

# The History of Grazing in Wallowa County

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**Introduction**

This compilation of Wallowa County grazing history attempts to bring together a plethora of resources and personal memories of those who have lived in the Wallowa Valley and surrounding areas for many years. While this document does contain opinions, the authors attempted to provide multiple viewpoints and find a collection of resources confirming an event.

## History of Grazing in Wallowa County

### General Prehistoric Times

The prehistoric history of the intermountain west, composed of the areas west of the Rocky Mountains and east of the Cascade/Sierra Nevada Ranges, is a topic of debate. There are multiple theories. Some believe the area evolved with grazing providing plants capable of withstanding domestic livestock grazing. Others believe there was little to no grazing resulting in a fragile ecosystem that has trouble remaining healthy under the pressure of domestic livestock grazing.

Richard N. Mack and John N. Thompson, in their article “Evolution in Steppe with Few Large, Hooved Mammals,” theorize that the major grasses of the area, such as *Agropyron*; *Poa*; and *Festuca* (examples would be bluebunch wheatgrass, bluegrass, and Idaho fescue), arrived from the north and evolved with little grazing by large ungulates. The authors cite evidence in the fossil record of large herds of Bison in the areas east of the Rocky Mountains, but point out that few fossils are found on the Columbia Plateau of Washington and Oregon indicating regional decline and extinction by 2500 before present (B.P.) (Mack & Thompson, 1982, p. 758). The article also states that there are no confirmed sightings by Europeans in the steppe of Western Washington. However, there is record of sightings in the Upper Snake River Plain until the mid nineteenth century (Mack & Thompson, 1982, p. 758). The authors go on to provide explanations for bison scarcity including the low feed quality of the plant species located in the intermountain west at the time of highest nutrient requirement by the animals, as a result of plant growth cycles. The article states that deer and elk were also present, but their numbers were probably limited by the same factors. Further evidence against the presence of large hooved ungulates in the intermountain west is the absence of the native dung beetle, which is present worldwide where large ungulates roam (Mack & Thompson, 1982, p. 759). The article then discussed the effects of cattle on the landscape east and west of the Rocky Mountains. The authors argue that east of the Rockies cattle simply filled the void of bison having similar ecological effects. On the other hand, the caespitose grass-dominated steppe saw a dramatic increase in invasive species (Mack & Thompson, 1982, p. 750 & 761). These assertions support the authors’ theory that the Intermountain West evolved without large hooved ungulates.

In Dr. J. Wayne Burkhardt’s article “Herbivory in the Intermountain West: An Overview of Evolutionary History, Historic Cultural Impacts and Lessons from the Past,” he presents a different theory. Dr. Burkhardt relates that the fossil record shows evidence of a multitude of large herbivores during the Pleistocene Era (2.5-10 million years B.P.), and that that by 2.5 million years B.P. the flora of the Intermountain West was similar to today. Pleistocene megafauna represented in the fossil record include species of woolly mammoths, various horses and burros, yesterday’s camel, extinct bison, and more. Presence of the Pleistocene megafauna allowed coevolution of flora and fauna over several million years (Burkhardt, 1996, p. 3). The fossil record estimates that over 70% of this megafauna in North America became extinct between 12,000 and 10,000 B.P. Dr. Burkhardt argues that the ecological state of the Intermountain West at the time of European settlement is not consistent with long term trends. He argued that lack of heavy grazing for a couple thousand years doesn’t erase evolution with grazing for several million years (Burkhardt, 1996, p. 3). Therefore, grazing by domestic livestock today

fills the niches left behind by the megafauna extinction. It is also noted that some herbivores survived the extinction. The author does recognize that European settlement has brought about ecological change, but he argues that this is not a result of plant evolution without herbivory (Burkhardt, 1996, p. 7).

### **Nez Perce Tribe Era ~10,000 years**

Wallowa County was the long time home of the Wallowa Band of the Nez Perce Tribe. The Nez Perce Tribe covered a large area of land, having territory in northeastern Oregon, southeastern Washington, and all of north central Idaho (Josephy, 1965). The introduction of the horse allowed this territory to expand (Tucker, p. 12). The different bands were very independent, and only bonded together on large issues such as during wartime (Tucker). The Nez Perce Tribe was the largest ethnic group in the Columbia Plateau (Hartle, 2002). They were well known as a peaceful and powerful tribe (Hartle, 2002).

History indicates the Nez Perce Tribe obtained horses by 1730 (Reid, 1985, p. 2). It is thought that the horses originally came up from Mexico (Slickpoo, 1973, p. 31). Shortly after obtaining horses the Nez Perce gained a reputation as being excellent horsemen (McCormack, 2005). Coupled with this was the sheer size of the Tribes horse herds. They are said to have had some of the largest horse herds on the continent as a result of natural advantages of their land (Slickpoo, 1973, p. 31). The Tribe had a lot of canyon lands within their territory. They quickly realized the value of these lands for livestock production. The canyons acted as corrals for horses, protecting the herds from invaders and predators (Reid et al., 1980, p. 31). The canyons also had a more moderate climate that provided lush feed and milder winters (Reid et al., 1980, p. 31). The Nez Perce practiced seasonal grazing. They spent most of the winter in the canyons, and then did a lot of grazing on the Zumwalt Prairie and surrounding areas the rest of the year (McCormack, 2005).

The Nez Perce actively managed their land. Their main tool was fire (McCormack, 2005). The Native Americans regularly used fire to clear and maintain grasslands. Particularly in edge areas (between open and forested) where the wildlife they liked to hunt would benefit. They would burn the decadent grass, and understory of the forests. This would improve forage quality for both livestock and wildlife, and clear trails for travel. The Nez Perce people loved to travel (McCormack, 2005).

The Nez Perce were also known for the quality of their stock. They quickly learned selective breeding techniques. Breeding the animals for swiftness and intelligence was of primary importance (Slickpoo, 1973, p. 31). There has been disagreement as to whether the Nez Perce people bred their horses for color. It is well known that the Nez Perce have historically been associated with the Appaloosa horse. According to Slickpoo, horses were not bred for color (Slickpoo, 1973, p. 31). On the other hand, tribal member Joe McCormack argues that while it is true that the horses were probably primarily bred for intelligence and endurance, color still may have been a factor. A breeder may have preferred or loved a specific color and selected it to dominate his herd (McCormack, 2005). It would be an individual choice, and had potential to set the herd apart from others.

In the Native American culture, horses were a sign of wealth. Families commonly had large herds with several hundred head (Slickpoo, 1973, p. 32).

Sometime after the arrival of white men, the Nez Perce acquired cattle. It is believed this occurred somewhere around 1840 (Ried, 1985, p. 2). The Tribe ran the cattle with their horses, and the herds quickly grew.

Since the Nez Perce Tribe was so large, it could generally be broken into two groups: the Upper Nez Perce, and the Lower Nez Perce. The Wallowa Band was part of the Lower Nez Perces who occupied the lower Salmon and Clearwater areas, as well as large portions of southeast Washington and northeast Oregon (Tucker, p. 50). The Lower Nez Perce frequently went across Lola Pass on buffalo hunts. It is believed that the Lower Nez Perce headquarters was the Asotin village: home of The Great Chief, O-push-y-e-cut, and later the original and second Looking Glass (Tucker, p. 57). Nearly all accounts of the Nez Perce Tribe prior to 1834 refer to the Upper Nez Perce, who occupied the area north of the Lower Nez Perce (Tucker, p. 50).

Lewis and Clark were the first encounter the Nez Perce had with the white man. The Wallowa division of the Nez Perce had no direct contact with Lewis and Clark (Tucker, p. 17). The Wallowa Band had little contact with white man during fur trapper era. (Tucker, p. 50). Their first experience with the white man was when Captain B.L.E. Bonneville and his party of three companions stumbled across a Lower Nez Perce camp upon entering the Imnaha Canyon on February 16, 1834 (Tucker, p.55). Bonneville and his crew came upon another village near the mouth of the Imnaha. Their chief, Yo-mus-ro-y-e-cut, escorted the party to Asotin where another village was located, home of the Great Chief O-push-y-e-cut (Tucker, p. 56). Tucker believes the first village was located at the mouth of Big Sheep Creek where the present town of Imnaha is currently located. The second village was believed to be at the mouth of Lightning Creek or Crow Creek (Yo-mus-ro-y-e-cut's village). There is also documentation of another village of considerable size at the mouth of Joseph Creek; the name of that chief was not given (Tucker, p. 56).

On March 6, 1834 Bonneville and companions set out again. They left Fort Walla Walla and headed to Asotin. From there they went to the mouth of the Grande Ronde River, to Joseph Creek, up the Imnaha to the mouth of Dry Creek, then crossed the mountains in that vicinity to the Snake River. The party was assisted by Nez Perce guides (Tucker, p. 57). Near the Snake River the grass was reported to be 8 inches tall and green. The party concluded their journey when they reached Portneuf on March 12 (Tucker, p. 58). This information was collected from the Washington Irving publications, which provide an account of the Bonneville journey. The recorded hardships discouraged others from entering the Wallowa and Salmon areas for years.

The next contact the Nez Perce had with the white man was during the missionary movement. The Whitmans and Spaldings came west in the 1830's. The Whitmans continued west while the Spaldings stopped in the vicinity of the Upper Nez Perce to work with the Tribe (Tucker, p. 70). The Spaldings taught the Nez Perce to read and write. While most of their work was with the Upper Nez Perce, they had some contact with the Lower Nez Perce. In approximately 1839 Old Joseph (Tu-a-kas) and Timothy (Tam-mut-sin) converted to Christianity (Tucker, p. 71).

New ideas associated with the white man's culture were presented to the Tribe. In 1842 a head chief was elected for the Nez Perce. This was a new form of hierarchy for the Tribe (Tucker, p. 70). The first head chief was Ellis. Only in crisis, emergency, or war did they unite under a single leader; the rest of the time the individual band chiefs led

their own bands. This led to misunderstanding by the white man (Tucker, p. 72). The United States didn't recognize that each band generally made independent decisions. Therefore when a chief signed a treaty he was only signing for his band, not the entire Nez Perce Tribe.

The 1840's represented the beginning of the large western movement. The coming of the settlers proved very prosperous for the Lower Nez Perce, including the Wallowa Band. The Nez Perce in Wallowa County had a very viable trade system with the early settlers. As the journals of early western explorers indicate, the lands crossed by the wagon trains were harsh and provided little feed for livestock (Isley, 2005). As a result, settlers lost many animals as they crossed the prairies (McCormack, 2005). With their large herds of livestock the Nez Perce were able to provide replacement livestock for the early settlers. They had a good business selling cattle. Many times the Nez Perce would bring injured animals into the valley to heal, and then sell them to the settlers. The Wallowa Band made large sums of money through this trade (McCormack, 2005).

Winters in the 1860's proved very difficult. There was little hay in the Grande Ronde Valley; this resulted in the price for hay skyrocketing. Continued hardship in the Grande Ronde eventually led to settlers venturing into the Wallowa Valley in the early 1870's. It took several years before the settlers realized animals would survive the winter the best in the canyons (McCormack, 2005).

Those first winters the settlers spent in the Wallowa Valley also proved very difficult (McCormack, 2005). The Nez Perce showed the settlers where to take the animals in the winter so they would survive – the canyons: specifically the Imnaha area. According to McCormack, at first the settlers paid the Nez Perce for grazing (McCormack, 2005).

As more and more whites began to move west, treaties were established between the Native Americans and the United States Government. In 1855 Old Chief Joseph signed the treaty between his people and the U.S. Government, which set aside much of Wallowa County for use by the Nez Perce (Bartlett, 1967). Within the treaty the Tribe had some reserved rights. One of these reserved rights was the right to access springs and fountains (McCormack, 2005). There were two reasons for this right. At that time, people moved animals across the ground versus shipping or trucking them like we do today. That meant the animals needed continual access to water. The second reason springs and fountains were reserved was because water has a cultural/religious significance to Native Americans. They believe water is the most sacred element on Earth: without it nothing lives. Places where water emerges from the ground (such as springs and fountains) are sacred places. In Oregon, the Tribe still has these rights today, within the boundaries of the treaty (McCormack, 2005).

In 1863, another treaty was signed between the Nez Perce Nation and the United States Government. However, Old Chief Joseph didn't sign this treaty, which sold the Nez Perce land to the white man (Bartlett, 1967). Nevertheless, the United States didn't recognize that the Wallowa Band were part of the non-treaty Nez Perce (Bartlett, 1992, p. 7). Standing firm on his Band's right to the lands within the Wallowa Valley under the 1855 treaty, Old Chief Joseph marked part of the western boundary of the Tribe's land by erecting a row of poles across the white man's route into the county when the settlers began to enter the Valley. The poles were placed west and north of the summit of Minam Hill (Bartlett, 1967). The Wallowa Band maintained these poles until 1877. J.H. Horner reports they called them "Old Joseph's Dead Line" (Bartlett, 1984, p. 13).

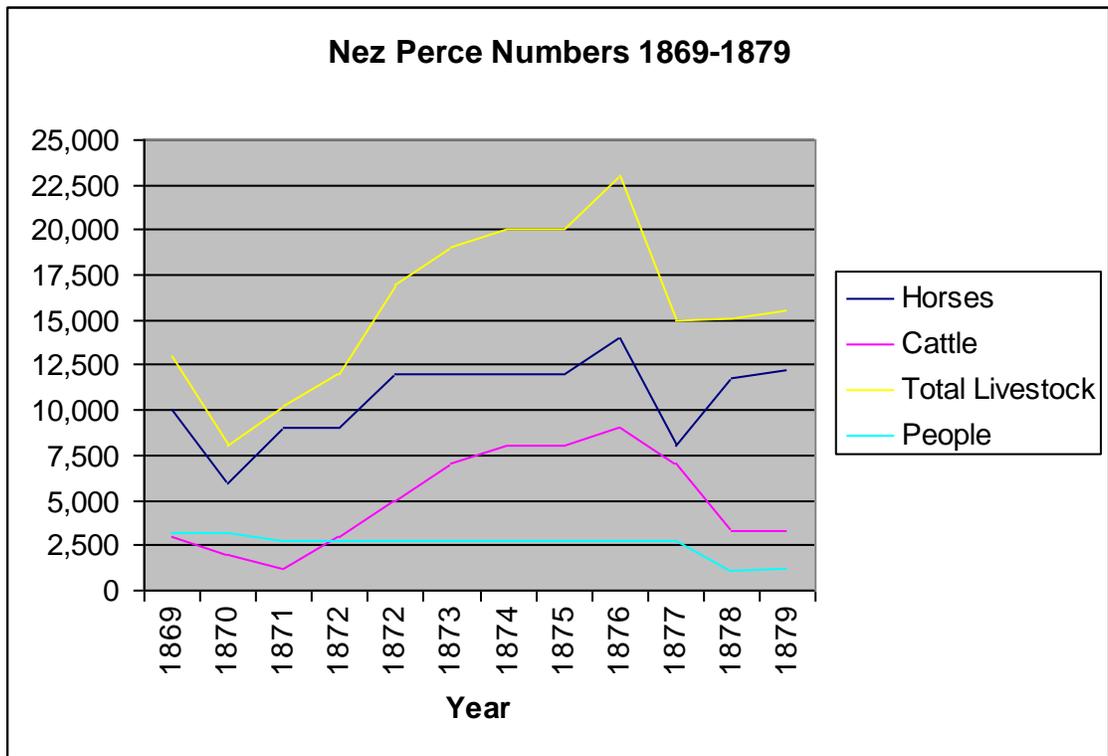
Following the treaty of 1863, nearly all improved lands (gardens, etc. made since education from the Spaldings) within the Grande Ronde, Joseph Creek, Imnaha, Salmon, Whitebird Creek, Asotin Creek and other locations were some of the first claimed by settlers (Tucker, p. 73). With the 1863 treaty Old Joseph turned away from Christianity (Tucker, p. 75).

With the signing of the 1863 treaty, Nez Perce land was sold to the United States Government. This allowed Wallowa County to be opened to settlement in 1867 (Bartlett, 1967). This marked the beginning of settlement in Wallowa County.

Nez Perce Livestock Numbers

The Nez Perce have always been recognized for their very large horse and cattle herds, yet there are no official numbers. Kenneth Reid, an anthropologist, compiled population and livestock numbers for the Nez Perce between 1860 and 1897. While these numbers represent a larger group than the Wallowa Band, they still provide insight into the amount of livestock the Nez Perce were running, and how those numbers changed as settlers moved into the Nez Perce territory.

Figure 1: Nez Perce population and livestock numbers for 1869-1879



Reid provided data for 1860-1897. Only the data for 1869-1879 is provided here. Data prior to 1869 was incomplete, and the Nez Perce were removed from Wallowa County as a result of the Nez Perce war in 1877, therefore numbers would not represent any grazing pressure in Wallowa County.

Reid collected these numbers from statistical tables and letter reports of Indian Agents (1985, p. 3). Reid attempts to provide possible explanations for number changes. During the 1860's the Nez Perce provided horses and beef to Idaho miners (Reid, 1985,

p. 3) and early settlers (McCormack, 2005). This resulted in little increase in numbers between 1860 and 1869. A 40% decline was observed in 1870. Many of the horses lost were apparently in Montana and were stolen by the Sioux. A 43% decline was observed in 1877. This is probably a result of the Nez Perce War of 1877 (Ried, 1985, p. 3).

Nez Perce tribal member Joe McCormack does suggest that numbers of animals ran by the Nez Perce should be looked at with caution. If a Bureau of Indian Affairs officer was asking, a Native American may not have reported all their animals. There was a lot of distrust because supplies didn't reach the people like they should. A lot of those supplies were sold before they reached the Native Americans (McCormack, 2005). It is plausible that the numbers were much higher than represented here. It was not unusual for one family head or band leader to have over 4,000 horses of his own. (McCormack, 2005)

### **Pre-Settlement**

There is always debate about what the land looked like before the white man. Coupled with this debate is what the land should look like naturally. There is no way to definitively determine what the land looked like, or should look like. However, by looking at the journals of pre-settlement explorers readers can get some idea what the landscape was like. When examining these journals many try and focus on journals written before 1843. 1843 marked the beginning of the westward movement. Therefore, with the influx of animals, alteration of rangelands would be expected.

Information about Wallowa County specifically during this time period is limited. Settlement didn't begin in the County until the mid-late 1800's. Nevertheless, information has been gathered for the surrounding areas. In an 1843 journal by Farnham suggests the Snake River plains were largely brush and scant grasses (Isley, 1978, p. 4). Cross is quoted in 1851 as saying, "soon to enter the Snake River that was entirely destitute of grass to the Cascade Mountains" (Isley, 1978, p. 4). Root's 1850 journal reports "cattle in so starving a condition" while in the Snake River area (Isley, 1978, p.4).

Obtaining game was also a problem for these early travelers. In Farnham's 1843 journals he relays that while crossing the Oregon desert they were so hungry they ate their only dog (Isley, 1978, p. 5). Fremont also relates trouble finding game in 1845. They were forced to eat the milk cow to prevent starvation. These men were experienced hunters and mountain men (Isley, 1978, p. 5-6). To compound the scarcity of food, the winter of 1846-1847 was the most sever known in the northwest since emergence of the white man according to Gerald Tucker (Isley, 1978, p. 81).

While settlement of Wallowa County didn't occur until the mid-late 1800's, the first settlers show record of a Hudson Bay trading post on Lost Prairie in Wallowa County across the line from Asotin County in the mid 1800's (Tucker, p. 116). It is deduced that the post was probably abandoned no later than 1850 (Tucker, p. 117). The first permanent resident of the county is recorded in the Wallowa County Chieftain on October 3, 1940 as being A.C. Smith. The paper stated: "it appears that A.C. Smith was the first man to take up residence in Wallowa Co. and that this coming dates from 1858" (Tucker, p. 117-118). Smith later became known as the "Daniel Boone of Wallowa County" and "the mountain man" of the Wallowa (Bartlett, 1984, p. 13).

