3. Named Rivers, Creeks, Peaks, Other Landmarks, and Destinations

There are portions of two named rivers (South Santiam and Blue) and major headwater tributaries of four others (Middle Santiam, Calapooia, Smith and McKenzie) within the study area. These six rivers are fed by dozens of named creeks, springs, lakes, and ponds, and contain dozens of other named landmarks within their drainages (see Appendix A); also within the study boundaries.

Peaks, creeks, springs, caves, ridgelines and other named landscape features can serve as destinations, aids, impediments, or barriers to travel, depending on time and circumstance. People traveling by foot are more apt to notice (and name) a particularly dangerous creek crossing, for example, than someone traveling by automobile and crossing at the same location on a four-lane highway bridge.

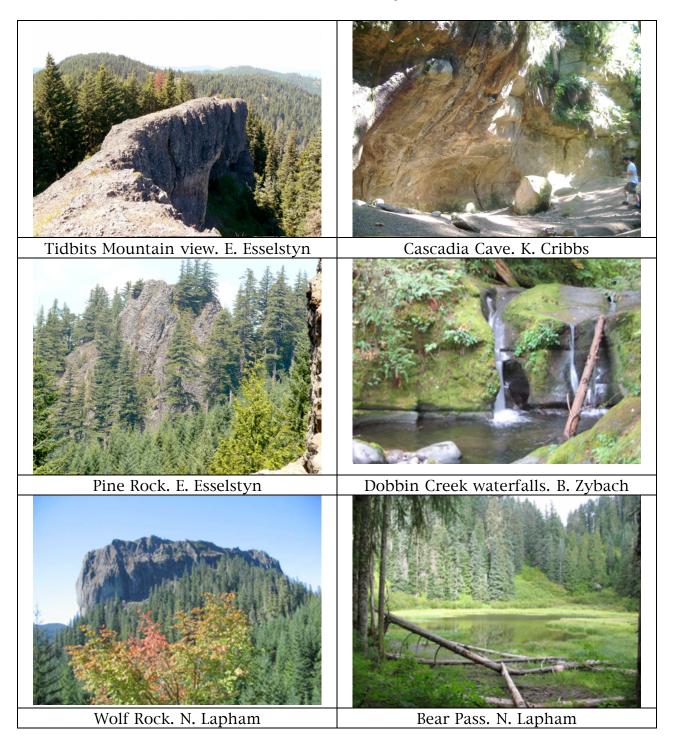
Each of the 32 named trail segments (see Part 4; Appendix B) that was determined to be a likely principal Molalla trade and travel routes, has a discrete beginning and ending point that can be mapped and measured. Further, each of these segments link with one another as to form efficient routes between all primary destination points known to be within, and adjacent to, the study area.

By using these criteria, and by eliminating duplication and secondary routes wherever possible, it became apparent that six areas in particular were key destination or meeting points for purposes of travel, trade, hunting, gathering, processing, and/or product manufacturing: Cascadia; South Santiam Prairie Complex; Owl Creek-Swamp Mountain; Bear Pass; Wolf Rock; and Latiwi Mountain (see Maps 5, 6, and 7). All major foot-trail routes in the study area connect directly with each of these six areas, all of which have good options for traveling to key locations outside the study area as well.

Cascadia is an area that includes about a two-mile long prairie and hillsides on both sides of South Santiam River. The well-known Cascadia Caves are located here, as is Cascadia Park. Snow rarely stays on the ground for any length of time during the winter (S. Lennen, personal communication, October, 2007), and it appears that this is the most likely location for a year-round Molalla townsite in the study area. Relict camas plots are scattered throughout the community, and the only oak documented during this research is also located here. Finally, the area is extremely strategic for monitoring and regulating traffic along the river to Santiam Pass.

South Santiam Prairie Complex is the series of alluvial fields and meadows that exist along the mouths of the major tributaries to the South Santiam River between Cascadia and Upper Soda. These areas are all under 1500' elevation and can be easily reached during most times of the year. During the winter these areas were likely used exclusively by Santiam Molalla, but they were also

Table 3. Santiam Molalla landmarks. Sampling of documentary photographs of named and unnamed landmarks within the study area.



likely used as seasonal homesites and campgrounds by numerous other tribes during summer months, when the passes were snow free. These campgrounds were close to the river in strategic, protected locations at low elevations, with ready access to higher elevations as weather allowed.

