Taking Shelter from the Rain:

Exploring Trailside Shelters in Olympic National Park

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by Adeline Wisernig

A Terminal Project
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Cover photo: Wolf Bar Shelter circa 1937

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Innumerable thanks to my supervisors, crew leads, and co-workers over the years who had the patience to teach me the tools of the trade and let me go after it, ask countless questions, and learn my way through the mistakes. You've all taught me more than I can say here.

And thank you to my parents and my brother for all the support, in all ways, through all the adventures, including this one. With love.

Dedication

To all who labor out of passion and curiosity.

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Introduction

"If we allow ourselves to believe that nature, to be true, must also be wild, then our very presence in nature represents its fall. The place where we are is the place where nature is not…To the extent that we celebrate wilderness as the measure with which we judge civilization, we reproduce the dualism that sets humanity and nature at opposite poles. We thereby leave ourselves little hope of discovering what an ethical, sustainable, *honorable* human place in nature might actually look like."

–William Cronon, *The Trouble with Wilderness or, Getting back to the Wrong Nature*

Trail crew is, among other things, about telling stories. Here's one of mine.

I went to the woods to walk. I put a backpack on that was far too heavy filled with way more than I needed and walked for 25 or so days. I lost track. It is outside of the scope of this project to detail in full what happened during those days, but along the trail, I crossed bridges over rivers and got my boots wet in the creek. I hung my food bag from the branches of an old growth Doug fir and slept under cedar boughs. I passed mountains whose glacial waters cascaded over stones into pools in which I washed the sweat off my body. I saw mountain peaks and deep forest valleys, ate the tastiest blueberries, and got terrible blisters. I had my first understanding of the wild.

Along the same trail, I followed signs that led me where I was going and nearly lost my way where the Devil's Club and thimbleberry made the trail imperceptible from the forest. I got lost. When I thought I was most alone, I came upon the shape of woman carved into a snag at what once was an old miner's camp so far in the middle of the woods, I couldn't understand how any of the old rusty machine artifacts had made their way there. I watched the sunset from the porch of an empty fire lookout and ran into a trail crew building a set of stairs in the middle of the forest. I asked them about their job.

A year later, I returned to the woods to work.

I include this anecdote because I think the only way to know where you're going is to understand where you came from. I began working for the National Park Service in 2017 after two years of AmeriCorps service. Trail crew. As a Washington Conservation Corps member, I learned about backcountry carpentry by shadowing the Olympic National Park (the Park) crew restoring a ranger station built in the early 1930s by the Civilian Conservation Corps. There, I found a passion for what I later learned was historic preservation and pursued it since.

This is where the trailside shelters enter the story.

Along with a few guard stations, I have played a small part in preserving a couple of trailside shelters that stand throughout the Park. Admittedly, in my first year, I did not know much about their history and original function or that there once were upwards to a hundred of

them throughout the forest. Only 19 dot the landscape now. A sign inside many of them reads "Emergency Use Only" so, like most who are passing by, I figured they were there in case your tent somehow washed away, and it was raining as per usual in the rain forest.

What I did know was that each one was constructed decades ago—as evidenced by the many years of names carved into their logs and the tight, albeit worn, joinery—and that many mornings when returning the job site, there was sign that someone had been sleeping in or around the shelter. Visitors ate their lunches under their roofs and took pictures with the buildings. Others, however, told us we should let those old things collapse or get rid of them all together. That they have no place in wilderness.
It's complicated.

This terminal project was born out of my desire to reconcile my advocacy for historic preservation and my love for wild lands. I have come to understand that this conversation is a long held one. Since the Wilderness Act of 1964 and the National Historic Preservation Act of 1966 were passed, this debate has played out in numerous National Parks resulting in lawsuits and public debate. What I have learned is that the culture that the built environment represents and "wild" nature are not mutually exclusive. The two aspects are intricately intwined and defined by one another. Designated Wilderness is itself a cultural concept. Human history and our impact *are* nature. Making critical decisions on how, what, and when to preserve those impacts becomes the telling of our heritage, our legacy.

This project investigates the trailside shelter network in Olympic National Park in effort to maintain their historic integrity in the landscape of Olympic National Park. If nothing else, if they are lost to the forces of nature or the will of people, this may be but one clue in the telling of their story. While the conversation regarding the legal issues surrounding the maintenance of the shelters will inform the history of management philosophies in the Park in Chapter II, it will not be the primary focus of this project.

