in the Horse Heaven Hills provide mature vines from ancient soils for big, well-structured wines; and the silty loam soil."

2. Historical or current evidence that the boundaries of the viticulture area are as specified in the application.

Listed below are 8 (eight) sources that provide Historical evidence regarding the Horse Heaven Hills area and its location within the boundaries of the proposed Horse Heaven Hills AVA geographic area. Copies of the sources are attached as **Exhibit D**.

- A. Benton County Place Names, Kennewick, WA, November 1996: Historically, the Indians called the area Wehopepum, and the earliest cattlemen referred to the area as Klickitat Prairie to the west and Bedrock Springs County to the East. "In 1857 James Kinney, camping around present day Kiona, awoke the next morning to find his animals had strayed and the tracks led up the mountain side and over into an upland plain beautiful to behold, and there he found the horses cropping the succulent bunchgrass with apparent relish. 'Surely this is Horse Heaven', he said to himself." The name sounded appropriate, and it stuck.
- B. Prosser- The Home Town, Prosser, WA, 1950: How the Horse Heaven Happened? This publication sites James Kinney as one of the pioneers of the valley and also gives him credit with naming the Horse Heaven area.
- C. Prosser Falls American, Prosser, WA, December 29, 1893: The first published newspaper for Prosser Falls (now Prosser) describes the town of Prosser as "Picturesquely nestled at the foot of rounded hills that fringe the Horse Heaven country with the blue Yakima River winding gracefully by on the North, lies the clustered houses of Prosser Falls. The same paper also makes reference that a young school teacher from the Bedrock school district in Horse Heaven, was in town on Saturday.
- D. Against Odds- A personal Narrative of Life in Horse Heaven, St. Louis, MO, 1917: Written by K. Elizabeth Sihler in the early 1900's, this book describes the life of the writer and her upbringing in the Horses Heaven country.
- E. The Columbian, Vancouver, WA, May 12, 1998: 'Mabton police knew nothing of Marshal George Warring until word recently arrived that he would posthumously receive the state's highest law-enforcement honor. Warring roamed South-central Washington's Horse Heaven Hills on horseback searching for moonshiners and was killed in 1931 by a drunken friend. He is the only Mabton officer to die in the line of duty."

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- F. Seattle Times, Seattle, WA, October 15, 1986, Tom Stockley: "It didn't surprise me to find the latest releases from local wineries popping up everywhere, but the mind-blower was the kaleidoscope of handsome new labels that greeted me on local shelves. Mercer Ranch Vineyards: This new winery in the Horse Heaven Hills in the Yakima Valley is owned by Don and Linda Mercer and has been much anticipated because of the fame of the long-planted vineyards."
- G. Horse Heaven Hills Irrigation and Development Potential, Washington State University, Pullman, WA, December 1970. "The Horse Heaven area includes all of the sloping dissected basalt plateau known as the Horse Heaven Plateau or Hills area. It extends from Lake McNary on the east to Rock Creek on the west, and from the Columbia Rives on the south to the Prosser and Simcoe Ridges, which from the northern boundary."
- **H.** U.S. Geological Survey, Water-Resources Investigations Report 94-4068: In Figure 1, the Location of the Study area in its entirety is mapped out. Specific to Figure 1 is the location of an area described as the **Horse Heaven Hills** Crest. The boundaries of the Crest fairly closely follow the boundaries of the proposed **Horse Heaven Hills** AVA.
- 3. Evidence relating to the geographic features (climate, soil, elevation, physical features, and the like) which distinguish the viticultural features of the proposed area from the surrounding areas.

CLIMATE

General

The proposed Horse Heaven Hills AVA (HHHA) is in the extreme southern portion of the existing Columbia Valley AVA (CVA). The proposed HHHA is partially bordered along the northern edge by the existing Yakima Valley AVA.

Data for this climate analysis were collected from the Washington State University (WSU) Public Agricultural Weather Station (PAWS) network and from the National Weather Service (NWS) COOP site at Chelan, WA. Ten PAWS stations are located within the proposed Horse Heaven Hills AVA, of which eight had consistent, usable data for several years (Map 1, Table 1). Climate data from the eight HHHA are compared to data collected from PAWS stations located in the Red Mountain (RMA), Yakima Valley (YVA) and Walla Walla (WWA) AVA's. Data used to represent the proposed Horse Heaven Hills AVA are averages of the eight usable weather stations in the area. The stations selected in the RMA and WWA are the only existing stations in these areas, and the WSU-Headquarters station was selected in the YVA as it is most representative of the grape growing areas within the YVA. The Chelan, WA NWS COOP site was chosen to represent the northern portion of the CVA.

We have selected three important climatic factors, precipitation, wind run and annual heat unit accumulation, to illustrate the uniqueness of the climate in the proposed HHHA.

Precipitation

The amount and timing of rainfall a wine grape region receives in a growing season can have a major impact on the crop. The majority of annual rainfall that is accumulated in all of the Columbia Valley sites is received in the winter months when the vines are dormant. Due to this fact, all of the grape growing regions in Eastern Washington require supplemental water in addition to the annual rainfall received in a given year. The low amount of precipitation received during the growing season also reduces the risk of harmful diseases that may occur in the vineyard.

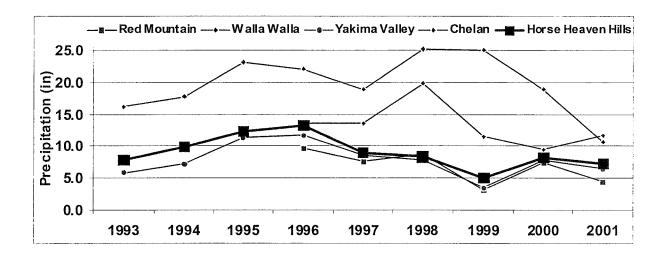
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The amount of water a grapevine receives, either through irrigation or precipitation, directly impacts fruit and wine quality. Too much water leads to excessive vine canopy growth which may result in undesirable fruit characteristics, including vegetative flavors, excessive acidity, reduced color and large berry size. In addition, excessive canopy growth can result in increased disease pressure. Grapevines are very sensitive to water status and vine growth can be managed through careful irrigation management in areas where annual precipitation is insufficient.

The proposed Horse Heaven Hills AVA receives significantly less rainfall than the Walla Walla AVA (about 45% less on average), but is comparable to the Red Mountain and the Yakima Valley AVA. The Chelan, WA area which is within the Columbia Valley AVA receives 30% more annual precipitation than the Horse Heaven Hills.

Total Precipitation Inches: PAWS locations within the CVA

Location	1993	1994	1995	1996	1997	1998	1999	2000	2001
Red Mountain				9.6	7.5	8.8	3.1	7.4	4.5
Walla Walla	16.3	17.7	23.2	22.0	19.0	25.2	25.0	18.9	10.7
Yakima Valley	5.8	7.3	11.3	11.6	8.5	7.9	3.5	7.9	6.4
Chelan				13.6	13.6	19.8	11.5	9.4	11.7
Horse Heaven Hills	7.8	9.9	12.3	13.2	9.0	8.3	5.0	8.1	7.2



Wind Run

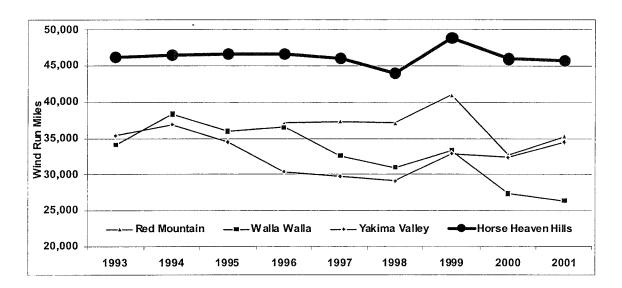
Wind impacts vine growth by reducing shoot length and berry size. It can also adversely affect fruit set (1, 2). Wind causes leaf stomates to close, thereby reducing photosynthesis. Strong winds reduce disease pressure by drying the wet plant surfaces on which fungal spores or bacteria may have landed. Winds will also reduce humidity within the canopy.

Strong winds are an important feature of the Horse Heaven Hills area. The region receives significantly more wind (up to 30%) as compared to other Columbia Valley AVA's, especially during the bud-break to fruit set period. The most often observed consequence of high wind in the region is reduction in canopy size and density.

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Annual Wind Run Miles

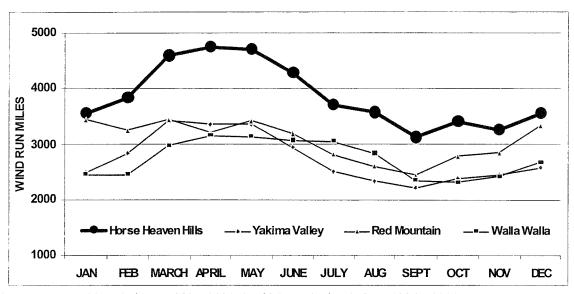
Location	1993	1994	1995	1996	1997	1998	1999	2000	2001
Red Mountain				37,127	37,349	37,080	40,999	32,752	35,245
Walla Walla	34,179	38,373	36,010	36,447	32,666	30,978	33,413	27,370	26,422
Yakima Valley	35,359	36,867	34,462	30,366	29,768	29,153	32,897	32,437	34,460
Horse Heaven Hills	46,242	46,506	46,625	46,647	46,085	43,953	48,833	45,955	45,703



Average Monthly Wind Run Miles

	Horse Heaven Hills	Yakima Valley	Red Mountain	Walla Walla
JAN	3550	2485	3444	2456
FEB	3831 .	2823	3241	2451
MARCH	4583	3426	3447	2974
APRIL	4742	3353	3199	3161
MAY	4691	3349	3429	3137
JUNE	4289	2943	3190	3054
JULY	3711	2507	2811	3044
AUG	3556	2334	2604	2835
SEPT	3109	2217	2428	2354
OCT	3406	2382	2783	2315
NOV	3262	2459	2849	2423
DEC	3554	2585	3335	2669

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* Average Monthly Wind Run 1993 – 2001. Red Mountain data is from 1996 – 2001.

Annual Heat Unit Accumulation

Annual heat unit accumulation is an index utilizing the summation of average daily temperature above a threshold (50°F) value. Heat unit accumulation is generally considered to be an important indication of the suitability of a site to produce high quality grapes. Small differences in site temperature can result in significant differences in fruit and wine quality.

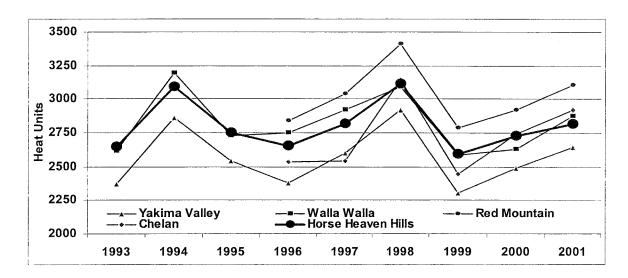
The proposed HHHA is one of the warmer growing regions in the CVA. This region accumulates on average 10% more heat units than the Yakima Valley AVA, but 10% less than the Red Mountain AVA. HHHA is comparable to the Walla Walla AVA, however; accumulates about 5% more than the Chelan area.

A warmer growing season can have a dramatic impact on harvest date and fruit quality. Harvest in the HHHA can start up to two weeks earlier than in the Yakima Valley AVA. The growing season in the HHHA allows growers to ensure full maturity in mid to late season grape varieties while receiving the benefit of extended "hang time" on the vines. This growing season produces unique fruit characteristics resulting in many "Single Vineyard" designated wines produced by the wineries utilizing fruit from the area. The mid-length season also decreases the risk of fall frost and harvest-time disease pressure as fruit is generally picked before fall frosts and rains occur.

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Annual Heat Unit Accumulation

Location 2	1993	1994	1995	1996	1997	1998	1999	2000	2001
Yakima Valley	2373	2863	2539	2377	2599	2919	2307	2492	2649
Walla Walla	2614	3193	2725	2753	2918	3094	2588	2634	2876
Red Mountain				2836	3039	3409	2786	2920	3106
Chelan				2532	2544	3145	2444	2743	2920
Horse Heaven Hills	2645	3091	2748	2653	2819	3114	2596	2726	2817



Bibliography:

- 1) Freeman, B. M.; Kliewer, W. M.; Stern, P. Influence of windbreaks and climatic region on diurnal fluctuation of leaf water potential, stomatal conductance, and leaf temperature of grapevines. Am. J. Enol. Vitic. 33:233-236 (1982).
- 2) Kobringer, W. M., Kliewer, W. M., Lagier, S. T. Effects of wind on water relations of several grapevine cultivars. Am. J. Enol. Vitic. 35:164-169.

SOILS

Alan Busacca Department of Crop and Soil Sciences Washington State University

Soils of the proposed Horse Heaven Hills AVA are formed from three dominant soil parent materials that have weathered under a climate that provides less than about 12 inches of mean annual precipitation with a strong summer dry period. The three parent materials are eolian sand and silt (windblown dunes and loess); sediments from giant glacial outburst floods, including gravelly alluvium and stratified fine sands and silts (slackwater sediments); and hillslope rubble (colluvium) from the Columbia River Basalt bedrock. Soils are formed in almost all combinations of the three parent materials. The soils are mainly classified as Aridisols (desert soils) and Mollisols (prairie soils) in the U.S. Soil Taxonomy (Soil Survey Staff, 1999).

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Existing vineyard development is concentrated in the <u>Quincy-Burbank Hezel</u> map unit (Figure 1). Canoe Ridge and Paterson Ridge are in this map unit. Quincy and Hezel soils are deep to very deep soils (> 60") formed in dune sand and in dune sand over sandy glacial flood sediments, respectively. In the HHH AVA Quincy and Hezel soils are intimately patterned on the landscape with soils such as the Burbank and Koehler series, creating unique challenges to vineyard siting and management. Burbank soils are formed of gravelly glacial flood sediments and Koehler soils are formed in only about 30 inches of dune sand over a cemented pan that excludes vine roots.

Vineyard development is expanding on the <u>Mikkalo-Bakeoven-Lickskillet</u> and the <u>Lickskillet-Cheviot-Stacker</u> map units, such as at Alder Ridge. These soils are somewhat unique to vineyard production in eastern Washington: Mikkalo soils consist of about 40 inches of loess over basalt bedrock and are limited by rooting depth. Cheviot soils are very cobbly and have formed in basaltic colluvium and loess. The other soils in these associations are shallow and very shallow (<20") to basalt bedrock, and the occur in a complex small landscape mosaic with the deeper soils, limiting vineyards blocks to a few tens of acres in many cases.

Soils of the <u>Warden-Shano-Esquatzel</u> and <u>Ritzville-Willis-Kiona</u> map units form the largest area of the proposed AVA. Soils in these map units are more common to other viticultural areas in eastern Washington. These soils formed in deep loess (Shano, Ritzville), moderately deep loess (<40") over a cemented pan (Willis), loess over stratified slackwater sediments at about 20" (Warden), alluvium reworked from loess (Esquatzel), and cobbly colluvium of loess and basalt (Kiona).

Bibliography:

- Soil Survey Staff. 1999. Soil Taxonomy, A Basic System of Soil Classification for Making and Interpreting Soil Surveys, 2nd Ed. U.S.D.A. Natural Resources Conservation Service. Agriculture Handbook 436, U.S. Government Printing Office, Washington D.C.
- 4. The specific boundaries of the viticultural area, based on features that can be found on united States Geological Survey (U.S.G.S.) maps of the largest applicable scale. Copies of the maps are attached as Exhibit E.

The proposed boundary for the Horse Heaven Hills AVA is located in the State of Washington, entirely within the existing Columbia Valley AVA. The boundaries of the Horse Heaven Hills AVA using landmarks and points of reference found on the USGS 7.5 minute maps are as follows:

- 1. From the junction of Interstate Highway 82 and the Washington shoreline of the Columbia River, east to the point on the Washington shoreline directly perpendicular to the intersection of Benton, Umatilla and Walla Walla counties,
- 2. From this point on the Washington shoreline, directly north by northwest to the peak of Jump-off-Joe Butte,
- 3. From Jump-off-Joe Butte along the ridge line to Johnson Butte,
- 4. From Johnson Butte along the ridge line to Interstate 82,
- 5. From the highest point on Interstate 82, west along the ridge line to the Mabton-Bickleton road and South on the Mabton-Bickleton road to Alderdale Road,
- 6. From the intersection of the Mabton-Bickleton road and Alderdale road, southeast along Alderdale road to the 1700 foot elevation,
- 7. From the intersection of Alderdale road and the 1700 foot elevation, follow the 1700 foot elevation southwest to Pine Creek,
- 8. From the intersection of the 1700 foot contour and Pine Creek, southeast along Pine Creek to the Columbia River shoreline, and thence east along the Washington shoreline of the Columbia River to the point of origin.

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The Horse Heaven Hills

U.S.G.S Maps, 7.5 minute topography.

Attached are 34 maps which detail the area within the proposed Horse Heaven Hills AVA. Each map contains the information for one quadrangle and shows the boundary line for the AVA in magenta.

We have organized the information by numbering the maps 1 through 34. An overview map is provided and shows all the maps and numbers for easy reference.

The heavy magenta line follows the boundary of the proposed AVA. The CAD system used to plot these points continued the boundaries past the lineal boundaries of the quadrangle when each map was printed. We have made a note on each map that references the contiguous map that also contains the border.

