

Table 14. Bagley timber cruise table, T. 10 S., R. 5 W., S. 5, 1915. Original on file in Benton County courthouse (Bagley 1915). Compare with Map 12, hand-colored original of which is printed on same form and page as this table. This section was mostly clearcut by its owner, Caffal Brothers, shortly after WW II. It was subsequently exchanged with OSC for a smaller parcel of land with timber and then added to the Paul M. Dunn Research Forest (see Map 3; Tables D.3 and D.4; Jackson 1980; [Dunn 1990](#); [Rowley 1996](#)).

Timber Estimate, Surface Profile and Soil Report Section 5

TRACT	ACRES	YELLOW FIR				RED FIR				WHITE FIR				PILIN
		M	Logs per Tree	Av. Dia. Stump	% Surface Clear	M	Logs per Tree	Av. Dia. Stump	% Surface Clear	M	Logs per Tree	Av. Dia. Stump	% Surface Clear	
NE of NE	43	260	8	40	30	210	7	30		250	7	30	30	25
NW of NE	44	375	9	40	30	280	6	26						95
SW of NE	40					345	6	22						80
SE of NE	40					60	5	20						10
Total in Qr.	167	635				895				250				210
NE of NW	43	185	8	40	30	260	6	24						120
NW of NW	43	575	8	40	30	150	6	24		180	6	30	30	130
SW of NW	40					660	6	24						235
SE of NW	40	350	8	40	30	665	6	24						40
Total in Qr.	166	1110				1735				180				525
NE of SW	40	1100	9	42	40	150	7	28		90	7	34	30	45
NW of SW	40	1170	9	42	40	325	7	30		65	7	30	30	40
SW of SW	40	1075	9	40	40	375	6	26		125	6	26	30	45
SE of SW	40	1200	9	42	40	320	7	30		125	7	30	30	50
Total in Qr.	160	4545				1170				405				180
NE of SE	40	160	8	42	30	475	6	26		190	7	28	30	60
NW of SE	40	325	7	40	30	290	6	30						20
SW of SE	40					950	6	30						60
SE of SE	40	150	8	42	30	680	7	28		175	7	28	30	45
Total in Qr.	160	635				2395				365				185
Total in Sec.	653	6925				6195				1200				1100

establishment of pastureland or reforestation of clearcuts (Thomas & Schroeder 1936; Longwood 1940; [Hanish 1994](#); [Dickey 1995](#); [Vanderburg 1995](#); [Rowley 1996](#)). Logging was mostly concentrated in areas of small diameter (12 to 24 inch) second-growth timber for the manufacture of railroad ties (Thomas & Schroeder 1936; MacCleery 1992; Wisner 1992; [Vanderburg 1995](#); [Hindes 1996](#)).

In the 1930s, the development of the Oregon Forest Nursery (McDaniel 1931) and a US Civilian Conservation Corps (CCC) camp at Peavy Arboretum (Jackson 1980; Thomas 1980; [Starker 1984](#); [Sekermestrovich 1990](#); Zybach c.1991; [Rowley 1996](#)) led to the first major tree planting projects in Soap Creek Valley (see Fig. 19). During this same period, OSU began buying significant amounts of logged off land and young stands of trees through a bequest left by

Mary McDonald (Jackson 1980; Starker 1984; Dunn 1990; Rowley 1996) and a number of forestry practices and research projects were implemented by OSU forestry students and CCC personnel (Jackson 1980; Sekermestrovich 1993). During this period a permanent road system was established along the southern ridgeline of Soap Creek Valley (Nettleton 1956), following a centuries-old course used by local Kalapuyans and early pioneers (Zybach et al. 1990; Rowley 1996). By the 1930s and 1940s, tree falling was performed with power saws and much of the logging was accomplished with caterpillar tractors (Vanderburg 1995; Hindes 1996). Clearcutting remained a preferred method of harvest, although seed trees were often left for reforestation purposes (Dickey 1995; Vanderburg 1995).