## Settlement

William H. Odell, United States deputy surveyor, provides one of the first accounts of the Wallowa Valley, in the summer of 1866. He states “a large part of the valley is well adapted to agriculture, while the low, grassy hills to the north and east furnish extensive range for stock. The finest of trout and salmon abound in the streams and the surrounding mountains give evidence of plenty of game.” The county became known as a stockman’s paradise (Tucker, p. 120). Odell also provided other descriptions of the landscape from the valley: “Narrow streams of clear, cold water put down from the high snow mountains just to the south. Timber is to the south and west and along the banks of the stream. Here I found many Indians camped on the banks of the streams, taking great quantities of fish, while their large herds of horses quietly grazed upon luxuriant grass.” (Bartlett, 1984, p. 14).

These accounts quickly spread and interest grew in the potential to settle the Wallowa Valley. The two homesteading laws that most affected Wallowa County settlement were the national Pre-emption Act of 1841 and the Homestead Act of 1863 (Bartlett, 1984, p. 16). The national Pre-emption Act of 1841 allowed individuals to settle on a piece of ground, build a house and cultivate part of it, then pay the government \$1.25 per acre to own it. The ground didn’t have to be surveyed (Bartlett, 1984, p. 16). The Homestead Act of 1863 allowed individuals to pay a fee to the registrar at the local land office on the designated land that had been surveyed. The individual’s homestead right began when the fee was paid. The individual then had to “prove up.” They must live on the land for five years then go back to the land office and provide witnesses who can prove the individual met the requirements. A final fee of \$15 was paid for title to the land (Bartlett, 1984, p. 16). A land office was established in La Grande in 1867 (Bartlett, 1984, p. 16).

One of the first individuals to examine Wallowa County for its value as grazing land was James Tulley in 1871. He was so impressed with the valley that his brother, Erasmus, joined him the next spring bringing their 300 head of cattle and horses to the valley (Tucker, p. 121). They initially summered their animals here then took them back in the fall (Johnson, 2005). James A. Masterson also came in with stock about the same time. According to Tucker, “these three men say that to the best of their knowledge they were the first permanent settlers in the valley” (Tucker, p. 121). Another account compiled by Bartlett says that when Tulley and his crew came into the Valley in 1871 there were two white men present. Charles LeVar and Louis Yabor, who were French trappers, were married to Nez Perce sisters. The only traces of these men are the written testimony of the early settlers. They are not mentioned anywhere else. (Bartlett, 1984, p. 17).

Regardless, the Tulleys and Masterson were the first settlers to come to the Valley for its rangeland benefits. They settled near Wallowa (*History*, p. 475). There was no need for these men to do any farming in order to put up hay. Wild hay was so thick and heavy in the meadow lands that labor limited amount put up, not quantity (Tucker, p. 121-122).

A.B. Findley also heard Odell’s description of the Wallowa Valley. Findley and his family originally settled in Summerville. After a year of scarce feed for livestock Findley set out to see the Wallowa Valley in 1871. He reports that bunchgrasses covered the hills and valleys. With this discovery, Findley sold the family home in Summerville and moved to the Wallowa Valley in January of 1872. The last wagon tracks were seen on Cricket Flat. Findley and his wife, who left the children in Summerville until they were

settled in the Wallowa Valley, then had to pick their own way (Findley, n.d.) since the first settlers came in on horseback (Bartlett, 1984, p.17). Hence, they were the first wagon into the valley (Findley, n.d.).

The Findley's tore their wagon apart and hauled it and the load up Smith Mountain because the terrain was too rough. The family eventually settled in the Lostine Area. The Findleys were part of the beginning of settlement in the Wallowa Valley. Thirty-six new families arrived in the Valley that fall (Findley, n.d.).

Little is known about the Wallowa Valley at the time of the early settlers. The only information available is provided by those settlers. An account by an early settler wife, Loren Powers, states, "Large herds of deer and elk were frequently seen crossing the valley, while bear were so numerous as to be a decided menace to the stock industry. Prairie chicken, grouse, pheasants (native), ducks and geese were also much in evidence... The streams also abounded with trout, salmon and red fish." (Bartlett, 1984, p. 27). Bartlett explains in her book that the red fish referred to in these types of accounts were Sockeye Salmon (1992, p. 12).

While many settlers quickly saw the value of wintering livestock in the canyons, Jack Johnson was the first white man on the Imnaha except Captain Benjamin L.E. Bonneville (Findley, n.d.). Johnson married Florence Findley and they were the first permanent settlers on the Imnaha River. After becoming established, Johnson at one time had the largest Morgan horse ranch in the U.S. (Bartlett, 1979).

The winter of 1873 proved to be a very open winter. Cattle were able to graze and stay well nourished most of the winter, requiring little hay (Bartlett, 1984, p. 29). In that same year, 1873, part of Wallowa County was proposed and eventually set aside as a reservation for the Nez Perce (Bartlett, 1984, p. 41). The proposition, made by the Indian Agents and approved by the Acting Commissioner of Indian Affairs, called for the upper valley and Wallowa Lake to be set aside as reservation land for the Nez Perce, leaving the lower valley and prairies for the settlers (Josephy, 1965, p. 456). Further settlement of the area was discouraged until the issue was finalized. Government survey of settler improvements to the land within the proposed reservation began so the government could pay the settlers for their losses (Josephy, 1965, p. 456). The executive order was written up and signed by President Grant on June 16, 1873 (Josephy, 1965, p. 457), withdrawing Wallowa County from settlement (Bartlett, 1979, p. 6). However, the drafters wrote it up backwards, giving the upper valley to the settlers and the lower to the Nez Perce (Josephy, 1965, p. 457). This caused a lot of conflict between the Tribe and the settlers, even though no confrontations occurred, because the reserved lands didn't include the Nez Perce traditional summer range (Josephy, 1965, p. 457). This resulted in withdrawal of entry by many homesteaders (Bartlett, 1984, p. 41). The settlers were very upset about the reservation designation. They went to the Oregon Governor, Lafayette F. Grover, and other political powers of the time who petitioned Washington DC against the reservation (Josephy, 1965, p. 459). This initiated federal investigation into the issue. The Bureau of Indian Affairs informed the settlers that the President's decree was still law, but the Bureau wasn't going to enforce the law (Josephy, 1965, p. 463). On June 10, 1875, President Grant rescinded the executive order of 1873 upon recommendation from the Department of Interior: the reservation was eliminated (Josephy, 1965, p. 466) effectively reopening the Wallowa Valley to settlement (Bartlett, 1984, p. 52).

The mid-late 1870's saw a series of hard winters. The year 1874 was very open through January, but sustained heavy snow in February and March. The snow persisted through April. Many stockmen ran out of hay by the first of March (Bartlett, 1984, p. 46). The winter of 1875 was also very severe winter. Streams throughout the area and Wallowa Lake froze over. The lake would freeze so solid settlers could drive teams across the ice. The mail was interrupted throughout the winter. Many cattle and horses were taken to the canyons. The canyon animals had positive reports. Very few of the animals in the canyon were fed hay, and those that were got very little. Many producers depended entirely on the range. Horses were reported to be in splendid condition at the end of the winter (Bartlett, 1984, p. 52). With the settler's discovery of the value of the canyon rangelands, conflict developed. In 1876 there was serious contention between Native Americans and the white settlers over feed in the Imnaha Canyon. The Nez Perce would run cattle off the range to save it for their horses. The settlers demanded equal share of the range. The army was brought in to help resolve the issue (Bartlett, 1984, pg. 58). The issue was compounded with the large influx of settlers into the Wallowa Valley in 1876. Very few had come in for several years because of the uncertainty concerning the Nez Perce reservation (Bartlett, 1984, p. 60). Problems continued to escalate.

The conflict that changed things in the Wallowa Valley forever was between a farmer and some Nez Perce hunters. A.B. Findley and his neighbor Wells McNall tracked some of Findley's missing horses to a Nez Perce camp. An argument ensued and a Nez Perce man was shot and killed by Findley (Bartlett, 1984, p. 60-61). Dissension continued to escalate until peace could no longer be maintained. In 1877 the U.S. government demanded all Nez Perce people move to the reservation in Lapwai, Idaho. This enraged the warriors of the tribe. Some conducted raids on settlers, specifically in the Salmon River area. The Nez Perce War of 1877 ensued (*Indian*, 2005). The War resulted in the removal of the Tribe from Wallowa County.

The year of 1877 is also remembered for its very severe winter. Large numbers of cattle were lost. Disastrous losses were experienced by nearly all who owned stock. In response to the losses, the settlers built more barns, and put up more hay the following year (*History*, p. 482).

Following the Nez Perce War of 1877, settlement continued and the population grew throughout the Valley. The Wallowa Valley was officially part of Union County until 1887. Wallowa County was officially created on February 11, 1887 (Bartlett, 1979, p. 7).

### **Canyon Ranching and the Cow Creek Bridge**

Canyon grazing quickly became imperative to the livestock industry in Wallowa County, and continues to be today. Much of the bench land, now within the Hells Canyon National Recreation Area, in Oregon was homesteaded in the late 1800's early 1900's (USDA, n.d.). There were a large number of sheep raised in the canyons. Arleigh Isley named some of the early sheepmen in the county in Ellie Belew's book *About Wallowa County: people, places, images*. Early sheepmen were Jay Dobbin, Pete Beaudoin, Fred Falconer, Kenneth and Raymond Johnson, Louis Audet, and Baptise Lombard. These men ran sheep in the Wallowa Valley, Imnaha, and Snake R. Canyons. At one point they collectively had 75,000 head of sheep. (Belew, 2000, p. 56).

According to Janie Tippett, Peter Beaudoin worked on the Upper Prairie Creek Ranch in the 1880's. He bought 300 head of sheep for \$2 each, and eventually

homesteaded and gained land. A steam powered shearing plant was later added on to the Prairie Creek Ranch, “there, wool trompers, weighers, and haulers, cooks, camp tenders, packers and herders were put to work during the shearing season. Other sheepmen brought their sheep to the Beaudoins to be sheared” (Belew, 2000, p. 18).

In Ellie Belew’s book, Sara Miller talks about canyon ranching in the Lower Imnaha and Snake River Canyons. Cattle are moved to different elevations at different times of the year. They are wintered in low portions of the canyons, and gradually moved higher as it approaches spring. Summer and fall grazing occurs on the high prairies and timber uplands, examples would be Zumwalt, Findley Buttes, Lord Flat, and Cayuse Flat. Natural barriers are used along with strategic fencing to create pastures. (Belew, 2000, p. 5-6)

In the late 1880’s, as today, predators plagued the ranching community. Ester Bentz reflects on scalp bounties established by the government. In 1888 the County was paying \$2 per coyote scalp. The County paid out \$276 that year. (Belew, 2000, p. 143)

According to the annual grazing progress report by Forest Supervisor Nelson J. Billings, 1925-1928 saw a decrease in cattle operations, most sales being made on the Snake River. Possible causes discussed were older owners having hard time in the rough country, poor school facilities for children, and high cattle prices allowed a profit to be made. Many ranches were sold to sheepmen, or the owners bought their own sheep (Tucker, p. 181). With the shift in class of livestock, almost all the Snake River Cattle and Horse Division, Powatka, Buck Creek, and Cougar Creek Divisions were used by sheep following 1928 (Tucker, p. 181-182). The report also tells that the late 1920’s saw problems with grasshoppers in lower Imnaha, causing considerable damage to winter feed, and in some instances young yellow pine (Tucker, p. 183).

Ecological change was noted in the canyons during this time period too. According to Jack McClaren there was no sand dropseed (*Sporobolus cryptandrus*) in the canyons until it was brought in on the boat from Lewiston. The boat was a main stem connection to larger communities. Seeds were brought in with the boat, and then carried down the river. The whole country was covered in a matter of a couple of years. The plant likes shallow sandy soil on southern exposures. It turned out okay from a grazing perspective. According to McClaren, it stabilized these south-facing slopes. These slopes were also grazed early, before the plant grew much, so it was like employing a complete deferral grazing system. The plant also stands erect, so can be used for winter feed (McClaren, 2005).

Jack McClaren, long time rancher in the Imnaha and Snake Canyons, relates the uniqueness of the land and the people. The canyons are a special place because there are few locations in the West where cattle can be range fed during the winter with very little supplementation. However, the canyons are rough and dangerous country. Mr. McClaren feels that many people lack recognition that nature rules out there. Management must compliment nature, not try and be conducted in spite of nature. Managers can’t attempt to fight or change the canyons. Longevity of the people who live there relies on recognition that the land can be hostile, and therefore decisions must be calculated. For example, people must be very selective about animals they use. Safety and caution will keep you alive (McClaren, 2005).

### The Cow Creek Bridge

Bridges were important for moving livestock in the canyons. One of the main bridges on the Imnaha River was the Cow Creek Bridge. It is unclear when the bridge on Cow Creek was constructed. The second Cow Creek Bridge is believed to have been constructed sometime between 1922 and 1925. The year the first bridge washed out Joe McClaren trailed his sheep from Lightning Creek to Horse Creek, to Pumpkin Creek to Imnaha, and crossed there (Tucker, p. 254-256). The bridge was built across the Imnaha River near the mouth of Cow Creek, by Wallowa County. At the time, there were no roads into the Lower Imnaha Canyon. The nearest roads were at the head of Tulley Creek and 14 miles up the Imnaha at the mouth of Fence Creek. The bridge was built because it was dangerous to cross the river during high flow, and almost impossible to cross cattle. The sheep couldn't cross with high flows, and constructed bridges for low flow continually washed away with high water (Tucker, p. 252). The bridge was rebuilt again in 1954 to accommodate motorized vehicles.

### **Transportation**

Travel in and out of Wallowa County was very difficult for the early settlers. There was no established road until 1875 when the Union County Court granted a permit to A.C. Smith to build a toll road into the Valley (Findley, n.d.). In 1879 the Wallowa Canyon Road was built. Money and labor came almost entirely from private contribution (*History*, p. 482 & 483). The main route of the settlers followed a well-established Nez Perce trail. It was the most feasible way route for the white man to enter the valley from the Grande Ronde (Bartlett, 1984, p. 13).

1879 also marked the entrance of the first stage into the Valley; it was driven by McWilliams (*History*, p. 482 & 483). Another stage line began operation later that year between Alder Slope and Lewiston by way of Promise and Lost Prairie. It was founded and operated by A.C. Smith (Wallowa Museum, 11).

In 1890 the railroad was completed from La Grande to Elgin (Laubaugh). It didn't make its way to the Wallowa Valley until late 1908. The first train arrived in Wallowa from Elgin on September 21, 1908 (Tucker, p. 146). This changed marketing strategies for the county. Prior to good roads and the railroad, all supplies for the county were freighted in and out by team and wagon, animals took products out in the form of meat, and mail and passenger service between Elgin and Wallowa was by horse drawn stage on the old wagon road (Tucker, p. 2&146).

In 1919 a bond was passed to fund the first paved street in Enterprise, and movement began for paving a HWY through the Wallowa Valley ("Treaties", n.d.). By 1925 the first good road was built into the county (Tucker, p. 2). In 1938 the building of a highway between Enterprise and Lewiston was initiated ("Treaties", n.d.).

With the central transportation system underway for the county, new roads began to emerge in the peripheral regions. The Bureau of Public Roads completed the Crow Creek-Chesnimnus road in 1947. Work was started on the Little Sheep Creek access road, and the Forest Service started work on the Sheep Creek Road (Tucker, p. 221). Stockmen of the Lower Imnaha River, in conjunction with the Forest Service, constructed thirteen miles of road from Fence Creek down the Imnaha to the McClaren Ranch on Cow Creek in 1948. Wallowa Co. secured a public right-of-way on that road (Tucker, p.

252&258). In 1949 Jidge Tippett continued the road taking it from the McClaren Ranch to Dug Bar on the Snake River (Tucker, p. 253).

In 1953, the railroad paid \$72,000 to build a road in Enterprise that would assist getting livestock to the yards with more ease (Best, 1953, p. 24).

### **Irrigation and Dams**

West of the 100<sup>th</sup> meridian, water is a treasured resource. Irrigation and the associated dams are, many times, imperative to the success of agriculture in the West. Wallowa County was no different. Prior to irrigation some of the county was desert (McClaren, 2005). According to Jan Bailey, Arleigh Isley, and E. Belew, irrigation claims began with the first homesteaders into the valley. These early homesteaders claimed individual rights. Later on, groups began claiming rights as ditch companies (Belew, 2000, p. 91).

Wallowa Lake has been an important source of irrigation water for the Wallowa Valley. In 1884, the first diversion was built near the mouth of the lake; low enough fish could jump it (Belew, 2000, p. 181-182). In 1905, a log crib dam was built about 200 feet south of the present dam site; it was too high for Sockeye passage (Belew, 2000, p. 181-182). In 1916, a concrete dam was constructed. It raised the water level somewhere between 8 ft and the current water level (Belew, 2000, p. 181-182). The current dam was constructed between 1917 and 1929 (Williams & Obermiller, 2004). Today, the structural integrity has diminished. The dam is the center of a political battle over how to finance the rehabilitation of the dam (Williams, 2005).

### **Forest Reserves**

In 1891 Congress passed the Forest Reserves Act (West, p. 27). Section 24 of the act authorized the President to set aside timber reserves. This marked a shift in federal policy from public land disposal to retention. This act became the basis for acquisition of federal land holdings managed by the Forest Service (West, p. 29). Roughly 40 million acres were set aside by the time the Forest Service Administrative Organic Act was passed in 1897 (West, p. 30). The Forest Service Organic Act outlines the purposes governing the U.S. Forest Service, which was established in 1906, within the U.S. Department of Agriculture

Using his authority under the 1891 Forest Reserves Act, President Roosevelt added over 100 million acres of forest reserves between 1905 and 1907. This coupled with the grazing conflict, led to Congress banning further reserve creations in six Western states in 1907 (West, p. 39).

Nearly all public forest lands in Wallowa County were withdrawn from entry and established as forest reserves by the end of 1905 (Tucker, p. 3). The main establishments of forest reserves in Wallowa County are as follows:

- May 6, 1905 President T. Roosevelt established the Wallowa Forest Reserve (747,200 acres) (Tucker, p. 128)
- May 12, 1905 President T. Roosevelt established the Chesnimnus Forest Reserve (220,320 acres) (Tucker, p. 129). This reserve included the Billy Meadows area (Smith, 2005).
- May 12, 1905 President T. Roosevelt established the Wenaha Forest Reserve (731,650 acres) (Approx 165,000 acres in Wallowa Co.) (Tucker, p. 129)

- Additional withdrawals made December 13, 1906, and February 5, 1907. (Tucker, p. 129)

On March 1, 1907 President T. Roosevelt established the Innaha Forest Reserve, which combined the Chesnimnus and Wallowa Forest Reserves and added some land in the Lower Innaha and Snake Canyons, extending the southern boundaries (Tucker, p. 129). On June 10, 1907 some reserve lands were released from withdrawals (Tucker, p. 129). On July 2, 1908 the Innaha Forest Reserve underwent a name change to become the Wallowa National Forest (Tucker, p. 130). The forest underwent another change on June 6, 1911. The forest was divided making two separate forests: the Wallowa National Forest and the Minam National Forest. It was made along natural barriers suggested by O'Brien in 1907. Prior to the split all the area had been in the Wallowa Division of the previous Innaha National Forest. Wallowa Co. had used the north portion while Baker and Union Counties had used the southern portion (Tucker, p. 153).