Maps utilized for determining the boundary of the proposed AVA are the attached U.S.G.S. 7.5 minute topography maps including:

Quadrangle Name	Map#	Quadrangle Name	Map#	Quadrangle Name	Мар #
Corral Canyon	1	Lenzie Ranch	12	West of Paterson	23
Mabton West	2	Whitstran SE	13	Paterson	23
Mabton East	3	Prior Ranch	14	Irrigon	25
Prosser	4	Taylor Canyon	15	Umatilla	26
Whitstran	5	Johnson Butte	16	Hat Rock	27
Whitstran NE	6	Nine Canyon	17	Juniper	28
Webber Canyon	7	Wallula	18	Wood Gulch	29
Badger Mtn.	8	Crider Valley	19	Heppner Junction	30
Tule Prong	9	Douty Canyon	20	Golgotha Butte	31 ·
Prosser SW	10	Phinney Hill	21	Crow Butte	32
Prosser SE	11	Canoe Ridge	22	Boardman	33
		_		Juniper Canyon	34

The proposed boundary for the Horse Heaven Hills AVA is located in the State of Washington, entirely within the existing Columbia Valley AVA. The boundaries of the Horse Heaven Hills AVA using landmarks and points of reference found on the USGS 7.5 minute maps are as follows:

- 1. (18.8/16.7 miles) Beginning on the Umatilla Quadrangle (map number 26) at the junction of Interstate Highway 82 and the Washington shoreline of the Columbia River, proceed east along the shoreline across the Hat Rock Quadrangle (27) and continue east by northeast along the shoreline through the Juniper Quadrangle (28) and just on to the northwest corner of the Juniper Canyon Quadrangle (34), continue north by northeast north onto the Wallula Quadrangle (18) and continue to the Bench Mark ("BM") 343 marker located on the southwest corner of the Wallula Quadrangle on or about the center of Section 18, T6N near Palmer Pond. Then;
- 2. (9.4 miles) From the BM x 343 elevation marker, proceed directly northwest onto the Nine Canyon Quadrangle (17) and continue northwest in a straight line through the Nine Canyon Quadrangle and onto the Johnson Butte Quadrangle (16) to Jump off Joe Butte (about 10 miles) located towards the northeast corner of the Johnson Butte Quadrangle in Section 12, T7N. Then;
- 3. (3 miles) From Jump of Joe Butte proceed westerly to Johnson Butte located towards the northern section line of Section 16, T7N. Then;

- 4. (1.5 miles) From Johnson Butte, proceed directly west by southwest to the BM 1680 marker located on the western section line of Section 17, T7N. Then;
- 5. (3 miles) From the BM 1680 marker, proceed in a straight line northwest to the northwest corner of Section 14 T7N, R28E on the Taylor Canyon Quadrangle (15); (57 / 40miles) continue west by northwest along the ridge line through the Taylor Canyon Quadrangle to the northwest corner onto the Badger Mtn Quadrangle (8), continue along the ridge line north then northwest onto the Webber Canyon Quadrangle (7), continue west by northwest along the ridge line through the Webber Canyon Quadrangle to the Whitstran NE Quadrangle (6), continue along the ridge line north by northwest across the northeast corner of the Whitstran NE Quadrangle along the ridge line onto the very southern portion of the Corral Canyon Quadrangle (1), then continue along the ridge line west by southwest back onto the Whitstran NE Quadrangle and along the ridge line onto the Whitstran Quadrangle (5), continue west by southwest through the Whitstran Quadrangle along the ridge line to the Prosser Quadrangle (4) and continue west along the ridge line through the Prosser Quadrangle to the Mabton East Quadrangle (3), continue west along the ridge line through the Mabton East Quadrangle onto the very southeast corner of the Mabton West Quadrangle (2), proceed to the highest point in Section 1, T7N as referenced by the 2,011 ft elevation marker. Then;
- 6. (0.75 miles) From the 2,011 foot elevation marker, proceed directly southwest onto the Tule **Prong** Quadrangle (9) to the intersection of Wandling road and Alderdale road located in Section 2, T7N. Then;
- 7. (5.3 miles) From the intersection of Wandling road and Alderdale road, proceed south along Alderdale road then south by southeast onto the **Prosser SW** Quadrangle (10), continue south by southeast on Alderdale road to its intersection with the 1,700 foot elevation contour line on Section 31, T7N. Then;
- 8. (12.7 / 5 miles) From the 1,700 foot elevation contour line and the Alderdale road intersection, proceed south by southwest along the 1,700 foot contour line back onto the Tule Prong Quadrangle (9), continue along the 1,700 foot contour line as it proceeds south by southwest along the eastern portion of the Tule Prong Quadrangle and south onto the Douty Canyon Quadrangle (20) to a point where the 1,700 foot contour line intersects the section line between Sections 22 and 23, T6N. Then;
- 9. (13.3 miles) From the 1,700 foot contour line and the intersection of the section line between Section 22 and 23, T6N, proceed directly southwest in a straight line through the **Douty Canyon** Quadrangle onto the southeast corner of the **Crider Valley** Quadrangle (19) continue directly southwest onto the **Wood Gulch** Quadrangle (29), continue southwest to the intersection point of East Road and the corner section intersection of Sections 8, 9, 17, and 16, T4N. Then;
- 10. (1.0 mile) From the intersection of East Road and the corner section intersections of Sections 8, 9, 17, and 16, T4N, continue south along East Road to its intersection with Pine Creek in the southern portion of Section 16, T4N. Then;
- 11. (6.8 miles) From the intersection of East Road and Pine Creek proceed east along the northern shoreline of Pine Creek onto the **Heppner Junction** Quadrangle (30) continue east by southeast along the northern shoreline of Pine Creek to its intersection with the Washington shore line of the Columbia River on or about Section 32, T4N. Then;

12. (77 / 37.8 miles) From the intersection of the northeastern shoreline of Pine Creek and the Washington shoreline of the Columbia River, continue along the Washington shoreline of the Columbia River east onto the Golgotha Butte Quadrangle (31), continue along the Washington shoreline of the Columbia River onto the Crow Butte Quadrangle (32), continue along the Washington shoreline of the Columbia River east onto the Boardman Quadrangle (33), then proceed east by northeast across the northwest corner of the Boardman Quadrangle north onto the West of Paterson Quadrangle (23), continue east by northeast across the southeast corner of the West of Paterson Quadrangle along the Washington shoreline of the Columbia River east onto the Paterson Quadrangle (24), continue along the Washington shoreline of the Columbia River east across the Paterson Quadrangle east onto the Irrigon Quadrangle (25), continue along the Washington shoreline of the Columbia River east across the Irrigon Quadrangle east onto the Umatilla Quadrangle (26), continue along the Washington shoreline of the Columbia River east to the point of beginning and the intersection of Interstate Highway 82 and the Washington shoreline of the Columbia River.

The Horse Heaven Hills

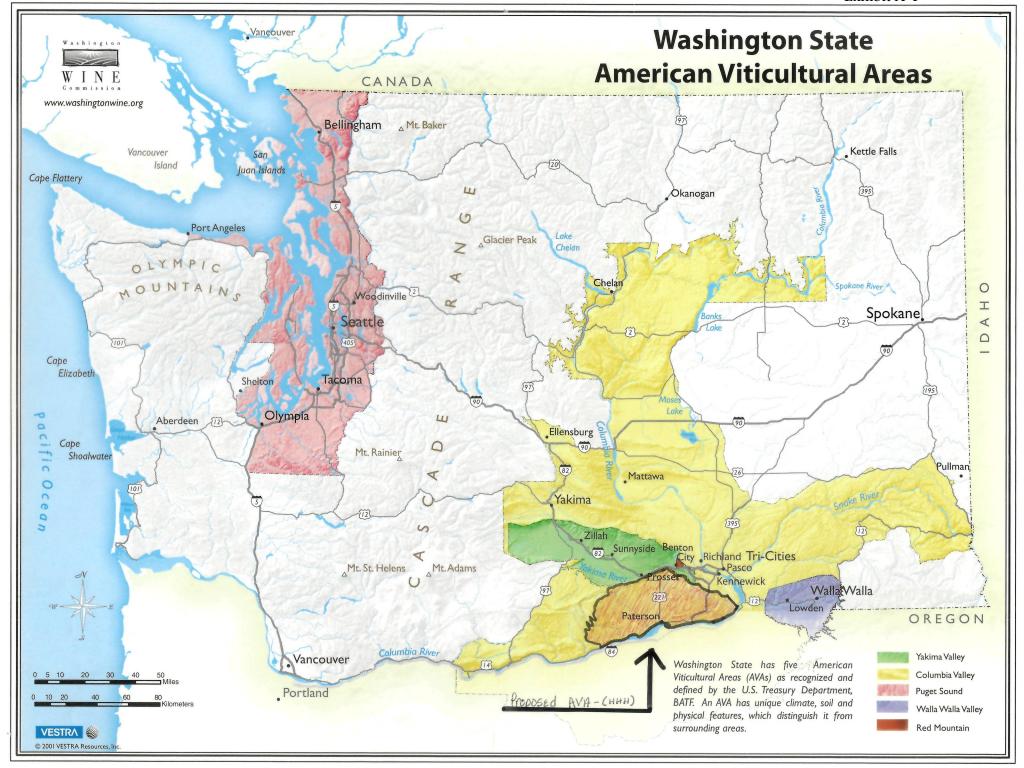
U.S.G.S Maps, 7.5 minute topography.

Map Order by area description:

26	T.T 4:11
26	Umatilla
27	Hat Rock
28	Juniper
34	Juniper Canyon
18	Wallula
17	Nine Canyon
16	Johnson Butte
15	Taylor Canyon
8	Badger Mountain
7	Webber Canyon
6	Whitstran NE
1	Corral Canyon
5	Whitstran
4	Prosser
3	Mabton East
2	Mabton West
9	Tule Prong
10	Prosser SW
20	Douty Canyon
19	Crider Valley
29	Wood Gulch
30	Heppner Junction
31	Golgotha Butte
32	Crow Butte
33	Boardman
23	West of Paterson
24	Paterson
25	Irrigon

Horse Heaven Hills AVA (TD 28) Listing of Petition Exhibits

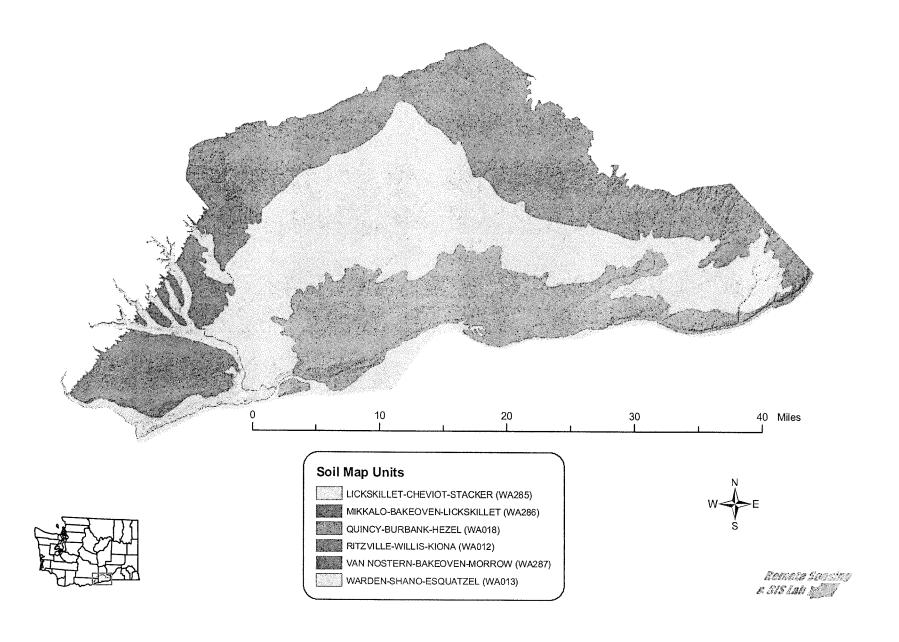
- 1. Washington State AVA map (VESTRA, 2001) Exh. A
- 2. Horse Heaven Hills overall and vineyard acreages
- 3. Soils map (black and white)
- 4. Listing of vineyards within Horse Heaven Hills Exh. B
- 5. Various Source Documents as references in petition Exh. C



Proposed Horse Heaven Hills AVA 570,235 Acres

VYD	Acres
Alder Ridge Vineyard	815
Aldercreek Vineyard	120
Andrews & Rowell	158
Andrews Horse Heaven Ranch	183
Canoe Ridge Vineyards	163
Champoux Vineyards	175
Coyote Canyon Vineyards	310
Destiny Ridge Vineyard	216
Elerding Vineyard	
Holtzinger Vineyards	211
Limping Crow Vineyard	7
Martinez Vineyard	3
Matador Vineyards	8
Mercer Ranch Vineyards	17
Minerva Vineyards	50
Stimson Lane Canoe Ridge Estate Vineyard	470
Stimson Lane Columbia Crest Estate	2314
Vineyard	
Wallula Vineyards	411
Windy Ridge Vineyards	110
Zephyr Ridge Vineyards	220
Total Vineyard Acres	6040

Soils of Proposed Horse Heaven Hills AVA



Horse Heaven Hills Proposed AVA

VINEYARD	Acres	Contact person	Phone number
Alder Ridge Vineyard	815	Paul Lukas	509 836 2524
Aldercreek Vineyard	120	Dave Groth	509 894 2919
Andrews & Rowell	158	Doug Rowell	509 894 4528
Andrews Horse Heaven Ranch	183	Rob Andrews	509 894 5004
Canoe Ridge Vineyards	163	Diane Boles	509 527 0885
Champoux Vineyards	175	Paul Champoux	509 894 5240
Coyote Canyon Vineyards	310	Mike Andrews	509 894 4500
Destiny Ridge Vineyard .	216	Jarrod Boyle	509 894 4507
Elerding Vineyard	77	Roger Bates	509 830 5290
Holtzinger Vineyards	211	Pete Faucher	509 586 7170
Limping Crow Vineyard	7	Russ Rassmussen	509 894 4773
Martinez Vineyard	3	Sergio Martinez	509 894 4992
Matador Vineyards	8	Will Beightol	509 832 4191
Mercer Ranch Vineyards	17	Russ Rassmussen	509 894 4773
Minerva Vineyards	50	Will Beightol	509 832 4191
Stimson Lane Canoe Ridge Estate			
Vineyard	470	Kevin Corlss	509 882 3928
Stimson Lane Columbia Crest Estate			
Vineyard	2314	Kevin Corlss	509 882 3928
Wallula Vineyards	411	Andy denHoed, Jr.	509 882 5025
Windy Ridge Vineyards	110	Dave Groth	509 894 2919
Zephyr Ridge Vineyards	220	Will Beightol	509 832 4191

Total Vineyard Acres

6040

The Horse Heaven Hills

Petition for Establishment of a New American Viticulture Area

EXHIBIT C

Source documents for Petition item number 1.

THE GLOBAL ENCYCLOPEDIA OF

PETER FORRESTAL Consultant Editor

Foreword by JAMES HALLIDAY



PULLISHER

Gordon Cheers

Margaret Olds

FORESVORD

James Halliday

Lexi WANAGira.

ASSUCIATE made that R

Mary Haibmeyer

PHOTOGRAPH - ALTONAGING LISTOR

Anna Cheitetz

COLLORS

fricia Bandroft Lynn Cola Tiona Doig

Scott rorbes

Sue Grosa-Hodge Shelley Kenigsberg

ñovvena Lennox Meny Pearson Frank Povah Ann Savage Sarah Shrubb

ART DIRECTO.

Stan Lamond

COVER DESIGN

Bob Mitchell Stan Lamond

PAGE LAYOU.

Cathy Campbell Moyna Smeaton Robert faylor

Veronica Varetsa

CalciuGRAmica

John Euth

MAP EDITORS

Derek Barton Merry Pearson

MAP CONSULTANT

Valerie Marlborough

PICTURE RESIDENTS

Gordon Cheers

TYPESETTION

Dee Rogers

Bibra

Glenda Browne

PUBLISHING ASSISTANT

Erin King

PRODUCTION

Rosemary Barry Bernard Roberts

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Inc Pabisher would be pleased to hear from photographers interestee in supplying international photographs

GAP Hotali

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page 4. Roes of vines, Barbaresco, Piedmont, Italy. page 2: Globston Valley ceilar, Central Otago, New Zealand. page of Himposting chassilas grapes, Geneva, Switzerland. page 16. See p. 912, top to bottom refer to pp. 62, 222, 334, 376, 278. page 11. See p. 912, top to bottom refer to pp. 454, 488, 500, 576, 654.

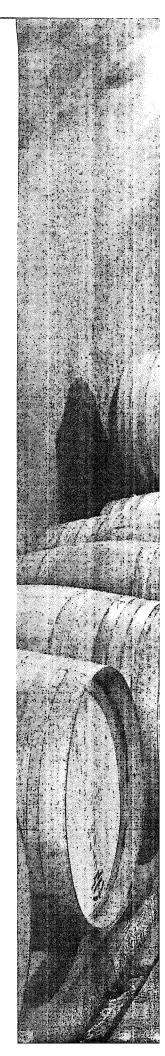
page 12 Abrilot grapes.

pages 14 to Vineyards and winery buildings, Te Mata Estate,

Hatekes Elig New Zealand

All captions for pictures found in the introductions to each chapter can be located on page 912 (the last page of the book).

Note the abbreviation used in this book. NA in the Producer ustags denotes that the relevant information was Not Available from the producer at time of going to press.



Yakima Valley

Washington's largest AVA (American Viticultural Area) is the Columbia Valley with 25,000 acres (10,125 ha) of vines planted inside a total area of 10.7 million acres (4,333,500 ha). It was conceived as a blanket appellation for virtually all of the state's vineyards. Within this large area are two smaller, more climatically distinctive AVAs: the semi-arid Yakima Valley and Walla Walla River Valley. Relatively cooler than the surrounding Columbia AVA, the Yakima Valley produces about 40 percent of the state's wine. The region is bounded by the evocatively named Rattlesnake Hills and Horse Heaven Hills.

CHINOOK

Established 1983 Owners Kay Simon and Clay Mackey Production 3,500 cases Vineyard area 7 acres (2.75 ha)
Former Château Ste-Michelle winemaker Kay Simon established Chinook with partner Clay Mackey, intent on keeping the operation small enough to manage on their own. Stylistically, Chinook sauvignon blanc, chardonnay and sémillon support, rather than dominate food.

All are fine-textured, subtle and crisp.

Established 1982 Owners Hogue family Production

HOGUE CELLARS

0ne of the leaders in the region, Hogue is a largish winery with the will and ability to do small-batch winemaking. All of the wines show crystal-clear varietal characters, understated elegance and are inexpensive for their quality. Highlights include tiesling from 26-year-old vines; a spicy, fleshy fumé blanc; leesy, creamy, crisp chardonnay; a more intense, nutty, complex Vineyard Selections Chardonnay; a blackberry and vanilla syrah with fine tannins; minty, juicy merlot; and a meaty, mocea,

KESTREL VINTNERS

soft and deeply juicy.

Established 1995 Owners Walker family Production 12,000 cases. Vineyard area 104 acres (42 ha)

Drawing fruit from this Yakima estate's low-cropped 29-year-old vines, winemaker Ray Sandidge's aim is to be outlived by his wines. Kestrel reds have a powerfully intense elegance, and are

tobacco-tinged Genesis Cabernet Franc that is

slow to unfold. The syrah is tarry, minty and explosive, and easily worth its relatively high price. Sandidge's merlots and cabernets are tightly structured and may just see him out as he hopes.

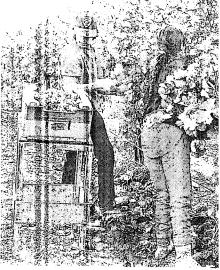
KIONA

Established 1979 Owners Holmes and Williams families Production NA Vineyard area 30 acres (12 ha)

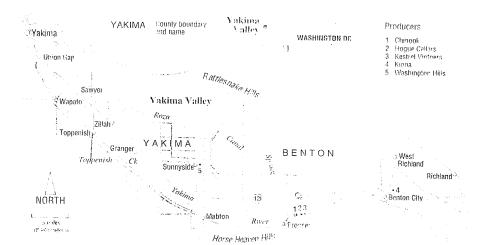
Kiona is sited in chalky, high-pH soil on one of Yakima's driest, hottest sites, Red Mountain. Its lemberger vines are the oldest in the state and its cabernet grapes are considered among the best produced. Known for solid, well-made, fruit-forward, excellent-value wines, with strengths especially in late-harvested riesling, chenin blanc and lemberger wines.