Soap Creek Valley became a location for military combat training during WW II, which put a temporary end to most forestry practices in the area. Following the war, most forestland on the northern portion of The Valley was obtained by OSU College of Forestry, forming most of the current OSU Research Forests' Paul M. Dunn Forest (see Map 3; Jackson 1980; Dunn 1990; Rowley 1996; Davies 1997). Heavily timbered land that had been cruised in 1915 (see Table 14 and Map 12) was clearcut by its owner and traded to OSU for standing timber (Jackson 1980; Dunn 1990; Rowley 1990: personal communication). In the early 1950s, several large clearcuts on OSU property were made to generate revenue to pay for the Dunn Forest acquisitions (see Table 16) and numerous efforts were made with OSC student tree planters to afforest remaining hillside prairies, occasionally resulting in as many as seven or more attempts to forest the persistent grasslands (Nettleton 1956; Garver 1996: personal communication; Rowley 1998: personal communication). In the late 1950s, a contractor was hired to begin commercial thinning and salvage operations throughout the McDonald and Dunn Forests (see Map 3) and a director was established to begin formulating long-term management plans (Nettleton 1956; Jackson 1980; Dunn 1990; Rowley 1996; Davies 1997).

In October, 1962, the Columbus Day Storm traveled the complete length of western Oregon, damaging thousands of acres of timber (Lucia c.1963). Several stands of trees in Soap Creek Valley, particularly along the ridges, were blown over in this storm, and downed timber was salvaged (see Table 16; Jackson 1980; Blanchard 1995, personal communication; Rowley 1996; Davies 1997). Many of

Table 15. Old-growth and 2nd growth timber volumes, 1852-1915. See Appendices F and G; Maps 2 and 3; Tables 2 and 14. Timber volumes are Scribner scale (Andrews & Cowlin 1940).

<u>T-R-S</u>	<u>Seed 1</u>	<u>DF</u>	<u>DBH</u>	<u>BM</u>	<u>OG MBF</u>	<u>2G MBF</u>	<u>WF</u>
11-5-6	1600 DF/RC	4	6-60	3	12,230	16,310	2,500
11-5-5	1650 DF/WF	3	6-12	1	6,925	6,195	1,195
10-5-32	1650 DF/WF	5	10-50	3	4,310	5,170	340
11-5-7	1650 DF/WF				2,690	1,365	345
11-5-8	1650 DF/WF	1	14	1	2,660	8,600	1,050
11-5-3	1650 DF/WF			1	1,650	5,280	370
11-5-4	1650 DF/WF	1	60		1,075	4,290	430
10-5-33	1650 DF/Oak	2	8-10		765	2,845	55
10-5-22	1650 DF/Oak	1	24		550	4,850	415
10-5-28	1650 DF/Oak	3	8-13	1	350	2,530	
10-5-35	1650 DF/Oak				340	3,275	
11-5-9	1700 WF/DF				275	4,395	635
11-5-2	1650 DF/Oak				225	1,075	
10-5-29	1650 DF/Oak	2	8-30	1	80	625	
10-5-15	1800 DF/Oak					2,250	
10-5-23	1750 DF/WF			1		800	225
10/5/27	Oak/Maple			1			
10/5/25	Oak/Maple			1			
10/5/26	Oak/Alder						
10/5/34	Oak/Willow						
10/4/18	Oak						
10/4/30	Oak						
10/5/10	Oak						
10-5-12	Ash/Oak						
10-5-13	Ash/Oak						
10-5-24	Oak/Ash						
10-5-14	Oak/Ash						
10-5-11	Oak/Ash						
10-4-7	Oak/Ash						
<u>10/4/19</u>	<u>Oak/Ash</u>						
30 Sec.	Total	22	6-60	14	34,125	69,855	7,560
<u>T-R-S</u>	Township S., Range W., Section						
<u>Seed 1</u>	1915 cruise data, age est. DF = Douglas-fir, WF = white fir, RC = redcedar						
<u>DF</u>	Number of PLS Douglas-fir BTs, 1852-1882						
<u>DBH</u>	Range of Douglas-fir BT "diameters at breast height" (approx. 4 1/2 feet above ground level)						
<u>BM</u>	Bigleaf maple BT numbers, 1852-1882						
<u>OG MBF</u>	Old-growth Douglas-fir timber volumes, thousand board feet, 1915						
<u>2G MBF</u>	2nd growth Douglas-fir timber volumes, thousand board feet, 1915						
<u>WF MBF</u>	White (grand) fir timber volumes, thousand board feet, 1915						

the horizontal forest cover patterns that exist to this day can be traced to the effects of the Columbus Day Storm and resulting management actions

implemented at that time (Rowley 1996; Rowley 1998: personal communication; personal observation).