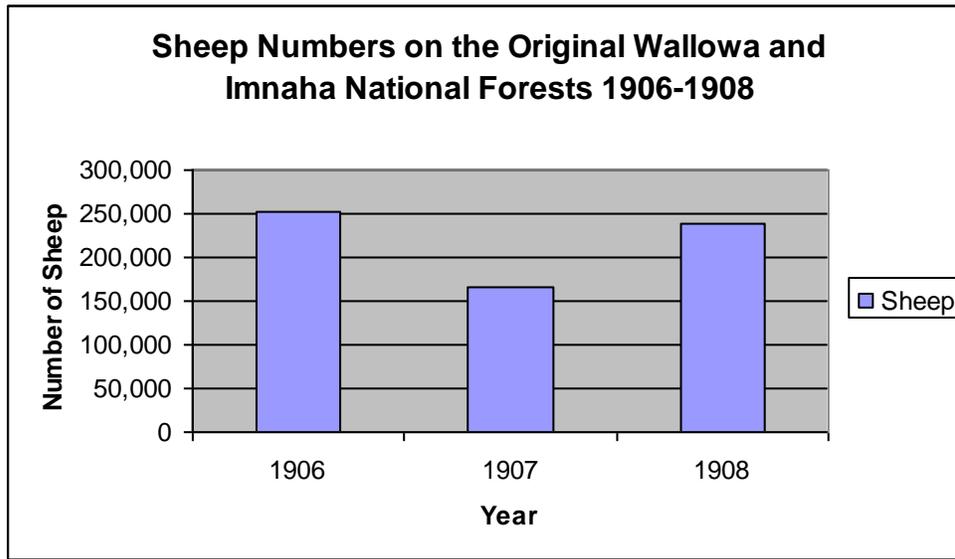
On September 27, 1917 President Woodrow Wilson opened about 20 sections of Chesnimnus Creek to homesteading as of November 22, 1917. Then on December 9, 1925 President Calvin Coolidge added a considerable amount of scattered, unappropriated lands to the Wallowa National Forest (Tucker, p. 130). The final Presidential Proclamation came on June 6, 1928. President Calvin Coolidge added approximately 15 sections to the Wallowa National Forest between Rondowa and Troy, Oregon (Tucker, p. 130).

On November 26, 1953 the Forest Service combined Wallowa National Forest with the Whitman National Forest, creating one administrative unit. Physical forest boundaries remained the same; the consolidation was in the administration of the two forests. Consolidation was completed July 1, 1954 (Tucker, p. 227).

### **Permitted Grazing on Forest Reserves and National Forest Lands**

Regulation of grazing on National Forest Reserves began in 1905/1906 when Gifford Pinchot, first Chief of the Forest Service, imposed the first grazing fees on federal land grazing (West, p. 39). Before regulation/permits on federal lands, stockmen customarily utilized the public domain lands adjacent to their base properties for grazing their livestock on a first come first serve basis. According to W.G. Miller, former District Ranger, overgrazing was prevalent all over the forest lands regardless of the initiation of regulated grazing. It was challenging to regulate grazing those first few years. Stockmen would run what they wanted regardless of trespass proceedings (Tucker, p. 266). Enforcement of permits and other regulations was difficult until around 1910. Nevertheless, grazing fees proved to be very profitable for the federal government. Revenues exceeded timber every year until 1910, then occasionally till 1920 (West, p. 49). As a result of stocking levels exceeding permitted levels, numbers of animals on the National lands are unreliable prior to 1911. However, Forest Service officials provide unofficial numbers in different reports. Forest Supervisor O'Brien reports 251,830 sheep under permit on the Wallowa Reserve in 1906 and 18,702 cattle and horses (Tucker, p. 141). Permitted sheep numbers were also collected by Strickler and Hall. They reported the numbers in *The Standley Allotment: A History of Range Recovery*. These reported numbers are presented in Figure 2. Jack McClaren reports that at one time there were 40 bands of sheep grazing in the high mountains of the Wallowas (2005).

Figure 2: Sheep numbers on the original Wallowa and Imnaha National Forests 1906-1908.



Numbers were collected from grazing records for the Wallowa Whitman National Forest, and represent numbers in those portions within the original boundaries of the Wallowa and Imnaha National Forests in 1906 (Strickler & Hall, p. 6). Numbers are reported in *The Standley Allotment: A History of Range Recovery*.

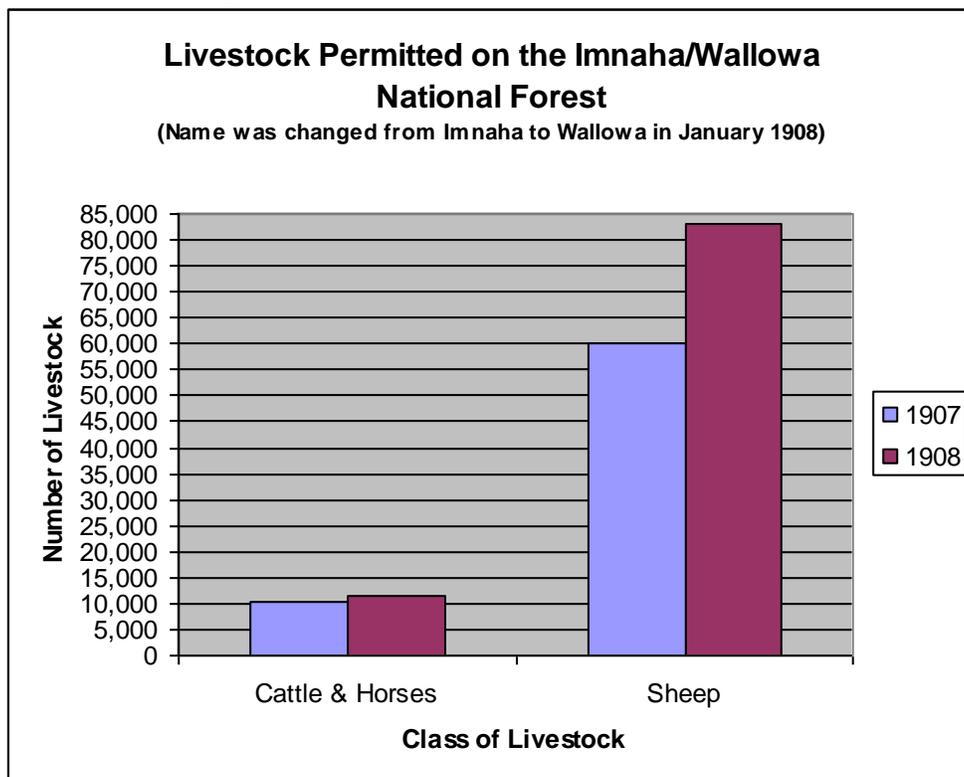
1906 also provides record of change for the Nez Perce Tribe. Assistant Guard, J. Fred McClain relayed instructions he received in a letter from Supervisor O'Brien. He stated, "I received a letter late in August from H. K. O'Brien in which he instructed me to not let the Nez Perce Indians come in on the Day and Clemons range with their ponies, as was their yearly custom in the hunting season." From at least that point forward the Nez Perce were not allowed to graze on the National Forest Lands without permits (Tucker, p. 142).

Growth was seen in the livestock industry of Wallowa County in 1907 and 1908. This was coupled with increased grazing on National Forest Reserve lands. Information gleaned from a report on grazing domestic livestock on the Imnaha National Forest for 1907, by Howard K. O'Brien, provided information about the livestock market status for the year, as well as numbers of permitted livestock on the Imnaha National Forest. O'Brien states, "the livestock market was unusually good," and "record prices were reached during 1907." "Yearling ewes sold as high as \$5.50, weathers \$4.50 and lambs \$3.50." These numbers were compared to years previous when a shorn ewe and lamb pair sold for \$1.20 (Tucker, p. 152). As a result of the high prices, producers began increasing their numbers and improving their stock by bringing in new rams. The cattle market was also very favorable in 1907. "Beef steers advancing from \$30.00 to \$45.00 as the top price for beef, the general average being about \$37.00 for beef being sold during September." These prices were per head. At this time it was customary to sell steers at three years of age (Tucker, p. 152).

While the Forest Service was regulating grazing and collecting grazing fees, it was generally agreed that Forest Service policy was beneficial to the livestock industry in Wallowa County. O'Brien stated in his 1907 grazing report on the Imnaha National

Forest that “The policy of the Forest Service is doing much to perpetuate the cattle business in this country. Cattle in the Chesnimnus Division of the Imnaha National Forest have increased from 8,583 head of cattle and horses in 1906 to 11,439 head of cattle and horses in 1907 in the same grazing districts, or an increase of 2,856 head. As the new additions to this forest included most of the outside ranges in Wallowa County, the number of cattle will probably increase about 6,000 head [in 1908].” The additions were the Big Sheep Creek, Marr Flat area, the Lower Imnaha, and lower Snake River areas. The total acreage was approximately 800,000 acres (Tucker, p. 152-153). O’Brien made recommendations for grazing authorization in 1908. It is assumed these recommendations accurately reflect the number of permitted animals that year. The acreage increase allowed for increased stock numbers (Tucker, p. 156).

Figure 3: Livestock permitted on the Imnaha/Wallowa National Forest in 1907&1908



These numbers represent the number of animals permitted on the Imnaha/Wallowa National Forest in 1907, and Supervisor O’Brien’s recommendation for the number of animals to be permitted in 1908. It is assumed the recommendation was followed, since no records are available. Numbers do not include additions as a result of the 800,000 acre addition (Tucker, p. 154)

Stockmen continued to be pleased with the status of grazing on National Forest lands for a number of years. “In the Wallowa National Forest Historical source material, leather bound Volume #1, there is an account of an attempt to detach or eliminate a large acreage of the lower Imnaha River country and Snake River country north of Saddle Cr. from the Wallowa National Forest. This movement apparently began in 1915 and resulted in numerous petitions being filed by residents of the area to retain the land under Forest Service control.” The petitions show the local sentiment of the time, and the

“confidence that the local stockmen and settlers had in the Wallowa National Forest administration” (Tucker, p. 131). A copy of the letter and signing petitioners, taken from Gerald Tucker’s *Historical sketches of the Wallowa National Forest*, is provided in Appendix A.

Mack Birkmaier stated that his grandfather said the ranchers welcomed the Forest Service in 1908 and 1909 (2005). Birkmaier said people from the Valley would bring stock out to the canyons, and there was no control. The Forest Service provided control. In Mr. Birkmaier’s opinion the Forest Service was pretty fair. Permits were given to people who were out there with adjacent deeded land, and then preference was given to those who got there first, like a water right (Birkmaier, 2005).

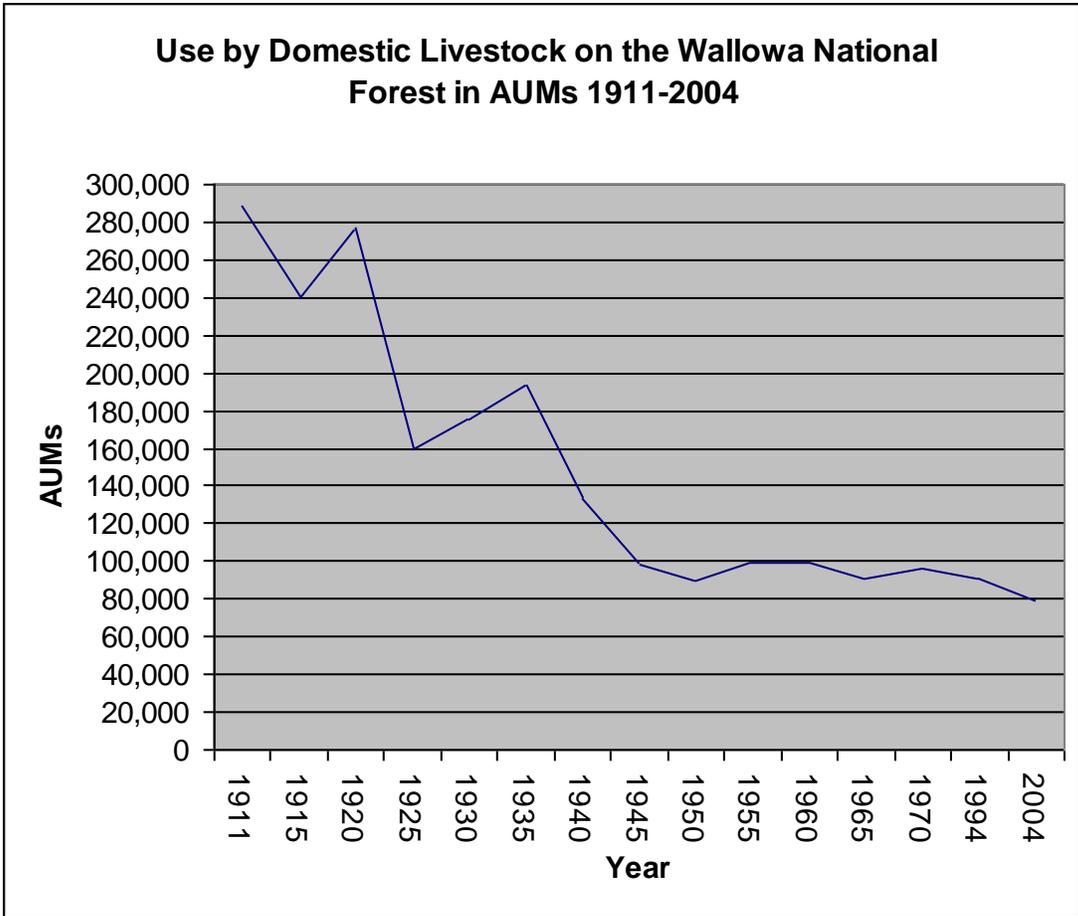
Mr. Birkmaier also pointed out the benefits Forest Service control had on the rangelands. The Forest Service took a raw lump of ground with no improvements, and created fenced pastures, developed springs, and dug ponds to increase water and spread cattle. It introduced rangeland management to the system. In Mack’s opinion, that is why the range has improved today (Birkmaier, 2005).

The next major change to grazing came in the form of the 1934 Taylor Grazing Act. The act permanently instituted a permitting program for livestock grazing on public lands. It provided a way to regulate the occupancy and use of the land (BLM, 1998). The act established grazing districts, and permitted lands that had previously been unreserved. Grazing restrictions allowed for improved rangeland health (TGA, n.d.) This act is said to have closed the public domain (Glicksman & Coggins, 2001, p. 30). With the passage of the Taylor Grazing Act, public lands were permanently withdrawn from homesteading (Glicksman & Coggins, 2001, p. 78). This was the beginning of an attitude shift towards public land use.

An Annual Grazing Report by Supervisor Fred W. Furst for 1934 is one of the first reports of a shift in ideals and priorities that is still seen today: moving away from grazing to recreational use. Furst’s report says that increased recreational use of the National Forest Lands led to withdrawal of lands from sheep grazing to accommodate forage needs of the tourists’ stock. Areas around lakes in the high country were specifically targeted (Tucker, p. 187).

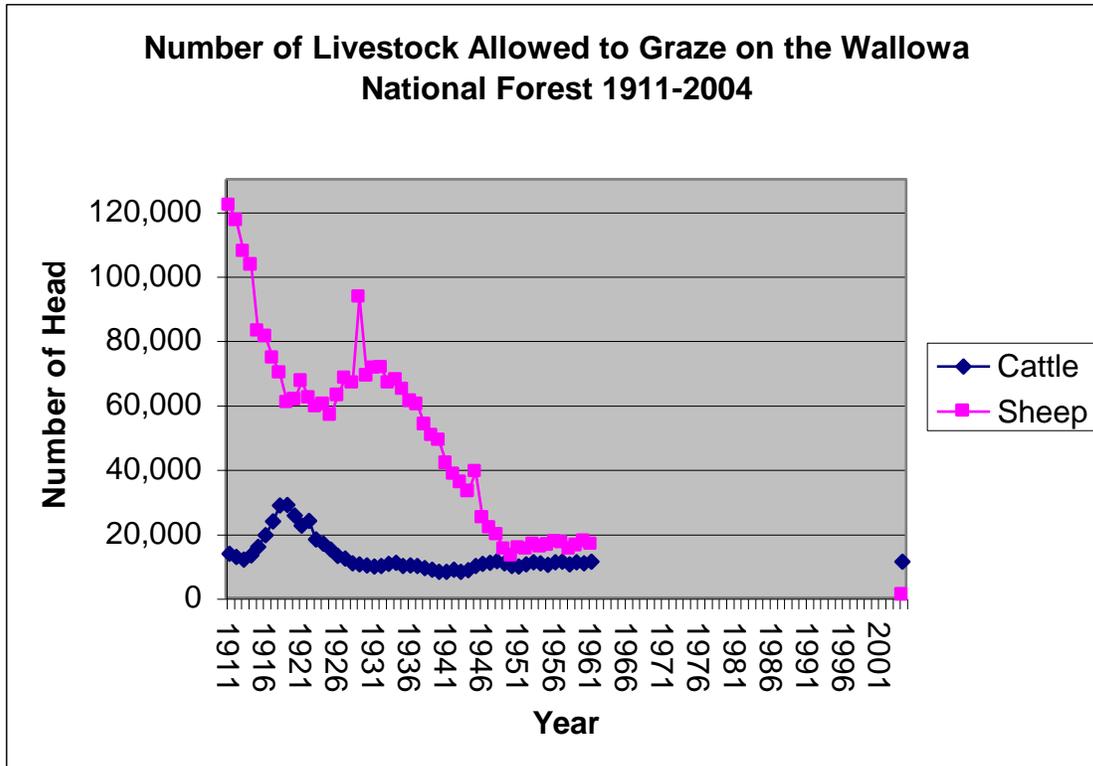
With the onset of Forest Service regulation of grazing on National Forest Lands, and the change in resource use, the number of Animal Unit Months (AUM’s) permitted on the Forest has steadily decreased, with the exception of wartime influxes. See Figure 4 and 5.

Figure 4: Use by domestic livestock on the Wallowa National Forest in AUMs 1911-2004



These numbers were collected from the Wallowa-Whitman National Forest. Arleigh Isley, Wallowa Co. OSU Extension Agent, collected numbers between 1911 and 1970. These are the same numbers found in Charlie G. Johnson's PhD thesis. John Williams, OSU Extension Agent, collected the 1994 data; and Rick Smith, Range Specialist for the Wallowa Ranger District provided the 2004 numbers. Numbers prior to 1911 are not provided because reliable records were not available. It is important to note that the old Wallowa National Forest includes the Sled Springs, Chesnimnus, Snake River, Imnaha, and the Minam Oregon Department of Fish and Wildlife Management Units.

Figure 5: Number of Livestock Allowed to Graze on the Wallowa National Forest 1911-2004



These numbers were collected from the Wallowa-Whitman National Forest. Arleigh Isley, Wallowa Co. OSU Extension Agent, collected numbers between 1911 and 1970. These are the same numbers found in Charlie G. Johnson's PhD thesis. John Williams, OSU Extension Agent, collected the 1994 data; and Rick Smith, Range Specialist for the Wallowa Ranger District provided the 2004 numbers. Numbers prior to 1911 are not provided because reliable records were not available. It is important to note that the old Wallowa National Forest includes the Sled Springs, Chesnimnus, Snake River, Imnaha, and the Minam Oregon Department of Fish and Wildlife Management Units.

The numbers of AUM's on Forest Service lands are continuing to decline. There are fewer permittees on the allotments all the time. Allotments are being consolidated, and smaller operators/operations are being bought out. For example, the Cougar Creek Allotment used to have 39 permittees on the land, now there are only three (Birkmaier, 2005). Increased regulations such as the Endangered Species Act and the Clean Water Act make it hard to hold on to the grazing permits. When parts of the allotment are taken out of activity it decreases the base the permittee can run on (Birkmaier, 2005).