Owl Creek-Swamp Mountain is a complex of meadows, marshes, orchards, and berry patches located along a series of benches, shoulders, knobs, and ridgelines. Owl Creek empties into Canyon Creek in an area that continues to be used as a campground to this time, and is low enough in elevation to be reached most of the year. Berries, cherries, redcedar, willow, and bigleaf maple are all abundant in the adjacent hills. Beargrass and pine are in higher elevations.

Bear Pass can be located on the landscape as immediately south of Twin Buttes, which are a prominent feature on the visible skyline. This major trail crossroads includes immediate access to headwater fields, prairies, meadows, and berry patches associated with the Tidbits Mountain, Two Girls Creek, Black Creek, Falls Creek (Gordon Meadows), Gordon Lakes, Twin Buttes, and Latiwi Mountain trail complex. Bear Pass is on the boundary between Santiam Molalla and Blue River Molalla lands, and formed a convenient entry to the South Santiam River basin from Fish Lake, Clear Lake, or Obsidian Cliffs. Camping areas can be found all through the area, with abundant food, freshwater and fuel.

Wolf Rock is an abrupt, iconic peak located strategically at the headwaters of Blue River, a relatively short distance from Tidbits Mountain, Deer Creek, Obsidian Cliffs, Bear Pass, or Latiwi Mountain. There is a relict meadow adjacent to Wolf Rock that appears to be a remnant of what had been an extensive prairie in the past. Major trail crossroads and intersections are located in conjunction with this landmark, and there is also a large pond nearby that is growing wokas.

Latiwi Mountain is the southwest corner of the divide separating Mann Creek (Blue River) from Deer Creek (McKenzie River), Sevenmile Creek (South Santiam River), and Browder Creek (Smith River). The divide between these four river drainages is relatively low in elevation, and the Sevenmile Creek basin, in particular, was likely a heavily used area by a number of tribes, including Cayuse, Northern Molalla, Warm Springs, Blue River Molalla, Klamath, Paiute and Kalapuyan, whose members visited or traveled through eastern Santiam Molalla lands in summer. This area was also known as a favored Indian hunting ground in early historical time (see Figure 1).

The Cascadia, South Santiam campground, and Owl Creek areas are all fairly low elevation and were accessible to Santiam Molalla year round. Wolf Rock, Bear Pass, and Latiwi Mountain are all higher elevation and could only be reached seasonally — with Wolf Rock capable of being reached much earlier in the year by local Blue River Molalla than by snow-blocked Santiam Molalla to the north.

4. Primary Trail Network and Seasonal Use Patterns

Climate is a critical factor regarding human use and occupation within the study area. A majority of the trails, meadows, prairies, and berry patches are more than 3,000 or 4,000 feet in elevation (Appendix D) and are covered with snow for a significant portion of each year (Table 4; Appendix B). Heavy snows can begin in September, near the beginning of fall, and north-side ridgeline trails and prairies can be snowed in until June (personal observation) or even July (see Figures 1 and 2; Plummer 1903).

Year-round occupation. From all appearances, there have been sufficient resources within the study area to readily support a full-time population of several hundred people or more during the past several centuries. In addition to elk, deer, blue huckleberries, redcedar, beargrass, and other prized resources, the Santiam Pass is strategically located between the populations of eastern Oregon and western Oregon, and likely provided trading advantages at different times. Slave trade agreements with the Klamaths, for example (Ruby and Brown 1987; Zenk and Rigsby 1998), may have been an important factor as to where people lived and traveled at different times of the year. Molalla used snowshoes, but a major portion of the South Santiam River corridor is snow-free most of the year and would have been the most logical place for full-time residency.

All locations in the study area are less than 25 miles distance by trail from one another; meaning that, in the absence of snow, all locations that were used historically were within a day's travel or less from each other. This is an important feature for a pre-horse society that traveled almost entirely by foot, because the rivers and creeks are too steep and shallow, and the lakes and ponds are too small and isolated, for most canoes or other watercraft.