From the late 1960s to the 1980s, forestry practices in Soap Creek Valley remained generally stable, with emphasis placed on commercial thinning, salvage logging, and tree planting practices on OSU properties, and clearcutting, site preparation, and tree planting on private lands. In the late 1980s, local increases in residential development and focused public attention regarding management of endangered species (see Chapter I) led to a number of conflicts between forest managers, local residents, College of Forestry administrators, and some OSU faculty (Garver 1990: personal communication; Anderson 1993; Rowley 1996). The creation of a formal Research Forests forest plan in 1993 attempted to change the direction of established Research Forests management practices by being more responsive to local public interests (OSU College of Forestry Forest Planning Team 1993). By 1996, the plan remained in draft form, although it was in the process of being implemented (Sessions 1996: personal communication). The current status of the draft plan is uncertain.

Discussion. Public perceptions of poor management of OSU forestlands by OSU Research Forests includes concern that Soap Creek Valley timberlands are being managed almost solely for commercial gain rather than managing for “biological diversity” (or “biodiversity”). This is an issue raised in the local press (Garver 1990: personal communication; Anderson 1993) and OSU texts (Hunter 1990; Anderson & Runciman 1995). Hunter (1990), for example, claims that “managing for biological diversity is of critical importance because it is essential to the ecological well-being of the planet.” Thomas agrees with Hunter, claiming “a de facto policy of biodiversity protection . . . is the overriding objective” of forest management in the US, particularly for the Pacific Northwest (Thomas et al., 1993). Hunter (1990) contrasts “biodiversity management” with industrial forest practices (those that typify most Soap Creek Valley forestland stand and plantation management of this century):

Natural forest stands in which a single species is dominant are moderately common, but natural stands almost entirely composed of a single tree species are rather rare. In contrast, most plantations are nearly pure monocultures . . . and they have a widespread reputation for supporting an impoverished flora and fauna.

Table 16. OSU Research Forests logging volumes, 1949-1979 (Jackson 1980; Dunn 1990). These volumes were largely harvested from Soap Creek Valley (see Map 3). Note harvests of 1952-1953, which were used to pay US for acquisition costs of Paul M. Dunn Research Forests (Dunn 1990), and harvests of 1962-1966, which were in response to blowdown caused by the Columbus Day Storm of 1962 (Rowley 1996; Davies 1997).