Instead, this project chronicles the network of shelters from their construction as fire monitoring resources under US Forest Service to largely recreational use under the National Park Service in the mid- 20th century to their current use in Chapter I. Chapter III outlines construction details of the four common types of shelters built during distinct eras as well as the evolution in the methods of construction used. In the fourth chapter, the historic trail network in Olympic National Park will be explored from a cultural landscape perspective. In Chapter V, this project will provide short- and long-term treatment recommendation for the Park to consider when managing these resources.

A note—this project is focused specifically on the trailside shelters within the boundaries of the Park. Several shelters continue to stand on Olympic National Forest land today and are in no way any less a part of the network originally constructed. However, for the purposes of this project, I had to narrow my focus to one land agency.

While their function and use have evolved over their decades of management, the trailside shelters are an integral part of the history and development of what Olympic National Park is today. They provide insight into the broader patterns of changing management and development of the Park as well as the architectural conventions of construction during those early eras of public land agencies. A dry place in the rainforest. Beyond this, they are markers in the landscape of our human presence within the Wilderness and a reminder of where we came from so that we may make well-informed decisions about where we are heading.
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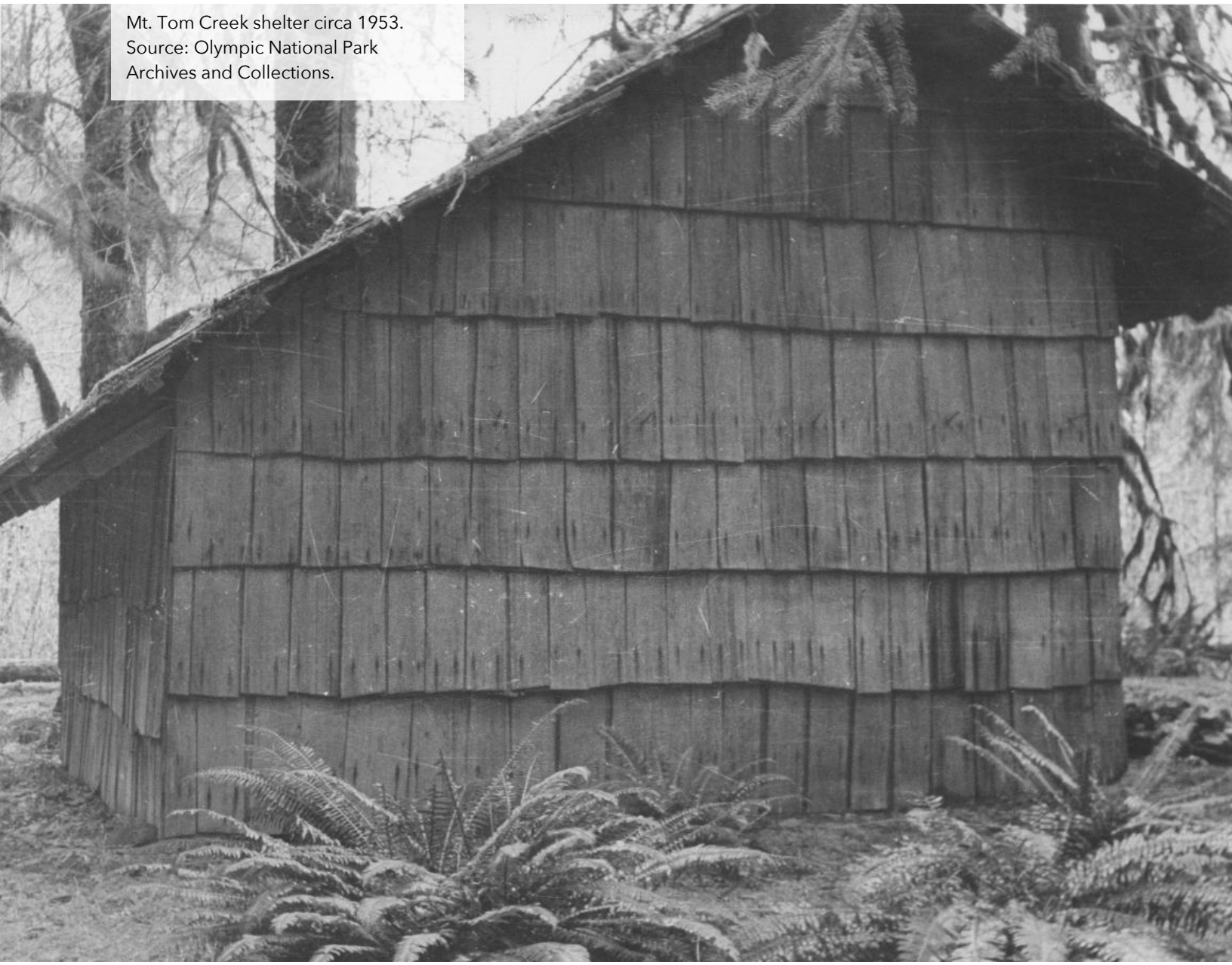
The Olympic National Park trail crew performing preservation maintenance on Fifteen Mile Shelter in the Bogachiel Valley in 2022. Park backcountry carpenter lead, Cascade Hahn, pictured center, trail maintenance worker Ian Nickle pictured left, and trail maintenance worker and author, Adeline Wisernig, pictured right. Photo by fellow trail maintenance worker, Charles Koehler.