Seasonal occupation. Most of the study area is high elevation and inaccessible due to snow for much of the year (Table 4). Only the South Santiam River corridor of prairies and meadows are below 1500' elevation, and remain snow-free and habitable most of the year. There is strong archaeological evidence that higher elevation riparian areas and ridgelines were also heavily used for centuries and millennia before white contact, as weather permitted (Farquay, personal communication).

The mainstem South Santiam River and McKenzie River corridors leading from the Willamette Valley to the Santiam Pass were extremely strategic holdings for the Molalla during the summer months. The Klamath traded slaves, wokas, pine nuts, and other goods in heavily used north-south trails through these lands, and much trade and travel from western Oregon to eastern Oregon had to pass through long stretches of narrow, highly visible trails and steep, easily protected canyons to get through Molalla land.

Table 4. Relative elevations of key Santiam Molalla locations.

Location	Elev.	River Basin	Destination Description
Cascadia	0750'	South Santiam	Possible townsite
Canyon Creek	0900'	South Santiam	Available riverine campground
Moose Creek	1,000'	South Santiam	Available riverine campground
Falls Creek	1,100'	South Santiam	Available riverine campground
Trout Creek	1,250'	South Santiam	Available riverine campground
Owl Creek	1,600'	South Santiam	Seasonal subbasin campground
Soda Fork	1,600'	South Santiam	Seasonal riverine campground
Cook Creek	1,800'	Blue	Seasonal riverine campground
Quentin Creek	2,200'	Blue	Seasonal riverine campground
Wolf Creek	2,600'	Blue	Seasonal riverine campground
Bunchgrass Mountain	3,600'	McKenzie	Seasonal ridgeline campground
Indian Creek	3,600'	McKenzie	Seasonal subbasin campground
Two Girls Pond	3,600'	South Santiam	Seasonal subbasin campground
Wildcat Mountain	3,600'	Smith	Seasonal crossroads campground
Wolf Pond	3,600'	Blue	Seasonal subbasin campground
Gordon Lake	3,800'	South Santiam	Seasonal subbasin campground
Gordon Meadows	4,000	South Santiam	Seasonal ridgeline campground
Bear Pass	4,200'	Blue	Seasonal crossroads campground
Tombstone Pass	4,200'	McKenzie	Seasonal trail pass
Swamp Mountain	4,300	South Santiam	Seasonal ridgeline campground
Latiwi Mountain	4,300'	South Santiam	Seasonal ridgeline campground
Tidbits Mountain	4,300'	South Santiam	Seasonal crossroads campground
Browder Ridge	5,100	Smith	Seasonal ridgeline campground

The South Santiam River corridor is the only part of the study area likely to have had permanent Santiam Molalla residency. Wolf Rock was far more likely to have been used and visited by Blue River Molalla during the course of a year, but Tidbits Mountain, Bear Pass, and Latiwi Mountain were likely used by Santiam Molalla and Blue River Molalla during the same periods of time.

Molallan and/or Kalapuyan townsites and/or major campgrounds were likely (theoretically) located to the immediate south and west of the study area in the present-day locations of Foster, Sweet Home, Waterloo, Lebanon, Sodaville, Brownsville, Crawfordsville, Holley, and Blue River, and these locations would most likely have hosted the major trade markets and influxes of seasonal visitors prior to 1850.

Primary travel and trade routes (1) intersect at these (Table 4) principal land use locations within the study area, and radiate outward from these locales via (2) secondary foot-trail networks to favored camping sites, fishing spots, hunting

blinds, and resource gathering areas. Short cuts, isolated resources, spiritual locations, and other irregularly-used trail segments (3) constitute a third type of trail network pattern used by Santiam Molalla in South Santiam River and Blue River basins. A fourth, far more ephemeral, type of trail use results from the (4) integration of existing human and animal trails during times of emergency, hunting, battle, or other episodic occurrences. The focus of this study is strictly primary routes, but from that foundation it is a fairly straightforward process to determine secondary and other types of patterned trail use.