Cut-McDonald-Dunn Forests (1000's of Board Feet)						
Year	McDonald		Dunn		Both Forests	
	Annual	Cummulative	Annual	Cummulative	Annual	Cummulative
1949-50	31.97	31.97			31.97	31.97
1950-51		31.97				31.97
1951-52	766.40	798.37			766.40	798.37
1952-53	18.25	816.62	6105.00	6105.00	6123.25	6921.62
1953-54	100.00	916.62			100.00	7021.62
1954-55		916.62	156.02	6261.02	156.02	7177.64
1955-56	238.65	1155.27	3504.29	9765.31	3742.94	10920.58
1956-57	271.25	1426.52	575.99	10341.30	847.24	11767.83
1957-58	373.90	1800.42	50.97	10412.27	444.87	12212.60
1958-59	492.09	2292.51	56.12	10468.39	548.21	12760.90
1959-60	1013.06	3305.57	750.15	11218.54	1763.21	14524.11
1960-61	1474.29	4779.86	1418.66	12627.20	2892.95	17417.00
1961-62	2537.65	7317.51	2505.05	15142.25	5042.70	22459.70
1962-63	5125.88	12443.39	1180.45	16322.70	6306.33	28766.00
1963-64	2780.94	15234.33	2827.73	19150.43	5618.67	34384.70
1964-65	1623.95	16858.28	4760.57	23911.00	6384.52	40769.28
1965-66	4876.93	21735.21	813.80	24724.80	5690.73	46460.01
1966-67	3887.01	25622.22	61.16	24786.41	3948.62	50408.63
1967-68	988.16	26610.38	1803.31	26589.72	2791.47	53200.10
1968-69	544.61	27154.99	2132.62	28722.34	2677.23	55877.33
1969-70	1572.00	28726.99	2602.90	31325.24	4174.90	60052.23
1970-71	3664.13	32391.12	764.41	32089.65	4428.54	64480.77
1971-72	2122.03	34513.15		32089.65	2122.03	66602.80
1972-73	2063.11	36576.26	840.74	32930.39	2903.85	69506.65
1973-74	1421.35	37997.61	1975.27	34905.66	3396.62	72903.27
1974-75	2263.27	40260.88	718.44	35624.10	2981.71	75884.98
1975-76	1785.16	42046.04	2056.34	37680.44	3841.50	79726.48
1976-77	1236.93	43282.97	2436.73	40117.17	3673.66	83400.14
1977-78	3886.23	47169.20	345.25	40462.42	4231.48	87631.62
1978-79	2069.79	49238.99	1726.04	42188.46	3795.83	91427.45

Hunter (1990) further asserts that: 1) “natural stands almost entirely composed of a single tree species are rather rare,” 2) “most plantations are nearly pure monocultures,” and 3) plantation-monocultures have a “widespread

reputation for supporting an impoverished” wildlife. Soap Creek Valley is a typical portion of the Douglas-fir Region, within which nearly pure stands of even-aged Douglas-fir, grand fir, lodgepole pine, western hemlock, Sitka spruce, and other conifer species are the general rule (Andrews and Cowlin 1940; Stout 1981), and provides a counterpoint to Hunter’s assertions (see Figs. 14, 19, 20, 21, and 22; Map 12; Tables 14, 15 and 16). Even-aged, nearly pure stands of juniper, larch, lodgepole, and yellow pine in eastern Oregon, Idaho, and Washington demonstrate that the phenomenon is not limited to the Douglas-fir Region, and extends throughout most of the Pacific Northwest. Munger’s (1940) first-hand observations from the early 1900s provide a good overview of this point:

The paths of the great forest fires of the last century or two are plainly marked by even-aged stands, consisting to the extent of at least 90 per cent of Douglas fir (if within the preferred habitat of this tree), regardless of the proportion of Douglas fir in the original fire-killed stand.

Therefore, the even-aged stands of nearly pure Douglas-fir that have been established in Soap Creek Valley during the past 170 years, for the most part, mimic “natural” stands that have existed throughout the Douglas-fir Region for centuries. To examine Hunter’s third point, that such environments are “impoverished” of biological diversity, the measures of species “richness” and species “importance” (or “evenness” of distribution) can be used. Table 12 (see Tables E.1 and E.2) demonstrates that species richness has been relatively constant for wild terrestrial vertebrates in Soap Creek Valley during the past 200 years (before and after the introduction of plantation forestry), with introduced species roughly equal to exterminated species. Table 13, however, shows a marked increase in wild vascular plant species richness, particularly for understory herbs and shrubs, and for grasses. (Species importance will be examined more closely in Chapter V.)

Summary. Principal changes in Soap Creek Valley logging and forestry practices during the past 150 years have been the: initiation of large-scale clearcuts (Fig. 19 and 21; Table 16); establishment of large tracts of even-aged Douglas-fir trees through purposeful seeding and plantations (Figs. 14, 19, 20, 21 and 22); construction of several miles of permanent roadway; consolidation of land ownership into major blocks controlled by OSU and a small number of

private owners (see Map 3; Table D.4; Dunn 1990; Sekermestrovich 1993; Davies 1996); and the creation of a formal forest management plan open to public review (OSU College of Forestry Forest Planning Team 1993; Garver 1996: personal communication; Rowley 1996; Sessions 1996: personal communication).