WASHINGTON HILLS

Established 1988 Owners Harry Albadeff and Brian Carter Production 70,000 cases. Vineyard area 103 acres (42 ha). Smartly conceived, with three-tier branding, this winery produces a broad range of varietals, including gewürztraminer and viognier. Entry level Washington Hills offers excellent value chenin blanc, dry riesling, sémillon, chardonnay and merlot. Mid-range Bridgman chardonnay, merlot, syrah and cabernet show more varietal definition and reasonable complexity for the price. The Apex Reserve Range's Gewürztraminer Ice Wine and Late Harvest Riesling are outstanding.



Einstant pulsars from Mexico, here workly at Hapue Johans, follow the grape harves on the west sport



 $\label{thm:condition} \mbox{Hugh Johnson's Modern Encyclopedia of Wine, 4th Edition} \mbox{ Hugh Johnson}$



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Whitehall Lane Winery

St. Helena, Napa. Founded 1980. Owner: Thos Leonardini. 55 acres. 25,000 cases. Wines: Chard., Cab.Sauv., Merlot, Zin. Visits.

White Oak Vineyards

ne

es

Healdsburg, Sonoma. Founded 1980. Owner: Bill Myers. 6 acres. 11,000 cases. Wines: Chard., Cab.Sauv., Zin., Sauv.Bi., Ch. Bl. Private Reserve Chardonnay is rich and ripe, the Chenin and Sauvignon also win praise.

Wild Horse Winery

Paso Robles, San Luis Obispo. Founded 1983. Owner: Ken Volk. 38 acres. 15,000 cases. Wines: P.N., Cab.Sauv., Merlot, Chard. Another Pinot Noir specialist producing impressive results from mainly San Luis Obispo and Santa Barbara grapes.

Williams & Selyem

Healdsburg, Sonoma. Founded 1981. Owners: Burt Williams, Ed Selyem. 3,000 cases. Wines: P.N., Chard., Zin.

Williams and Selyem make Russian River Pinot Noir for all it is worth, having taken DRC as their philosophical model. They produce as many as six named-vineyard wines per year, many of them able to out-duel their French tutors in the inevitable blind tastings.

York Mountain Winery

Templeton, San Luis Obispo. Founded 1882. 5,000 cases. Visits.

Zaca Mesa Winery

Los Olivos, Santa Barbara. Vineyards planted 1978. Owners: John and Lou Cushman. 240 acres near winery. 60,000 cases. Wines: Syrah, Marsanne, Cuvée Z, Chard.

With Firestone (q.v.) one of the first to plant in the Santa Ynez Valley. Pioneer vineyards on the 1,500-foot flattopped 'mesa' (former cow country) are phylloxera-free and ungrafted. Chardonnay and Riesling were the first two successes. With Dan Gehrs as winemaker, it has shifted its focus to Rhône varieties in the 1990s. Syrah is the flagship. Marsanne the great white hope. Cuvée Z is a blend of estate-grown fruit.

ZD Wines

Napa, Napa. Founded 1969. Owners: the Norman de Leuze family. 3.5 acres of Cab.Sauv. with grapes bought in Napa, Sonoma, Santa Barbara and San Luis Obispo for Chard. and P.N. 18,000 cases. Visits.

Pinot Noir and Chardonnay (the latter with American oak) are the focus; the philosophy is to find the right grapes in any part of California.

THE PACIFIC NORTHWEST

If, in the early 1970s, America was waking up to superlative quality from Napa and Sonoma, by the end of the decade the *awant-garde* were heralding the Pacific Northwest as the coming wine region, with strong hints that the new area would make something closer to the European model: wines less overbearing than the California champions. Much of this potential has been fulfilled.

In the early 1960s, a young man from Salt Lake City, Utah, drove through the Donner Pass into Paradise – California's Napa Valley. Instead of enrolling in a dental school in San Francisco as he intended, he instead temporarily lost his mind and enrolled in a viticulture programme at the University of California at Davis. That man was David Lett. Lett became enamoured of Pinot Noir, but felt that in most cases California wasn't getting it right. He began studying climatological data from Oregon's Willamette Valley and became convinced that the valley was the best place outside Burgundy to grow Pinot Noir grapes. In 1965 he moved to Oregon and began planting a vineyard. The Eyrie Vineyards made its first wine in 1970.

About the same time, a group of University of Washington professors began a hobby winemaking project in a garage in Seattle. By 1967, they had made several very tasty wines from grapes grown in the Yakima Valley of central Washington. They invited the late André Tchelistcheff, then winemaker at Beaulieu Vineyard in Napa Valley, to taste their Gewürztraminer. Tchelistcheff not only loved the wine, but encouraged the men to produce more. Thus, Associated Vintners (now Columbia Winery) was born.

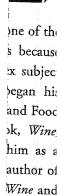
As early as 1979, Oregon Pinot Noir gained international accolades when David Lett's 1975 Pinot Noir was placed second in a competitive blind tasting in Paris organized by Robert Drouhin of Beaune: Drouhin's own 1959 Chambolle-Musigny won first place. Drouhin was so impressed that he visited Oregon several times, establishing a vineyard and winery near Lett's in 1988. Since the Paris tasting, many Northwest wineries have been in the international limelight for Chardonnay and Pinot Noir from Oregon and Cabernet Sauvignon and Merlot from Washington.

In less than 30 years, the Pacific Northwest wine industry has burgeoned from just a handful of wineries, many producing only fruit and berry wines, to approximately 200 ranging in production from a few hundred to millions of litres of premium *vinifera* wines yearly. Vineyard acreage has increased to nearly 25,000 acres, mostly planted to the classic European varieties. Viticulturalists have sought out the best microclimates for growing grapes, and winemakers throughout the Northwest have learned to work with the grapes to express their best potential. These focused efforts have created the true tastes of the Northwest.

The Pacific Northwest is not one grape-growing area, but two. North of the California border in western Oregon, the Coast Range asserts itself as a rain catcher, sheltering the Umpqua Valley to the south, then further north the Willamette Valley. Annual rainfall is a reasonable 30–40 inches, and the latitude the same as that of Bordeaux. For the most part, this is a gentle maritime climate, best suited to cool-climate grape varieties. Although the star to date

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has been Pinot Noir, with Chardonnay and Riesling also in abundance, recent years have seen increased plantings to Pinot Gris and Pinot Blanc. The quality of Gewürztraminer is generally high, and the area also produces some very good sparkling wines.

In complete contrast, the vineyards of Washington have been planted two ranges back from the Pacific Ocean, east of the much higher Cascade Mountains, in an area with a mere 10 inches of rain a year - the Columbia River Basin, and within it the more grape-specific Yakima Valley. Here, American Concord grapes first were grown for jelly making. But the region's deep sandy soil, long summer daylight hours and hor sunshine have proved ideal for wine grapes. The latitude - 100 miles further north than the Willamette - and the continental extremes of temperature (very cold in winter and surprisingly chilly even on a summer night) have proved particularly suited to the Bordeaux varieties - Semillon, Sauvignon Blanc, Cabernet Sauvignon, Cabernet Franc and Merlot. Chardonnay, Riesling and Gewürztraminer also fare extremely well in eastern Washington. Grapes ripen well while keeping remarkably high acidity, with consequent intensity of flavour.

Three regional designations are permitted on Oregon labels: Willamette Valley (AVA: nine counties from Portland 100 miles south to Eugene); Umpqua Valley (AVA: Douglas County, centred on Roseburg, another 50 miles south); and

Rogue Valley (Jackson and Josephine counties, centred on Grant's Pass, 50 miles south again).

Washington's vineyards are concentrated in the Yakima Valley, but its established wineries are centred around Seattle. The three AVAs are Columbia Valley, Yakima Valley and Walla Walla Valley, south of the State line. Up to now the grapes have been transported the 150 miles over the Cascades to Seattle, but several companies have now built wineries near the vineyards, between the ridges of such unvinous-sounding ranges as the Rattlesnake and the Horse Heaven Hills. Watch out for such names as Ahtanum Ridge, Wahluke Slope, Canoe Ridge and Red Mountain.

The Oregon wine industry grew up in the Willamette, Umpqua and Rogue valleys near where grapes were grown. While vineyards in Oregon matured, many wineries purchased grapes from Washington vineyards. In Washington, most grapes are grown east of the Cascade Mountains, though the industry's first generation saw most of its winemaking in northwestern Washington, predominantly in the Woodinville-Kirkland area just north of Seattle. Today Woodinville is still the stronghold for many of Washington's largest and most prestigious wineries but more and more wineries, both large and small, are locating closer to the grape source, Neighbouring Idaho, whose vineyards are east of Oregon, along the Snake River, has 12 wineries and is making a name for itself with its Chardonnays.

OREGON

Leading Willamette Valley Producers

ACME Wineworks/John Thomas Winery

Carlton, OR 97111. Willamette Valley. Owner and winemaker: John Thomas.

Established in 1993, ACME produces small batches of handcrafted Pinot Noir under two labels: the ACME label is better value, the John Thomas, sporting a traditional Burgundystyle label, the better wine.

Adelsheim Vineyard

Newberg, OR 97132. Willamette Valley. Owners: David and Virginia Adelsheim. Winemaker: Don Kautzner.

The winery first crushed in 1978, using mainly Washington grapes. Today, focus is on fine Pinot Noir from its own and neighbouring vineyards. Also produced are Chardonnay, Pinot Gris and a small amount of dry Riesling.

Airlie Winery

Monmouth, OR 97361, Willamette Valley. Owners: Larry and Alice Preedy. Winemaker: Larry Preedy.

Kansas transplants, the Preedys began growing grapes in Oregon in 1983. Their beautifully tended 35-acre vineyard yields Pinot Noir, Chardonnay, Müller Thurgau, Riesling, Gewürztraminer (the last often one of their best wines) and Marechal Foch. The winery produces approximately 5,000 cases of wine annually.

Amity Vineyards

Amity, OR 97101. Willamette Valley. Owners: Myron and lone Redford, Janis Checchia. Winemaker: Myron Redford.

Amity, established in 1976, produces about 10,000 cases of wine a year. Its best efforts at present are dry Riesling, Gewürztraminer and Pinot Blanc. The quality of the Pinot Noir varies.

Archery Summit

Dayton, OR 97114, Willamette Valley. Owner and winemaker: Gary Andrus.

California-based Gary Andrus is owner of Pine Ridge Vineyards in Napa Valley. This new, state-of-the-art winery made its first wines (1993 and 1994 vintages) in California with Oregon fruit. The winery opened in May 1996. Primary focus is Pinot Noir, and the first releases indicate that these are competent wines.

Argyle/The Dundee Wine Company

Dundee, OR 97115. Willamette Valley. Owners: Brian Croser and Cal Knudsen. Winemaker: Rollin Soles.

A strange marriage of Australia (Croser), Washington (Knudsen – formerly a partner in Knudsen Erath Vineyards) and Texas (Soles) produces some of the best *méthode traditionnelle* sparkling wines in the United States. The 100,000-gallon capacity winery, founded in 1987, also produces very good Chardonnay, Pinot Noir, and a delicious dry Riesling.

Autumn

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ABOUT US

3/7/01 stan clarke

Published in the Herald-Republic on Wednesday, March 7, 2001

March may have come in like a lamb in the Yakima Valley, but things in the wine business are roaring like a lion.

On Saturday, I visited a handful of local wineries to catch up on some new releases.

At Sagelands, I sampled a pair of forward, fruit-expressive reds under the new label: the '97 Merlot and the '98 Cabernet Sauvignon. The 1997 Merlot vintage isn't one for long aging, but at a mere 4 years, it is enjoyable now. I recently had the Sagelands Merlot with dinner at Snipes Mountain Brewery in Sunnyside and it was great with my pasta.

The 1998 Sagelands Cabernet Sauvignon is an interesting melange of fruit from five different Columbia Valley vineyards. Horse Heaven Ranch (26 percent), Sagelands Estate (21 percent), Elerding (18 percent), Spring Creek (14 percent) and Red Willow (11 percent) provided the 90 percent cabernet sauvignon in the blend. The other 10 percent was made up of merlot, malbec, cabernet franc and petit verdot, showing a glimpse of Sagelands' coming ability to produce a meritage-type blend.

In case you are not familiar with the term "meritage," it is the word coined by group wineries in California for those wines made with traditional Bordeaux varietals. A meritage blend tends to be an American wine using cabernet sauvignon, cabernet franc, merlot, petit verdot and malbec in just about any combination with no one grape lending more than 74 percent to the final blend. Seventy-five percent is the legal minimum for a wine to be labeled as a varietal, so anything containing less than that amount of any type of grape has to be labeled as "red table wine." The new term gives consumers a distinction between reserve-level blends and the more popular-priced, larger production items in the cabernet-merlot genre or just generic red table wine.

Moving down the Valley to Tefft Cellars, north of Outlook, Joel and Pam were excited about their sixth annual library tasting that will take place April 21 at the winery. Dinner will be prepared by Bill Downs (choice of prime rib or salmon, \$13 per person), with the tasting at 5:30 p.m., followed by the



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Loss prevention tips



Reserve Cabernet Sauvignon, and being able to purchase a bottle then and there to enjoy with a medium-well done prime rib dinner! Space is limited to 60 guests, so don't be late scheduling this date.

I also tasted a pair of new releases from Tefft that were noteworthy. The first was its 1998 Zinfandel, made from grapes contracted from a grower in Lodi, Calif. If you don't know about Lodi, it is one of the top zin-producing regions in the Pacific Southwest. It benefits from cool afternoon breezes that blow in from the San Francisco Bay through a gap in the coastal range. This results in a climate much cooler than anywhere else in the Sacramento-San Joaquin Valley, and so it produces some nice zinfandel. The flavors caught in this bottle were just like a good California zin, but made in the Yakima Valley. Definitely worth the \$12 asking price.

Tefft Cellars also has released its 1998 vintage of sangiovese. Incredibly, this is its fourth release, dating back to the offering from the '94 growing season. (By the way, the '94 Sangiovese will be offered at the April 21 library tasting!) This newest sangiovese, from an awesome growing season, is soft and ripe, redolent of cherry and blackberry with just a kiss of oak. I keep telling people that I want to match a group of Washington sangiovese against the pride of Oregon pinot noir -- a little four-on-four price stackup to see just what is the best with food. I'm betting on Washington sangiovese.

My last stop was at Kestrel Vintners, which will release its 1997 Raptor Red during its Kestrel Festival in late spring. This wine is a delicious blend of 62 percent merlot and 38 percent cabernet sauvignon in a distinctive reserve style. It reminds me of the Chaleur Red made by Delille Cellars: sleek and elegant, yet flavorful from beginning to end. I particularly loved the finish, which is a long-lasting blend of pine nuts and raspberry with just a hint of vanilla. This is a beautiful meritage-style wine.

This weekend, I was also lucky enough to sample the 1999 Kestrel Syrah. The '98 Kestrel Syrah numbered just fewer than 100 cases, and quickly became an extinct species. It was a great Washington syrah, but there just wasn't enough of it. With this vintage, much more is available and the quality is excellent. The aroma is laced with fruit and a healthy serving of oak spice. The flavors pick up the aromatics and expand them on the palate, yielding a rich and ripe syrah. Whereas the Raptor Red was sleek and elegant, this baby is rich and round. Between these two wines, you have both ends of a flavor spectrum. It was quite a contrast to taste, but both are beautiful and well made.

Stan Clarke writes about Northwest wines and the wine industry.

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HORSE HEAVEN VINEYARD 1999 SAUVIGNON BLANC

VINTAGE

The 1999 growing season in the Columbia Valley began as one of the coolest on record since 1954. Things turned around in August with the onset of a prolonged period of unusually warm, sunny weather and low nighttime temperatures – ideal conditions for the development and maintenance of intense aromas and flavors in the ripening grapes. Harvest began in late September, and the fruit's complexity and concentration were further enhanced by below average berry size and overall yields.

VINEYARDS

As its name suggests, Horse Heaven Vineyard is located in the Horse Heaven Hills adjacent to the Columbia River, approximately 20 miles south of Prosser, Washington. Vineyard managers take advantage of the area's low annual rainfall and deep, quick-draining soils to carefully manage sauvignon blanc grapes. Too much water or heavy crop loads can make this variety overly aggressive. In order to minimize this effect, irrigation is withheld early in the growing season and vines are leaf-stripped mid-summer.

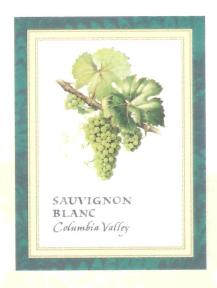
VINIFICATION

As with all Chateau Ste. Michelle wines, each lot of sauvignon blanc grapes was handled individually throughout the winemaking process. Fifteen days of barrel fermentation in new and one-year-old French oak enhanced the fruit's varietal characteristics and helped achieve a smooth integration of oak and fruit. To add complexity and structure, the wine was aged *sur lie* for six months. Prior to bottling 15% barrel fermented Semillon was added to the final blend to help tame the aggressive character of the sauvignon blanc and add a softness to the structure.

WINEMAKER COMMENTS

"This wine is distinguished by an array of tropical fruit aromas – juicy pineapple, papaya melon, grapefruit citrus characters and suble oak compliment each other and add richness and complexity. Overall, this wine offers great balance of flavor and acidity, and has a long, crisp finish."

Erik Olsen, Winemaker



CULINARY SUGGESTIONS FROM JOHN SARICH

Foodsmussels, halibut, chicken, goat cheese
Herbscilantro, oregano, rosemary, thyme
Spicescumin, curry, ginger

ANALYSIS AT BOTTLING

Total Acidity	0.62 g/100 ml
p H	3.23
% Alcohol	13.0
Bottling Date	June 2000
Blend85% Sauvigonon Bl	anc, 15% Semillon





Vintage

Spring in the Columbia Valley was a warm and sunny season with excellent bloom and set in the vineyards. The number of berry clusters per vine was moderate. Although cool summer temperatures delayed the start of harvest a bit, careful canopy management and a rigorous program of crop thinning helped bring the fruit to optimum ripeness. Grapes were picked beginning in mid-September and delivered to the winery brimming with varietal intensity.

Vineyards

In 1978, Chateau Ste. Michelle planted a small parcel of cabernet sauvignon in the deep, lean soils of the Horse Heaven Hills in south-central Washington. Winemakers have come to rely on this special plot of land for its concentrated, flavorful fruit, and over the years, the winery's reputation for award-winning reds has grown. Known today as Chateau Ste. Michelle's Horse Heaven Vineyard, winemaker Mike Januik favors the site for its cabernet and merlot.

The vineyard is located adjacent to the Columbia River and enjoys one of the longest frost-free growing seasons in the state. Temperatures are typically warm enough to bring fruit to full maturity but not so hot as to rush ripening. Long, warm summer days and crisp, cool September nights produce grapes with excellent sugar-acid balance and distinctive varietal character.

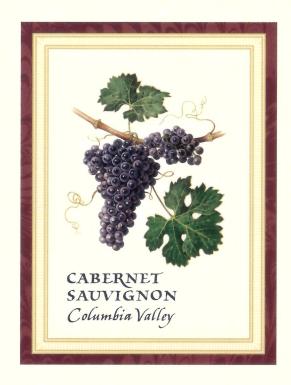
Vinification

Cabernet grapes were destemmed and the must was gently pumped into fermenting tanks. Inoculation with *Prise de Mousse* yeast initiated fermentation, which occurred over thirteen days. During fermentation, twice-daily pumpovers helped to extract maximum flavor and color from the cap. Racking into new and one-year old French oak barrels followed, where the wine was allowed to age for 22 months. Cellar workers used gravity to rack the barrels every 3–4 months during aging to aid in aerating and clarifying the wine.