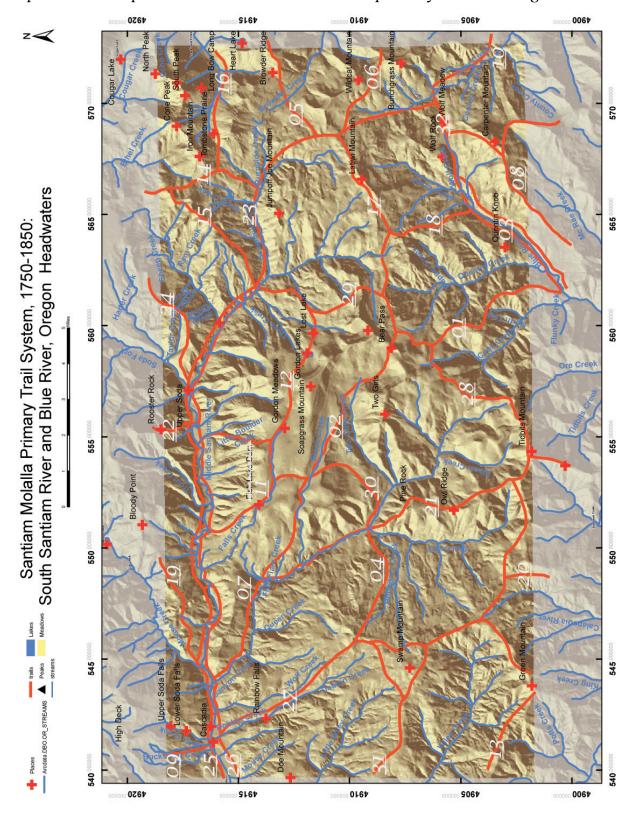
Map 5 and Appendix B list and name the 32 Santiam Molalla foot-trail segments that are a partial result of this research. These segments have been entered into the Grand Ronde GIS mapping system, and can now be used for Tribal research, educational, recreational, and cultural purposes. These trail segments are described in further detail in the following pages and should be accepted as both accurate and open to further review at this time.

Bear Pass Trail (01) begins near the mouth of Quentin Creek on the Blue River Trail and goes northwest, up the ridgeline between Quentin Creek and Cook Creek, until it reaches Bear Pass. Blue River Molalla would have used this trail whenever the Pass was cleared of snow. Bear Pass is a strategic location with campgrounds and trails that go in all directions from there.

Black Creek Trail (02) begins near the mouth of Black Creek, a tributary of Canyon Creek, and proceeds easterly along the Creek's banks to its headwaters, and from there southeasterly to the headwaters of Two Girls Creek, and then to Bear Pass. Santiam Molalla would have used this trail for hunting, gathering beargrass and willow, and picking berries. When the snow cleared, this trail could also be used for reaching Bear Pass.

Blue River Trail (03) begins about three miles above the mouth of Blue River, at its juncture with the McKenzie River, and travels along its banks until it reaches the River's beginning point, near the base of Wolf Rock at the juncture of Wolf Creek and Mann Creek. This trail would have been used by Blue River Molalla through much of the year for traveling, hunting, and fishing. Wolf Rock is a strategic location with campgrounds and trails that go in all directions.

Boundary Creek Trail (04) begins near the mouth of Owl Creek, near its junction with Canyon Creek, and travels westerly, up Boundary Creek's northern ridgeline, to Swamp Mountain. Santiam Molalla would have used this trail as snows melted, to reach the hunting opportunities, fruits, berries, and weaving materials found in the higher elevations of Swamp Mountain. Both the mouth of Owl Creek and Swamp Mountain are additional strategic locations with campgrounds and trails that go in all directions.



Map 5. Index map of 32 named Santiam Molalla primary foot-trail segments.

Browder Ridge Trail (05) begins at the divide near Latiwi Mountain, between Smith River, Blue River, and South Santiam River. This location gives all the appearances of a major seasonal trading and hunting location for a number of Tribes, including Northern Molalla, Santiam Molalla, Blue River Molalla, Klamath, and possibly Paiute, Kalapuyan, Cayuse, and Klickitats as well. In the early 1900s, Warm Springs families were known to graze their horses near this location, and may well have arrived via Browder Ridge. From Latiwi Mountain divide the trail follows Burnside Creek north to the base of Browder Ridge, then makes a steep ascent to the ridge's summit, where the trail extends for miles to the east along a fairly level surface. During the summer, this trail provided a safe and rapid entrance and exit to the eastern lands of the Blue River Molalla and Santiam Molalla. The various listed Tribes also likely used it for hunting and gathering purposes.