Hunting, Fishing, and Gathering (1500-1999)

Kalapuyans were known to visit hunting, fishing, and gathering sites as soon as they became free of snow, game became available, and/or plants became harvestable. Many valued Soap Creek Valley plants existed throughout the entire growing season, including redcedar, yew, arrowwood, and brackenfern. These activities were generally accompanied by daily fires, which included field burning, cooking, food processing, and heating fires. The incidental and cumulative effects of fire and fuel gathering possibly resulted in the greatest hunting- and fishing-related impacts to wildlife habitat in Soap Creek Valley during the past 500 years.

Early immigrant families had access to pack teams, metal traps, guns and gunpowder; combined technologies that proved capable of quickly exterminating entire species of prized or reviled animals (see Figs. 13, 14, and 15; Tables 12 and E.2). The consequences of these options led to early local elimination of whitetail deer, beaver, mink, and other valued mammals, and extermination of animals perceived as threats to safety or livestock, including rattlesnakes, grizzly bears, wolves, wolverines, cougars, and, possibly, Canadian lynx (Fagan 1885; Storm 1941; Sondenaa 1991). Subsequent adoption of specific game seasons and invention of fossil fuel stoves in the early 1900s led to decreased need for open fires and firewood away from home bases, and for reduced periods of times.

Similarly, Kalapuyan crops of camas, acorns, tarweed, sunflowers, huckleberries, blackberries, onions, and other seeds, bulbs, and fruits commonly gathered and prepared for Winter food stores, were nearly eradicated by grazing and rooting livestock of the pioneers, particularly cattle, sheep, and hogs (Longwood 1940; Storm 1941). Hunting, fishing, and gathering were relegated to recreational gaming activities, with Chinese pheasants being introduced into Soap Creek Valley fields as early as 1883 (Storm 1941), and rainbow trout being introduced into local streams in the early 1900s (Glender 1994). Seasonal

gathering and food processing operations, critical to the survival of Kalapuyan families and their predecessors, were replaced with year round residents who depended upon domesticated plants and animals for subsistence. Kalapuyan practices were soon forgotten, or relegated to seasonal sporting activities.

Land Subdivision and Home Construction (1846-1999).

Presettlement Kalapuyan families in the Willamette Valley were believed to be somewhat migratory, living in the open or in base camps during drier parts of the year, in proximity to seasonal crops or favored hunting areas (Collins 1951; Boyd 1986; Gilson 1989). Pioneer white and black American settlers in 1846 dramatically changed human survival strategy in Soap Creek Valley by establishing permanent homesites throughout the landscape, particularly in lowlands suited for agricultural development (see Maps 4 and 10; Longwood 1940; Bowen 1978; Rawie 1995). At that time, Oregon landownership questions were being decided by the governments of Britain and the US, and did not consider claims made by native residents—or any non-white individuals, for that matter (Carey 1961). Each of the original landowners was given a claim of 160, 320, or 640 acres (one square mile), depending on whether they filed before or after 1850, and whether they were filing as a single, white individual, or as a white, married couple (Zybach & Meranda 1989). Most pioneer Soap Creek area claims were filed by families before 1850 and, as a result, each new home was constructed an average of about a mile away from the nearest neighbors. This initial pattern of ownership and development seems based on prehistoric patterns of settlement and use (Snyder 1979; Bell 1981; Zybach et al., 1990; Rohner 1993), and also forms the basis of current land ownership and home construction patterns (see Maps 2; 3; 4; 11; Tables D.2 and D.4).