Winemaker Comments

"This wine offers complex aromas of black fruit, mocha, mint and tea, with an unmistakable tobacco note. In the mouth, I find sweet oak and ripe black cherry, a hallmark of fruit from Horse Heaven Vineyard. A dry, full-bodied Cab, with fine balance and a rich, lengthy finish."

Mike Januik, Winemaker



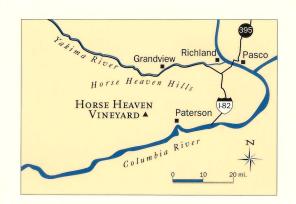
1995 HORSE HEAVEN VINEYARD

CULINARY SUGGESTIONS FROM JOHN SARICH

Foods prime cuts of beef, hearty pastas, aged Parmesan cheese Herbs bay leaf, dried cherries, pepper, rosemary, thyme

ANALYSIS AT BOTTLING

Total acidity	0.54 g/100 ml
рН	
% alcohol	
Blend 79	% cabernet sauvignon, 21% merlot
Bottling date	December 1997



Score Report By Score

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<u>Score</u>	<u>Brand</u>	Product Name	<u>Vintage</u>	<u>Publication</u>	<u>Date</u>
94	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	Wine Enthusiast	2/15/1998
92	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	Wine Enthusiast	6/1/2001
91	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	Wine & Spirits	8/1/2001
91	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Wine Spectator	9/15/1998
91	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	International Wine Cellar	9/1/1998
91	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Wine Enthusiast	8/1/1997
91	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Wine Enthusiast	7/1/1997
91	Chateau Ste. Michelle	1993 Horse Heaven Merlot	1993	Wine Enthusiast	4/1/1996
90	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Wine Enthusiast	2/1/2002
90	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Wine & Spirits	10/1/1998
90	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Wine Spectator	2/28/1997
90	Chateau Ste. Michelle	1994 Horse Heaven Cabernet Sauvignon	1994	Wine Spectator	3/31/1997
89	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	California Grapevine	
89	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	California Grapevine	5/1/2001
89	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	California Grapevine	1/1/1999
89	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Wine Spectator	2/28/1997
88	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	International Wine Cellar	10/1/2001
88	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Wine Spectator	0/15/2000
88	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Wine Spectator	3/31/2000
88	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Wine Enthusiast	9/1/1999
88	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	Wine Spectator	9/15/1998
88	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	International Wine Cellar	9/1/1998
88	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Wine Enthusiast	5/1/1998
88	Chateau Ste. Michelle	1993 Horse Heaven Merlot	1993	Wine Spectator	3/15/1996
87	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	The Wine Advocate	10/1/2001

<u>Score</u>	<u>Brand</u>	Product Name	<u>Vintage</u>	<u>Publication</u>	<u>Date</u>
87	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	The Wine Advocate	2/1/2001
87	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	International Wine Cellar	10/1/2000
87	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	California Grapevine	9/1/2000
87	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Wine Spectator	3/31/1999
87	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	California Grapevine	7/1/1998
87	Chateau Ste. Michelle	1993 Horse Heaven Cabernet Sauvignon	1993	Wine Enthusiast	12/1/1996
87	Chateau Ste. Michelle	1993 Horse Heaven Cabernet Sauvignon	1993	Wine Spectator	3/31/1996
86	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	Copley News Service	3/14/2001
86	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	International Wine Cellar	9/1/1998
86	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Wine Enthusiast	8/1/1997
85	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Wine Spectator	3/30/1998
84	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Wine Enthusiast	9/1/1998
82	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Wine & Spirits	8/1/1998
5	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Florence News Journal	9/15/1999
4	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Restaurant Wine	2/1/2002
4	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Restaurant Wine	8/1/2000
4	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Beverage Dynamics	4/1/1999
4	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Beverage Dynamics	3/1/1998
4	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Beverage Dynamics	8/1/1998
3.5	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	WineToday.com	2/11/2000
3.5	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	WineToday.com	7/3/2000
3.5	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	San Francisco Chronicle	3/29/1999
3.5	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	San Francisco Chronicle	9/29/1999
3	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	WineToday.com	9/20/1999
3	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	WineToday.com	
3	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Northwest Palate	10/1/1998
2.5	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Boston Phoenix	3/19/1999

Score	<u>Brand</u>	Product Name	<u>Vintage</u>	<u>Publication</u>	<u>Date</u>
2.5	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	San Francisco Chronicle	3/24/1999
2	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Northwest Palate	12/1/2001
2	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Connoisseurs' Guide to Ca	8/1/1999
2	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Connoisseurs' Guide To C	7/14/1999
2	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Connoisseurs' Guide to Ca	7/1/1999
2	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Northwest Palate	12/1/1997
2	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Northwest Palate	11/1/1997
2	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Northwest Palate	4/1/1997
2	Chateau Ste. Michelle	1994 Horse Heaven Cabernet Sauvignon	1994	Northwest Palate	8/1/1997
1	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	Northwest Palate	2/1/2001
1	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Wine X	2/31/1999
1	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Northwest Palate	4/1/1999
1	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Connoisseurs' Guide to Ca	2/1/1999
1	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Wine X	6/1/1998
1	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Connoisseurs' Guide to Ca	4/1/1998
1	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	Northwest Palate	10/1/1998
1	Chateau Ste. Michelle	1995 Horse Heaven Cabernet Sauvignon	1995	Connoisseurs' Guide to Ca	9/1/1998
1	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Connoisseurs' Guide to Ca	8/1/1998
1	Chateau Ste. Michelle	1993 Horse Heaven Cabernet Sauvignon	1993	Connoisseurs' Guide to Ca	4/1/1996
1	Chateau Ste. Michelle	1993 Horse Heaven Merlot	1993	Connoisseurs' Guide to Ca	2/1/1996
NA	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Spokane Journal of Busine	1/10/2002
NA	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Yakima Herald-Republic	2/26/2001
NA	Chateau Ste. Michelle	2000 Horse Heaven Sauvignon Blanc	2000	Bon Appetit	9/1/2001
NA	Chateau Ste. Michelle	1999 Horse Heaven Sauvignon Blanc	1999	USA Today	4/20/2001
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Fort Worth Star-Telegram	2/18/2000
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Wine Press Northwest	10/1/2000
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Gazette Newspapers	9/20/2000

<u>Score</u>	<u>Brand</u>	<u>Product Name</u>	<u>Vintage</u>	<u>Publication</u>	<u>Date</u>	
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Memphis Commercial App	9/6/2000	
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Connoisseurs' Guide to Ca	8/1/2000	
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Freelance	7/20/2000	
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	Washington Post	3/8/2000	
NA	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Pittsburgh Post Gazette	3/26/1999	
NA	Chateau Ste. Michelle	1997 Horse Heaven Sauvignon Blanc	1997	Los Angeles Times	7/14/1999	
NA	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Tri-City Herald	1/6/1999	
NA	Chateau Ste. Michelle	1996 Horse Heaven Sauvignon Blanc	1996	Seattle Times	4/8/1998	
NA	Chateau Ste. Michelle	1995 Horse Heaven Merlot	1995	Copley News Service	2/1/1999	
NA	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Cooking Light	1/1/1999	
NA	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Birmingham News	4/15/1998	
NA	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Memphis Commercial App	1/8/1998	
NA	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Memphis Commercial App	1/7/1998	
NA	Chateau Ste. Michelle	1995 Reserve Late Harvest White Riesling	1995	Wine Investor Buyer's Gui	12/1/1997	
NA	Chateau Ste. Michelle	1998 Horse Heaven Sauvignon Blanc	1998	USA Today	9/1/2000	
NA	Chateau Ste. Michelle	1995 Horse Heaven Sauvignon Blanc	1995	Northwest Palate	4/1/1997	
NA	Chateau Ste. Michelle	1994 Horse Heaven Cabernet Sauvignon	1994	Northwest Palate	4/1/1997	
Total Records: 96						



SAGELANDS VINEYARD THE FOUR CORNERS AREA OF THE COLUMBIA VALLEY

Sagelands Vineyard

71 Gangl Road Wapato, WA 98951

> telephone 509 877 2112

facsimile 509 877 3377

sagelandsvinevard.com

SAGELANDS is positioned to be the preeminent producer of Washington state, Columbia Valley Cabernet Sauvignon in the super-premium category.

The Columbia Valley is Washington's largest viticultural area extending from its northernmost boundary near the Okanogan wilderness, just shy of the Canadian border, to its southern border in Oregon, and east along the Snake River to the Idaho border. The western border of the appellation follows the Cascade Range to the beginning of the Columbia Gorge.

Sagelands chooses the key growing regions of the Columbia Valley to produce wines from grapes with distinct flavor profiles. We call these areas the "Four Corners." These Four Corners are best suited to the production of classic Cabernet Sauvignon. The Four Corners consist of the Horse Heaven Hills and Wahluke Slope areas, and the Walla Walla Valley and Yakima Valley appellations. All have distinctive mesoclimates and soil structures that produce intense, flavorful fruit.

HORSE HEAVEN HILLS

The Horse Heaven Hills rise up dramatically from the Yakima River a short distance from where the Yakima and Columbia Rivers meet. As they gently slope off to the south, the Horse Heaven Hills overlook Canoe Ridge and the Columbia River. This area has one of the longest histories for premium winegrape growing in the state of Washington. Early plantings of Cabernet Sauvignon at Mercer Ranch from this area yielded some of the regions first award-winning red wines. The uniformity of the silt soils in conjunction with relatively mild winters and a long, even growing season make this an area well suited for Cabernet Sauvignon and Merlot.

Looking to this area as the source for a key part of the Sagelands Vineyard wines, we have contracted Cabernet Sauvignon and Merlot from Rob Andrew's Horse Heaven Ranch. Rob was a pioneer in this area both in vision and pursuit of quality. Planting his first Cabernet Sauvignon in 1980 from plants sourced from the famous Mercer Ranch Vineyards, Rob expanded his plantings in 1990 and again in 1997; these are now contracted to Sagelands Vineyard. Typical of grapes grown in these soils, Rob's grapes show lively raspberry and blackberry fruit. The wines from these vineyards have soft, velvety tannins that blend well with the bigger, firmer tannins from the Cabernet Sauvignon grown on the west-end Yakima Valley vineyards.

WAHLUKE SLOPE (MATTAWA)

The most northerly point of the Four Corners, the Wahluke Slope, runs along the north side of the Columbia River north of the town of Mattawa. Planted in March and April 2000, this is Sagelands' newest planting, and this site is renowned for growing high-quality Cabernet Sauvignon and Merlot fruit. The Wahluke area is warmer than our other sources, and historically sustains less grapevine damage after the occasional harsh winter. The soils are silt loam with higher sand content than the Yakima Valley soils. The resulting wines show intense berry and black-cherry fruit aromas.

A total of 110 acres will be planted at this site, with approximately 100 acres slated for Cabernet Sauvignon and 10 acres for Malbec. Following a careful site evaluation, it was decided that planting should be in rows trending 20-30 degrees from north to minimize the risk of fruit sunburn. This is a notable departure from the standard north-south row orientation used in Washington. The automated irrigation system to be installed will be state-of-the-art technology with remote access by computer. Irrigation blocks can be isolated to adjust for soil variations based on soil profiling prior to planting.

Walla Walla

The most eastern point of the Columbia Valley's Four Corners is the Pepper Bridge Vineyard. Pepper Bridge was planted to Cabernet Sauvignon, Merlot and Malbec for Sagelands in the spring of 1999. This vineyard site has a history of supplying high-quality fruit to Walla Walla's premier wineries.

YAKIMA VALLEY

The foothills of the Cascade Range form the western boundary of the Yakima Valley, which extends eastward to the Kiona Hills near Richland. The Yakima River, and the Roza and Sunnyside Canals form an irrigation network, facilitating the area's grape cultivation.

The diversity in the climate and soil composition in the Yakima Valley allows Sagelands to select areas with optimal growing conditions — warm sites with well-drained silt loam to rocky soils.

There are two primary Yakima Valley growing locations, the west end and the east end. At the farthest point west of the Four Corners region are the Sagelands Vineyard and grower Mike Sauer's Red Willow Vineyards, each at approximately 1200-foot elevations. These vineyards produce Cabernet Sauvignon with a firm tannin structure, fruit that tends more towards dark, very ripe berry, and chocolate and coffee tones. These vineyards ripen early and typically produce low crops with small berry size, deep color, and great concentration of flavor.

The 11-acre Sagelands Vineyard overlooks the Yakima River and is planted to Cabernet Sauvignon, Merlot, Cabernet Franc, Malbec, Petit Verdot, and Semillon. The property adjoins the 120-acre JET Ranch property, which Sagelands purchased earlier this year. This new property offers outstanding vineyard sites and will be developed in 2003, incorporating new grape clonal material and the most current viticultural methods and technology.

Also planted at the west end of the Yakima Valley is the Elephant Mountain Vineyards owned by Joe Hattrup. Planted in 1998, this is a beautiful south-sloping site on rocky, well-drained silt loam soil. Elevation is approximately 1400 feet, slightly higher than the Sagelands and Red Willow sites. Elephant Mountain Vineyards contributes slightly more fruit and less tannin to the wines.

Red Willow Vineyard lies on the southern slope of the Ahtanum Ridge, while Sagelands and Elephant Mountain lie on the southern slope of Rattlesnake Hills. The west end of the valley has a climate that is distinct from both the upper Yakima Valley (only a few miles farther north) and the lower Yakima Valley. The temperatures can be 3 to 10 degrees Fahrenheit warmer and there is less annual rainfall; these are ideal conditions for ripening Cabernet Sauvignon and Merlot. Consistent warmth throughout the growing season allows long "hangtime" for the grapes on the vine, which is of paramount importance in creating intense flavors.

The second primary grape growing area we are focusing on in the Yakima Valley is Benton City on the east end. This also is a warm site with well-drained, silt loam soils over broken basalt. Spring Creek Vineyard is our source of Cabernet Sauvignon and Merlot grapes, and this four-year-old vineyard shows great promise. The fruit shows bright cherry and raspberry aromas and balanced, fine-grained tannins. This vineyard site took special care to develop, as a large quantity of rock had to be removed prior to planting. As with all rocky vineyard sites, close attention must be paid to irrigation in order to avoid stressing the vines. Nevertheless, the rewards can be great, usually yielding intense fruit character.

Snoqualmie's Columbia Valley Vineyards

Everything a Wine Grape Could Want

The Pacific Northwest is famous for its natural beauty. Framed against the backdrop of towering evergreens and snow-capped mountains, most of the world associates the Northwest's climate and scenery with Seattle, the region's best-known city. But there's another side to the story of the Pacific Northwest.

On the eastside of the Cascade Mountains where Washington state's Columbia Valley vineyards are located, the landscape and weather are decidedly different from Seattle. Here the skies are sunny and the climate is dry. In short, perfect conditions for growing world-class grapes.

Vines enjoy long, sun-filled days during the growing season, allowing the grapes to ripen slowly and evenly. Warm summer temperatures are offset by cool nights, allowing grapes to keep their bright acidity.

Snoqualmie's vineyards lie within three distinct growing regions of the Columbia Valley: Wahluke Slope, Yakima Valley and Horse Heaven Hills. Each area produces grapes with flavors unique to the area, and winemaker Joy Andersen considers the individuality of each growing region one of her strongest winemaking tools.



An ideal combination of low rainfall, low cloud incidence, high light intensity, high temperatures, and low humidity in the Columbia Valley allow vines to flourish.

Wahluke Slope

Snoqualmie's vineyards on the Wahluke Slope are located near other established Columbia Valley sites, such as Indian Wells Vineyard. This is one of the warmest areas in the state and grapes from here are usually the first to ripen. Over the years, Joy has found these grapes to offer outstanding varietal expression and structure. White wines from the Wahluke Slope are crisp, with generous aromatics. Wahluke merlot and cabernet give Snoqualmie its longevity and backbone, an important complement to soft, lush wines styled for easy drinking.

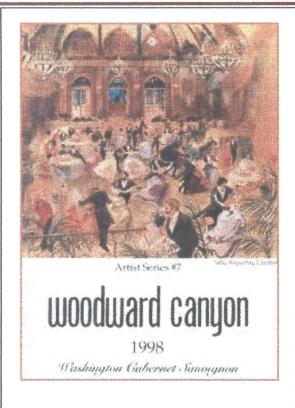
Yakima Valley

A cool growing region and a shorter season than either of the other two areas where Snoqualmie's vineyards are located, Yakima Valley grapes work well in Joy's blending scheme to give Snoqualmie wines interesting, subtle overtones. These vineyards contribute a hint of mint, just the right touch of eucalyptus or a bit of licorice to Snoqualmie's white wines. Yakima Valley merlots and cabs are substantial, giving tactile pleasure to the wines.

Horse Heaven Hills

Ripe, with plenty of big fruit. That sums up the grapes from Horse Heaven Hills. Located along the Columbia River in the south-central part of the Columbia Valley, Horse Heaven white grapes are marked by a "dribble-down-your-chin" juicy character. And like the white, Horse Heaven reds are intense. Nothing bashful about these grapes. Merlot shouts blackberry, cherry and currant. Cabernet Sauvignon is classic.





Products: Merlot, Chardonnay, Cabernet Sauvignon

Production Capacity: 13,000 cases

Tasting Room Special Events WISA Master Card

Woodward Canyon Winery

Winery Address:
State Hwy 12
Lowden, WA 99360

Mailing Address: 11920 W. Hwy 12 Lowden, WA 99360

509-525-4129 509-522-0927 Fax

Home Page: www.woodwardcanyon.com

Email: info@woodwardcanyon.com

Winemaker: Rick Small

Vineyard Acreage: 26 acres; Also contract with other select vineyards

Tasting Room Hours:

Spring-Summer: Mon.-Sat. 10 am-5 pm Sunday 12-5 pm

Fall/Winter: Mon.-Sat. 10 am-4 pm Sunday 12-4 pm

Intensity is the Key

Woodward Canyon Winery was one of the first two wineries to help put the Walla Walla Valley on the Washington

of a newer vineyard, Pepper Bridge, in the Walla Walla Appellation, produces rich flavors and supple textures. Celilo Vineyard and other vineyards in the wine map. From its first powerful 1981 Cabernet Sauvignon to its current releases, Woodward Canyon wines, as well as its winemaker, Rick Small, are invariably described as intense.

Intensity begins with terrior, concludes Rick Small. Characteristics of climate and soil indigenous to particular sites are encouraged and enhanced in Woodward Canyon Wines. From barrel-fermented, mouth-filling Chardonnays to ripe, fruity Merlots and focused Cabernet Sauvignons, Woodward wines benefit at the hands of a winemaker intent on producing the best of super-premium wines — a winemaker committed to using fruit from specific vineyards.