Bunchgrass Mountain Trail (06) begins at the Latiwi Mountain divide (see description on Browder Ridge Trail narrative), then travels southeasterly between Wildcat Mountain and Bunchgrass Mountain to Smith River. This trail directly connected to the north-south Klamath Trail from Clear Lake to Fish Lake to Big Meadows, and was likely used by Klamath, Paiute, and Blue River Molalla to raid, visit, trade, or hunt with the Santiam Molalla.

Canyon Creek Trail (07) begins near the mouth of Canyon Creek, and then follows flats and ledges southeasterly, along the eastern side of the Creek, until it reaches the mouth of Owl Creek. Original field observations and a USFS Geologist (Shank 2007, personal communication) opined that the walls of the canyon were too steep to allow regular foot traffic, but Farque (personal communications, 2007) contends that significant archaeological finds are located along this reach. Early maps (Metsker 1938) also show a well used trail in this location, so it was decided to include this segment as Farque suggests. GPS readings were not taken the entire length because the road was closed due to a massive slide during field research (Anonymous 2007). Easier, less dangerous routes also go from the South Santiam to the mouth of Owl Creek, but they are longer distances and more difficult to monitor.

Carpenter Mountain Trail (08) begins near the mouth of Lookout Creek, where it enters Blue River, and ends near the summit of Carpenter Mountain, to the northeast. It is a ridgeline trail that parallels the southern bank of the Blue River. Blue River Molalla may have used this trail, and perhaps Calapooia Kalapuyans, after snows had melted. This trail may have been used as an important east-west trade route, connecting Klamath and Paiute traders with Obsidian Cliffs and Willamette Valley Kalapuyan markets. This segment was not ground-truthed, however, and may be of lesser importance than current speculation.

Cascadia North Trail (09) can be said to begin at the local renowned Soda Spring (Carey and Hainline 1979), or from Cascadia Cave (McClary 2007; Morgan 2007). This is a key feature of a large area that may have been a yearround townsite for Santiam Molalla and their predecessors on the land. The elevation is under one thousand feet; abundant fuel and freshwater exists all year; it is a key and strategic access point connecting a major eastern and western Oregon trade route; abundant bulbs, seeds, nuts, roots, and berries are found in summer and fall, and fish and game can be readily obtained in winter and spring. From Soda Spring the trail trends up the western bank of Camp Creek (local residents claim this is the historical Bucksnort Creek, and want the name changed back, according to R. Lennen and R. Jones, personal communication, September 17, 2007), until it reaches a low saddle in the nearest ridgeline. From there the trail readily connects to Moose Ridge, and can be taken to several different locations within the Middle Santiam basin. This area is networked with potential trail alignments, and provides indications of widespread use in past times. The selection of this one segment is a generalized and largely symbolic choice that likely represents at least two or three primary trail routes heading north from Cascadia in the late 1700s and early 1800s. In earlier times, traffic was likely much greater.

Deer Creek Trail (10) begins near the mouth of Deer Creek, where it enters the McKenzie River, and continues north along the Creek's banks, to Latiwi Mountain divide (see description on Browder Ridge Trail narrative). This Trail would have been used by Blue River Molalla following snowmelt, and by Klamath traders and visitors, headed toward Wolf Rock, Latiwi Mountain, or Bear Pass. It also would have been used for fishing and hunting, and likely for gathering as well.

Falls Creek Trail (11) begins upstream of the mouth of Falls Creek, near Long Bow, at an intersection with south Santiam South Trail, and travels south, up the ridge to Falls Creek; from there the trail proceeds along the banks of the creek to Gordon Meadows, where it forks east to Gordon Lakes Trail, and south to Black Creek Trail. Santiam Molalla and their guests, based at Cascadia or Long Bow campground, were likely the near-exclusive users of this trail. It was likely more of a trail for gathering and transporting produce (particularly camas, huckleberries, other berries, and bear grass) and for hunting elk and deer, rather than for trade or general travel purposes.