The economic advantage of Forest Service permits is also changing. Small permits that used to be economically justified are quickly becoming economic burdens. The cost of time and resources needed to maintain the allotments is too high. Increased regulation related to National Recreation Areas, Wilderness areas, the Clean Water Act, Endangered Species Act, etc has increased the time commitment of a permittee to maintain an allotment and keep their permit (see **An Era of Legislation** section of this document). Large amounts of time is spent in Forest Service meetings, reading material, then doing the work the Forest Service asks of the permittee (Birkmaier, 2005).

There has been a shift in today's way of thinking versus the past. Mentalities have shifted from supporting and defending the Forest Service because of the benefit it provided for the livestock industry, to struggling with the Forest Service but recognizing the value of public land grazing to the industry, to today where ranches are beginning to turn away from Forest Service permits. In the past, part of a ranch's value lie in the Forest Service permits attached to the land. Today, permits are becoming increasingly expensive and more of a hassle. People still want ranches, but fewer people want Forest Service permits (Birkmaier, 2005).

The general public has a perception that grazing on federal land is cheap because grazing fees are relatively inexpensive (Birkmaier, 2005; McClaren, 2005). However, restrictions are constantly being added, maintenance costs continue to increase, and more labor is required today versus the past because more riding is being done to keep cattle moving. Time converts to more money (Birkmaier, 2005). Jack McClaren says he worked with Dr. Fred Obermiller to compare costs of federal land to renting private land, and they concluded the total cost of everything such as fences, transportation, packing equipment and supplements in to remote areas, and time, comes out to be more expensive than rent of private grazing land (McClaren, 2005).

The tenure of grazing permits has also changed over time. In the past, the advantage of the Forest Service permits over valley grazing was the tenure versus having to get pasture on a year-to-year basis (Birkmaier, 2005). Today, permits must be renewed every 10 years. Mr. Birkmaier points out that things can change very quickly. The permitting process is no longer simple. Every time a producer goes to renew their permit, interest groups have the right to comment and challenge the renewal. Sometimes lawsuits result. The added expense of defending lawsuits can be very problematic for ranchers.

Nevertheless, many operations still rely on federal permits. As previously stated, they are given for a ten year time period and then must be renewed. Permits are attached to base properties, therefore when base property changes hands permits must be transferred. In order for a permit to be issued to the new owner, the cattle on the permit must be branded with the brand of the deeded property owner. The brand must be registered in the state. Before the transfer is complete, the permit must be validated by grazing at least 90% of permitted number within the first year (McClaren, 2005; Smergut, 2005).

### **Scientific Studies in Wallowa County**

Knowledge learned from scientific studies in many cases provided the information needed for land managers and producers to make informed decisions about land management and carrying capacities. Wallowa County is truly one of the homes of the beginning of rangeland management. Shortly after the creation of the Forest Service land managers quickly realized the overgrazing was causing serious ecological effects. The Forest Service quickly initiated rangeland studies. In 1907 they selected Arthur Sampson and James Tertius Jardine to conduct the nation's first grazing studies on the Wallowa National Forest. Sampson's research on the Standley Allotment provided information about plant succession and led to deferred and rotation grazing (West, 49). Jardine's study on Billy Meadows provides information about new livestock management techniques in open range systems (Tucker, 158).

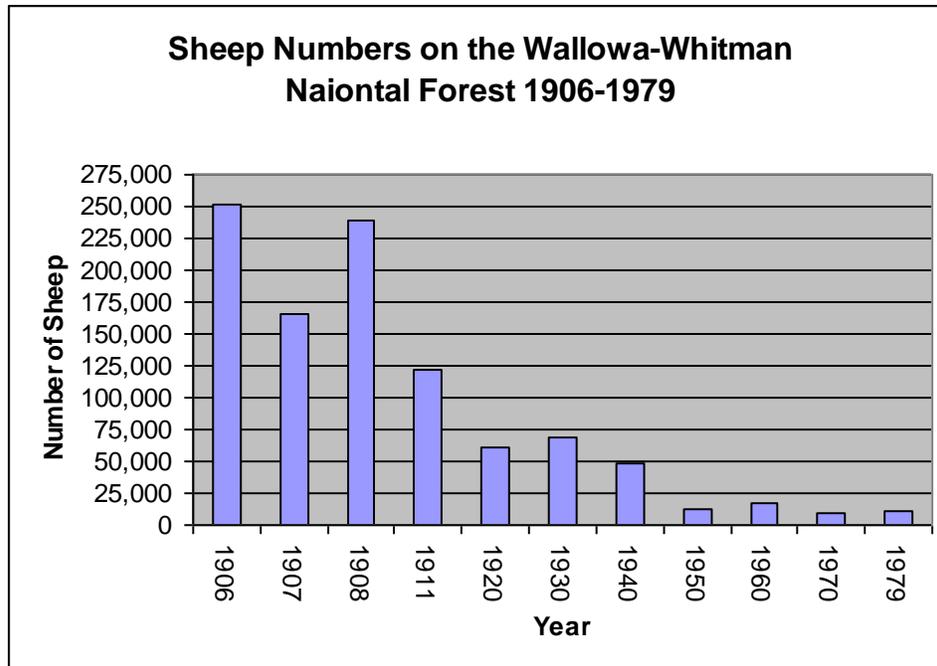
### The Standley Allotment Study

Arthur W. Sampson graduated from the University of Nebraska in 1907, having studied under Frederic Clements, a pioneer in plant ecology and succession. Shortly following graduation, he was selected by the Forest Service to conduct studies on the Blue Mountain Forest Reserves in northeast Oregon (Mitchell, Ffolliott, & Patton-Mallory, 2005). Sampson conducted his study on the Standley allotment between 1907 and 1911.

At the turn of the century, prior to the designation of the Wallowa National Forest, approximately 10,000 sheep grazed the allotment for four months of the year (Johnson, 2003, p. 9), resulting in severe overgrazing of the allotment (Strickler & Hall, 1980). Much of the dominant green fescue community was gone, and much of the land was eroding and barren (Strickler & Hall, 1980, p. i) Sampson's study was designed to encourage natural reseeding of areas that still contained a seed source, by implementing a deferred grazing system that allows plant to produce and release seed before being grazed. The system was found to be very successful. Simultaneously, Sampson conducted reseeding studies on barren sites where natural reseeding was unlikely. Sampson reseeded with introduced grasses on these sites. He used a variety of methods and seasons to evaluate the factors needed to ensure reseeding success, in addition to studying the productivity restoration of those lands. Guidelines established by Sampson based on this study are still in use today. Sampson documented his study with photographs as well as on paper (Strickler & Hall, 1980, p. i). Recovery of these lands continues to be tracked (see Tenderfoot Green Fescues Studies section of this document).

As a result of the Sampson's findings, grazing on the Standley allotment was greatly reduced over time. Prior to 1940 the allotment saw severe overgrazing by sheep. 1940 marked the end of severe overgrazing based on management changes made in response to Sampson's recommendations for improved rangeland health. (Strickler & Hall, 1980). See figure 6.

Figure 6: Sheep numbers on the Wallowa-Whitman National Forest, 1906-1979



Numbers from Strickler & Hall, 1980, p. 6.

By 1980, numbers had declined to approximately 2,000 sheep grazing three months of the year. Grazing on the allotment was terminated in 1986 (Johnson, 2003, p. 9).

#### The Billy Meadows Study

James Tertius Jardine was brought into the Blue Mountain Forest Reserves at the same time as Arthur Sampson. As a part of Jardine's study, the Forest Service began building a sheep tight, predator tight fence around 2,560 acres of land near Billy Meadows Ranger Station for studies on the feasibility of pasturing sheep on Forest Lands as opposed to herding (Tucker, 158). It was theorized that if sheep were not herded they would not overgraze areas such as nightly stopping locations, which were overgrazed under the current management system. The first winter, trees fell on the fence and predators entered the fields. Serious predator control measures were taken (Isley, 2005). Joseph K. Carper was hired for predator management (Tucker, p. 161-162). It is believed he killed the last Grizzly bear in the county in 1915 or 1916 (Isley, 2005). Shortly after its inception, the study proved impractical and the experiment was abandoned. In 1912 the pasture was converted to an elk pasture (Tucker, p. 158). A herd of 15 elk was delivered to Billy Meadows on March 19, 1912 from Jackson Hole, Wyoming. While 5 of the animals died the first winter, the introduction was still successful. The herd eventually increased greatly do to protective measures (Tucker, p. 159). Around 1918 fence maintenance became more than the State Game Commission was willing to do, so starting about 1920 it became a cattle pasture (Tucker, p. 160). Jardine went on to become the first head of the Office of Grazing Studies established in 1910 (Forest Service) (Mitchell et al, 2005).

### Wallowa Grazing Reconnaissance

Wallowa County was at the forefront of rangeland monitoring again when the first scientific range analysis in Region Six was conducted on the Wallowa National Forest. It was known as the Wallowa Grazing Reconnaissance. J.L. Peterson supervised the project. Peterson was on the Wallowa in 1912, presumably conducting preliminary work. The field work is believed to have been conducted in 1913 and 1914. Peterson was back on the Wallowa in 1915 compiling results (Tucker, 173). The grazing reconnaissance was quite accurate. It contained information such as plant species, density, vigor, associations, types, carrying capacities, and proper season of use. However, little use was made of the information. It is believed it was because the Forest administration didn't understand the reconnaissance, and feared that rapid change of grazing strategies would cause too many administrative problems. At that time many Forest Service officials believed it was important to graze the forest heavily each year to prevent fires. The general prescription was to graze vegetation till no more than 25% remained standing. "It can be readily appreciated now that when that yard stick was applied to the steep rocky portions of the range, there surely must have been only a dust bed on much of the smooth, easy ground." Gerald Tucker (Tucker, p. 174). The grazing reconnaissance was used to justify grazing allowances, and over time was forgotten (Tucker, p. 174).

The project also compiled information that allowed for the development of a contour map of the Forest, which was printed in 1917 from base maps by Peterson. The maps proved to be very accurate, especially considering there was no use of aerial photography. It remained the best map available until the U.S. Geological Survey Topographical Quadrangle maps came out in 1957 (Tucker, p. 173).

### Tenderfoot Green Fescue Studies

Arthur Sampson's pioneering study on the Standley Allotment concerning restoration of degraded rangelands by seeding nonnative forage plants, and his subsequent work led to him becoming known as the "Father of Range Management" (Johnson, 2003, p. 2). Elbert H. Reid met Sampson in the 1930's and became a student of range management. In 1938 Reid initiated a study on green fescue in Tenderfoot Basin in the subalpine region of the Wallowa Mountains. The study focused on plant succession following overgrazing by sheep, and served as a complimentary study to the Standley Allotment study conducted by Sampson, since the study area is in the same vicinity as Sampson's study.

In 1938 baseline data was collected and photos were taken. Reid returned to the Basin in 1956, 1968, 1978, and 1988, documenting change at the original 1938 study locations. In 1956, 36 of the 57 original photo points were located (Johnson, 2003, p.2). In 1998 Charles G. Johnson Jr. returned to the photo point locations established by Reid, as well as Standley Spring and Sturgill Basin to continue documentation (Johnson, 2003, p.1). In 1941 the Sturgill Basin was closed to sheep grazing because of continued overgrazing and soil erosion. Johnson's data collection provided more information about successional change following removal of grazing.

In 1955 Bob Harris established a 100 ft transect line and took 100 ¾-inch-loop readings in the Standley Spring Area. The transect was placed based on the location of Sampson's enclosure. The transect was resampled by Reid, Hall, and Harris in 1962; and Johnson in 1998 (Johnson, 2003, p. 10). In 1996 Johnson resampled seven transects

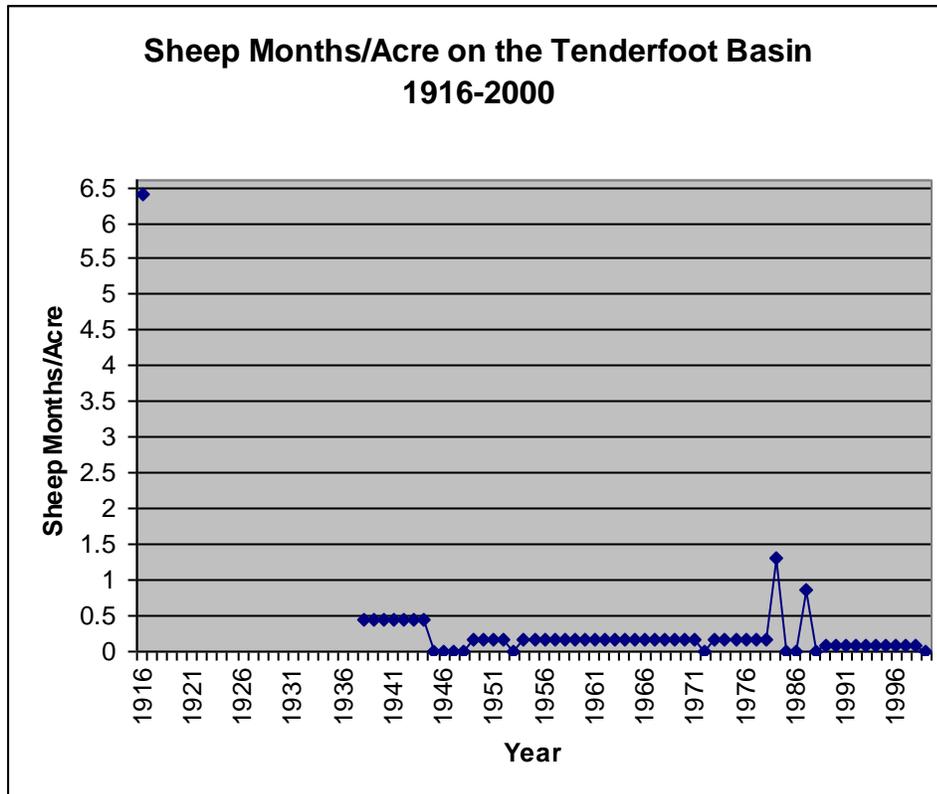
established by Strickler in 1956 next to some of Reid's key photo points. No other samples had been collected since 1956. Johnson used same 100 ft transect and ¾-inch-loop method for comparability (Johnson, 2003, p. 21).

Tenderfoot Basin is located at the mouth of the North Fork Imnaha River. It was selected because it had varying sites of degraded green fescue sites. Some records indicate that Tenderfoot Basin was overgrazed and deteriorated by 1900 (Reid et al., 1980, p. 4). An area at the head of Lick Creek on Nebo Lookout Ridge was selected to represent climax green fescue conditions (Johnson, 2003, p. 6). The Nebo Lookout Ridge Area had seen little use at time of 1938 study. In 1953 Parker Condition and Trend clusters were established, and showed decline of range health since 1938. The site was resampled in 1999, and showed recovery (Johnson, 2003, p. 34).

In 1938 the estimated capacity of the Tenderfoot Basin Allotment (2,256 acres) was .44 sheep months/acre. This estimated capacity is very close to the actual use (removal 44% of the herbage) of the area, which was slightly lower than the accepted use of 50% removal (Reid et al., 1980, p. 4). In 1916 it was reported that 4,800 head of sheep grazed the allotment for three months. This is equivalent to a stocking rate of 6.4 sheep months/acre; approximately 15 times the capacity of the land in 1938 (Reid et al., 1980, p. 4). The climax comparison area in Lick Creek Basin had an estimated capacity of 5.8 sheep months/acre in 1938. That is approximately 12 times the capacity of Tenderfoot Basin (Reid et al., 1980, p. 4).

The stocking rate for the Tenderfoot Basin was static between 1938 and 1945 (Reid et al., 1980, p. 4). There was no sheep grazing between 1945 and 1948 (Reid et al., 1980, p. 4). Grazing was resumed, but reduced in 1949. The grazing system was changed to a deferred grazing until late August or early September (Reid et al., 1980, p. 4). There was no use again in 1953 and 1972 (Reid et al., 1980, p. 4). Use in upper Tenderfoot averaged .17 sheep months/acre between 1949 and 1978. This indicates use by sheep for that period was 60% less than in 1938, and only 3% of the estimated capacity of the climax (Reid et al., 1980, p. 4). Yet again, the area went ungrazed in 1983, 1986, and 1988. The stocking rate in 1982 was 1.32, and in 1987 was .87 (Reid et al., 1980, p. 4). Records show that between 1989 and 1998 the stocking rate in the Tenderfoot Basin was .07 sheep months/ acre. Domestic sheep use was terminated on the allotment in 2000 (Johnson, 2003, p. 10). See Figure 7 for stocking rates of sheep in the Tenderfoot Basin from 1916-2000.

Figure 7: Sheep Months/Acre on the Tenderfoot Basin from 1916-2000



The study showed slow, but steady recovery of the green fescue grasslands in most locations. However, there were some locations that remained static in a lower successional state. Some of these areas saw a change in community composition, but didn't see an increase in green fescue as desired. Nevertheless, areas were noted as being in an upward or static trend in five of the seven areas, including areas of severe erosion. Only two study sites showed a downward trend. Decline is attributed to heavy use by elk and recent droughty conditions on those two sites (Johnson, 2003, p.36).

According to Johnson, "elk populations in the Minam herd increased during the decade 1988-98. Elk numbers were growing steadily from 1,800 in 1998, peaked at 2,900 in 1993, and decreased to 1,950 animals in 1998. During the same period, the estimated deer population declined from 4,750 in 1988 to 3,250 estimated in 1998" (Johnson, 2003, p. 36). These elk numbers are attributed to some of the delay in green fescue recovery on the two downward trend sites.

### Events in Grazing History

Some world, national, and local events touched all portions of the livestock grazing industry: both operators who grazed on federal land and those who grazed solely on private land.

#### World War I (1914-1918)

World War I (1914-1918) marked the beginning of a livestock boom. The war provided high demand for livestock products. The Federal Government initiated slogans such as "Beef will win the war," "Wool for soldiers' uniforms," "Pork for the home

front,” encouraging livestock producers to increase production numbers to the maximum supply of these important products for the advancement of the war. This resulted in a dramatic increase in domestic livestock numbers. In turn, the greatest impact on the land was realized during this era (Isley, 2005). Arleigh Isley relates that in interviews he has conducted with local ranchers from the World War I era he was told that cattle could only be driven until about 2 p.m. each day because they were so thin they would die from exertion if pushed any harder. So many animals were being grazed in the county that there wasn't enough feed to go around (Isley, 2005).

### Goatweed

1920 marked an ecological change in the Snake River and Imnaha Canyons. Goatweed (*Hypericum perforatum*), also known as St. John's Wart and Klamath weed, began appearing on the winter ranges. It is believed the weed was introduced in 1920 by a band of sheep brought in from the Clearwater River area in Idaho, by a Snake River stockman. The Idaho area was known to have a considerable problem with goatweed (Tucker, p. 181). Goatweed was introduced to North America from Europe, and has no natural enemies here (Isley, 2005). In a 1934 report prepared by Mr. Frizzell, it is relayed that experimental goatweed eradication techniques were used on approximately 5,000 acres of winter rangelands along the Snake River (Tucker, p. 187), but success was minimal.

While in the military during World War II, Reid Johnson read an article in an Australian magazine about goatweed beetles, and how they were successful in cleaning up goatweed in France and Europe. He kept it in mind. When he returned to Wallowa from the war and found a healthy population of goatweed on his property, Mr. Johnson decided to do something. Reid and his brother Howard wrote a letter to the University of California Davis entomology department about getting some of the Japanese beetles described in the article. The Johnson brothers made quite a bit of contact before finally convincing the university to get the beetles. Beetles were brought from Australia and put in a greenhouse for six months to acclimate them to our cooler temperatures (Johnson, 2005).