Following acquisition of the Oregon Country from Britain in 1846 and passage of the Oregon Donation Lands Claim Act of 1850, US legislators determined that local natives should be compensated for their claims to Willamette Valley lands that had been settled by American immigrants (Carey 1971; Mackey 1974). On the morning of May 1, 1851, US officials met with representative members of the Chapanafa and Luckymute (or, Luckiamute) Kalapuyan nations (see Appendix H; Figs. 1 and 5; Map 10; Table D.1) at

Champoeg, Oregon to negotiate the purchase of their ancestral homes in the Marys River and Luckiamute River basins. These lands included Marys Peak, Kings Valley, Soap Creek Valley and the current sites of Dallas, Corvallis, Philomath, Oregon State University, and the Finley Wildlife Refuge (see Map 13; Zybach, Barrington, & Downey 1995). The previous day, under direction of US Agents, three tribal representatives had been selected to represent the 44 men, women, and children that remained of these once-numerous nations (Mackey 1974). These families were the combined survivors of two nations that had been decimated by the plagues of 1831-1835 and who believed, in 1851, that their own race would not continue much longer. The Kalapuyan families and their new representatives had then been sent back to their camps to discuss and “sleep on” the government’s offer to pay them to release title to their ancestral lands, vacate the Willamette Valley entirely, and move to a reservation east of the Cascade Mountains. Government records show the following exchange at the beginning of the May 1st meeting (Mackey 1974):

Judge Skinner asked the Chiefs if they had reflected over and consulted among themselves; what had been said to them.

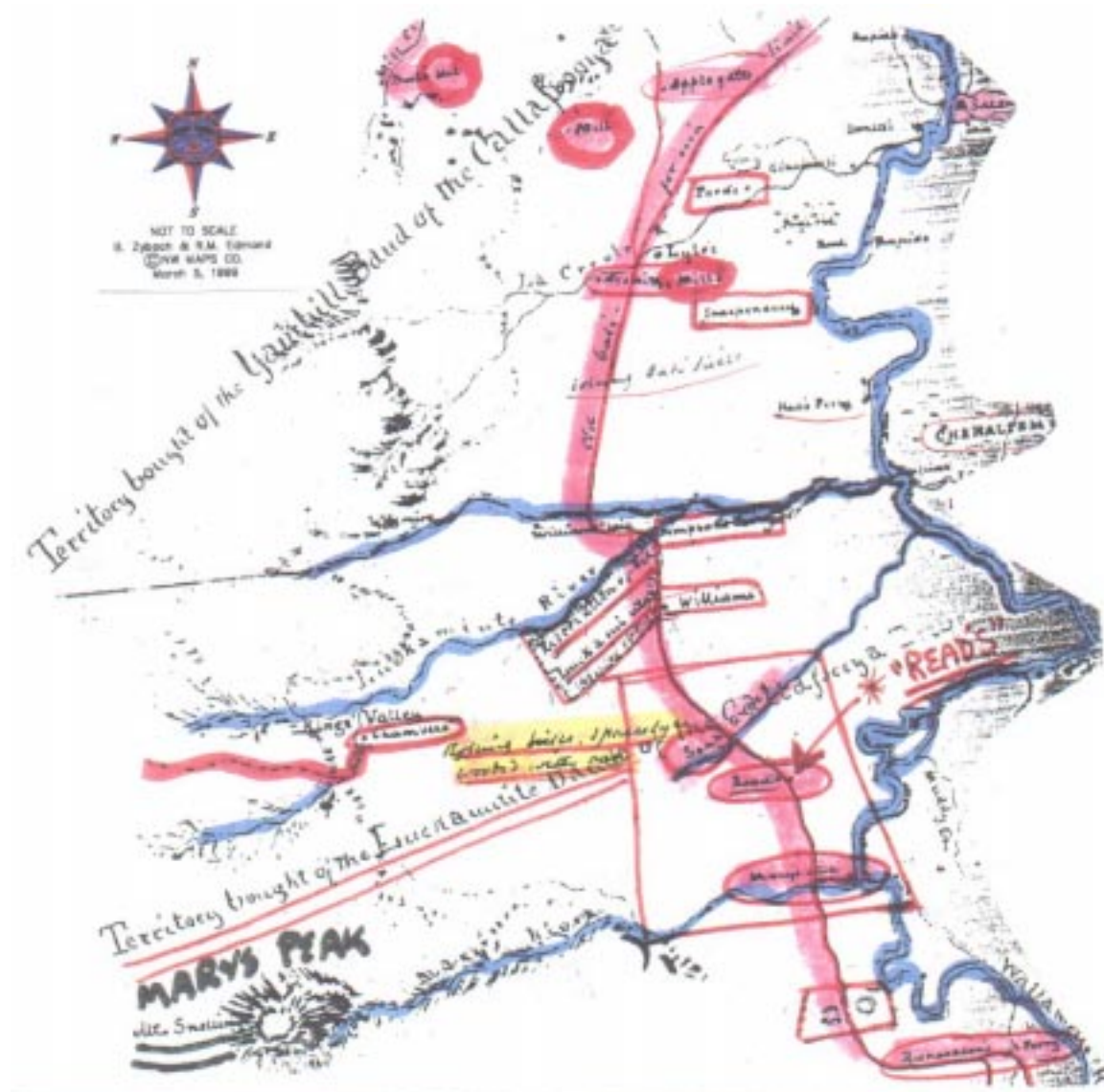
Scho-la-que Said, they had, and that they did not wish to leave the country where they had always lived! That they were now but few, and that in a short time there would be none of them left. He said none of them would live long, but that little time they had to live, they wished to spend in the land where their Fathers had lived, and where their relatives and friends were buried.