Gordon Lakes Trail (12) is an upland southern loop trail that connects an important South Santiam River crossroads with an important campground downstream, via a ridgeline loop that includes several miles of hunting, fishing, and food, fuel, and fiber gathering opportunities. This trail begins near the juncture of Latiwi, Sevenmile, and Three creeks and travels southerly, along the ridgeline between Three Creek and Latiwi Creek. From there, the trail turned

west along a side-ridge, crossed Three Creek, continued northwesterly to the south of Lost Lake, between the two Gordon Lakes, to Gordon Meadows, and then north and downhill, along the western ridgeline of Little Boulder Creek, ending at the South Santiam River campground between the mouths of Boulder and Little Boulder creeks. This trail was predominantly a resource use trail, but was more likely to be used by Blue River Molalla and Klamath than the Swamp Mountain, Canyon Creek, or Falls Creek routes to Gordon Lakes and Gordon Meadows, which were likely used almost exclusively by Santiam Molalla.

Green Mountain Trail (13) is largely conjectural at this time because it is on private land and is blocked from travel by fallen trees and locked gates at this time. In addition to lack of field access, the sets of historical aerial photos we used did not go this far south, and the GLO township map (for unknown reasons: see Part 2) did not include trails or forest roads of any sort for this area. At the least, this trail was used for hunting, gathering, and visiting the neighbors; at most, it was a seasonal trail used regularly by Santiam Kalapuya, Calapooia Kalapuya, Blue River Molalla, and possibly Klamath and Santiam Molalla, to travel from the Willamette Valley to Tidbits Mountain, Latiwi Mountain, Fish Lake, Wolf Rock, or Obsidian Cliffs. This segment starts on the western boundary of the study area, at a location along Green Mountain Ridge named Happy Camp (according to a 1938 Metsker), and proceeds easterly along the ridgeline and to the south of Green Mountain peak, to the equally conjectural "Crossroads Camp" near the beginning point of the North Fork Calapooia River. Crossroads Camp is also on the ridgeline trail to either Swamp Mountain to the north, or Tidbits Mountain (and Bear Pass) to the east.

Harter Mountain East (14) and West (15) Trails are the two finalists for a "principal northern route" between the South Santiam River, Latiwi Mountain, and the complex of meadows, wetlands, and prairies, of the Harter Mountain area. The Soda Fork Trail also has Harter Mountain as an initial destination. The Soda Fork Trail was likely to be used almost exclusively by Santiam Molalla, and perhaps Santiam Kalapuya, but the Harter Mountain Trail (both East and West) was just as likely to be used by Blue River Molalla and Klamath. The eastern route begins near the mouth of Burnside Creek, while the western route begins near the mouth of Latiwi Creek; both intersect to the northwest of Iron Mountain.

Indian Prairie Trail (16) derives its name from the original historical name for Tombstone Prairie (Plummer 1901; 1903). This trail follows the eastern Harter Mountain route (Trail #15) from the mouth of Burnside Creek, but turns due east through Tombstone Pass, and then follows Hackleman Creek to its juncture with Smith River, and then on to Fish Lake. This trail may have been used less than the Browder Ridge Trail to Fish Lake, and more seasonally than the Sevenmile Creek Trail to Fish Lake; and it may likely have been used more

for hunting and fishing purposes than for travel or trade, although it is the principal alignment for Highway 20 at this time. Santiam Molalla, Blue River Molalla, Klamath, and perhaps Warm Springs, Cayuse, Paiute, and Kalapuyans, regularly used this trail on a seasonal basis.

Latiwi Mountain Trail (17) is the best and earliest documented segment of this trail network (see Part 2). It is shown as "Wiley's Trail" on the 1895 GLO map of Tsp. 14 S., Rng 5 E. (Hammond 1895), denoting Andrew Wiley's 1860s stock trail from the Willamette Valley to eastern Oregon via the "Santiam Pass." Wiley pioneered the popular stock trail and toll road by "following an Indian trail over the mountains" in 1859 (Carey and Hainline 1979: 10-12), before becoming hopelessly lost and ending up at (and naming for that reason) Lost Prairie, on Hackleman Creek. It his been said that because Wiley got lost, Highway 20 today follows Hackleman Creek instead of lower-elevation Sevenmile Creek (see Sevenmile Creek Trail), as the Molalla and Klamath did. This trail begins at Bear Pass, and follows the ridgeline eastward to the north side of Latiwi Mountain, ending on the four-river (Blue, McKenzie, Smith, and South Santiam rivers) divide to the northeast of the peak. This trail is covered with snow most of the year, and the ridgeline it follows formed a nearly impassable barrier to Blue River Molalla and Santiam Molalla during that time. Following snowmelt, the trail appears to have been used extensively for travel, trade, hunting, and gathering by Santiam Molalla, Blue River Molalla, Klamath, and perhaps Paiutes, Cayuse, Warm Springs, and Kalapuvans.