At that point the U.S. Department of Agriculture (USDA) conducted a fact-finding mission at the university concerning the beetles. By that time over 400,000 acres in Wallowa County was infested with goatweed (Johnson, 2005). Many people in the canyon thought the plant was going to take over and ruin the rangelands for livestock grazing (McClaren, 2005). Little was heard for quite some time, then the Johnson's received a notice that the USDA had decided to fund beetles for the county based on the letter sent by Howard and Reid. Beetles were on their way. The beetles were shipped in round ice cream containers with some road weed for the beetles to eat on the way. There were six cartons in the original shipment. Instructions from the USDA required a fence be built around the release location to prevent livestock from bothering the beetles. The Johnson's didn't build the fences because it was labor intensive and expensive. Instead, they just opened the containers and dumped the beetles out in a heavy patch of goatweed. Ten days after receiving the first shipment, they got the second shipment. This shipment contained a different beetle. They released these beetles in a different location (Johnson, 2005).

The first shipment of beetles were “Highparasesees”. These beetles can travel up to two miles in their lifespan. They eat the roots, then hatch and come out in the spring. These beetles were the size of a potato bug and golden colored. The second shipment contained the “Germalata” beetle. These beetles can travel up to eight miles in their lifetime (Johnson, 2005).

The next release was in Fence Creek. Wade Hall, who worked for the Forest Service, collected some beetles off the Johnson place and released them in the canyon. By spring the area was loaded with beetles. Johnson’s went to Fence Creek and took bread pans to collect beetles. They would fill ice cream containers about half full with goatweed and beetles. They made six trips, collecting five or six cartons each morning. They brought the beetles back and distributed them on the north end of their rangelands. Those six trips covered all the rangeland. They collected a total of about 20 cartons. Five years later there was no goatweed. Unfortunately, shortly thereafter there was an infestation of grasshoppers. The county sprayed the grasshoppers, and inadvertently killed all the beetles. It has taken a long time to reestablish them (Johnson, 2005).

In Gerald Tucker’s *Historical sketches of the Wallowa National Forest*, Tucker also talks about the introduction of the beetle as biological control for goatweed. Tucker states that he took out a batch of beetles in 1949. He says, “there were three plantings, one at the old Wisenor place on Temperance Creek, one at the airport at Pittsburg, and one at the Somers Creek Ranch” (Tucker, p. 223). In 1951, fifteen more plantings of goatweed beetles were made in the Imnaha-Snake District (Tucker, p. 224). Progress was noted on the Joseph District’s Sheep Creek Road and Peavine Creek on the Chesnimnus District (Tucker, p. 225). Within ten years the bluebunch wheatgrass and Idaho Fescue plants had fully recovered and had beautiful stands (Isley, 2005). Following clean-up of the goatweed more people became aware of the beauty of the canyons, and the idea that the government should own that land emerged (Isley, 2005).

### The Great Depression (1929-1939)

Jack McClaren, long time rancher in the canyons, relates that the typical Snake River outfits owed a lot of money in the 1920’s. During the economic boom of the 1920’s, many people decided to acquire land, therefore they had debt. With the onset of the Great Depression, many people went out of business. There wasn’t enough money to pay the loans. According to Mr. McClaren, at least 8-10 ranches were saved from ruin because of the assistance of Leonard Johnson, a canyon operator. Johnson recognized that many people couldn’t even pay the interest they owed. Johnson helped those he trusted. He financed these operations. He made the payments reasonable, and lowered the interest. Because he was careful who he loaned the money to, they all made it and he didn’t lose his money. It was beneficial for him because all the operations stayed with him. If they had gone out, he would have had to run all those operations himself and he didn’t want to do that. (McClaren, 2005)

### World War II (1941-1945)

The World War II era (1941-1945) didn’t experience near the ecological hardship and degradation that occurred during World War I. Unlike during World War I, the Forest Service didn’t increase allowable numbers on National Forest Lands. After the ecological damage experienced during World War I, the spike in livestock production

was more moderate during World War II. This was also an era of mechanization, meaning there was less dependence on the use of horses for travel, farming, etc. As a result, production of horses decreased (Isley, 2005).

Nevertheless, livestock numbers did see an increase during the war. However, the increase was not across the board. Labor shortages resulted in a reduction of dairy cattle, hogs, and sheep (Best, 1943-1945). Labor was not available to herd sheep or milk the dairy cows, so many producers switched to beef cattle, cattle prices were also considerably higher than sheep prices at the time (Isley, 2005; Best 1943). According to the Wallowa County Agriculture Reports, sheep numbers began declining with the beginning of the war, and by 1944 there were only approximately 40,000 head in the county (Best, 1944), as compared to almost 90,000 head in the late 1920's (Donaldson, 1929).

Mack Birkmaier relates that his grandfather raised sheep in Joseph Creek at the time. The young shearers had gone off to war, really squeezing the industry. Mack also related that coyote numbers were very high, especially in the timbered summer ranges. The Birkmaiers got out of the sheep business because the coyotes were so bad. Mack said the coyotes would be eating on one side of the herd while the herder was protecting the other. Every time the herd would come home they would be 30-40 animals short. When they rode out to try and find them they never found any carcasses. The problem persisted until after the war when 1080 was used to poison the predators. Mr. Birkmaier saw a significant difference. An increase in deer and elk populations was also observed (Birkmaier, 2005).

Jack McClaren also remembers predator's being a horrible problem in the 1930's and early 1940's. Coyotes and small cats were specifically bad. He says cougars were a minor problem because they were generally shot on sight. The introduction of 1080 made a huge difference. He notes that predators were such a problem that in addition to government trappers, many sheep operations employed one or two more of their own (McClaren, 2005).

At the beginning of the war, there were sheep everywhere in the Snake River Canyon. Mack recalls from his childhood (sometime in the early 1940's) that at least 18 bands of sheep would cross Joseph Creek from the Snake River area, across the vacant 40, which served as a passageway, every spring. There was a sheep bridge on Joseph Creek. This was the best place to cross during the high waters caused by spring runoff. Sheep production was greatly reduced during and following the war. From what Mack remembers, the last family with sheep bands was on Cherry Creek, and they got out of the business in the early 1960's. (Birkmaier, 2005)

The 1942 Wallowa County Agriculture Report relays that "marketings through the Wallowa Livestock Marketing Association showed a 4,000 head increase [in swine] over the same period of 1941. This was due largely to the Food For Freedom Program carried on by the County Extension Agent and the AAA" (Best, pg 25). 1943 saw a scarcity of feed for animals. As a result of the increase in meat animal numbers because of the war, there was a shortage of feed in March and April. Feed was brought in, but the problem was recognized for the next year: the county had to either reduce animal numbers or grow more feed. Hog production also saw a reduction because of the war. By 1945 numbers were down to approximately 2/3 of normal. "Part of this is due to lack

of labor and part to the fact that the farmers have felt they could make more by putting their feed through beef cattle than through hogs” (Best, 1945).

While the World War II era didn't see the dramatic overgrazing that occurred during World War I, the war still played a role in ecological change. From a grazing standpoint the reduction of diversification of livestock species impacted the rangelands because different classes of animals have different diet selection. Cattle are known to select bluebunch wheatgrass and Idaho Fescue, while leaving weeds that sheep would generally eat (Isley, 2005).

During this time period, the land was also still trying to recover from the overuse during World War I. One way land managers attempted to reverse this problem was through reseeding. One such reseeding effort is described in Tucker's *Historical Sketches of the Wallowa National Forest*. It is reported that in 1942, “A program of seeding Canadian bluegrass on selected areas of the Chesnimnus and Imnaha-Snake Districts was instituted. Results were not fully apparent for several years, but the seedings on Lord Flat, done mostly by Jim Dorrance, the permittee on the allotment, were highly successful. Many deep soil areas at the head swales are now solid bluegrass sod, which were formerly devoid of grass. 390 acres of C. Bluegrass was seeded in 1942” (Tucker, p. 217).

It is reported that there was a high number of free ranging horses in the county during World War II. These animals would not have been counted in any statistics, and therefore their true ecological impact is unknown. There are several possible reasons for the spike in free ranging horses. The World War II era was also an era of mechanization. The dependence on the use of horses was rapidly declining, resulting in decreased numbers of managed horse herds (Isley, 2005). There may also have been horses left by the Nez Perce Tribe (USDA, 2003a, 3-147).

Nevertheless, people found ways to take advantage of the free ranging horse herds. During the war resources and plants that had been available to make fertilizer was no longer assessable, so people would take wagons out on the range and collect up horse bones to be broken up and used for Phosphorus fertilizer, since horse bones are high in Phosphorus (Isley, 2005). All different age classes and sizes of horse bones were collected: old to young and general horses to draft horses. The cause of death was unknown. It is possible they died of malnutrition because of the herd sizes (Isley, 2005). People also found ways to make money off the horses. In the Hells Canyon Comprehensive Management Plan it states, “Because of a combination of early Nez Perce Indian horse use and early day homesteading, large numbers of ‘range’ horses occupied the area. These animals were referred to as range herds because origin and ownership were questionable. During World War II, freelance operations were conducted to gather the horses and shear their manes and tails for hair, which was selling for 25 cents per pound. On one occasion, 19 railroad carloads of horses were taken off the range. There were so many horses that the wranglers could locate the herds by first spotting the plumes of dust kicked up by their hooves. The last known collection was made from Pumpkin Creek, Grizzly Ridge, and Deep Creek in 1964.” (USDA, 2003a, p. 3-147).

Following the war, there was a substantial decrease in livestock numbers. With the reductions, the Snake River Canyon and Zumwalt areas recovered quickly from the previous overgrazing. Recovery of bluebunch wheatgrass and Idaho fescue was observed

(Isley, 2005). When speaking of time related to natural resources, quickly generally refers to several years (Williams, 2005).

### **Wilderness Areas and the Hells Canyon National Recreation Area**

While forest reserves signified the beginning of public domain retention by the federal government, future designations of that land resulted in further defining their use. Two designations that have changed grazing in Wallowa County are the wilderness area designations and the creation of the Hells Canyon National Recreation Area. The first designation came in 1930 when the Eagle Cap area was designated a Primitive Area by the U.S. Department of Agriculture (Belew, 2000, p. 55-56; USDA, 2004). In 1940 the primitive area designation was changed so the area became the Eagle Cap Wilderness Area (Isley, n.d.; Belew, 2000, p. 55-56). It was comprised of 220,325 acres (USDA, 2004a).

The federal government passed The Wilderness Act in 1964. That same year, the Eagle Cap Wilderness was added to the National Wilderness Preservation System under the newly passed act. The area was expanded as a result of a land exchange (Belew, 2000, p. 55-56; USDA, 2004). Another 73,410 acres were added to the Eagle Cap Wilderness in 1972 (Belew, 2000, p. 55-56; Isley, n.d.; USDA, 2004).

In 1975 the Hells Canyon National Recreation Area was established (Isley, n.d.). The Hells Canyon Wilderness was designated concurrently (USDA, n.d.). This wilderness area is located in both Oregon and Idaho, being splint by the Snake River. (USDA, n.d.; Belew, 2000, p. 80). Another wilderness area was added to Wallowa County with the Wenaha-Tucannon Wilderness Area designation in 1977 (Isley, n.d.).

Designation of the Hells Canyon National Recreation Area (HCNRA) changed ranching in the area forever. With the designations, the ranchers within the boundaries were essentially forced to sell their land to the U.S. Forest Service. Some people were afraid of having their land condemned and taken under the government's power of eminent domain. Others just feared there would be problems running livestock on the HCNRA lands. The McClaran ranch didn't sell their land, but they do have multiple federal permits within the HCNRA boundaries. Jack McClaran says to this point their ranch has not experienced problems, but the threat is always there (McClaren, 2005).

In 1984, The Oregon Wilderness Bill was passed adding 67,711 acres to the Eagle Cap and Hells Canyon Wilderness areas (Belew, 2000, p. 55-56; USDA, 2004). This brought the total acreage of the Hells Canyon Wilderness to 219,006 acres (Belew, 2000, p. 80).

In 2004, the total number of acres for the Eagle Cap Wilderness Area was 361,446 (USDA, 2004a). Historically large numbers of sheep and cattle were grazed in the Eagle Caps. The Eagle Caps provided summer feed for animals wintered in the canyons. Today the number of domestic livestock grazed has been dramatically reduced. Currently there are three allotments in the Eagle Cap Wilderness: Sheep graze Mt. Nebo from early July through September, while cattle graze in the southern portion of the wilderness. Grazing is still allowed because of the allowance in the 1964 Wilderness Act providing that traditional uses can continue as long as they don't compromise the wilderness values (USDA, 2004a).

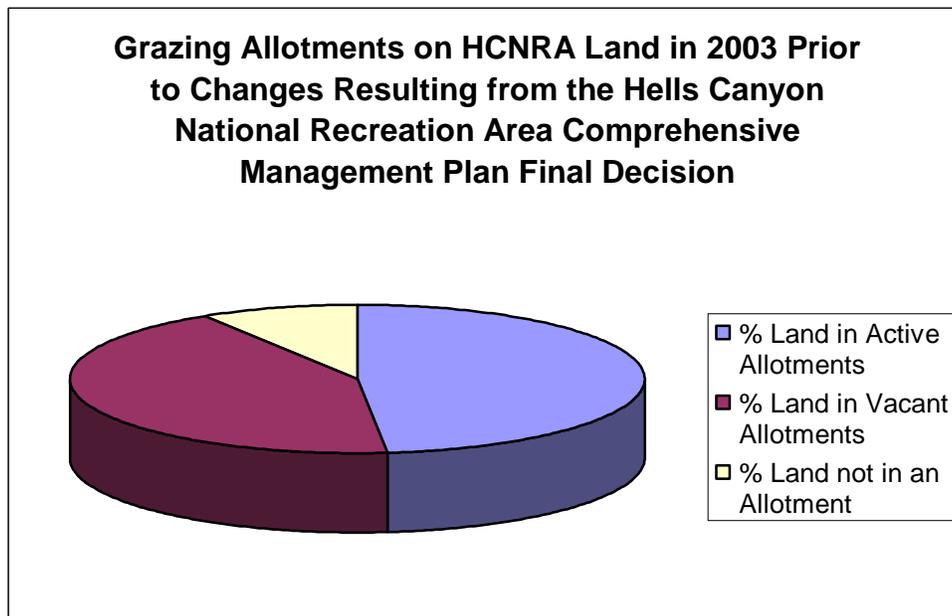
The Hells Canyon National Recreation Area (HCNRA) has also restricted grazing. In 2003 there were 652,488 acres in the HCNRA. Approximately 91% of the

HCNRA was within 51 grazing allotments (566,411 acres) at that time. Approximately 53% of those were active (298,905 acres on 40 allotments) and 47% were vacant (267,506 acres on 11 allotments) (USDA, 2003a, p. 3-159&163). See Figure 8 for percentage of HCNRA land in each classification. See Table 1 for vacant allotments and the last year the allotment was grazed. The Teepee Elk and Marr Flat Allotments also contain some HCNRA land, however the majority of the allotments are outside the HCNRA and are therefore managed by the Wallowa Valley Ranger District (USDA, 2003a, p. 3-163). All vacant allotments had become vacant since 1980. Eighty-three percent of the vacant allotments were for sheep and goats (221,206 acres on 6 allotments) while the remainder were classified for cattle and horses (46,300 acres on 5 allotments) (USDA, 2003a, p. 3-163).

In the 1920's, approximately 108,000 animal unit months (AUMs) were permitted within the HCNRA. In 1998, 38,260 AUMs were permitted. That is a 65% reduction. 2003 levels of permitted grazing totaled approximately 39,750 AUMs. Of the AUMs permitted, 34,990 are in Oregon for cattle. The rest are in Idaho (USDA, 2003a, p. 3-150).

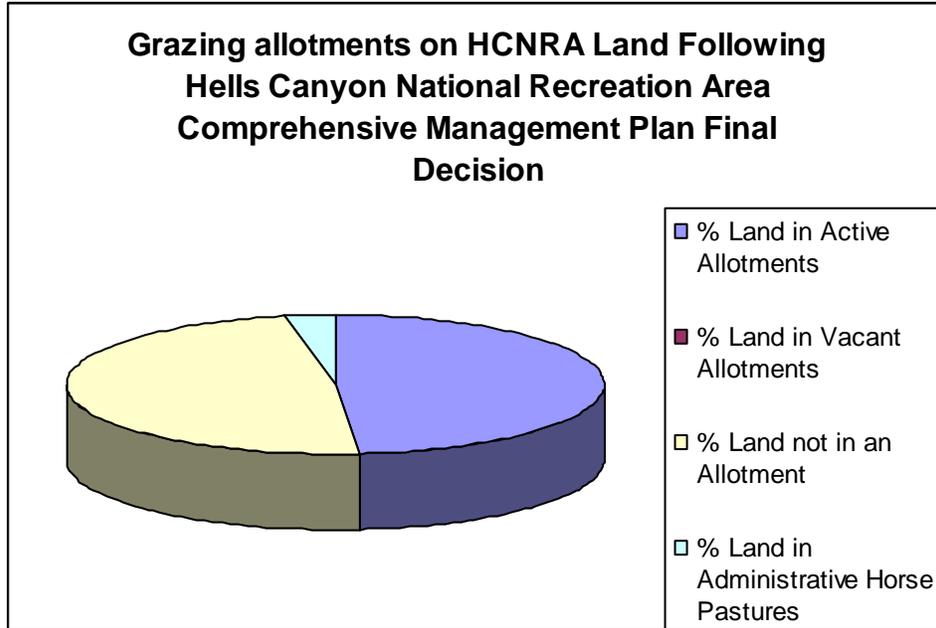
Following the 2003 HCNRA Comprehensive Management Plan, alternative E-modified was selected (USDA, 2003b, p. 10). Under alternative E-modified, no active allotments were closed. However, 245,782 acres of vacant allotments were closed; that is approximately 92% of the vacant allotments (USDA, 2003b, p. 49). Approximately 1% (3,641 acres) of vacant allotments were incorporated into active allotments, and 7% (18,083 acres) were established as administrative horse pastures to be used by crews in the HCNRA (USDA, 2003a, p. 3-168). See Figure 9 for percentage of land in active and vacant allotments following the HCNRA Comprehensive Management Plan Final Decision.

Figure 8: Grazing allotments on Hells Canyon National Recreation Area land in 2003 prior to changes resulting from the Hells Canyon National Recreation Area Comprehensive Management Plan Final Decision.



This data taken from the Hells Canyon National Recreation Area Comprehensive Management Plan.

Figure 9: Grazing allotments on Hells Canyon National Recreation Area land following Hells Canyon National Recreation Area Comprehensive Management Plan Final Decision.



This data taken from the Hells Canyon National Recreation Area Comprehensive Management Plan.

Table 1: Pertinent information concerning vacant grazing allotments on the Hells Canyon National Recreation Area in 2003 prior to changes resulting from the Hells Canyon National Recreation Area Comprehensive Management Plan Final Decision.

Allotment	Number	Type	Last Year Grazed
Jim Cr.	71	Cattle	1988
Cherry Cr.	82	Cattle	1986
Temperance-Snake	84	Sheep	1996
Hope Cr.	108	Horse	1991
Turner Cr.	118	Cattle	1980
Big Canyon	167	Sheep	1981
Cache Creek Canyon	183	Cattle	Unknown
	191	Sheep	1978-1987
Mud-Duck	162	Sheep	1996
Sheep Cr.	164	Sheep	1994
Curren Hill	None	Sheep	1998

This data was taken from the Hells Canyon National Recreation Area Comprehensive Management Plan (USDA, 2003a, p. 3-164).