Col. Allen Asked if the United States would agree to give you more for your lands by your removing beyond the Cascades, than if you remained would you not rather go, than to have less, by remaining?

Daboe. Never! Never! We do not wish to leave our Country.

A few hours later, Daboe (“Jim”), Scho-la-que (“John”: this may be John Harris, “Capt. Santiam,” or “old Santiam” of the 1860 Grand Ronde Reservation census; see Whitlow 1988), and Yuh-kow (Nuh-kow?) had signed an agreement to sell all of their ancestral territory, including most of Benton and Polk Counties, for \$20,000 and a small reserve centered at present-day Airlie, beginning at the junction of Berry Creek Road and Airlie Road (see Maps 2 and 13). The agreement was later rescinded by the US Congress, and in 1855 the Kalapuyans were sent, with little compensation, to the Grande Ronde reservation in Yamhill

Map 13. Territory bought of the Luckiamute Band of Callapuya, 1851. This annotated detail from “Sketch of the Wallamette Valley” (Gibbs and Starling 1851), shows the original lands ceded from, and reservation boundaries given to, surviving members of the Chapanafa and Luckymute nations. This is the earliest map to depict the name “Soap Creek” or to describe the general nature of Soap Creek Valley forestland: “Rolling hills sparsely wooded with oak.” The map also shows the “old California Trail” wagon road constructed through Soap Creek Valley in 1846; later known as the “Applegate Trail,” or the “South Road” of the Oregon Trail. Also note the several references to “mills,” the location of Thomas Reed’s (“Read’s”) DLC (currently, Peavy Arboretum), “Mt. Snelling” (Marys Peak), and “Marysville” (renamed Corvallis in 1853). “Williams” was located SW of the junction of Berry Creek and Airlie Roads (see Map 2; [Vanderburg 1995](#)).



County, along with a number of other western Oregon Indians and Metis (Whitlow 1988; Jackson 1995).

A growing immigrant population, combined with large provisional and DLC land claims, soon led to a shortage of building sites throughout the Willamette Valley, including Soap Creek Valley. Towns were established in strategic locations convenient to pioneer farmers and trades people, following the example of other areas of the world settled by Europeans during the past 500 years (Bowen 1978; Crosby 1986). In Soap Creek Valley, the town of Tampico was platted in 1857 (see Maps 2 and 14; Figs. 27 and 28) near the new Tampico School, the local tavern, and the Post Office, at a major wagon road intersection to Fort Hoskins (established with the Siletz Indian Reservation in Kings Valley, to the east of Soap

Map 14. "Plot of the Town of Tampico," 1857 (Zybach 1989). The first attempt to subdivide Soap Creek Valley lands into building lots was the October 27, 1857 platting of Tampico. Only a few buildings were constructed within the town's borders, and Tampico was officially shut down on January 23, 1860 by Green Berry Smith, who had obtained clear title to it earlier that day (see Figs. 27 and 28; Zybach and Meranda 1989). Note Tampico location, shown as a solid rectangle, in Tsp. 10 S., Rng. 5 W., Sec. 24 on Map 2.