Mann Creek Trail (18) begins along the Blue River Trail, near the juncture of Mann Creek, Wolf Creek, and Blue River, southwest of Wolf Rock, and proceeds northerly, along the ridgeline between Mann Creek and Trapper Creek, to an intersection with Latiwi Mountain Trail, in Tsp. 14 S., Rng. 5 E., Sec. 14. This trail would be used seasonally by the Blue River Molalla to travel to Bear Pass or Latiwi Mountain. Klamath and Santiam Molalla, and perhaps Kalapuyans and Paiutes also likely used it, seasonally. It is possible that it was merely a trail of seasonal convenience, or it may have been an important link in the slave or obsidian trades. A significant amount of thimbleberries grows along this route.

Moose Mountain Trail (19) begins east of the mouth of Moose Creek, at an intersection with the South Santiam North Trail, and proceeds northeasterly to Moose Mountain, which is strategically located in the Middle Santiam River basin to travel rapidly in several directions by ridgeline routes. It appears to be a major travel route for Santiam Molallans living or visiting near Cascadia, connecting with the lands and people of the Middle Santiam and North Santiam rivers. This may have also been an important north-south link for seasonal Klamath trading parties and/or Kalapuyans visiting from the Willamette Valley. [As a side note, "Moose" is a prominent name in the locality, being given to a large creek, a mountain, a ridge, trails, roads, and an alpine lake, yet the name is

a mystery. No moose have ever lived anywhere near these places, and no locally prominent family or character can be located with that name. One guess is that the name is a corruption of "moosmoos," said to be the local Indian name for immigrant cattle (Carey and Hainline 1979: 7)].

North Fork Calapooia Trail (20) begins at the juncture of the North Fork Calapooia River with the Calapooia River, and proceeds north, cross-country along the river's bank and following benches and ridgelines, to a small lake or pond at the river's source: hypothetical "Crossroad's Camp." This trail was likely used seasonally by Calapooia Kalapuyans, Blue River Molalla, and Santiam Molalla on minor north-south visitations, or as access to Bear Pass and Latiwi Mountain trade networks involving Klamath, possibly Paiutes, and other Molallans and Kalapuyans.

Owl Ridge Trail (21) begins at the mouth of Owl Ridge and travels southerly to an intersection with the Tidbits Mountain Trail, near the peak. This trail was mostly likely used by Santiam Molalla and guests as weather permitted, until opened to regular traffic with Blue River Molalla and Calapooia Kalapuyans following snow melt. This is mainly a travel, hunting, and gathering route.

Rooster Rock Trail (22) begins at an intersection of the South Santiam North Trail, across the river from the mouth of Boulder Creek, and proceeds nearly due north and nearly straight uphill to Moose Mountain. This trail aligns closely with the north-south Falls Creek Trail route and creates a very short (but physically taxing) distance between the strategic Moose Mountain and Bear Pass trail networks. This trail was likely mostly used by Santiam Molalla and Blue River Molalla on a seasonal basis, and may have seen most use packing meat, hides, and berries downhill, as emergency escape routes, or for strategic communications or travel purposes. It is also possible that the trail was of minor importance, and mostly used by elk, deer, and hunters.

Sevenmile Creek Trail (23) begins at the crossroads near the mouth of Latiwi Creek, and then proceeds southeasterly, down the north side of Sevenmile Creek, until it reaches Latiwi Mountain divide (see Latiwi Mountain Trail). This trail was likely heavily used during the summer months by numerous tribes in the region, traveling both on east-west and north-south routes.