Terrior diversity brings the variety of flavors, texture, structure and character found in Woodward Canyon wines. Canoe Ridge Vineyard, with its fine, sandy soil, provides intensely flavored Merlot and Cabernet Sauvignon; old-block vineyards of Mercer Ranch in the Horse Heaven Hills provide mature vines from ancient soils for big, well-structured wines; and the silty loam soil

Columbia Valley Appellation bring complexity to Woodward's award-winning Chardonnays.

Woodward Canyon Winery's own vineyards are nearby and intensely managed. The estate vineyard now includes cabernet sauvignon, merlot, cabernet franc, sauvignon blanc, chardonnay, dolcetto and barbera. With only 12" of rain per year, Small set up a small tank at his vineyards to provide drip irrigation.

Awards and high rankings in trade publications build a loyal following for Woodward Canyon wines. Be sure to slow your drive on Hwy 12 as you approach "Downtown" Lowden. Stop in and taste Woodward Canyon's distinctive wines. They'll be watching for you!

In the meantime, if you want to stay current on matters of the Woodward Canyon Winery, contact them and ask to be added to their winery newsletter.

(Continue on next column)

A Selection of Available Woodward Canyon Wines Notes from Winemaker, Rick Small

1999 NELMS ROAD COLUMBIA VALLEY MERLOT

This wine was harvested at an average brix of 24. A slower, longer ripening gave lively balance to a deeply fruited wine, rich with cherry, cassis, and chocolate. The wine was fermented in small stainless steel tanks and punched down or pumped over three times per day. This merlot was aged in two-thirds French oak and one-third American oak. While this wine is of medium body, it will match up very nicely with wood oven roasted chicken and pasta. There is ample fruit to age this wine comfortably for five or more years but I believe it will be best-enjoyed young. Available for \$37.50 per bottle.

Wine Spectator, August 31, 2001 - 91

New York Times on the Web, Wine & Dine, October 3, 2001 - jjjj

Northwest Wine Press, Summer 2001 - Outstanding Order Now

2000 COLUMBIA VALLEY CHARDONNAY

This 2000 chardonnay was produced from grapes grown in Walla Walla County (21%) and the Columbia Valley (79%) of southeastern Washington State. The grapes were hand picked, sorted and whole cluster pressed. The wine was 100% barrel fermented in new (38%) and six month old (62%) barrels from Sirugue, Francois Freres and Louis Latour. Beautiful flavors of ripe pear, peach and nectarine show in this wine, accompanied by the acidity of Granny Smith apples. Whole cluster pressing gives wonderfully rich fruit, which integrates very nicely with subtle notes of vanilla, cream and toasted hazelnut. While this wine may be consumed now, it will improve greatly with a years age in bottle. We recommend consuming this chardonnay over the next two to four years for maximum enjoyment. It's really good, and it's \$32.50 per bottle.

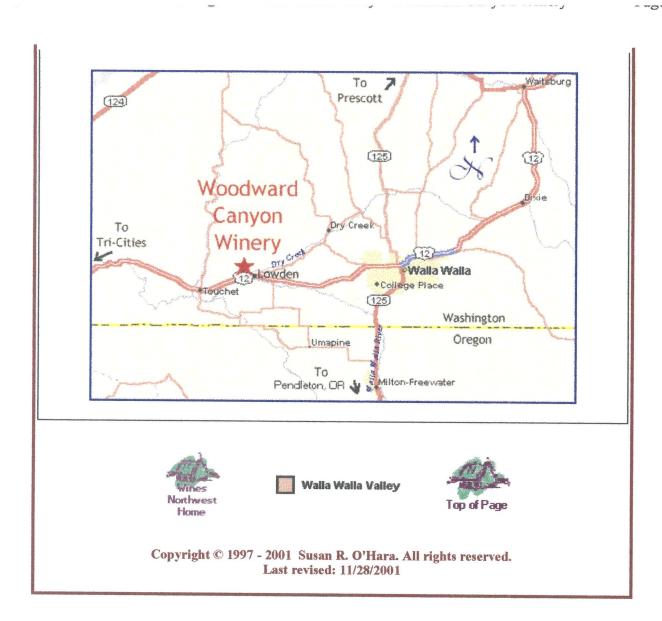
Northwest Palate, Nov/Dec 2001 - Recommended Order Now

1999 ARTIST SERIES CABERNET SAUVIGNON

This 1999 cabernet sauvignon was produced from grapes grown at Canoe Ridge, Champoux and Klipsun vineyards in the southeastern portion of the Columbia Valley and Pepper Bridge and Woodward Canyon Estate vineyards in the Walla Walla Valley. All of the grapes were harvested by hand and sorted prior to crushing. An Indian Summer arrived in early September and conditions were perfect for slowly ripening fruit, giving better overall proportion and balance than the 1998.

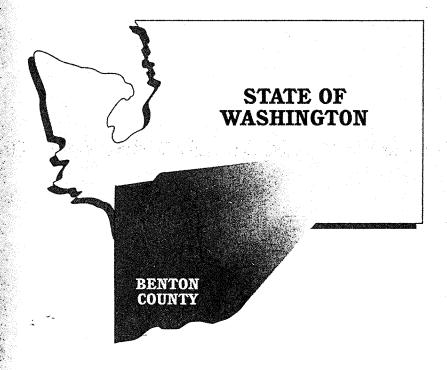
This wine is integrated with spicy new oak, generous black fruits, a silky texture and deep purple/red color. The wine is beautifully proportioned with a long finish of cassis, chocolate-covered cherries, mocha and vanilla. This enticing cabernet will benefit significantly with additional bottle age and should easily age for fifteen years with proper storage. This cabernet is offered at \$42.50 per bottle.

Northwest Palate, Nov/Dec 2001 - Highly recommended Order Now





Benton County Place Names



by Jean Carol Davis and Vickie Silliman Bergum

Benton County Place Names / Davis, Jean Carol

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Forward

Names on the land are more than identification of a town, a r river. Collectively, these stories of Benton County place name vide an overview of the history and development of the area. mation is from publications, clippings and unpublished memorate East Benton County Historical Museum, public records of ton County Commission, Benton County Department of Public V Chicago Title Company, Educational Service District 123 as sources at Mid-Columbia Library.

Only those names which appear in print or on maps were list few place names, mainly roads for which insufficient informatio found or are of relatively recent use, are not included. Nor were places as Sleepy Hollow, Maple Springs, Fish Ford and Pilar for which definite location could not be determined.

Research was extensive but not exhaustive. Additional inform about any Benton County place name will be welcomed by the Benton County Historical Society.

Jean Carol Davis Vickie Silliman Bergum

Kennewick November 1996 'oday's Horn Road was part of Finley Road named in 1889, for George L. 'inley, no relation to the George E. Finley for whom the town of Finley, outheast of Kennewick was named. An earlier Horn Road ran along the ast bank of the Yakima River from Grosscup Road to the Horn, part of SR 40, where it and Finley Road met at the Hanford-Horn Road.

IORRIGAN ROAD — West from SR 221 about eight miles north of Paterson, this road was named for B. B. Horrigan who, with other family nembers, acquired extensive acreage in 1945. B. B. Horrigan came west in 1904 after receiving a law degree in Minnesota. He passed the Washington par exam and, having heard of a proposed irrigation project in Franklin County, settled in Pasco. Irrigation was a life-long interest. He practiced aw, had extensive farm operations and served in the state legislature. In 1945 he was appointed to the Franklin County Superior Court, serving intil retirement in 1957. He and his wife, Bernice, and other family members were widely known for their generous service to the community. Judge Horrigan died in 1970 at age 90. The Benton county property is still owned by the Horrigan Foundation.

HORSE HEAVEN — This name, used for different places at different times throughout the Horse Heaven Hills, was first identified with the neighborhood centered near the corner of Anderson Road, three miles southeast of the intersection of SR 221 and Sellards Road, about fifteen miles southeast of Prosser. A school district formed in September 1884 was known as the Bedrock or Horse Heaven school. The school house was in three locations, all within a mile and a half of each other. Some early schools were moved or rebuilt to be closer to a majority of students. In September 1907 a Horse Heaven news item reported, "The work of moving the school house is underway." Three weeks later, "After it was all arranged on the wagons it was moved in less than five hours." The district boundaries changed from time to time as land transferred to or from it. In 1928 Horse Heaven, Coolidge and Paterson districts joined to form a new Paterson school district.

Early in 1903 a post office was opened in the Louis Anderson home, mail coming from Prosser on Tuesday and Saturday. Mrs. Margrethe Anderson was postmaster until it closed at the end of 1932 when patrons had cars and could go to Prosser for mail as they did other business. Anderson brothers, Louis, George or Jorgen, and Peter, had come from Denmark by way of Pennsylvania, and each homesteaded here in the mid-1880s. They

HORSE HEAVEN CEMETERY — William Dennis, killed in a harvest accident in 1893, was buried in his garden which became a small local graveyard in the Cloverdale neighborhood. It is on the south side of Cemetery Road, one mile west of Travis Road.

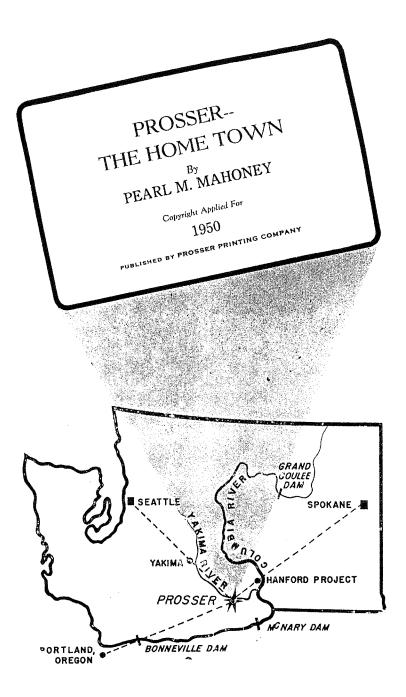
HORSE HEAVEN HILLS — The range of hills from Goldendale east to the Columbia River and between the Yakima and Columbia rivers north to south has had several names. In 1857 James Kinney, camping around present-day Kiona, awoke the next morning to find that his animals had strayed and the tracks led up the mountain side and over into an upland plain beautiful to behold, and there he found the horses cropping the succulent bunchgrass with apparent great relish. "Surely this is Horse Heaven," he said to himself. The name sounded appropriate and in spite of some effort to call it Columbia Plains, Mr. Kinney's name stuck.

The Indians called it Wehopepum. To the earliest cattlemen it was Klickitat Prairie. The western portion of that in Benton County was later called Bedrock Springs Country for one of the better known springs.

Homesteaders began settling in 1882. Wild horses were rounded up and sold. Farmers broke up the bunchgrass to plant wheat. In 1905 when Horse Heaven had become a vast wheat field, neighbors living a few miles southeast of Prosser met and voted to change the name to Benton Slope. Most people in the region declined to use that name, feeling that Horse Heaven was well established and widely known. The word "hills" began to appear in writing to identify the entire area which evolved to "Hills" on maps.

HORSE HEAVEN VISTA — On the east side of SR 221 about three miles southeast of Prosser the 2.3-acre undeveloped county park overlooks the city of Prosser and the Yakima valley beyond. A very informative interpretive sign is posted in the park.

HOVER — Along the Columbia River eleven miles southeast of Kennewick speculator and developer Herbert A. Hover of Kennewick platted a town-site of eighty acres in October 1905 to take advantage of the SP&S construction and it's future service. The rest of his 280-acre alfalfa ranch was to be sold in 5-acre tracts suitable for raising strawberries. The name of the town was to be Strawberry but the postal department or the railroad objected to the long name and Hover was substituted. A post office was opened in Mr. Hover's real estate office near the river. Hover became a busy center in part because of the nearby ferry crossing from Wallula. As



PROSSER— THE HOME TOWN

PROSSER—the home town, and county seat of Benton County, is located on the main line of the Northern Pacific about midway between Spokane and Seattle. Here in this community, which has come to be known as the "Friendly City," nearly 3,000 happy and contented folk are glad to live.

The town nestles at the foot of the Horse Heaven hills and is skirted on the north by the Yakima River. On its northerly and easterly course, down the valley, the river bends here and there as it races to join the mighty Columbia near Richland and to eventually swell the waters in the Pacific.

If you are content to rest in the valley, the verdant landscape of the foothills affords an interesting study in colors. Watch the rays of sunlight play here and there upon the hillside during the hours between sunrise and sunset, and you will note a different glint of color throughout the day. Seasonal changes bring an added charm to the beauty of these hills.

A short drive will take you to the crest of the hill where the panoramic view is one not soon forgotten. Looking westward from this vantage point, the eye can easily follow the Yakima River in its undetermined course down the valley. Glancing a little to the northwest, you can scan the acreage in the Roza section now under cultivation and coming into production. Straight to the north, the Rattlesnake ridge, sometimes capped with snow, comes into view. On these rolling hillside acres are produced bushels of the preferred varieties of hard wheat.

Turning eastward, one sees here and there, small irrigated tracts productive in their diversified crops of fruit, hay, grain, poultry and livestock. And now turn to the south and you behold a wide expanse of prolific farm lands which comprise a large proportion of the entire wheat acreage in Benton County. According to Jim Kinney this is Horse Heaven and truly one can almost agree that it would be Heaven for anyone to enjoy the vista from this point.

One feels a deep appreciation of Nature's beauties as he gazes on the peaceful valley below and is reminded of the lines by Roy A. Moulton entitled "Peaceful Valley"—

There's a peaceful valley in every human heart A rendezvous from things which disturb the soul; A nook where the beauty of life dominates all; Where calm and peace are abundant And all is well."

FRATERNAL GROUPS

The community too has a number of representative fraternal groups. Included are the Masons, Eastern Stars, Odd Fellows, Rebekahs, P. E. O., Royal Neighbors, Woman's Relief Corps, Eagles, American Legion and Women's Auxiliary, V. F. W., the V. F. W. Auxiliary, the Neighbors of Woodcraft, and the Grange. Several members of Amaranth in Prosser hold their membership in Radiant Court in Sunnyside.

SERVICE AND STUDY CLUBS

Many service, study and civic clubs maintain large memberships in the interest of cultural and community development.

Among these are the Business and Professional Women's Club, Woman's Club, Rotarians, Commercial Club, Junior Chamber of Commerce, Lady Jaycees, Anti-Rust, Shutanka, Outlook, Current Opinion, and several other auxiliary, fraternal and extension groups.

The Press

NO STORY about the early history of any community is complete without due consideration of the press.

Following closely on the heels of the schools, the churches and the fraternal orders comes the newspaper man. Of all the forces which figure in the building of a new community, none are more potential than the weekly newspaper.

The people look to the press, and rightly, to keep them informed upon the possibilities and probabilities of their hometown community.

At one time, to the writer's own knowledge, Prosser had three newspapers. They were The Prosser Record, with admitted socialistic tendencies; The Republican Bulletin, a Republican press, and The Benton Independent, so-called because of its non-partisan claims.

The first known newspaper in Prosser, The American, was established in 1893, but ceased publication in 1896. The first owner of The Record, established on December 29, 1893, was A. W. Maxwell, who sold out after a year to August & Brownlow. The next owner of The Record was George E. Boomer, who took over about 1900.

On June 26, 1902, The Prosser Falls Bulletin made its bow to the public with H. G. Guild, a newcomer from Salem, Oregon, as editor. It is presumed that this paper became The Republican Bulletin about 1903, when E. L. Boardman was publisher. Other editors passing in review were Allison, Brownlow & Guiles, Halsey R. Watson, and in 1910 this paper was leased and later purchased by W. R. Sproull, a newcomer from Kansas.

The Benton Independent was organized in November, 1909, by H. A. Wells and L. L. Lynn. This venture was not too success-

ful. On May 1, 1913, Carl B. Michener, then editing The Prosser Record, consolidated the two papers under the name Independent-Record. This venture too failed in 1915, and in 1916 this plant was purchased by W. R. Sproull, then publishing The Republican Bulletin.

Soon after that date the Republican Bulletin shop was operated by W. E. Tyler and L. A. Ryno for several months until Mr. Ryno went into service in World War I. Shortly after his return from service The Republican Bulletin consolidated with the Independent-Record. This consolidation gave the people of Prosser the Record-Bulletin under the publishers' names of Sproull, Tyler and Ryno. In 1920 Sproull became the sole owner and publisher until 1928, when Robert E. Gay purchased the plant.

Mr. Gay was editor of the Record-Bulletin for 21 years until his demise on December 9, 1949.

Mrs. Olga Todd Gay, the former associate editor, is now sole owner and publisher of the paper and with her son, Richard W. Gay, as editor and manager, the Prosser Record-Bulletin continues to be one of the best weekly newspapers in the state. The paper has a wide circulation, a fine coverage of valley news, and enjoys an enviable patronage.

The writer is indebted to Richard W. Gay for a copy of the files of the Prosser Falls Bulletin from June 26, 1902 to June 26, 1903. A few excerpts from stories during that period may be interesting from a standpoint of composition and the familiar names of early pioneers.

Under the caption of "Salutatory" and signed by the editor, H. G. Guild, are these lines:

"The Prosser Falls Bulletin makes its bow to the public. We have added the name 'Falls' to suggest to the readers remote from Prosser that we have water power here that will figure largely in the prosperity of the future of Prosser."

HOW HORSE HEAVEN HAPPENED

"James Kinney, of this city, who enjoys the distinction of being one of the pioneers of the Yakima Valley, says he named Horse Heaven in 1881. Formerly it was called the Bedrock Springs country. Mr. Kinney was going down the valley one day and camped overnight below Prosser. Upon awakening the next morning he found his horses had strayed and the tracks led up the mountain side and over into an upland plain beautiful to behold. There he found the runaway horses, cropping the succulent bunch grass with apparent great relish. 'Surely, this is Horse Heaven,' quoth Kinney to himself. Others tried to call the district 'Columbia Plains' but Mr. Kinney's name stuck and thus it is known and that is how the name Horse Heaven happened."

"The Prosser postmaster announces that the windows will be open on Sunday between 11:30 and 1:30 for all who wish to call for their mail."

rosser



merican.

PROSSER FALLS, YAKIMA CO., WASHIGTON, DECEMBER 29, 1893.

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ld established, reliable dealer in

ENERAL MERCHANDISE.

AN EXTENSIVE LINE OF ds. Groceries.

Teas, Coffee and Spices.

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and Easy Rockers.

min a dan a dan line of all

PROSSER FALLS.

A New and Promising City With a Solid Commercial Future,

Building on a Foundation of Actual Development.

A Brief Resume of What Has Been Done.

The time has gone by when a few speculators can plat a piece of land into town lots, advertise its grand and glorious commercial future, sell their lots and stand from under. The death knell of this class of speculating has been sounded, and it's well for all that such is the case. There is, however, just as good an opportunity to make money out of real estate as there ever was, only it takes hard cash to do it with. Consequently real estate dealing in the future will be on a much more satisfactory ba-

In placing before the public Prosser Falls and the splendid country tributary, the writer desires to place himself on record by saying that there are legitimate reasons for its creation; that it is a natural distributing point for a splendid agricultural and horticultural country of such magnitude that the soundness and solidity of the proposition cannot for a moment be doubted.