Chapter I:

Historic Context of Trailside Shelters in Olympic National Park



Mt. Tom Creek shelter circa 1953. Source: Olympic National Park Archives and Collections.

Map of the Olympic Peninsula including Olympic National Park. Source: National Park Service.
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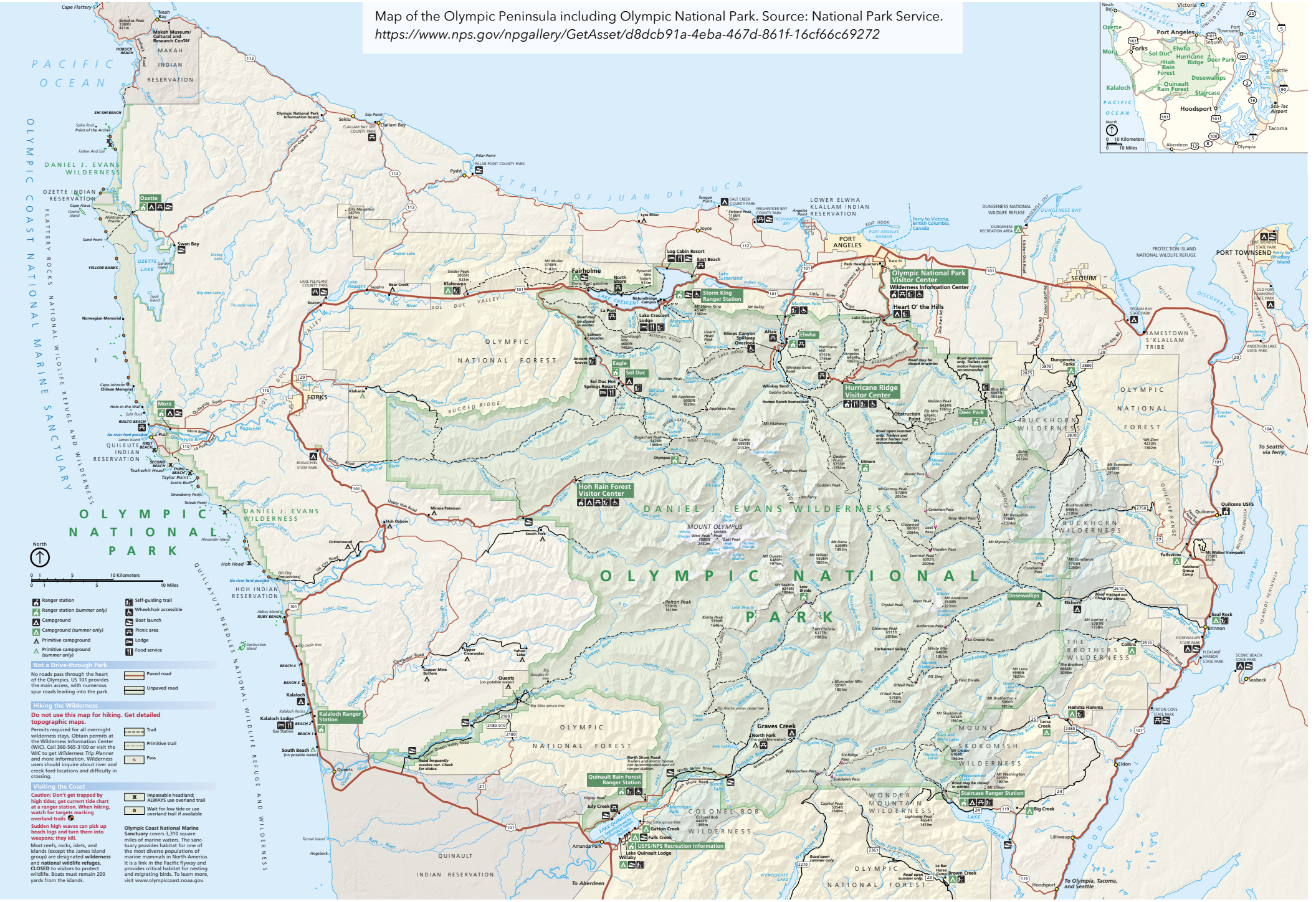