### An Era of Legislation

The 1960's and 1970's were the beginning of the environmental movement that continues today. Beginning in this era, the public started taking an active role in public

land management. Congress passed a series of legislative acts governing land management agencies.

In 1960 the Multiple Use Sustained Yield Act (MUSYA) was passed. This act expanded the management considerations of the Forest Service and the Bureau of Land Management. Pursuant to the 1897 Forest Service Organic Act, the Forest Service had been managing the national forests for timber supply, watershed protection, and forest preservation. MUSYA provided a broader range of uses for the national forest lands: outdoor recreation, range, timber, watershed, and wildlife and fish. The act directs the Secretary to manage renewable resources for multiple uses (Glicksman & Coggins, 2001, p. 190). It calls for all resources compatible and renewable to be used in a manner to maintain sustainability. This allows the Forest Service the ability to increase regulation and management requirements (Dunn, 2005). Under the act, the combined resource management is not required to provide the most units or economic output, but provide for multiple uses of the land in a way that is sustainable over time (Glicksman & Coggins, 2001, p. 190-191). From that point forward, rangeland health, and hence livestock grazing, is one of the five main purposes managed for on national forest lands.

This era also brought about multiple wilderness designations, and the designation of the Hells Canyon National Recreation Area. These designations ultimately resulted in grazing reductions on those lands (See **Wilderness Areas and the Hells Canyon National Recreation Area** section of this document).

The National Environmental Policy Act of 1969 (NEPA) was the next major piece of legislation to make an impact on the grazing community. This act was designed to “encourage productive and enjoyable harmony between man and his environment,” by attempting to promote actions that will not be damaging to the environment (NEPA, 1969, Sec 2). NEPA requires that prior to all major federal actions the governing entity must look at all the possible environmental impacts that would be incurred as a result of the project. This many times entails doing an environmental assessment (EA). From the EA, the entity will either present a finding of no significant impact (FONSI), or they will determine there will be environmental impacts so an environmental impact statement (EIS) will be completed. All reasonable methods of completing the project (alternatives) are evaluated and the entity attempts to make a decision that is best for the environment. Upon choosing an alternative, the entity must provide a record of decision justifying their decision and showing that they gave a hard look at all reasonable alternatives. When federal agencies allow an area to be grazed, for example issuing or renewing a permit, it is considered a major federal action, therefore an EIS or an EA may need to be conducted (Glicksman & Coggins, 2001, p. 220-222). In some cases this results in more restrictions and fewer number of permitted animal unit months (AUMs) (Dunn, 2005).

Recognizing the continued decline of a portion of the nation’s plant and animal species as a result of human activities, Congress passed the Endangered Species Act of 1973 (ESA). The purpose of the act is to provide a means to conserve endangered and threatened species (ESA, 1973, Sec. 2(b)). The act provides for critical habitat designation in order to protect those species. Restrictions are put on many land use activities in areas where there are endangered and threatened species.

The major endangered/threatened species designations that have affected Wallowa County have been the Snake River Chinook Salmon in 1992, the Summer

Steelhead in 1997, the Bull Trout in 1999, and Spalding's Catchfly in 2001 (Williams, 2005).

The 1992 listing of the Snake River Chinook Salmon was the first listing of an anadromous fish in the United States. That put areas with the salmon in the spotlight. Wallowa County happened to be one of those areas (Williams, 2005). The United States Forest Service (USFS) believed they did not have to consult with the National Marine Fisheries Service (NMFS) for ongoing activities such as active grazing allotments. Therefore, following the 1992 listing they did not consult on these activities. Environmental organizations filed a lawsuit over the lack of consultation. A federal judge denied the proposed injunction, and the environmental groups appealed. The 9<sup>th</sup> Circuit Court, on July 29, 1994, overturned the decision putting an injunction on grazing, timber harvest, and road building and maintenance on the Wallowa-Whitman and Umatilla National Forests pending completion of consultation, or at which time the lawsuit was remanded to another court. They called for removal of all livestock by August 15, 1994. Prior to the August 15 deadline, the 9<sup>th</sup> Circuit Court remanded the case back to the original judge who then set a hearing on the proposed injunction for around September 1, 1994. This delayed the removal of livestock from the federal lands until following the completion of that hearing. Do to the large volume of information presented during the hearing the judge continued the hearing until October 31. By October 31, the summer grazing season was over for most permittees, therefore eliminating the need for an injunction. By the end of the hearing the USFS had agreed to complete consultation prior to the next summer grazing season. By this time the winter grazing season had begun, and the environmental groups requested that the winter grazing be enjoined until consultation was completed. The judge felt winter grazing was a different issue and denied the request. By spring, consultation had been completed (Williams, 2005). For more information about the predicted monetary losses to the cattle industry if the injunction had occurred see Dr. Fredrick W. Obermiller's paper *The Local Monetary Costs of Closure of the Wallowa-Whitman National Forest in Wallowa County, Oregon to Domestic Livestock Grazing*.

With the pending listing of the Snake River Chinook Salmon in 1992, Wallowa County attempted to prepare for the potential impacts. Wallowa County and the Nez Perce Tribe began a collaborative effort to create a plan that would manage natural resources and stimulate the county economy in light of the changes to occur (Williams et al., 2002, p. 1). This collaboration led to the creation of the *Wallowa County Nez Perce Tribe Salmon Habitat Recovery Plan* (Salmon Plan). This document covered all lands in Wallowa County including private, state, and federal. The Salmon Plan provides management alternatives on a watershed scale to deal with issues related to the listing of the Salmon (Williams et al., 2002, p. 1). In 1995, Wallowa County, the Nez Perce Tribe, and the U.S. Forest Service signed resolutions to implement the Salmon Plan on all lands in Wallowa County. They also signed a memorandum of understanding granting the Wallowa County Court government to government status with the U.S. Forest Service (Williams et al., 2002, p. 2).

The same year the resolution was passed, the Wallowa County Court (now the County Commissioners) appointed a Natural Resource Advisory Committee (NRAC). NRAC is composed of 20 diverse individuals who advise the County Commissioners on developing projects in the county. The NRAC replaced the more traditional advisory

committees of rural communities such as timber, road, water, and recreation (Williams et al., 2002, p. 3).

The listing of the Summer Steelhead in 1997 and the Bull Trout in 1999 increased the complexity of the fisheries issues related to grazing. The Chinook Salmon listing affected the Wallowa River Complex of streams, the Grand Ronde River, the Wenaha River, and the Snake River. When the Summer Steelhead was listed in 1997 they affected all of the streams listed for the Chinook Salmon plus the Joseph Creek Complex of streams. Then in 1999, the Bull Trout listing affected the upper reaches of all the previously mentioned streams. The combined effect of these three listings is that virtually all of the stream courses in Wallowa County are now overlaid with an endangered species listing. An endangered species listing requires mitigation measures to be incorporated into management activities to ensure these activities are not harming the listed species. This requires increased time and money to get things done (Dunn, 2005). The most challenging of these measures is that cows are not allowed in a pasture that has a stream with redds in the gravel. Steelhead spawn in early spring and the fry come out of the gravel through June. Chinook spawn beginning in August and the eggs stay in the gravel until spring. In this situation some pastures can only be pastured/grazed the month of July. July is usually not the month that you want to be grazing in riparian areas do to the heat. This situation makes it impossible for rangeland managers to manage in an ecologically sensitive manner (Williams, 2005).

One of the most current listings under the ESA is Spalding's Catchfly in 2001. This plant is typically associated with the Palouse Prairie (*Spalding*, 2001). Some of the only known populations are located in Wallowa County. Because of the plant's endangered status, U.S. Forest Service allotment management plans (AMP) that were being developed had to go through consultation with the U.S. Fish and Wildlife Service. This required the completion of a biological assessment, as discussed under NEPA, and a corresponding biological opinion. This process is still in the works, so the final outcome is unknown (Williams, 2005).

The gray wolf has been another listed species that has caused a lot of controversy for the grazing industry in Wallowa County. The wolf was extirpated from much of the West by the early 1900's, and numbers were stressed throughout much of the nation. When the national ESA was enacted, the gray wolf was added to the list of endangered species. Subsequently, it was also listed under the Oregon Endangered Species Act, which was passed in 1987. In 1996, after much deliberation and controversy, wolves were reintroduced into Yellowstone and portions of Central Idaho. This was the beginning of a long crusade still being made by cattlemen in Wallowa County to protect their interests from wolves that could possibly enter Oregon. There is great concern by Wallowa County cattlemen because of the county's close proximity to the reintroduction sites, and the rapid population growth of the packs. This concern is heightened because since wolves are extirpated here they are given endangered status in Oregon regardless of their national status, which is currently being debated. Endangered status provides challenges for ranchers to protect their livestock. Under the ESA it is a criminal act to harm or "take" an endangered species. Ranchers are concerned about economic losses. Many believe there is not enough contiguous wolf habitat to support wolves in Oregon, however, there is much disagreement over this topic. The intense controversy spurred by this topic was one of the main reasons the state of Oregon created the Oregon Wolf

Advisory Committee to work in conjunction with Oregon Department of Fish and Wildlife to create a wolf management plan to go before the Oregon Legislature (ODFW, 2005). A plan was created in 2004 and 2005, and presented to the Oregon Legislature because three changes in Oregon law were needed for the plan to be implemented. The three changes were:

- 1) Changing the status of the wolf from predator (or exotic animal) to special mammal. This would allow for Oregon Department of Fish and Wildlife to utilize some of their budget for management.
- 2) Identify and fund a compensation program for livestock killed by wolves.
- 3) Allow ranchers and farmers to kill wolves caught in the act of killing livestock (Commission, 2005).

The bill didn't make it out of committee. As a result the Oregon Fish and Wildlife Commission voted to amend the plan by removing the three issues not acted upon by Congress. This allows the Commission to implement the remainder of the plan (Commission, 2005).

In 1976, the Congress passed the Federal Land Policy and Management Act (FLPMA). A portion of this act specifically deals with grazing permits and management on federal lands (Glicksman & Coggins, 2001, p. 222). Glicksman and Coggins believe that in some ways FLPMA adds to the security of grazing permit tenure. It gives permit holders priority to renew permits as long as the lands remain available for grazing. It provides that if a permit is terminated to use the land for other purposes the permittee must be compensated for all permanent improvements the permittee made, and must be given two years notice. However, they point out the act also gives more authority to the agencies to make needed adjustments (Glicksman & Coggins, 2001, p. 223). FLPMA encourages multiple uses (Glicksman & Coggins, 2001, p. 228).

The other act that has greatly affected the livestock grazing industry is the 1977 Clean Water Act. This act provides guidelines for regulating point and non-point source pollution into waters of the state. Point source pollution is pollution that can be traced back to a specific source such as a pipe. Non-point source pollution is pollution that cannot be directly linked to a source, such as runoff. Initially the act was focused on large industrial pollution: point sources. As regulation became established, focus was shifted to non-point source pollution. Livestock grazing was considered a source of non-point source pollution. The court case *ONDA v. Dombeck* challenged that status. ONDA felt livestock grazing on federal lands should require a discharge permit (a point source regulation), the same as a factory. The courts determined that nothing as mobile as a cow could be considered a point source of pollution. Runoff (contamination by non-point source pollutions) from livestock grazing does not require a discharge permit. If a stream is listed under section 303(d), it is exceeding safe levels of pollutants; therefore, total maximum daily loads (TMDL) are established for the pollutants in the stream. Different sources are allotted a portion of the allowed pollution under TMDL designations. In Oregon, agriculture, which includes livestock grazing, addresses the TMDL issues through Senate Bill 1010 agricultural water quality management plans.

Recently there has been additional pressure on the livestock industry because confined animal feeding operations (CAFOs) are considered point sources of pollution. Ranchers with CAFOs were following the state Department of Environmental Quality (DEQ) standards for CAFOs. This became a real problem in 2002 when the

Environmental Protection Agency (EPA), from the federal government, launched surprise inspections on producers in northeast Oregon. These inspections were done to enforce the federal Clean Water Act, which has much more stringent requirements than Oregon law. These inspections resulted in up to \$50,000 fines. Since that time, Oregon has responded by passing new legislation that strengthens their laws, and coordinates the inspections through the Oregon Department of Agriculture with EPA oversight. These changes allowed producers to comply with the federal Clean Water Act while being able to continue to work with their state agencies.

The 1992 Northwest Forest Plan which included PACFISH, and INFISH which were developed later, provided directions for management of fish habitat in the Columbia River Basin (*Restoration*, n.d.). PACFISH, derived from pacific fish, is a series of interim strategies for managing anadromous fish-producing watersheds in Eastern Oregon, Washington, Idaho, and portions of California. INFISH, derived from interior fish, is a series of interim strategies for managing inland fish-producing watersheds in Eastern Oregon and Washington, Idaho, and portions of California. PACFISH guidelines come directly out of the 1992 Northwest Forest Plan and concern anadromous fish. In Wallowa County this would relate to the Chinook Salmon and the Summer Steelhead. INFISH guidelines are stand-alone directives that basically bring the same directions, restrictions and guidelines to interior fish, such as Bull Trout (Dunn, 2005).

The livestock grazing industry had another scare in 1994 as a result of the proposed 1994 Range Reform Act. This act would have implemented a multitude of changes in the way the federal lands were managed related to grazing. Within the U.S. Forest Service (U.S.F.S.), proposed changes included:

- Changing the status of livestock grazing from an authorized multiple use to an allowed use. This would reduce permittee rights.
- Eliminate allotment management plans.
- Within the act the U.S.F.S. is quoted as having deep concern for the 27% of rangelands considered to be in poor condition. The act would have given the agency more authority to restrict, alter, or cancel permits.
- The act would have doubled grazing fees. Raising them from \$1.98 to \$3.96/animal unit month (AUM)
- Change in range improvement policies. Ranchers identified the potential for restriction of improvements as a concern.
- The act would have eliminated the 10 year term for grazing permits.

Within the U.S. Bureau of Land Management (BLM) proposed changes included:

- Creation of Multiple Resource Advisory Councils. These councils would be composed of five members, two of which could be non-residents. This raised considerable concern among the ranching community.
- The act would allow non-livestock operators to own permits and not graze lands under the title “conservation use.”

The 1994 Range Reform Act did not pass. It was blocked by the 10<sup>th</sup> circuit court of appeals; only small portions were enacted (Williams, 2005). Nevertheless, it was a huge battle for the livestock grazing industry.

In the early 1990's many allotment management plans (AMPs) were approaching the end of their 10-year lifespan, and therefore were coming due for renewal. The U.S.F.S. and BLM were falling behind in getting new AMPs through the NEPA process

and reissued. Funding and staffing issues were limiting how much could be accomplished each year; particularly with additional work do to anadromous fish listings. There was fear that grazing would be terminated on permits without current AMPs. Therefore the U.S. Congress passed the Rescissions Act of 1995. The Act stated that all grazing permits would continue to be issued under the current/past standards, and allotments managed accordingly, even beyond the 10-year lifespan, until new AMPs could be issued (Williams, 2005).

### **Trends in Domestic Livestock**

Wallowa County's domestic livestock industry has drastically changed over the years. In the early 1900's, Wallowa County supported large dairy cattle, swine, and sheep industries that are almost nonexistent today. These industries have been replaced by a larger beef cattle industry. Since federal land permits are directly connected to private land holdings, many of the trends are similar across federal and private land. Each class of livestock has experienced its own trends. These trends are well documented in the Annual Wallowa County Agriculture Reports and later in the data provided by the Oregon Agriculture Information Network.

### Wallowa County Ag Reports

The Oregon State University Extension Service provides an agricultural agent for Wallowa County, and has for a number of years. Each year the agent puts together an annual report of the status of agriculture in the county. The Wallowa County Extension office has copies of these annual Wallowa County Agriculture Reports starting in 1921. In the late 1960's, early 1970's, the form of reporting changed. So, data collected from 1921-1966 was taken directly from the Agriculture Agent Annual Reports. Data collected between 1960 and 2004 came from the Oregon Agriculture Information Network, who compiles information provided by county extension agents.

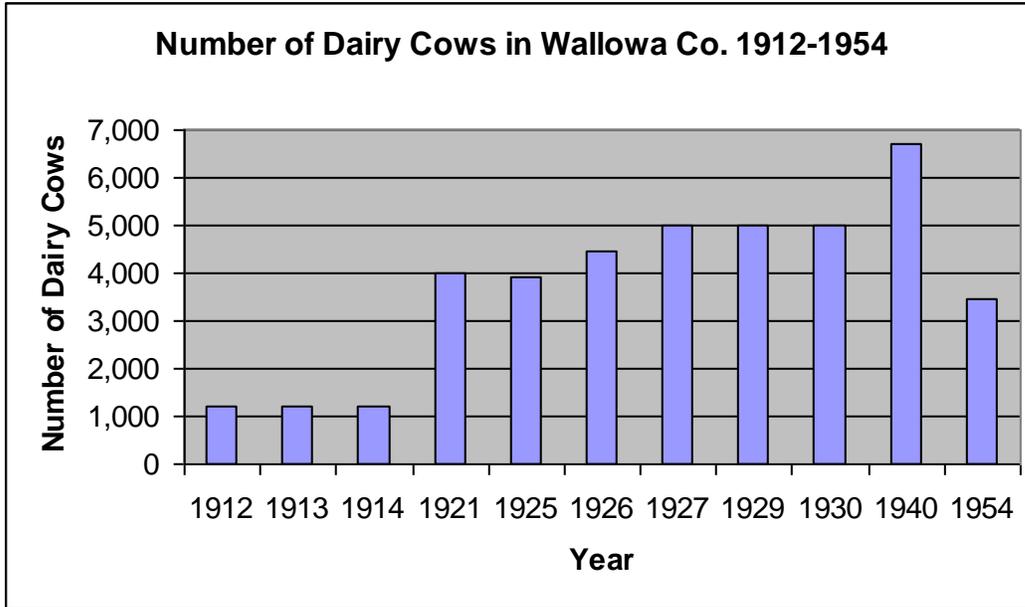
### Dairy Cattle

When the settlers came to the Wallowa Valley nearly every family had their own milk cow to provide for the needs of the family. With the resources available in the Valley, some herds grew over time. The industry saw a boom in the early 1920's, and continued to increase. Agent Donaldson reported, "The number of dairy cows in the county has increased 55% between 1925-1930 according to the Federal Census." (1931, p.35). Wallowa County had a creamery, and provided dairy products for the surrounding area. Cow numbers stalled in the early 1930's as a result of low butterfat prices (Donaldson, 1932 & 1933), but then picked up again reaching a high of 6,716 dairy cows in 1940 (Best, 1958).

Numbers took a dive in the early 1940's as a result of labor scarcity during World War II (Best, 1943). The industry continued to decline because of low cheese and butter prices. The low prices didn't justify expansion of the industry, however, by the early 1950's numbers were beginning to hold their own (Best, 1953). In 1955 County Agent G.D. Best reported that dairy numbers were about half of traditional normal numbers due to lower dairy product prices since war time. Numbers continued to decline until it reached the point where Wallowa County lost the Lewiston market (Best, 1957),

signifying the end of the dairy market in the county. See Figure 10 and Table 2 for the number of dairy cows in Wallowa County between 1912 and 1954.

Figure 10: Dairy cow numbers between 1912 and 1954



Represent approximate numbers in many cases. Refer to Table 2 for numbers given in reports.

Table 2: Dairy cow numbers between 1912 and 1954

Year	# of Dairy Cows
1912	1,215
1913	1,215
1914	1,215
1921	4,000
1925	3,910
1926	4,460
1927	~5,000
1929	~5,000
1930	~5,000
1940	6,716
1954	3,448

Data from various Annual Agriculture Reports between 1921 and 1958.