Prosser Falls (now called Prosser) is on the main line of the Northern Pacific railroad, in Yakima county, half way between North Yakima and Pasco. It is fifty miles to the nearest city (North Yakima.) The same conditions that have made North Yakıma the pride of Washington and the best little city in the state will be repeated here; surrounded by thousands of acres of irrigated lands; a country that has a national reputation for producing hops, A SOLID COMANY.

Brief Sketches of Some of th Leading Men of the Prosser Ealls LanCompany.

The town of Prosser alls is fortunate in having interested in its welfare and progression such a how of gentlemen as compose the Prosser Falis Land Company. Their names re prominent in financial circles; the reputations firstclass as successful and bronorable business men. They are al solid men each of whom represent a lage amount of capital, conducting business of great importance and are in positions of great respon-

The well-known integrity of these gentlemen, the soundness of their judgment and their confidence as shown in the exmoney during the parameter stringency, and their firm faith in a magnificent future for Prosser Falls, gives confidence to the people of the place and inspires enthusiasm, energy and life among all who reside here, as well as numberless persons who have recently visited it.

FRANK ALLYN, President, is one of the most widely known-men of the state. He was appointed by President Cleveland Judge of the District Court of the Judicial District in which the City of Tacoma was situated, and serred three years on the Territorial Supreme bench. Later, he was elected twice as Judge of the Superior Court of Pierce county, retiring to assume the presidency of the Commercial Bank of Tacoma, one of the most solid institutions in the state.

CYRUS WALKER the active head of Pope, Talbot & Walker, the largest millowners and shippers on the coast, and a man of unexceptional business ability and immense wealth. His company has the largest private holdings of timber lands of any person or company in the state. Mr. Walker is a gentleman of the largest experience, ripe judgment, and thoroughly conservative, yet always up with the times. Every proposition he takes family have and vegetables, where crops hold of he pushes to a successful con-

Prosser Falls is Commanding the Attention of Homeseekers.

Its Scenery, Location and Advantages are Sure Winners.

Description of the Engineering Work Nearing Completion.

Picturesquely nestled at the foot of rounded hills that fringe the Horse Heaven country, with the blue Yakima river winding gracefully by on the north, lies the clustered houses of Prosser Falls. Dotted here and there for miles are the cottages and homes of new settlers. From them the eye sweeps across the broad valley northward to Prosser Hills formerly known by the unromantic name of Rattlesnake Mountains. Far in the west above the gray line of the horizon the tri-truncate i white cone of Mt. Ta coma, or Mt. Ranier stands, with a grandure and beauty very different and more impressive than when viewed from points where foothills and forest give tone and shading to its dazzling lines of snow. The scenery of this part of the valley is always strange' and impressive, frequently varied as lights and shades fall on river, plains, settlement, hills and mountains. In warm light or in winter it is always beautiful. Majestio and grand beyond description stands towering, though distant, Mt. Adams, a vast volcanic pile whose eternal snows accumulate in winter to furnish crystal water in spring time and summer to the streams that irrigate and fertilize farm and garden and make the desert glow with verdure and wealth.

What a few months ago was a hamlet is now fast growing into a town. From the handsome mansion of its wealthy merchant, its cosy dwellings, its tasty detrogged and that this last hard year starting at Pros

acres of the best fruit lands in the state and all of it within half a mile of the

These magnificent falls will generate power by which the streets, dwellings and stores of the town can be brilliantly lighted by electricity at a slight cost, and furnish power for many manufactories such as flour mills, sugar beet factory, boot and shoe shops, mill for cleaning wool, making brooms and brushes and a thousand other enterprises needing | The World has

THE YAKIMA VALLEY.

Its Present Growth, Marvelous Development and Magnificent Future.

To THE EDITOR :- I have watched the progress of settlement and development in the Yakima valley with great interest since it was opened by the Northern Pacific railroad about eight years ago. When I first visited the valley in the spring of 1886 the trains were running up the river from Pasco, only as far as North Yakims. There was very little then to show the ability of the valley to sustain a large population except the natural opportunities for supplying it with water, and the results of agriculture prosecuted on a very small scale by irrigation; and it required a degree of faith and confidence, possessed only by the pioneers of American progress, to locate a homestead on that unattractive land. It was a part of the great desert of Western America, whose margin has faded before the movement of civilization until times carried thi it has become the great producing region of our country, and as the most dense populalations of antiquity subsisted by the cultivation of irrigated lands, in the valleys of Euphrates, the Tigris and the Nile, it is already evident that the Yaki- to the southern I ma valley will soon be the most populous agricultural district in the Northwest, and the most prosperous. If anything ing fifty miles ar may be accepted as proof of its superior advantages it is the fact that the greatest progress in its reclamation and settlement has been made during the past two

The Big Canal ing the 1

One of the Ma butary

and l

Immediately a and opposite Pro Sunnyside count tracts of lands in when reclaimed ing a vast numb try is being rec Investment con Schulze is Presid of their canal is within seventeer The balance of pleted during '94

Falls one of the This gigantic e to be fully appre of the greatest fa county the envi pies to-day, and Mr. Schulze and face and eyes thereby opening acres to settlem now the outfittin but later Prosser with her, and oc North Yakima d there being pler small towns alor This gives the

assistance and g tages for doing b

A little later years, while all other schemes have been

LOCAL HAPPENINGS

Now for a pull, all together for 941, ...

D. M. Angus, M. D., was in town to day. a de de la destrucción de la constante de la c

Prosser Falls and environs is the Riverside of Washington.

Prosser Falls will be a city of 5,000 prosperous people in 1900.

P. E. Harris, book-keeper for the land company, spent Chistmas at Tacoma .

Work was started this week on the two-story cottage by Dr. Geo. B. Hayes.

Many letters of inquiry are being received from people looking for a location.

Mine host, George Simpson; went to North Yakima this week on a business trip.

You cannot do without your home paper. Call and put your name on our Bunk.

Frank Reed has gone to New York City for a visit of several weeks with relatives.

Nearly one-hundred men are carried on the payroll of the irrigation company at present.

Now citizens of Prosser, the American is ready for your subscriptions. dollars per year.

Mr. John Underwood had two coats and a pair of pants stolen from his place of business Christmas day.

It is rather late to wish you a merry Christmas; but we can, and do, wish you a very Happy New Year.

Nelson Rich has finished the irrigating canal with the exception of a few flumes. It is eleven miles in length.

A new depot and several additional sidetracks are among some of the improvements in the near future.

Probably, few are aware that Christmas and New Year's do not come on the same day of the week this year.

Agriculture is the basis of wealth. Irrigation is the true science of farming. Yakima county is the home of both.

On Christmas day Mr. Henry Creason and the editor of this paper picked a buttonhole boquet of beautiful pansies in full bloom.

Miss Louis, Mallis, the successful young school teacher from the Bedrock school district in Horse Heaven, was in town Saturday.

The first pump and wheel is expected to arrive on January 15, the second by February 15, and the others as fast as they can be used.

Our public school teachers, Misses Dooley and Carey, are enjoying a vacation this week, and expect to attend the Institute at Yakima.

An Angora goat was shipped from Prosser Falls to North Yakima. It is reported that it was sent to the A. O. U. W. lodge at that city.

The handsome cottage near the river being erected by Dr. J. VanMarter, Jr., of Tacoma is approaching completion. It is very tastily and admirably arranged.

THE AMERICAN extends a most cordial invitation to the people of Prosser and vicinity to call at its office. We want to make your acquaintance—everyone of you.

Mr. H. J. Jenks sold two lots in block

ple copy and trust you will call, or write, and enroll your names upon our books as permanent subscribers.

One of the needs of Prosser is a uniform system of sidewalk. (Fortunately, this is not a muddy country for many take to the street rather than risk their neck on the patches-of all shapes, sizes and heights - of sidewalk along the main thoroughfare.

Wm. B. Dudley, Esq., Secretary of the Prosser Falls Irrigation company, and one of the prominent men of North Yakima, made a very pleasant call at the office of this paper Thursday morning. We will always be glad to see gentlemen of his character.

Mr. C. A. Franks had a couple of fine turkeys stolen the night before Christmas. It was a serious loss and a keen disappointment as these turkeys were bought to raise young ones next year. It was a shame as Mr. Franks is a very kind-hearted man. He has never been known to turn away a hungry man from his door. The heartless thief should be

The grand ball on Christmas night at Rich's Hall was a splendid success reflecting great praise on the parties getting it up. The floor was in good condition. The music was furnished by home talent and was excellent. The dancing showed that it was enjoyed, and the ladies looked charming. Among those present were: Miss Ina Phillips, of the State Normal school, Elleusburgh; Miss Miss Louie Mellis, Bedrock; Charley and Harry Morgan, Sunnyside; Messrs. L. Pengruber, H. J. Jenks, E. W. R. Taylor, J. W. Carey, Morris Henry, C. A. Jensen, H. W. Creason and their ladies. Mrs. N. Rich and her two handsome daughters, Miss Edna and Exie, Miss Minnie Taylor, Ema Dooley, Nettie Creason, Myrtle Dooley, and Ollie Franks were among those who helped make the occasion such a success. There were many others whose names we have not been able to learn. The supper was at John Michael's dining room. The whole affair was a credit to the town.

GONE TO THE BETTER LAND.

GEN. JOHN W. SPRAGUE.

Passed away peacefully at his home in Tacoma at 3:55 o'clock Sunday afternoon. He. was seventy-six years old. Death came quietly after he had hade his family a loving farewell. He was a hero of the civil war. His wegiment was the sixty-third Ohlo. For thirteen years he was manager of the western division of the Northern Pacific Railroad and was always a prominent, active and public spirited citizen of Tucoma. Enlargement of the prostrate gland caused the heart trouble of which he died.

JUDGE J. B. NELSON

One of the pioneers of the Yakima Valley, died at his residence on the Natchez on Monday last, aged 77 years. His sister, Mrs. Nancy Tenbrook had died on the preceding afternoon, in the 74th year of her age, Mr. Kelson was born in Indiana, but spent the earlier years of his life in Missouri. He came to Oregon in 1845, where he resided until 1861, when he removed to eastern Washington, locating in the Yakima county in 1865, and lived here until his death. Mr. Nelson leaves several children, most of whom are residents of Yakima county.

OPPORTUNITY FOR COLONISTS .-There is for sale one tract of eleven hundred acres of land lying beside the Yakima river, near Mabton Station and twelve miles from Prosser Tells, This land is periectly level with the cones and is perfectly level with a estate exercise every foot can be cultivated, and es conveniently for subdivision informali tracts. It will soon be all unde There are four hundred acres upon the hay, and other things, is now raised to A of Rich's addition to C. A. Frazier and the amount of eight hundred tons yearly. M. C. Reardon at \$100 each; and H. H. It is adapted for hay, hops, fruits and Creason sold a lot in block H to Joseph augar beets, and is one of the most de-

the awith stiffness of the mountains, all to call upon. We will send it as a sam- that was earthly of that unfortunate girl would stay until the last day.

> No one could pray; no one could sing. I poured out my soul to my God in my poor studibling way—told him all aloud it. That the poor girl had led, life, of shame, but that we were unanimous in the belief that she was more sinned against than sinning; and would He in His infinite goodness and loving kindness forgive her, wipe out all the black spots on her soul; forget her past and save her for her soul's sake, would He suspend all rules, throw open wide the portals of Heaven, have sweetest music played on a thousand golden harps, and bid that poor, tired, sin-stained soul enter the realms of happiness purity and rest.

> It was our funeral, because every body did all they could. There were but few of all kinds, to be spie, but all human with souls to save. There are many of the old boys scattered through the northwest who will recollect that stormy Montana day, and how we knocked at eternity's door for admittance for that girl's sont, and all will agree that or knocking was not in vain -that the gray were thrown open and forgiveness and a came to her.

> > Fun Simcoe.

Since Mr. Cleveland's civil service reform has got in its work at Fort Simcoe the agent is having some fun with a host of Georgia democrats who were transported for the purpose of consuming the pie. We have it from good authority that one of the Georgia gentlemen who was appointed to fill a responsible position can neither read nor write. It was his duty to assign the Indian boys certain tasks each day. The names of the boys were written in a little book and handed to the old gentleman cuch morning. The first few days everything went well, for he got the Indian boys to read the names for him and point out the boys assigned for duty, but finally the boys got onto the fact that the " from Georgia could not read. The fun began. The bote would look a ligit tree name and point out the wrong boy e ges, is m. time, while the boy who should hat he been on duty was-off at play. This kind of management went on for a month, at the end of which time the school was demoralized. The Indian kids got so wild that the master could not control

Riverside Hotel.

them in the least, and the agent was

obliged to call for a new man. Another

was speeduly, supplied-from Georgia.-

Dayton Chronicle.

This small but modern house; base been completed and on or about February 1st will be thrown open to the public. Beautifully situated on the right bank of the Yakima, with large grounds, wide verandahs, new furniture and a plain country table, low rates, a clean, capable management, this hotel will soon become one of the popular resorts of central Washington. For full particulars address, Prosser Falls Irrigation company, Prosser, Wash.

Ir begins to look as though she had changed her name to Lili can't getthere.

GENERAL) MERCHANDISE

DRY GOODS,

Gent's Furnishing Goods.

Everything Complete in his Lines. Prices Cheap for Cash.

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AGAINST ODDS

A PERSONAL NARRATIVE

of

LIFE IN HORSE HEAVEN

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K. ELIZABETH SIHLER



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1917

GRAPE HAPPENINGS ON AREA WINE FRONT

Seattle Times; Seattle, Wash.; Oct 15, 1986; TOM STOCKLEY;

Sub Title: [THIRD Edition]

Column Name: WINE **Start Page:** C8

ISSN: 07459696

Abstract:

Two weeks out of the Northwest and what happens? Whole new wineries open up, old wineries are transformed and a flock of interesting new labels show up on the market.

It didn't surprise me to find the latest releases from local wineries popping up everywhere, but the mind-blower was the kaleidoscope of handsome new labels that greeted me on local shelves. We have wines named for salmon, islands, local landmarks and a grape-leaf-loving lamb called Sadie Louise.

Mercer Ranch Vineyards: This new winery in the Horse Heaven Hills in the Yakima Valley is owned by Don and Linda Mercer and has been much anticipated because of the fame of the long-planted vineyards. Now the first wines have been released: a 1984 Limberger (which has already won a bronze medal this summer at the Pacific Northwest Enological Society's Wine Festival) and a blush wine named Sadie Louise.

Full Text:

Copyright Seattle Times Oct 15, 1986

Two weeks out of the Northwest and what happens? Whole new wineries open up, old wineries are transformed and a flock of interesting new labels show up on the market.

It didn't surprise me to find the latest releases from local wineries popping up everywhere, but the mind-blower was the kaleidoscope of handsome new labels that greeted me on local shelves. We have wines named for salmon, islands, local landmarks and a grape-leaf-loving lamb called Sadie Louise.

Here's a guide to some of the new kids on the block. A word of warning: Some of these are from smaller, family-run wineries and will be limited in their distribution.

Mercer Ranch Vineyards: This new winery in the Horse Heaven Hills in the Yakima Valley is owned by Don and Linda Mercer and has been much anticipated because of the fame of the long-planted vineyards. Now the first wines have been released: a 1984 Limberger (which has already won a bronze medal this summer at the Pacific Northwest Enological Society's Wine Festival) and a blush wine named Sadie Louise.

The limberger is an oak-aged, full-bodied wine, perfect for grilled meats and casseroles. (Unlike other wineries, the Mercers spell limberger like the cheese, with an "i.") It sells in the \$8 to \$9 category.

The blush wine got its name from one of the Mercer family's favorite lambs, who learned to jump the fence and enjoyed eating grape leaves in the vineyard. This wasn't the only Sadie, however. The first one was raised by Carma Mercer nearly 50 years ago, and over the years successive sheep were named Sadie Louise and became pets. The blush wine is less serious than the limberger, but delightfully refreshing. It sells for about \$4.50.

Salmon Bay Winery: It was only a matter of time before Washington got a winery named after our most famous fish. To make the presentation even better, the handsome new label was designed by Tim

Girvin, the Seattle designer of national repute who is also responsible for the Pontin del Roza label.

Salmon Bay Winery actually was created from a previous Seattle winery called Vernier Wines, which earlier this year revamped its organization, kept its best wines and began all over again. Six wines will be released this year beginning with three whites this month: a 1984 chardonnay, 1985 sauvignon blanc and a 1985 sweet white riesling. These wines, which will be sold in the \$7 to \$9 range, are reported to be nicely made with good varietal character. Next up will be several reds, including cabernet and merlot.

Bonair Winery: This really is a new winery and the 14th in the Yakima Valley. Bonair of Zillah is owned and operated by Gail and Shirley Puryear, with Gail serving as winemaker and Shirley as general manager. They have already released their first wine, a Johannisberg riesling, and plan to release a chardonnay in November. The winery, near Covey (Quail) Run, is open Wednesday through Sundays. (Take Exit 52 off Interstate 82.)

Hoodsport Winery: This small winery on Hood Canal has been quietly cranking out award-winning raspberry wines for several years. Now, for the first time, the quality inside the bottle will be matched by the dressing. The new releases are set off nicely by a brand- new colorful label displaying a painting of Hood Canal.

The raspberrry wine won gold medals this year at the Western Washington Fair and Central Washington Fair, a best-of-show at the recent Woodinville Wine Festival and a consumer award at the Spokane Wine Festival.

[Illustration] Caption: SKP

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Paul Lukas

From:

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OLD WEST LAWMAN TO GET MEDAL Columbian Vancouver May 12, 1998

Authors:

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Start Page:

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Abstract:

Mabton police knew nothing of Marshal George Warring until word recently arrived that he would posthumously receive the state's highest law-enforcement honor. Warring roamed south-central Washington's Horse Heaven Hills on horseback searching for moonshiners and was killed in 1931 by a drunken friend. He's the only Mabton officer to die in the line of duty. Copyright Columbian Publishing Company May 12, 1998

Full Text:

MABTON (AP) -- A rough-and-tough law officer who fought Prohibition-era moonshiners in this Yakima Valley town is being honored 67 years after his death.

Mabton police knew nothing of Marshal George Warring until word recently arrived that he would posthumously receive the state's highest law-enforcement honor. Warring roamed south-central Washington's Horse Heaven Hills on horseback searching for moonshiners and was killed in 1931 by a drunken friend. He's the only Mabton officer to die in the line of duty.

Warring is to be among 122 law enforcement heroes who were to be awarded the state's Law Enforcement Medal of Honor at a ceremony in Seattle today.

The medal is the state's highest honor for law officers and is given only to those who died, were grievously injured or showed an act of valor in the line of duty, said Detective Thor Gianesini of the Tumwater Police Department. Gianesini is a member of the committee that awards the medals.

The medal was established five years ago to be given to the 247 officers -- city, county, state and federal -- who have been killed in Washington while serving their communities, Gianesini said.

After this round of awards, all 247 officers will have received a medal. Of the 122 medals to be given today, 119 honor officers who have died between 1855 and 1997.