Soda Fork Trail (24) begins at an intersection with the South Santiam North Trail at Upper Soda, then follows Soda Fork to Harter Creek ridgeline, ending at Harter Mountain, an area characterized by numerous wetlands, grasslands, and bottomlands ideal for hunting, camping, and food and fiber gathering and processing. Upper Soda is the most eastern of the series of seasonal campgrounds located along the South Santiam River above Cascadia and would have most likely been used predominantly by Santiam Molalla.

South Santiam North (25) and South (26) Trails begin in Cascadia and travel parallel easterly paths along the north and south banks of the South Santiam River, to their intersection near the mouth of Latiwi Creek. These trails connect Cascadia with the upstream riverine meadows and campgrounds and would have likely been used year-round by Santiam Molalla, and by a steady stream of Kalapuyans, Paiute, Klamath, and others during the summer months.

Swamp Mountain Trail (27) begins near the mouth of Dobbins Creek along the South Santiam South Trail and travels by ridgeline to the south of Swamp Mountain. It was likely the most common route to use from Cascadia to Swamp Mountain, and possibly the most common way to reach Owl Creek, via Boundary Creek Trail, as well, Principal users would have been Santiam Molalla, with Blue River Molalla and Calapooia Kalapuyan visitors to Cascadia and points north the most likely users during summer. This would have likely been more important as a primary hunting and gathering route, rather than as a travel or trade trail.

Tidbits Mountain Trail (28) begins at Bear Pass and goes to Tidbits Mountain, as weather permits. It is the best documented "Old Indian Trail" (see map 1) in the study area and has old-growth trees and numerous relict huckleberry fields and beargrass meadows that are centuries old and diminishing in size. A number of freshwater sources and potential camping areas also exist at the beginning and ending points of this trail. This trail was likely used by Blue River Molalla and Santiam Molalla as soon as it opened in the late spring or early summer, and was also likely used by a wide range of neighbors, traders, visitors, and travelers throughout the summer.

Twin Buttes Trail (29) begins near the major crossroads (and likely seasonal campground) near the mouth of Latiwi Creek, travels southward along the Three Creek ridgeline, until Bear Pass is reached. An intersection with the Gordon Lakes Trail (see above) loop likely varied in location from time to time, due to multiple options at this location. This trail was likely used seasonally by both Santiam Molalla and Blue River Molalla and their guests.

Two Girls Creek Trail (30) was likely one of the principal routes to Gordon Meadows and to Bear Pass from the mouth of Owl Creek. After following the northern side of Two Girls Creek for some distance, the trail traveled cross-country – apparently by a braided variety of routes – to connect with Black Creek Trail and the upper Two Sisters basin. This trail was likely used almost entirely by Santiam Molalla and their guests, and was more likely used for gathering and food and fiber processing purposes, rather than trade, travel, or hunting.

Wiley Creek Trail (31) probably started near the forks of the Middle Santiam River and the South Santiam River near present-day Foster, and continued up the Wiley Creek ridgeline until a fork near the summit of Swamp Mountain. The north fork went to the Boundary Creek Trail and Owl Creek, and the south fork went to "Crossroads Camp" (Appendix A) and Tidbits Mountain. This appears to be the principal Santiam Molalla and Santiam Kalapuyan upland route into Swamp Mountain from the west (other than the South Santiam River trails), and the Foster location near the mouth of Wiley Creek was likely a Molallan (or possibly Kalapuyan) townsite or major campground. This trail may have also been the primary trail used by people further downstream, from an historical Molalla townsite of "Klamath-type" homes (Carey and Hainline 1979: 7) near the mouth of Ames Creek in present-day Sweet Home.

Wolf Rock Trail (32) leads from Obsidian Cliffs on a seasonal cross-country route to Wolf Rock (Table 3 and 8, Appendix A), an obvious landmark, a major camping location, and a crossroads to several different trading locations to the north and west. There is also a relict meadow and at least one large pond with wokas at Wolf Rock, which is about a one day's hike from Obsidian Cliffs, and another day's hike to the Willamette Valley.

These descriptions of the 1750-1850 Santiam Molalla trail network are listed in Appendix B, shown on Map 5, field documented with photographs from the GPS locations listed in Appendix D, and are entered into the Grand Ronde computerized GIS mapping system as linear files for further uses. Their location and documentation was the principal focus of this project, and these listed products are the primary outcomes.