### Sheep

For many years sheep were abundant in Wallowa County, especially in the canyons. Numbers were already greatly decreased by the early 1920's, from their extraordinarily high peak at the turn of the century when numbers are estimated over 300,000 (Best, 1955). The number of sheep owned by individuals ranged from a few head to large operations with 25,000-30,000 head. Most were grade Rambouillets

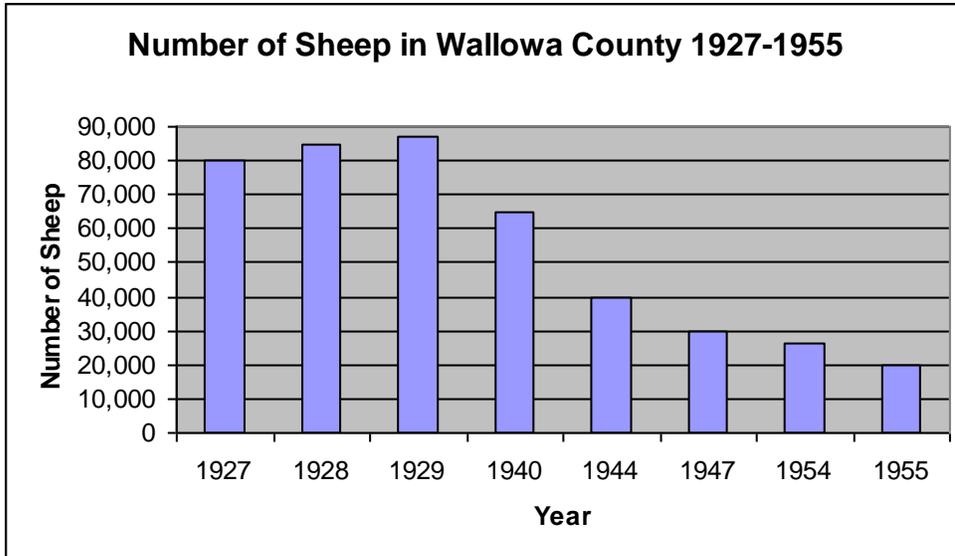
producing wool and crossbred lambs for market (Jamison, 1921). Most were range sheep herds, the remainder were small farm flocks grazed on the irrigated pastures in the valley (Donaldson, 1927). As reported by Donaldson in 1929, “In some cases, forest reserve allotments formerly held for cattle men have been taken over by sheep” (p. 20).

The county wool pool was organized in 1920. The idea was to make a collection of wool from small herds to be sold as group. Initially there was difficulty getting the wool sold, but they were finally successful in 1921 (Jamison, 1921).

The early 1930’s saw low lamb prices (Donaldson, 1930-1933), causing a slow decrease in numbers. This was the beginning of the end for the Wallowa County sheep industry. As the thirties progressed, the United States Forest Service became less favorable of sheep grazing. In 1939 Agent G.D. Best reports, “All during the year there has been dissatisfaction among the county woolgrowers about allotment outs which are being put into effect by the Forest Service. Most of the permittees are members who have run stock for years on the same ranges and their contention is that heavier lambs were turned off this year throughout the county than at any time in their memory, which would indicate that the ranges were in better shape. They also contend that there is very little evidence of overgrazing and that, if the ranges were inspected at a time before the livestock were turned on and in the presence of the permittees in order to see that the whole range was covered, no cuts could possibly have been recommended” (p. 26).

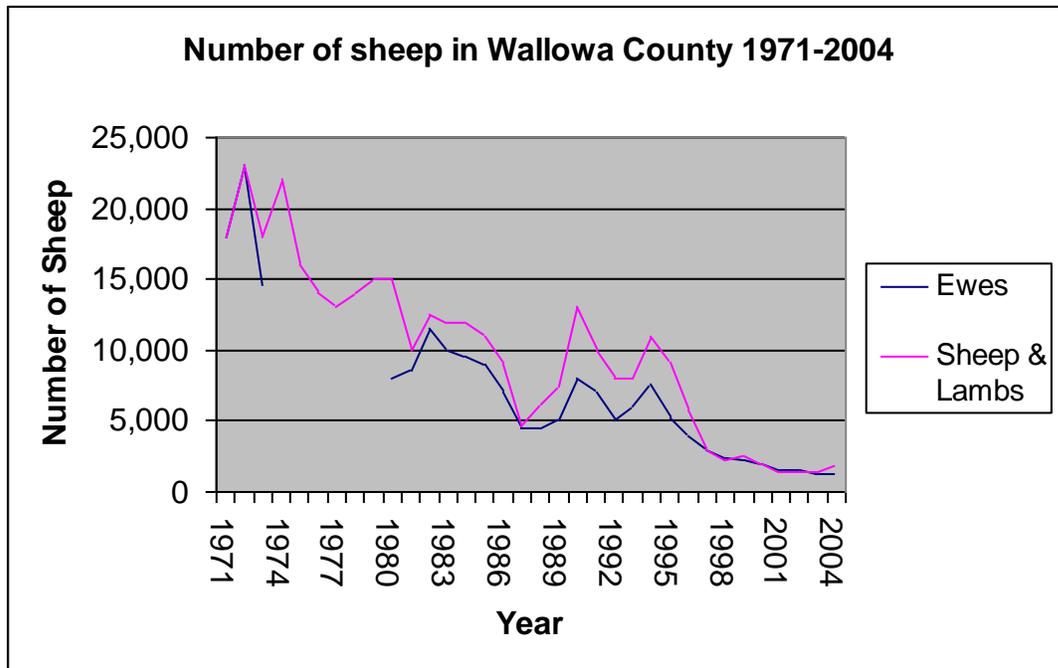
The sheep industry took another hit when the Nation entered World War II. Numbers plummeted largely do to the scarcity of labor and the high costs of running sheep during wartime (Best, 1947, p. 29). This era also signified the beginning of the production of synthetic fiber, which provided competition for wool (McClaren, 2005). Sheep numbers were unable to recover following the war. In his 1950 report, G.D. Best reports, “Sheep numbers in the county are still dropping. Forest service officials have transferred much of the range, which was formerly used by sheep, to cattle permits. Demand for farm sheep, however, has picked up during the past year and numbers are increasing, particularly on the irrigated farms” (p. 29). During this same time period the Imnaha area was also experiencing heavy predator problems (Best, 1951). By 1955 sheep numbers had reached an all time low, having only about 20,000 head of adult sheep in the county (Best, 1955, p.2). In 1958 Best points out that sheep numbers decreased more than 50% in 18 years as a result of increased labor costs. The sheep industry never recovered, numbers continued to decline (OAIN). See Figure 11 for the numbers of sheep in Wallowa County between 1927 and 1955. See Figure 12 for sheep numbers between 1971-2004.

Figure 11: Sheep numbers between 1927 and 1955



Represent approximate numbers in many cases. Data from various Annual Agriculture Reports between 1927 and 1958.

Figure 12: Sheep numbers between 1971 and 2004



Data from the Oregon Agricultural Information Network

### Swine

For many years swine production was a very important industry in Wallowa County. As the number of farmers in the county increased so did the pigs. Pigs were kept to utilize junk grain, or in some cases they were the only way to get the grain to market (Jamison, 1921). In the book *About Wallowa County: people, places, images*, edited by Ellie Belew, Mary Louise Carlson relates, “In the late 1890’s Raymond Moore

raised hogs. They ran loose. When fall came, he would take them to market by leading them, a common practice then. He would fill a wagon with feed, scattering feed behind, and the hogs would follow, eating all the way to market... a two-day trip to Enterprise” (Belew, 2000, p. 82). In the same book Gene Thiel talks about hog drives. According to Thiel, ranchers placed grain strategically along the trail to lure the pigs to market. They sold their grain in the form of pork. Pig drives originated from Lost Prairie, Promise, Flora, Eden, and the Grouse Flat areas. “The hogs on the north side of the Grande Ronde River usually went to Clarkston and Lewiston. The hogs to the south and east usually went to shipping yards in Enterprise” (Belew, 2000, p. 132-133).

In 1921 there were an estimated 15,000 hogs in the county. The animals were in high demand, and the number was expected to increase (Jamison, 1921). Wallowa County quickly became the largest hog-producing county in the state (Donaldson, 1927), and kept the title at least through 1931.

In his 1927 report, Agent Donaldson states, “In the country lying north of Enterprise where the farms are a long distance from the railroads farmers market most of their grain through their hogs. This section is a dry farming section and wheat is their main crop. Very little of the grain is sold directly, most of it going to market in the form of pork. In the irrigated sections of the county practically every farmer raises hogs and as a result this county puts a large number of hogs on the market each year” (p. 19).

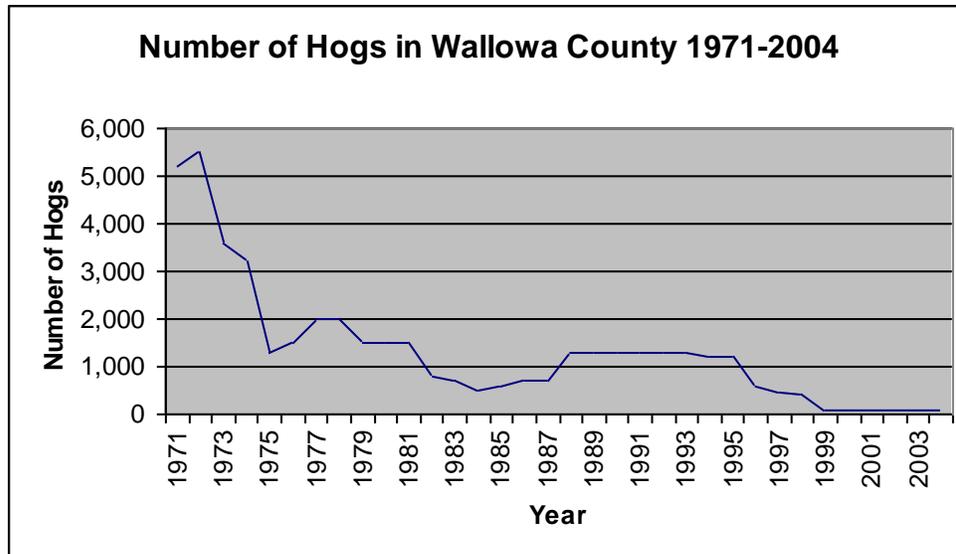
Around 1929 Donaldson notes a shift in marketing techniques. He says, “With the increase in the number of trucks and with good roads, this custom [of moving grain to market through hogs] is changed somewhat, and farmers from the outlying sections are hauling more of their grain direct to market. This has resulted in a decrease of the number of hogs being produced in some of the dry land sections of the county” (p. 20).

The swine industry saw some hardship in the 1930’s. Low grain production resulted in retention of almost all hogs from 1931 until the 1932 grain crop was available to fatten the hogs. Low hog prices resulting in declining quality of animals (Donaldson, 1932). 1937 marked the beginning of disease problems for the industry. The county suffered severe loss due to worms, Erysipelas, Necrotic Enteritis, Chronic Cholera, and other disease. Sanitation issues were identified as the main problem. When procedures were taken, health improvements were seen (Best, 1937-1943).

The industry suffered another blow as a result of World War II. In 1945 G.D. Best reported that hog production was down to approximately two thirds of normal. “Part of this is due to lack of labor and part to the fact that the farmers have felt they could make more by putting their feed through beef cattle than through hogs.”

Numbers were unable to recover following the war because of the spike in grain prices. It was no longer economical to deliver grain to market in the form of pork. Therefore, producers moved toward cattle because they can utilize more hay (Best, 1950). This, compounded by low pig prices, resulted in numbers reaching an all time low by 1953. Best reported in 1958 that hog numbers had decreased more than 50% in 18 years. By 1959, Agent Cornett estimated only 1,800 brood sows remained in the county, and numbers continued to decline. See Figure 13 for hog numbers in Wallowa County between 1971 and 2004 (OAIN).

Figure 13: Swine numbers between 1971 and 2004



Data from the Oregon Agricultural Information Network. No firm numbers available prior to 1971. However, it is reported in the Wallowa County Annual Agriculture Reports that Wallowa County was the largest hog producing county in the state for several years prior to 1971. It is very plausible that the number of hogs was considerably higher than anything represented here. One indicator is the number of hogs shipped through the Wallowa County Marketing Association between 1928 and 1951. Refer to Figure 15.

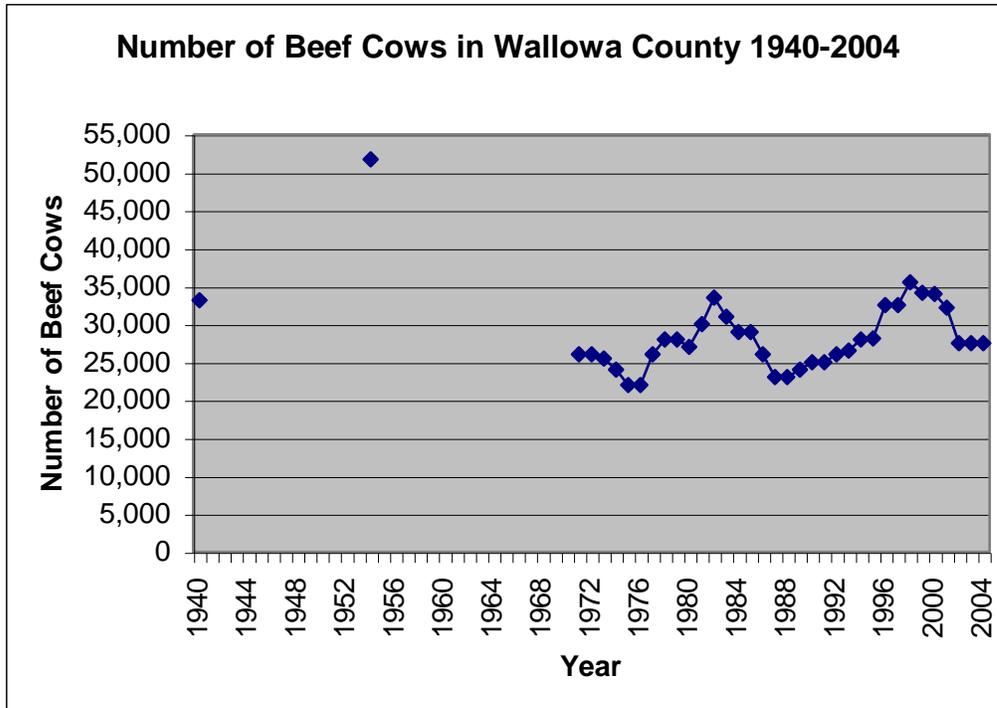
### Cattle

Early in Wallowa County’s history, cattle numbers were relatively low. In the mid 1920’s the number of cattle reported in the county was around 19,000 head (Donaldson, 1927 & 1928). In his 1929, Agent Donaldson reports a reduction of beef cattle to approximately 16,000 head. He explains that, “The past year has seen considerable reduction in the number of beef cattle in the county. Many cattlemen have taken advantage of the good prices obtained for beef cattle and have sold off, in some cases, their entire holdings... It is doubtful if there will be much increase in this number, as much of the pasture formerly used by the cattle has been turned over to sheep men” (p. 19). He also points out that “It [was] not unusual to market cattle from this county which [had] never been on a feed lot.”

The cattle industry seemed to benefit from the troubles of the other industries in the county over time. When labor became scarce with the onset of World War II, producers tended to get out of sheep, dairy, and swine production and get into the beef cattle industry. Beef cattle required less manual labor than dairy and sheep, and could utilize lower quality feeds than swine. Between 1940 and 1954 the number of beef cattle in the county increased by approximately 18,550 animals (Best, 1958). See Figure 11.

While prices and the number of cattle have fluctuated over the years, the cattle industry has persisted as the dominant livestock industry in Wallowa County. See Figure 14 for the number of beef cows in Wallowa County between 1940 and 2004.

Figure 14: Number of beef cattle in Wallowa County 1940-2004

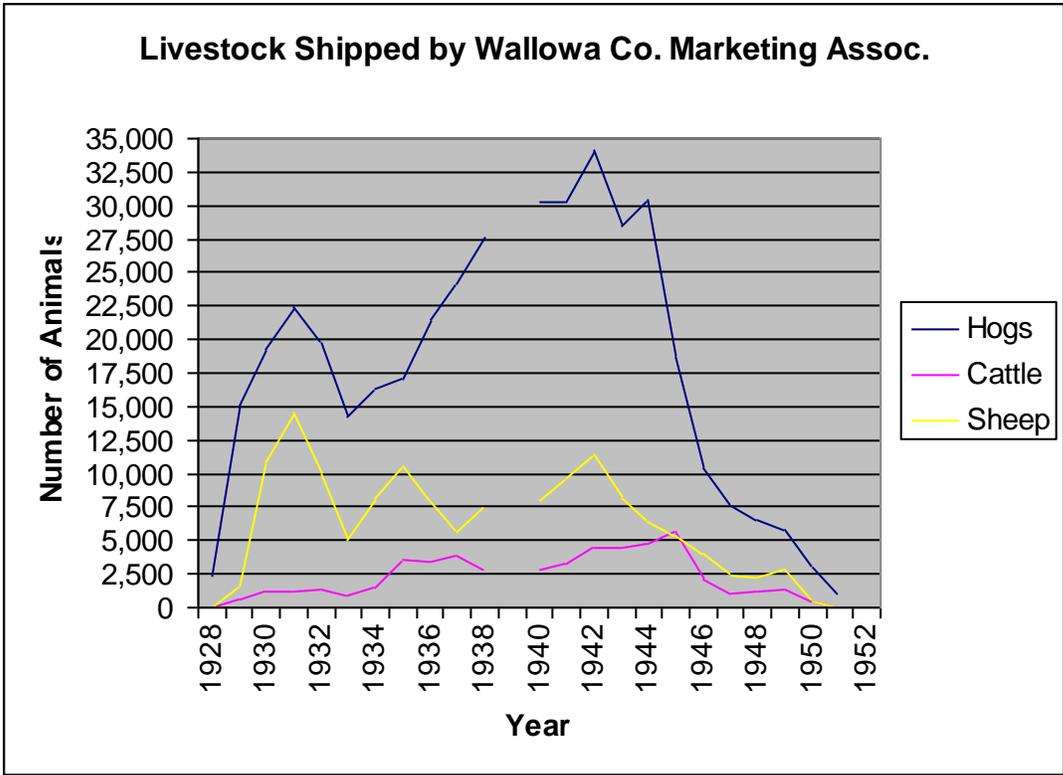


Data from the Oregon Agricultural Information Network and Wallowa County Agriculture Report for 1958.

Long Term Trends in the Wallowa County Livestock Industry

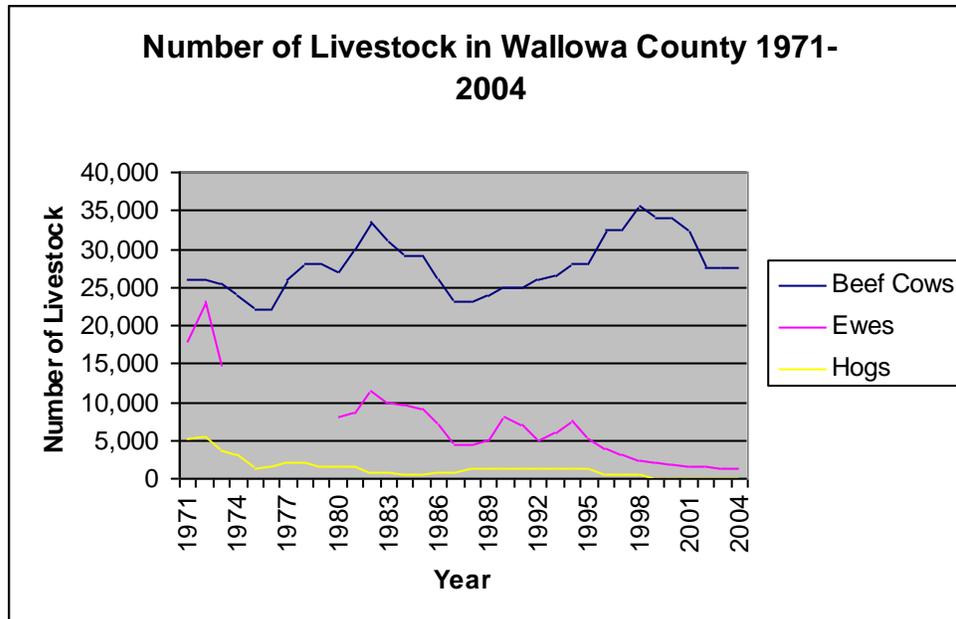
To attempt to show long term trends in Wallowa County’s livestock industry, Figures 15 and 16 show beef, sheep, and swine numbers on the same graphs.