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ogeology and Simulation of Flow and Effects of Development Alternatives

1-190063 he Basalt Aquifers of the Horse Heaven Hills,

South-Central Washington

U.S. Geological Survey Water-Resources Investigations Report 94-4068

Prepared in cooperation with WASHINGTON STATE DEPARTMENT OF ECOLOGY

Exhibit D-7



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PULLMAN KINKOS

HORSE HEAVEN HILLS
IRRIGATION AND
DEVELOPMENT
POTENTIAL

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A Study Team Report

Washington State University College of Agriculture

Pullman, Washington
Pecember, 1970

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IRRIGATION IN THE HORSE HEAVEN HILLS A STUDY OF POTENTIALS AND IMPACTS

Summary Report

Interest in irrigation development of the Horse Heaven Hills area is long standing. Recently, the general increase in private irrigation development throughout the Northwest has renewed interest in the Horse Heaven Hills. Conditions there seem comparable to those on a number of apparently successful private developments. Some individuals have proceeded with their own development. Others have indicated interest in doing so; but a big question in people's minds is, how does the larger picture of development in the whole area fit with a piccemeal pattern of individual private irrigation efforts?

To help enswer these and other questions, the residents and landowners in the area organized a committee to consider Horse Heaven Hills Envelopment. In 1969 they entered into a contract with the Agricultural Research Center of Washington State University to study the potential for development and the impacts that would follow from such development.

The Study

The Washington State University team has studied a broad range of development potentials and their impacts rather than determine the specific facts and figures relating to the feasibility of development. As such, the results reported here provide a framework for decision-making rather than a detailed development plan.

This study comes relatively early in the long process of evaluation, decision, planning and implementation that a large irrigation development requires. At this early stage, general questions are of major importance. The scope and type of development must be considered. The general area of highest potential must be located. Organization possibilities and their effects on the goals of the people who will be involved must be explained. The advantages and disadvantages of various types of engineering works must be considered. Other associated developments must be screened for prospective joint use of sites and facilities. This study is directed to these and similar general questions. In this respect, the study differs from feasibility studies that are limited to a very practical question of whether a proposed development can repay the financial costs.

The study covers the usual questions raised in a determination of feasibility but in a somewhat different fashion.

The landscape is divided into units, described by soil, climate, topography, and crop production potential.

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The possible means and routes for conveying water to the land are laid out. To an unusual degree, costs are calculated on an increment by increment basis. The basic cost functions are developed for irrigation developments differing widely in scale, with some units included or excluded, and with varying amounts of water supplied per irrigated acre.

Market potentials are given closer scrutiny than they usually receive, because market situations and marketing channels are more sensitive for the high-value crops that must be grown to repay costly water system investments.

Crop choice and location are evaluated through use of a linear programming procedure. The method permits simultaneous profit-maximizing selection of acres to be developed, crops to be grown and size of irrigation system to be constructed. Market constraints are explicitly recognized in selecting a cropping system.

The possible associated developments of power and recreation are considered. The possible joint benefits and cost savings with irrigation can thus be assessed.

institutions) alternatives are considered much more completely than in the usual case where prior decisions and commitments climinate most alternatives.

The economic impacts of development are projected to determine what, if any, adversity is indicated by the region's transformation into a more settled area with a greater need for social services.

Conclusions

The Horse Heaven Hills area contains over 600,000 acres that could be used to grow irrigated crops. Overwall, the Horse Heaven Hills is comparable to the Columbia Basin Project Area in the distribution of land quality. But differing conditions of crop adaptability and water costs will determine the extent to which these lands can be profitably irrigated. While the Horse Heaven Hills has larger areas adaptable to fruit, proportionately more of the area lies at high elevations with considerably higher water costs.

For the bulk of the irrigeble area, an "integrated project" type of development involving some kind of canal system would have lower initial capital investment per acre and operating advantages in comparison with small unit-by-unit developments pumping directly from the river. Lands very near the river may, however, be developed economically by direct pumping.

Efficient use of the irrigation water will be of utmost importance to avoid delivering excessive and expensive water to the crops, and to avoid unnecessary cost in the drainage system for accumulated surplus water. Drainage and associated salinity problems will result from irrigation development. In particular, these conditions will develop on lower lying lands now regarded as ideal for independent development.

The high water costs that unsubsidized development will have practically prevent much growing of crops that use lots of water per dollar of output value, such as hay and pasture.

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I INTRODUCTION

The Horse Heaven Hills is an area that catches the eye and kindles the imagination of people with an interest in Irrigation development. Proposals to irrigate the area started back in 1904 and have continued to the present. A quick look at the area reveals several features that excite an interest in irrigation.

The Study Area

Land

The study area shown on the map, Figure 2-1 contains around 800,000 acres of land of which 640,000 acres is physically irrigable. This 640,000 acres is half as much as all lands currently irrigated in Washington and more than the currently irrigated portion of the Columbia Basin Project. It contains about 10% of the potentially irrigable lands in the state.

The study area is along the southern border of Washington in a peninsula-shaped area that is bordered on the south and east by the Columbia River. The northern boundary of the study area is the Yakima River. The foothills of the Cascades form the western border.

Water supply

The Columbia River is the main potential source of water. It is estimated that 2 million acre feet of water would be needed to irrigate the antire 640,000 acres of potentially Irrigable land. This seems like a lot of water, but is less than 2% of the average annual flow of the Columbia at The Dalles. Other uses, like minimum flows for fish have prior claims to Columbia River water, but even so, water is not likely to be a physical limitation to full development of the Horse Heaven Hills. This fact is one reason why the irrigation potential has stirred interest among prospective developers over the past 75 years.

Physical characteristics

Other reasons, besides the large water supply, sustain interest in the development of the Horse Heavens. Climate is one of these. It is sami-prid; the average annual precipitation varies from 6 inches near the Columbia to more than twice that at the higher elevations. This variation, together with lighter textured soils near the river, accounts for the present differences in land use. Grazing is extensive near the river and wheat-summer fallow prevails at the higher elevations.

Both farmers and agricultural researchers know that the potential crop production response from a few acre inches of water in this area is tremendous. Wheat varieties like Gaines and Nugaines have demonstrated yield response capacity, in areas with similar climates, to be 5 to 7 bushels per acre per inch of additional water.

But the Horse Heaven's potential with full irrigation stretches out beyond more grain per acre. We can expect high yields of intensive field crops, like potatoes and sugar beets, and ultimately, fruit. The reason is that most of the area has a long growing season - 170 to over 200 days - and the frost hazard probably is as low as that in the developed fruit areas of the state.

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2. PHYSICAL POTENTIAL FOR IRRIGATION

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HORSE HEAVEN PLATEAU AREA

Physical Background

The Horse Heaven area includes all of the sloping dissected baselt placeau known as the Horse Heaven Plateau or Hills area. It extends from Lake McNary on the east to Rock Creek on the west, and from the Columbia River on the south to the Prosser and Simcoe Ridges, which form the northern boundary.

The plateau slopes north to Prosser Ridge and northwest to Simcoe Ridges, Toward the eastern margin, transverse arching of the basalt plateau created the ridgeland and hills from Kiona southeastward into Dregon, across Wallula Gap. The southwest slope of this ridge system and the southeastern slope of the Prosser-Simcoe Ridge systems, results in the lowland at the junction of the two slopes, with a gap in the Prosser Ridge east of Prosser to the vicinity of Kiona. These features result in a basin-like area extending northward from the Columbia River to the Prosser Ridge, parallel to and east of the Prosser-Paterson Highway.

Near the Columbia River several low basalt ridges (Sillusi Buttes, Pourmile Ridge, Paterson Ridge) separate the lower part of the slope from the river. Low, local basins and stagnated drainage systems exist behind (north of) these local ridges. Westward in the area, the rise of the plateau to the north is more abrupt, and there is a large, intensive network of canyons cut into the basalt plateau to form the drainage systems of Pine, Alder, Juniper, Wood, and Rock Creeks. The Glade Creek drainage occupies a large portion of the center of the plateau, the western part of which is inclised into deep canyons, extending almost to Bickleton in the northwest portion. The eastern part of the Glade Creek drainage occupies the contral basin and has ratmer shallow ravines that are stabilized upon the basalt floor.

Climate

The plateau climate is memi-arid. The mean annual precipitation varies from 6 Inches at the Columbia River to 13 Inches in the bills at Kiona on the eastern margin of the arms. Northwestward, the mean annual precipitation varies from 6 inches at the Columbia River to 16 inches on the Simpoe Ridge northwest of Bickleton. Westward, precipitation increases gradually down the Columbia River to result in equivalent precipitation at 200-300 feet lower elevations in the Goodnoa Hills area. Mean annual temperatures vary from 53°F on the Columbia River to 49° at the upper hills area in the eastern margin of the area and 46° in the northwestern portion at Bickleton. Two physiographic features are of climatic importance. The Bickleton area is unusually warm and dry for land at an elevation of 2800 to 3000 feet. The entire northwestern portion of the placeau, while too cool to permit intensive cropping under irrigation, is also rather warm and dry for cereal crops compared to other areas of the same elevation. Precipitation there averages 12 inches annually.

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The Blade Creek gap to the Columbia River offers the first egress northward for strong winds moving eastward up the Columbia River Gorge. Here, strong winds leave the river channel and course northeastward up across the low basin towards the low gap in the Prosser Ridge at Klona. One can trace the direction and force of these seasonal winds in the pattern of wind erosion defined by sand dunes on the lower slopes of the plateau, as well as in the blow-outs and patterns of sandy lands lying in the upper part of the central basin eastward from the north end of the Prosser-Paterson Highway.

Soils

Soils in the area exhibit the characteristics of their origin as water-or-wind-laid sediments upon the plateau. They also show strong morphological differences. Higher lying lands have variable depths of uniform losss, with coarse silt textures. Areas intermediate in elevation have lacustrine sediments of stratified very fine sands and silts. Lands at lowest elevation are covered with wind-and-water-worked sediments of sands and gravels. As one proceeds up the slope, morphological differences in soils are registered by the increasing of salts and carbonates, by the presence or absence of calcium carbonate hard-pan (caliche), and by small increases in clay in the subsoils associated with increased bulk density. There are some isolated spots of well structured solodized solonetz soils, as well as minor acreages of saling solonchak soils.

Four principal areas of soil occurrence can be identified:

- Near and parallel to the Columbia River is a series of low rock platforms, benches, and gravel terraces. In this group are sandy spils, shallow to gravel (Burbank); deep sandy spils (Quincy and Winchester); soils shallow to caliche and bedrock (Koehler); and loamy spils shallow to basalt bedrock (Condon-like and Shallow Pleasent Valley). Down river on the Roose-velt Bar and westward from it, faulting of the Columbia Hills anticline has exposed sands, clays and gravels of the Ellensburg formation, and there are fans, slopes and terraces of finer textured Roza-like and Ringold-like spils. Immediate to the river on floodplain, on Blalock and whiteomb islands, are some poorly drained silty and sandy spils associated with sand dunes.
- 2. Associated with the low ridges (fournile and Paterson) and the low basins and drainages of Glade, Paterson and Fournile Creeks behind them is a broad belt of sandy soils. There are principally two types of soils, loamy fine sand (Quincy) and loamy sand (Winchestor). Buth are deep and either duned or hummocked. These sediments have filled the drainage channels over much of the areas.
- 3. Lying above the sandy areas at elevations of 450 to 1000 feet are soils associated with the dissected terrace of the Touchet formation (glacial lacustrine origin). These are deep soils stratified with very fine sands and silts, some thin calcium carbonate seams and some lawinated, compact calcareous silts. Two principal soils occur. The Warden soils represent the undisturbed mass of the sediments. The Hezel soils represent the same materials where the surface has been extensively reworked by wind erosion.

2-3

leaving a variable depth (6-30") leamy fine sand, sendy leam or fine sandy leam surface to the macerials of the Touchet formation. Typically, the Warden soils have silt leam to very fine sandy leam surfaces. These soils have as an inheritance from their origin, a variable degree of salinity and calcium carbonate accumulation in the profile.

4. Generally above 1000 feet elevation, water laid sediments cease and deposits of loass (silty Wind-laid sediments) occur across the landscape with contact to the basalt surface. Since the loass occurs from 1000 feet to 3000 feet in elevation, four climatic areas have effected a variable degree of development within soils upon the loass.

From 1000 feet to 1350 feet are the Shano soils (deep), the Burke soils (moderately deep over callche) and the Prosser soils (moderately deep over basalt). These soils are weakly developed, and are in the silt loam range of texture, with marked, compact, calcareous subsoils at 20-25 inches depth.

From 1350 to 1800 feet are soils slightly higher in organic matter, darker color in the surface, and calcareous, compact subsoils 30-35 inches in depth. The Ritzville soils are deep, the Willis soils moderately deep to caliche, and the Roloff soils moderately deep to basalt rock.

From 1800 to 2400 feet, one finds soils more compact, denser profiles, possibly representing stratification with older loss deposits. They have hard platy surfaces. The Renslow soils are deep and the Condon soils are moderately deep to bedrock. At these elevations, the calibbe is sparse to absent.

From 2400 to 3000 feat elevation is a belt of dark colored soils with a noticeable increase of clay in the subsoils, with or without calcium carbonate in the profile. All are moderately deep to basalt rock. The Bickleton soils have calcium carbonate in the subsoil, and the Van Norstern soils do not. These higher plateau areas, where these soils occur, have an intense pattern of islanded soils areas interspersed with rockland areas (scabland). This has resulted in a large net loss to lands suitable for cultivation or irrigation development.

Topography

Overall, the area represents a southward sloping basalt plateau created by the uplift of the Prosser and Simcoe ridges, and the down-folding of the basalt in the basin now occupied by the Columbia River. Variations within the plateau are characterized by the hilly and ridgeland area in the eastern portion from Kiona south to the river, the large basin extending southward parallel to the Prosser-Paterson Highway, the local basins created behind the low ridges parallel to the river on the lower southern portion of the plateau, and by the more sharply rising portion of the plateau in the western portion, which is deeply dissected by canyons of the major streams.

Slopes range from 2 to 15% on the surface on the plateau, from 2 to 8% in the beains, and from 5 to 30% in the hilly portions. In addition, much land in the steep canyon walls, fault scarps and revine walls is not irrigable. Drainage is generally southward, southeastward or southwestward from the Prosser and Simcook Ridges toward the Columbia River. Its course is stabilized upon the

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basalt at the plateau surface, or in basalt upon the floors of the deeply inclised canyons. There are local interruptions on fourmile Creek, Paterson Creek, and Glade Creek, where the lower channels are diverted westward by the fourmile, Paterson, and Columbia Ridges.

Land Resource Units

Soils occur in diverse, sometimes intricate, patterns on the landscape. To isolate practical parcels of land for analysis, land units were composed of complexes of soils (areas of individual soils too small to consider separately) or associations of soils (where units of individual soils were grouped to obtain larger, more practical land units). These units have been arbitrarily called Land Resource Units. Composition of soils within each land resource unit has been described on the basis of percentage composition of soil series, Land resource units are segregated upon three bases:

- 1. Where percentage composition of soils varied
- 2. Where the dominancy or order of composition of soils varied
- 3. Where topography, reflected in slope percentage, varied. Slope percentage ranges of 0-4, 4-8, 8-12, and 12-30 were selected as practical groupings to reflect the effect of topography or slope on the pract cability of irangetion development.

The Land Resource Units of the Horse Heaven area were plotted upon 1:24,000 scale USGS topographic sheets. Differences in topography and soil composition were evaluated by the stated criteria and resulted in the separation of 155 different kinds of land resource units. Many kinds of units were repeated at several locations. In all, 610 separate land resource units were delineated and evaluated in the study. They varied in size from about 200 to 15,000 acres.

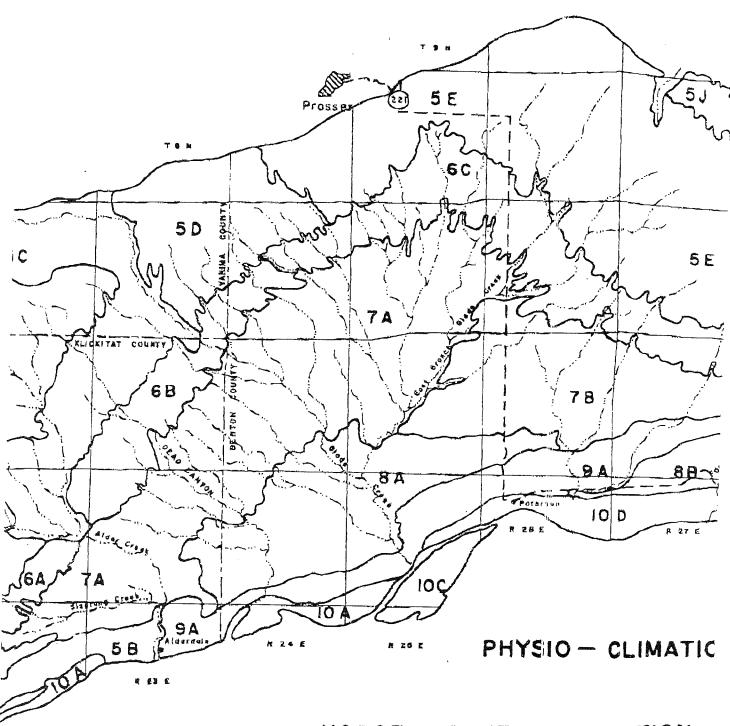
The maps were measured by planimeter, and the Land Resource Units summarized by individual USGS sheet. Total land in the study area was 879,919.7 acres. Of this, 639.379.0 acres (72.6%) was considered irrigable and 240,540.7 acres (27.4%) was considered nonirrigable.

To arrive at fewer, larger, more practical units to submit to economic and physiographic analysis, 38 physiographic-climatic areas were defined and delineated. (Refer to figure 2-1). In addition, 15 different irrigation blocks were designed to facilitate the conceptual engineering design for irrigation systems, development of irrigation costs, determination of water requirements and water source alternatives. Thus, to conduct the economic and engineering analysis for irrigation development of the area, information about land resources (soll, topography, drainage, salinity) is summarized both by irrigation blocks and physio-climatic areas. Table 2-1 summarizes important physical characteristics for the physiographic-climatic areas and irrigation blocks. Suggestions for order of cropping intensity and probable reclamation and development problems are also offered.