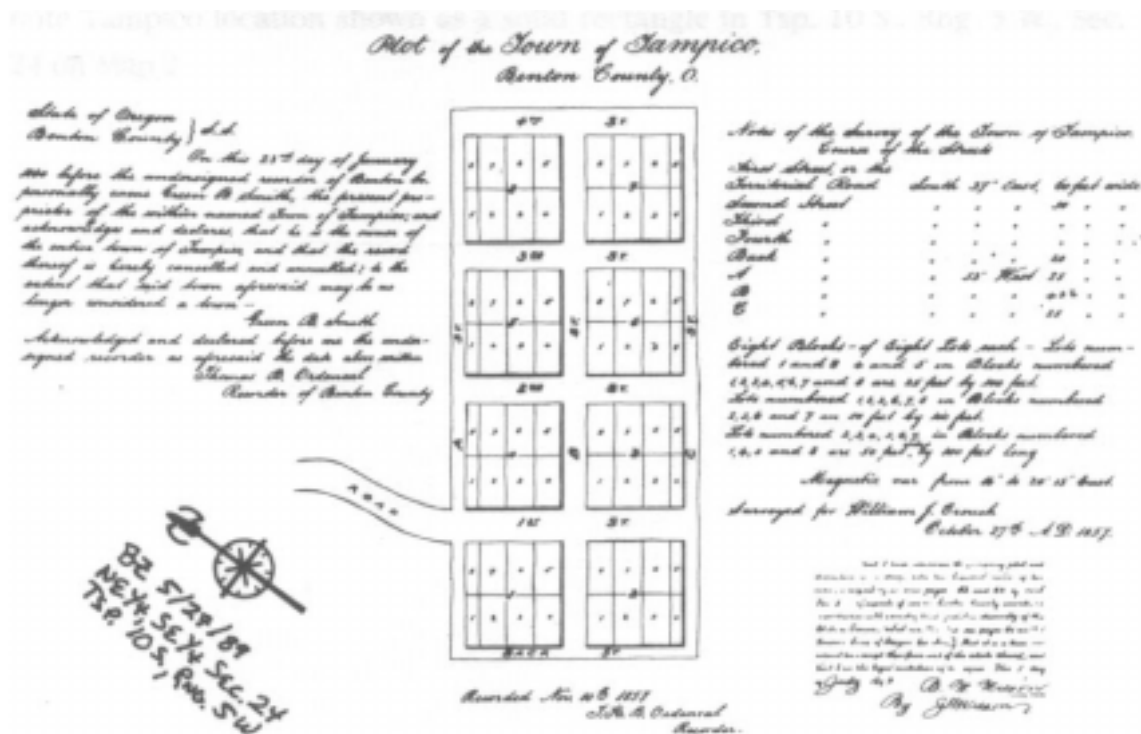


Fig. 27. Tampico, “Early Rival of Corvallis,” c.1856-1904 (Zybach 1989).
Upper Painting. This watercolor was painted by William Ball, supposedly under the direction of John Horner (Munford c.1989), in 1925. The title, “Early Rival to Corvallis,” may have been the result of historical embellishment, as Corvallis was an established and thriving riverfront town in 1857, when Tampico was first platted (see Map 14). The painting appears to be based on the recollections of former Tampico resident, James Hunter, who detailed the town’s structures and citizens to “Dr. W. E. Blake,” at his home in Ashland, Oregon, on January 24, 1926 (Blake 1926). The original, colored version of this painting was in possession of OSU Horner Museum in 1989.

Lower Photograph. This photograph of the “Arcade Saloon,” was made in 1904. The saloon was built in 1858 by Bill Bowers, owner and bartender, and was likely the center of many of the town’s legendary stories of gambling, fist fighting, dancing, religious revivals, and horse racing (Zybach & Meranda 1989). Note the vegetation patterns on the Soap Creek floodplain and the base of Coffin Butte in the background. The photo was given by the Glender family to the Soap Creek Schoolhouse Foundation in the 1980s (Grabe 1990). Photographer unknown.