Figure 15: Livestock shipped by the Wallowa County Marketing Association 1928-1951



These numbers do not represent the total number of animals in the county. They only represent the number of animals shipped by the Wallowa County Marketing Association. However, they do accurately depict the ratio of each species in the county. Data was collected from the Wallowa County Marketing Association reports in the Wallowa County Annual Agriculture Reports for 1921-1955. Numbers for the late 1920's and early 1950's may not accurately represent the industry trends. These years represent the beginning and end of the Association, so participation by producers wasn't consistent.

Figure 16: Number of livestock in Wallowa County 1971-2004



These are the numbers as reported in the Oregon Agriculture Information Network Data Entry County Report – Summary and Detailed: Wallowa County.

### Ecological and Resource Use Observations

One of the best sources of information concerning ecological change and resource use can be the individuals who have spent their lives working with the land. They can provide us with personal observations and oral history that may not be found any place else.

Mack Birkmaier’s family has ranched in the canyons of Wallowa County for many years, specifically the Crow Creek and Swamp Creek areas. Mr. Birkmaier was born in 1931, and remembers some of the aftermath of the homestead era. He relates that during the homestead era, every piece of land on creeks had someone living there. Everything was plowed to meet homesteading requirements. Many creeks were utilized until they were dry because everyone was trying to irrigate some piece of land. People had to sustain themselves. That required a lot of livestock and land. Every family had workhorses, packhorses, travel horses, pigs, and milk cows. These animals were kept around the house for easy access, and in the riparian zones because animals need water. By today’s standards, the resources were over utilized, but it was done to stay alive. Over utilization was seen all across the landscape, from uplands to riparian areas (Birkmaier, 2005).

Mr. Birkmaier has seen drastic recovery of the land since over utilization. He said that when the homesteaders got done with the land it was almost black because it had been grazed so hard. Many pastures would have 30-40 horses in them. He has personally experienced the recovery of Crow Creek and the Zumwalt area. He says that today you can’t tell the land was overgrazed to that extent. Birkmaier maintains that healing of the land happens. The land isn’t as fragile as some believe. In the long term, the land is resilient.

Mack believes that up until the 1950’s the land was logged too hard, and maybe grazed too hard. However, he points out that at the same time cities and towns were

dumping sewage and chemicals into the rivers, and polluting the resources. Pollution was so bad rivers were burning in the Eastern United States. He stresses that everyone hurt his or her environment during that time period. The environmental movement did a lot of good for the health of the land, to try and reverse these adverse effects. However, he believes it has gone too far. Today, large quantities of time is spent fighting (Birkmaier, 2005).

Jack McClaren also talks of over utilization of the land. He attributes past land use decisions to lack of understanding about what the carrying capacity was for the land in the county. He says once people saw what was happening they learned from previous mistakes and instituted permit number reductions. Some producers cut back voluntarily, and cut back on their private land because they recognized the importance of restoring and maintaining ecological health (McClaren, 2005).

Mr. McClaren feels the large concentrations of sheep had the highest impact, specifically areas such as shearing areas and laming areas. He says lambing areas can still be seen in the canyons. When laming a herd, the herder would lamb out a certain number in one area then move on with the unlambed ewes. It was referred to as "leaving the drop." This would continue until the whole herd was lambbed out. This method resulted in several drops. As the drops aged, they would be bunched into bands (McClaren, 2005). This method of laming was very labor intensive. At one time the McClarens had 20 men working for them to herd the ewes and lambs. (McClaren, 2005)

Nevertheless, while Mr. McClaren recognizes livestock impact the land, he feels there are multiple reasons for ecological change and succession; including but not limited to grazing. Once the land has undergone change, it takes a long time for it to recover (McClaren, 2005).

Ried Johnson also points out the impact of large numbers of sheep on the landscape. Mr. Johnson recalls that between 1918 and 1922 as many as 20,000 sheep were brought from the eastern portions of the county to his dad's property in Wallowa for shearing. The sheep would graze on their way in and on their way out. Many areas were overgrazed. The Wallowa foothills, which were hit the hardest, were historically bunchgrasses like bluebunch wheatgrass with very few trees. They would trail the sheep along these foothills. In some places trails can still be seen today. Mr. Johnson says the bluebunch wheatgrass never fully recovered (Johnson, 2005).

Arleigh Isley relates similar accounts of homesteading and land recovery. He also relates large numbers of animals in riparian areas close to the homesteads, and the subsequent recovery of the land with livestock number reductions. Mr. Isley also relayed information concerning wildlife populations. Arleigh remembers being young and spending time on Big Sheep Creek. At least twelve families including the Isleys, Birds, Butlers, and Turners, would go salmon fishing in the summers. They would gaff the salmon at night, eat what they could, then can the rest for winter. This was common practice for the families along the Imnaha in the 1930's (Isley, 2005).

Mr. Isley also discussed large game. He said that at that time period in Wallowa County, if someone saw a deer or elk TRACK people talked about it. Big game was very rarely seen. With the introduction of 1080 for predator control, populations were able to recover. This form of predator control was used until it was made illegal under the Nixon administration in 1972 (Isley 2005). Nevertheless, the effects of increased wild game herd size are still seen today. Mr. Johnson reports that the elk daily come into the

outskirts of Wallowa around 4:00 pm. The elk get into the hay and grain fields, impacting the crops. The latest count was over 300 head. The elk herds are also affecting the rangelands. They move into areas that ranchers are saving for grazing later in the season. The loss of crops and forage is compounded by the fact that elk are very hard on fences, which costs producers time and money to repair. According to Johnson, the elk herds are challenging people's livelihood (Johnson, 2005).

Mr. Isley has also done extensive research of journals written by early mountain men, explorers, and pioneers who settled the Intermountain West. Upon reading these journals, Arleigh found the ecological descriptions differed from current conditions. One of the major contributors to this change identified by Mr. Isley was the change in fire frequency. Fire maintained open savanna and grasslands in the system by suppressing woody vegetation. According to the journals much of the area was unforested, which is characteristic of a fire regime. To further investigate the ecological change, Arleigh walked the pioneer route between Elgin and Pendleton in 1996. He increment bored a large number of the oldest trees along the route. The average age of the trees was 127 years. This verified his research in journals stating that the land was more open grassland type ecosystems. The Wallowa-Whitman was a similar system, so it could be possible that it underwent the same transformation (Isley, 2005).

Mr. Isley believes this change in fire regime has had a serious impact on the herbivore carrying capacity of these lands. He says the available forage would have been 3.5 times the current amount when canopy was open versus today. This assertion is supported by a study conducted by Walburger, DelCurto, Vavra, and Clark at the Eastern Oregon Agriculture Experiment Station (Citation in references). Higher available forage would have sustained large numbers of livestock. Arleigh supports Burkhardt's theory that the collapse of Pleistocene megafauna meant that the introduction of domestic livestock at the end of the ecological collapse filled the void left by the elimination of the buffalo, making fire the dominant factor resulting in ecological change (Isley, 2005).

According to Isley, brush and timber/ woody vegetation encroachment has been attributed to livestock. However, he believes the removal of fire from the system was the real problem (Isley, 2005). Birkmaier concurs with Isley that more thickets, and trees taking over the north hills as a result of no fire has reduced available forage, therefore reducing the amount of grazing (Birkmeir, 2005). Johnson stated that proper forest management can enhance forage for grazing. He also relayed that the foothills around Wallowa has seen a dramatic increase in trees. He said in 1945 the only trees were in the draws, the ridges were bare. Today, trees cover much of the area. The area has been helicopter logged twice, and all the trees seen now are volunteer (Johnson, 2005).

Isley also believes that when the white man did start to see the value of fire they didn't learn from the natural system. White man began burning areas in the spring after the thaw. This is very detrimental to some plants, especially bluebunch wheatgrass and Idaho Fescue: the main forage species. In the spring there is high soil moisture, and roots have absorbed large quantities of water. Spring fire burns the top of the plant off then heats the soil moisture scalding the roots. The combination is damaging to the plants (Isley, 2005).

Isley also points out that natural fire burned in the fall and continued to burn through until winter. Fuel loads were low so the fires were less catastrophic and cooler than

today. These fires would only affect the top dormant part of the grass plants, leaving a 1-2 inch crown and the roots unaffected (Isley, 2005).

The other factor Isley believes contributed to the increase in shrubs is the removal of browsing livestock such as sheep. When the class of livestock changed from a majority of sheep to a majority of cattle shrubs increased. Isley believes sheep had been good shrub regulators in the place of fire (2005).

Another issue of concern to ranchers is the status of the fish in the county. A serious reduction was noted in fisheries following World War II (Isley, 2005). A large amount of pressure and blame was placed on the livestock grazing industry. Mr. Birkmaier said he has always questioned the link between the fish issues and grazing. In his experience there was never a shortage of Steelhead under the over utilized conditions of the early 1900's (Birkmaier, 2005). Isley found it interesting that the reduction began and continued following reduced grazing pressure (2005). Nevertheless, it is recognized that stream habitat and spawning area health is important. However, it initiates the discussion of other factors that may have contributed to the fisheries decline. Ocean conditions and construction of dams are alternative or compounding factors brought up in discussion. Animals need high levels of nutrition in adolescence and during reproduction. Salmon are in the ocean during adolescence. If ocean conditions were unfavorable it would cause stress to the young fish increasing mortality. Salmon numbers were noted to be higher following years of good ocean conditions. Over fishing on the coast was also very prevalent at the time, as well as the use of fish wheels (Isley, 2005). To compound the problem, this was also the era dams were constructed on the Columbia River, making passage more difficult.

Catastrophic fires are also believed to have a negative effect on the fish populations. Fires cause pollutants to enter the water. Ash smaller than 10 microns sticks to the gills of the fish causing chronic health problems for the fish. Potassium from the ash of the burnt wood also causes problems by increasing the pH of the water creating a more alkaline environment than is healthy for the fish (Isley, 2005).

Mack Birkmaier concurs with Isley concerning the resiliency of riparian areas and concern for their current state. Birkmaier describes the healing ability of riparian zones as remarkable. He says they have been the hardest hit areas, and today you wouldn't know they were so over utilized. He also believes that today's conditions in riparian areas are having a negative effect on ecological health. A lot of forage in those areas is not being used, and therefore creates a fire hazard. He goes on to explain that in its natural condition the riparian zones provided a firebreak because there was water and green vegetation. Today it is loaded with fuel and ready to burn (Birkmaier, 2005).

### **Current Situation**

Change is inevitable. As with anything, the livestock industry has had to adapt to survive. The number of animals grazed in Wallowa County has greatly decreased in the last 100 years, and the class of livestock being grazed has changed. As a whole, the industry has become more ecologically friendly as new management techniques are learned and more is discovered about the natural processes on the land. New challenges continue to arise, specifically in the political arena.

The U.S. Forest Service, the main land management agency in Wallowa County, manages approximately 536,000 active acres of rangelands out of the Wallowa Mountain

Office. On these acres there are 37 permittees running livestock on 54 active allotments. Within these pastures there are a total of 319 pastures; 182 of which contain fish listed under the Endangered Species Act at least during some portion of the year. Listed fish are not the only challenge for land managers and permittees. They must also deal with two listed plants, National Environmental Policy Act analysis, funding and labor to make improvements such as fence repair, the remoteness of the allotments, and the limited Forest Service personnel to get the job done (Smergut & Smith, 2004).

The number of animals grazed on private land has also decreased with time. Some of that is due to economics. Other factors include that base property (private land) is connected to federal permits, therefore federal stocking rates somewhat dictate private land stocking rates; and operators have learned about carrying capacity and are working to stock their land at a sustainable level.

Over the last 100 years there has been a shift in the types of livestock raised in the county. In the late 1800's and early 1900's many of the producers raised sheep. There was also a healthy dairy and swine industry in the county. As labor became short, transportation more available, and markets changed, the most economical choice became beef cattle. Today the beef cattle industry dominates in the county.

Along with attempting to stock the land at a sustainable rate, there have been a series of rangeland improvement projects in the county, especially in the past 50 years. There has been focus on revegetation, encouraging animal movement, and water developments. To give an idea of the magnitude of these projects, over \$12 million has been spent on watershed improvement projects since 1992. There is also an effort to control noxious weeds that have moved into the area. As with goatweed, other weeds area easily transported; especially as there were advances in transportation technology. Animals and machinery often inadvertently carry seeds that spread weeds (Johnson 2005). Among the most problematic weeds in the county are knapweed, scotch thistle, and yellow star thistle (Johnson, 2005; McClaran, 2005). Today there is a county wide effort to control noxious weeds that educates the public, uses chemical control, and is continuing an effort to use available biological control methods that become available for problem weeds.

Many of these projects could not have been completed without the collaborative efforts that Wallowa County is well known for. Do to the significant amount of collaboration that has been occurring Wallowa County agencies and private entities have been able to accomplish things that would not otherwise been possible. A great example is the efforts on Swamp Creek.

Ex: Swamp Cr. Story --- Rod—still continues today

The bottom line is that the grazing community is resilient. Grazing continues to be a major part of the Wallowa County economy and social structure. The livestock industry still produces approximately 50% of the agricultural money in Wallowa County. Agriculture accounts for approximately 19% of the county's income.

U.S. Forest Service lands are still a very important part of the industry. Over 2/3 of all cattle in the county still graze on some form of federal grazing permit, and permits are still utilized as part of the base price of a cattle ranch in Wallow County; even though there is concern about the tenure of these permits. Regardless of the fact that land tenure is not as stable as in the past, there is still over 60% ownership of cattle operations that is at least two generations old (Williams, 2005).

There is question about the future of ranching in Wallowa County. In some cases there is a disappearance of young people today. It is hard work, riddled with tough decisions, and unpredictable weather (McClaren, 2005). Some of the canyon lands are seeing a shift of ownership from family ranches to corporations or wealthy individuals looking for reinvestment opportunities (McClaren, 2005). Nevertheless, operators are holding on to the fact that country is still going to need beef in the future. They realize they will have to continue to work harder to make a living. Many are trying new marketing techniques, attempting to put themselves in a niche market. For example, many people are becoming involved in organizations like Oregon Country Beef, Western Ranchers Beef, and Oregon Trail Beef that make their product unique; whether it be because animals sold through their organization or cooperatives are natural, organic, or just meet a higher level of quality assurance. Change is inevitable, but with the perseverance that Wallowa County stockmen have shown for over a century, the livestock industry will continue to be a major part of Wallowa County's economy and community.

### **Extra Random Information**

The reservations covered much of northern Wallowa County. This action caused conflict not only because it withdrew land from homesteading, but because there were many homesteads already established within the reservation. Settlers waited to be bought out by the government, or attempted to cut their losses and sold to other settlers (Bartlett, 1984, p. 44).

- Winter of 1933-1934 was very mild in the county (Tucker, 186)
  - 1940 The Starkey Experimental Forest and Range was established in the Wallowa-Whitman National Forest near La Grande (Mitchell et al, 2005)
- 1888-1890's Tough Winters (Isley, 2005)

1880-1881 Winter severe (Reid, 1985)

- Sheep began grazing Wallowa Mountain grasslands in the 1880's and numbers rapidly increased (Reid & Johnson, 3)

- 1985-1992 represented a drought period in this area (Johnson, 24).

1929-1939 The Great Depression

The NRA's, Wilderness areas, environmentalist pressure, CWA, ESA etc have all caused a reduction in grazing. (Birkmaier, 2005)

1939 Kuchler Vegetation Map of the United States

- Shows forests vs. grass/savannas
- Grazing was blamed for changes from grasslands to forest lands
- However people used to plant forest lands then graze livestock in the areas and the livestock would destroy the trees

- This contradicts the idea of the time that livestock were responsible for the increase of trees (Isley, 2005)

1940

- 1940 known as the year of rainfall. Rain started in September and the total reported for the month was 4.75 inches. The prior 10-year average was 1.07 inches. It continued to rain through October and nearly all spring. Many spring wheat fields sprouted and couldn't be threshed (Tucker, 215).

1948

- Winter 1948-1949 was very severe. Subzero temperatures for many weeks. Large ice jams on the Grande Ronde River blocking it in many places. No mail to Troy for fifteen days. ~80% of the deer on the Snake R. died according to reliable estimates (Tucker, 222)

1951

- 1951 "highest water in the Snake R. in the memory of the oldest residents." (Tucker, 224)
- Horses are good about eating the heads off thistles – with decreased horse numbers there was an increase in thistle numbers – thistles became a problem
- Huckleberries were very prevalent until sheep were gone
  - Summer time sheep were grazed in huckleberry areas – resulted in pruning of the bushes
  - Climate could be a relationship
  - Did fire play a role before sheep? (Isley, 2005)

ODFW put in the enclosure on Elk Creek approximately 20-25 years ago. (Birkmaier, 2005)

- These were the first ones
- Gave them the ground for 15 years
- BPA funds (Birkmaier, 2005)

1986 Over 60,000 acres of Forest Service lands in northern Wallowa County burned (Isley, Shaping the views paper)

1988 Tepee Butte Fire in Northern Wallowa Co. burned over 60,000 acres (Isley, Shaping the views paper)

1989 Canal Fire

- Hasn't revegetated
- Quick revegetation is needed to prevent erosion etc
- This can be done with cereal grains. Then graze the cereal grain mantel for next year. The following year seed with native grasses then graze and the natives will grow – agronomics Grazing doesn't hurt the cereal grains, and works the seeds into the ground
- Important to rebuild organic matter into the topsoil
  - When the area burns most of the organic matter burns too
- It takes a period of time for native plants to come back

- Must redevelop the soil/system before they can recover
- Pioneering plants first (Isley, 2005)

The NRA's, Wilderness areas, environmentalist pressure, CWA, ESA etc have all caused a reduction in grazing. (Birkmaier, 2005)

I asked Mack's opinion on the ecological effect of removing sheep from the grazing system, therefore having less diversity of livestock classes.

- Sheep and horses were very hard on the ground in Mack's childhood. Bad grounds turned into weed flats. (Birkmaier, 2005)
- From a labor standpoint, beef are better for management. They allow more time for haying and farming
- Sheep are better suited for steep ground
- Predators had a lot to do with switch to cattle. Coyotes would get the sheep. Stockmen would hunt the bear and cougar, but the coyotes were horrible. Today sheep wouldn't make it on the forest. (Birkmaier, 2005)

Fortune Telling "where are we going?"

Predator Eradication then Protection

Alternative W

Land ownership patterns and shifts / demographic change and how affected grazing

Ex) today more large absentee owners and ranchettes

Change of grazing permit tenure – shift of rights/ evolution of grazing permits

Theresa, Ken Evans, Arleigh Isley

What Arleigh Remembers from Personal Experience/Observations

- LOTS of wild horses when he was young

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