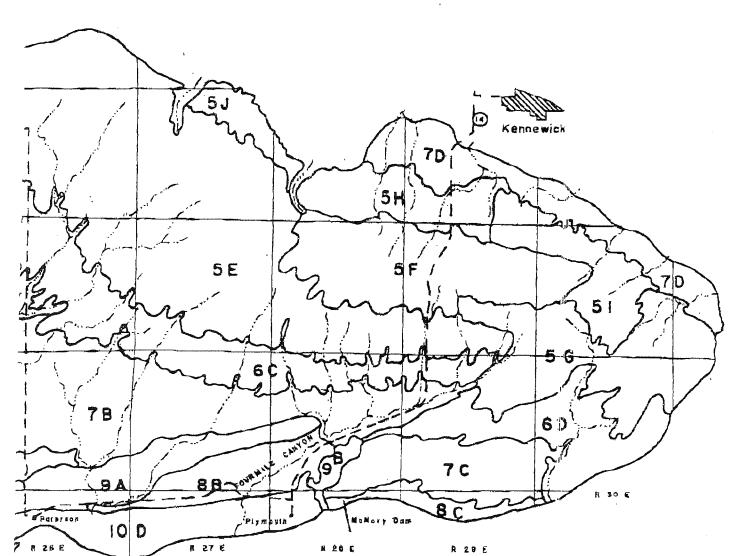
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HORSE HEAVEN IRRIGATION



'HYSIO - CLIMATIC AREA'S

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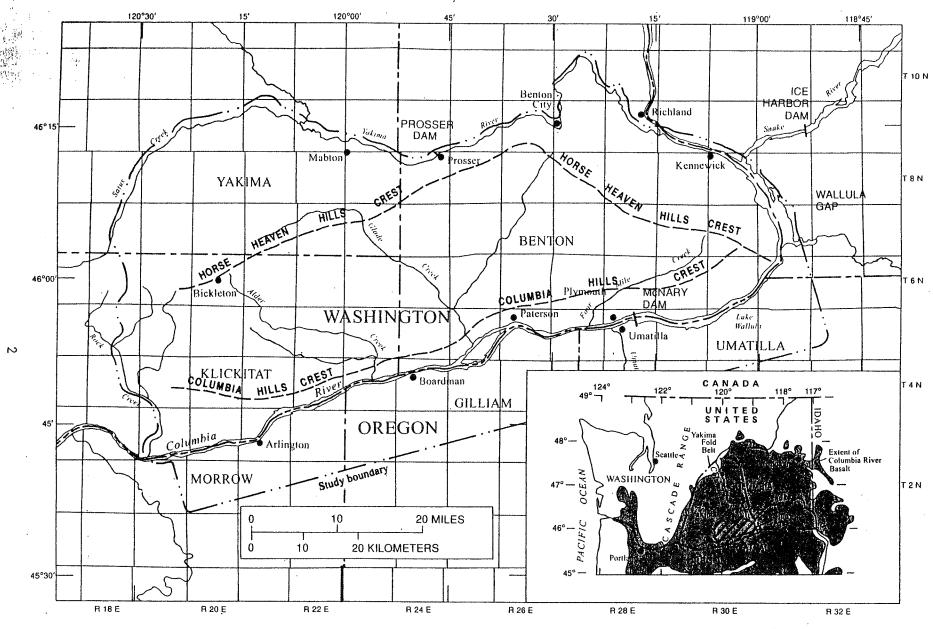
/EN IRRIGATION DEVELOPMENT STUDY

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Figure 1. Location of the study area, Yakima fold belt, and extent of the Columbia River Basalt.

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Corrat Canyon o46119c5 Mabton West 046120bl Mabton East 046119b8 Prosser o46119b7 Whitstran NE 04611965 Whitstran Webber Badger Mountain 046119b3 o46119b6 646119b4 2 3 4 ما Tule Pring 046120c: Prosser 0W 54611968 7/1884/ SE Lenzie Ranch 046119a6 Whitstran SE 04611955 Prior Ranch 04611904 Johnson Butte 04611922 Nne Canyon 545119al Wa...Jla 046118a8 9 10 11 12 13 14 15 16 18 Douty Carryon 045120h1 Crider Valley 045120h2 Phinny Hill 045119h8 Canoe Ridge o45119h7 West of Paterson o45119h6 Paterson . o45119h5 Irrigon o45119h4 Umatilla 045119h3 Hat Rock 045119h2 Juniper 045119h1 JUNIPER CANYON 19 24 *2*5 21 22 26 27 23 28 34 Stort Wood, Guist 045120g2 Heppner Golgotha Butte o45119g8 Junction 045120g1 Crow Butte 04511997 Boardman 045119g6 30 29 32 31 33

The Horse Heaven Hills

U.S.G.S Maps, 7.5 minute topography.

Attached are 33 maps which detail the area within the proposed Horse Heaven Hills AVA. Each map contains the information for one quadrangle and shows the boundary line for the AVA in magenta.

We have organized the information by numbering the maps 1 through 33. An overview map is provided as a cover sheet and shows all the maps and numbers for easy reference.

The heavy magenta line follows the boundary of the proposed AVA. Please note that the CAD system used to plot these points continued the boundaries past the lineal boundaries of the quadrangle when each map was printed. We have made a note on each map that references the contiguous map that also contains the border.

Maps utilized for determining the boundary of the proposed AVA are the attached U.S.G.S. 7.5 minute topography maps including:

Corral Canyon Lenzie Ranch West of Paterson Mabton West Whitstran SE Paterson Mabton East Prior Ranch Irrigon Prosser Taylor Canyon Umatilla Johnson Butte Whitstran Hat Rock Whitstran NE Nine Canyon Juniper Webber Canyon Wallula Wood Gulch Crider Valley Badger Canyon Heppner Junction Tule Prong Douty Canyon Golgotha Butte Prosser SW Phinney Hill Crow Butte Prosser SE Canoe Ridge Boardman

The proposed boundary for the Horse Heaven Hills AVA is located in the State of Washington, entirely within the existing Columbia Valley AVA. The boundaries of the Horse Heaven Hills AVA using landmarks and points of reference found on the USGS 7.5 minute maps are as follows:

- 1. From the junction of Interstate Highway 82 and the Washington shoreline of the Columbia River, east to the point on the Washington shoreline directly perpendicular to the intersection of Benton, Umatilla and Walla Walla counties,
- 2. From this point on the Washington shoreline, directly north by northwest to the peak of Jump-off-Joe Butte,
- 3. From Jump-off-Joe Butte along the ridge line to Johnson Butte,
- 4. From Johnson Butte along the ridge line to Interstate 82,
- 5. From the highest point on Interstate 82, west along the ridge line to the Mabton-Bickleton road and South on the Mabton-Bickleton road to Alderdale Road,
- 6. From the intersection of the Mabton-Bickleton road and Alderdale road, southeast along Alderdale road to the 1700 foot elevation,
- 7. From the intersection of Alderdale road and the 1700 foot elevation, follow the 1700 foot elevation southwest to Pine Creek,
- 8. From the intersection of the 1700 foot contour and Pine Creek, southeast along Pine Creek to the Columbia River shoreline, and thence east along the Washington shoreline of the Columbia River to the point of origin.

General Description of the Area

The 570,000 acres contained in the proposed AVA are generally south sloping open desert plains that contain mostly sage brush, native grasses, and agricultural crops. Elevations run from 1,800 feet at the northern most boundaries, to 200 feet at the southern boundary on the Columbia River.

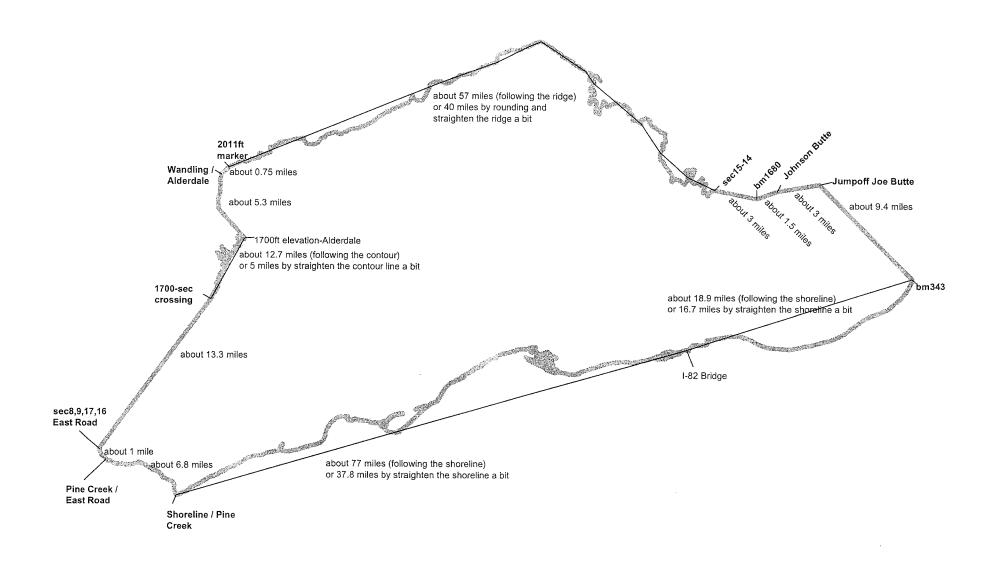
The lay of land resembles a large bowl that funnels everything towards its center. There are dozens of drainages that run from the northern borders, south down to the Columbia River creating a watershed that centers around Lake Umatilla on the Columbia River.

North of the proposed AVA is the Yakima Valley. The crest of the Horse Heaven Hills and the North Slope of the Yakima Valley are a natural boundary with steep cliffs and only three Department of Transportation passes available to drive between the two.

The southern border is the Washington shore line of the Columbia River. This portion of the river is made up of two hydroelectric dammed lakes; Lake Umatilla and Lake Wallula. Construction on John Day Dam was completed in 1971 and created Lake Umatilla, McNary Dam was completed in 1954 and created Lake Wallula.

The West border is very extreme terrain that is predominantly South by South East slope. The 1,700 foot elevation line creates the border that follows the drainages in a south by southwest line to Pine Creek and back down to the Columbia River.

The East border uses the ridge line between the Horse Heavens and the Yakima Valley in most cases except from Johnson Butte to Jump off Joe Butte and the River. In these cases, straight lines of sight were used to determine the boundary. The topography of the land prohibits the use of following an elevation line, because the ground slopes in both directions and a given elevation line will not terminate in a south by southeast direction. By using line of sight based on physical positions, the south by southwest slopes of the east portion of the area are included.





The Columbia Gorge Wind Funnel

Howard E. Graham, U. S. Weather Bureau, Portland, Oregon

THROUGH a near sea-level channel in the Cascade Mountains the Columbia River affords an artery for easy communication between the vast interior of the continent and the narrow sea coast areas. The spectacular Gorge of the Columbia also provides a channel for atmospheric movements that bring rapid weather changes and diverse climate conditions. The scenery through the Gorge reflects the variety of climate from copious maritime rainfall at the western end to continental aridness at the eastern extremity.

The actual Gorge of the Columbia River is about 120 miles long, running from near Bridal Veil, Oregon, in a generally easterly direction, to near Arlington, Oregon. The walls of the Gorge are highest about 45 miles east of Portland, then lower to about 1,000 feet at The Dalles where the river takes a loop, and continue at about the same height for a little over 50 miles eastward. On either side of the Gorge massive mountains rise from near sea

level to great heights. Mt. Adams reaches a peak of 12,307 feet only 30 miles to the north, and Mt. Hood stands 11,245 feet just 20 miles to the south. One tends to dwell too long on how big these mountains are, but most westerners will pay a premium if their house can face one of these majestic weather scenes.

The main barrier of the Cascade Mountains is orientated in a north-south direction about 110 miles inland and represents an important climatic control since it lies astride the path of the prevailing moisture-laden westerlies. As the air masses cross the mountains, they are materially modified: ascending air currents on the windward side lead to condensation and precipitation, while subsiding currents on the lee side result in evaporation and dissolution of clouds.

West of the mountains the precipitation reaches the high figure of 130 inches annually, and to the east it may amount to as little as eight inches annually. To illustrate:

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The Gorge : for the meteor here every day variations of te sure make then movements. T Gorge presents anticipate pres mine air flow c cific high move be an accompa the Gorge. Th nental high fo In the Gorge, types of air me calm, which oc

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Fortland, 20 miles to the west of the Gorge, has a yearly fall of 41.26 inches; The Dalles, we'll in the Gorge, has 15.49 inches; and at the extreme eastern and at Arrington the figure is only 9.05 inches. A traveller through the Gorge is aware of this rapid transition as he passes from a dense growth of conifers, Douglas fir, and cedars to only grass and sage-bressly.

The Gorge forms an excellent laboratory for the meteorologist and climatologist, for here every day of the year the effects of small variations of temperature, humidity, and pressure make themselves felt in large-scale wind movements. To the synoptic forecaster the Gorge presents a never-ending challenge to anticipate pressure changes that will determine air flow conditions. When the east Pacific high moves toward the coast, there will be an accompanying west wind flow inrough the Gorge. The reverse occurs when a conti-x nental high forms inland over the Plateau. In the Gorge, itself, there can be only three types of air movement: easterly, westerly, or calm, which occurs infrequently. -

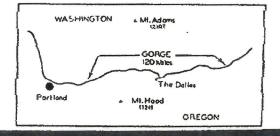
The pattern of wind flow has direct economic effects on all areas near the Gorge. When west winds prevail, mild maritime air flows into eastern Oregon and Washington to modify an otherwise continental type climate. Although the keavily populated industrial and agricultural areas at the west end of the Gorge are relatively little affected by west winds blowing into the Gorge, they are directly affected by east winds from the interior. Dry east winds can cause a fire hazard in all seasons of the year. In summer, strong parching winds with high temperatures dry out valuable forests and brushland, and in wintertime the same winds, now cold and dry, create a fire hazard from overheated furnaces. According to the Portland fire mar-t shall, there is a surprising increase in flue and roof fires during spells of easterly winds.

The prevalence of easterly winds in the Portland area has caused man to attempt to modify the local topography. Many tender truck crops in commercial and private gardens are subject to injury by the strong, desiccating winds. A number of elaborate wind breaks have been built or grown on the easterly side of fields to afford protection against unwelcome blasts.

Winter east winds give Portland and vicinity its severest weather, and the City of Roses is usually colder and windier than nearby cities to the immediate north and south. A temperature as low as -2° F, has been experienced there under an easterly circulation. Freezing rain is another hazard in the Gorge. Cold air from the interior often clings to the surface while moisture-laden air rides aloft over it. All forms of frozen precipitation then result in this area, as the temperature balance near freezing varies according to elevation and distance from the sea. The great glaze- and snowstorm of 17-20 November 1921 at The Dalles deposited 54 inches of frozen precipitation on the ground and stopped all communication through the Gorge.

A direct economic effect of the Gorge wind regime is illustrated by the forecast problem at Bonneville Dam where a continued westerly flow lowers the head of water behind the dam, reducing the potential for electric power output. Conversely, east winds help to raise the head. Thus, a forecast of all wind movement is necessary for proper pool regulation.

A consideration of two typical synoptic conditions will illustrate the flow patterns existing under different wind regimes. During the summer relatively cool maritime air normally piles up against the Cascade Range causing a rather strong pressure gradient toward the warmer interior of eastern Oregon and Washington. The surface weather map for 1630 PST, 28 July 1951, is typical of this situation. A large high lies off the coast with low pressure between the Cascades and the Rocky Mountains. The interior low has intensified through heating and by the lee effect of west winds blowing over the barrier of the Cascade Range. During periods of sustained westerly now, troughs, often quite deep, form east of the Rockies, and similar but less pronounced



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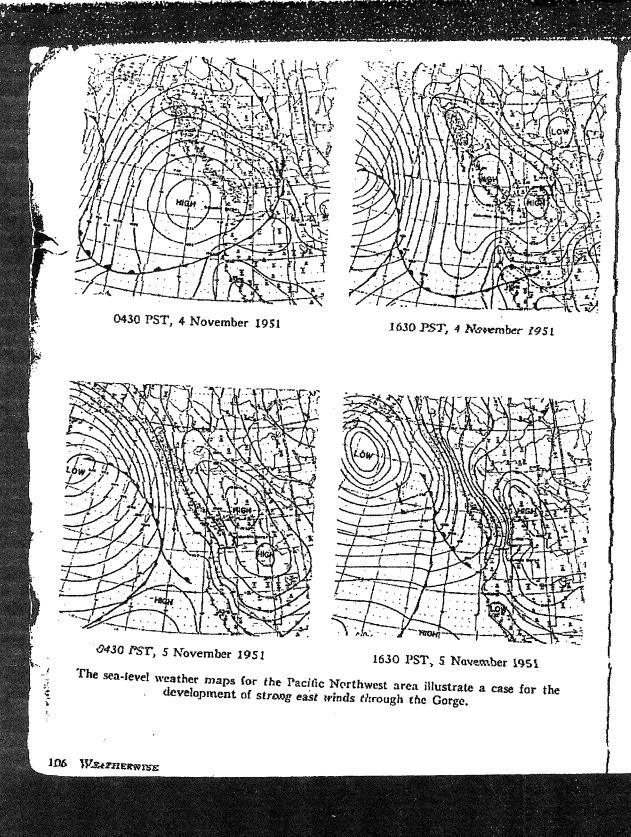
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cades, too. On this particular day the pressure gradient between Portland and The Dalles, 87 miles apart, was 6.1 mb toward the east, and the wind was west at 29 mph at 1330 PST.

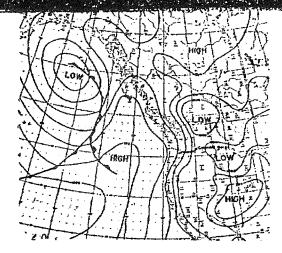
The reverse situation is illustrated by the period of 4-5 November 1951-a typical series since violent east winds are mostly a cold weather phenomena. On the map for 0430, 4 November 1951, a weak occlusion moved inland followed by rising pressure, as the main portion of the east Pacific high pushed inland. Note the center of pressure change over Juneau, Alaska. At this time the pressure gradient between Portland and The Dalles is 2.7 mb west to east, and the winds are westerly from 10-15 mph. Frequently the first definite clue as to what will follow is recognized at this stage-rising pressure over British Columbia indicates that a high is pushing inland.

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Twelve hours later, at 1630, the high has moved into British Columbia, eastern Oregon and Washington. Rising pressure, as shown by the pressure change lines, is well east of the Cascades. The pressure gradient is still west to east, but has decreased to 0.3 mb, and the wind has now decreased to west 3 mph.

During the following 12 hours the high became well established over the Great Basin. Strong nighttime radiation took effect east of the mountains, and the morning temperatures from 22° to 35° F. were considerably lower than those of the preceding morning. The pressure gradient was now reversed, being east to west, with a differential of 5.8 mb. The wind at Troutdale, just outside the Gorge at the western end, was 24 mph from the east with gusts to 34 mph.

During the day at Stevenson in the Gorge the wind speed increased to a sustained peak of 58 mph and gusts to 67 mph. A second front moved close to the coast by 1630, bringing falling temperatures along the coast and increasing the pressure gradient between Portland and The Dalles to 7.8 mb. This sustained the easterly flow and brought some very dry air into the Portland area as is shown by the drop from 88 per cent relative humidity on the 4th to 34 per cent on the 5th. The



A case of typical west winds through the Gorge in summertime is illustrated by the sca-level chart for 1630 PST, 28 July 1951.

wind flow was directly across the isobars; this is typical of winds in mountainous terrain and especially for winds through gorges and mountain passes.

How do we forecast the Columbia Gorge winds? To answer this question in its entirety would be a big order. The main problem is the preparation of accurate prognostic maps. Since we have found that the Gorge wind is a function of the pressure difference from one end of the Gorge to the other, and that it always blows along the axis of the Gorge, our problem is to forecast the pressure at both ends. The pressure difference through the Gorge is ascertained from the expected large scale pressure pattern. Correlations between pressure difference and wind velocity have been computed to assist in the actual Gorge-wind forecast once the expected pressure difference has been determined.

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