Preface

What is known as the Olympic Peninsula today has been the traditional lands of eight indigenous tribes since time immemorial. The Hoh, Jamestown S'Klallam, Elwha Klallam, Makah, Port Gamble S'Klallam, Quileute, Quinault and Skokomish lived throughout the Peninsula sustaining their communities from the abundance of resources provided by the prolifically rich and fertile soils, rivers, and ocean waters. Their long-standing history and presence on the lands no doubt influenced the experience of the first Euro-Americans that began to settle the area in the late 18th century. With their arrival, the lives and traditions of the indigenous tribes were disrupted and changed since.

There is a wealth of knowledge and understanding to be learned from the traditional ways that people coexisted with the lands they continue to call home. Ways of human life that honored and interacted with the natural changes of the land and all facets of its creatures in the seasons. A human connection with the non-human that blurred the line of such semantics. This project acknowledges and tries not to lose sight of the presence of the often-difficult histories that find the ownership and management of these lands today. A presence that is felt in the quiet halls of moss-covered giants in the rain forest or the omnipresent breath of the ocean as it laps and crashes on the rocky shorelines. In that way, the history provided here is but a *very* narrow moment in time.

The following pages of this chapter outline the history of the development and management of what is now Olympic National Park, with particular emphasis placed on events that influenced the establishment of the trailside shelter network. The historic context for these shelters is a braided compilation of three primary documents: the *Historic Resource Study of Olympic National Park* by Gail Evans published in 1983, *Olympic National Park: An Administrative History* published by the NPS in 1992, and the *Backcountry Historic Structure Report* by Frederick Walters completed in 2008. Infinite thanks to these historians and to all other facilities managers, cultural resource managers, trail workers, and backcountry rangers who have documented or otherwise left traces for me to find in my research.

Early Euro-American Exploration of the Olympic Peninsula

The first records of the coastal Olympic Peninsula (the Peninsula) by an early European explorer date back to the mid-16th century and are credited to Spanish voyager Juan de Fuca, whose name the Strait of Juan de Fuca between the Olympic Peninsula and Vancouver Island bears.[1] The land of the Peninsula, however, would remain largely unexplored by Euro-Americans until homesteaders began to settle the east and northern coast in the 1850s.[2] In 1852, the first saw mill was built on the Peninsula in Port Ludlow and the timber industry quickly became among the first economic opportunities in the area.[3] Explorations into the interior of the Olympic Mountains wouldn't happen until decades later in the 1880s.

While smaller treks likely took place by those early settlers of the coastal peninsula, the first recorded expedition into the interior of the Olympic Mountains was the O'Neil Expedition of 1885, led by Army Lieutenant Joseph P. O'Neil. This expedition explored the area southeast of Port Angeles along Ennis Creek to the headwaters and ascended what is known as Klahhane Ridge to Hurricane Ridge where the expedition split to explore the Elwha and Cameron Basins.[4] Today, driving to Hurricane Ridge via the paved road is one of the most popular destinations for visitors of Olympic National Park. Hundreds of visitors also hike Klahhane Ridge and the Elwha and Cameron Basins via maintained backcountry trails.

The second and most renowned exploration into the heart of the Olympic Mountains happened in the winter of 1889-1890 and was known as the Press Expedition after the *Seattle Press* newspaper, who published an article agreeing to sponsor any party of "hardy citizens" willing to penetrate the mystery of the Olympic Range. By December of that year, a six-man team was assembled under the lead of James H. Christie—a prior member of the Canadian military forces who had spent three years exploring the Arctic.[5] The team, along with four dogs and two mules, set out to be the first to cross the Olympic Mountains in the winter of 1889, presumably to beat the second O'Neil Expedition that was planned in the summer of 1890. Over the course of 6 months, the team battled their way through the interior of the Olympic forest and mountains entering through the Elwha Valley, crossing over the Low Divide Pass, and arriving at the Pacific Ocean along the North Fork of the Quinault River.[6] This route, known as the Press Trail, continues to be a popular through-hike for visitors, along which several trail blaze marks from the Press expedition can be seen on still standing old-growth trees.

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[1] Evans, Gail E.H. "Unknown No Longer: Exploration." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 5.

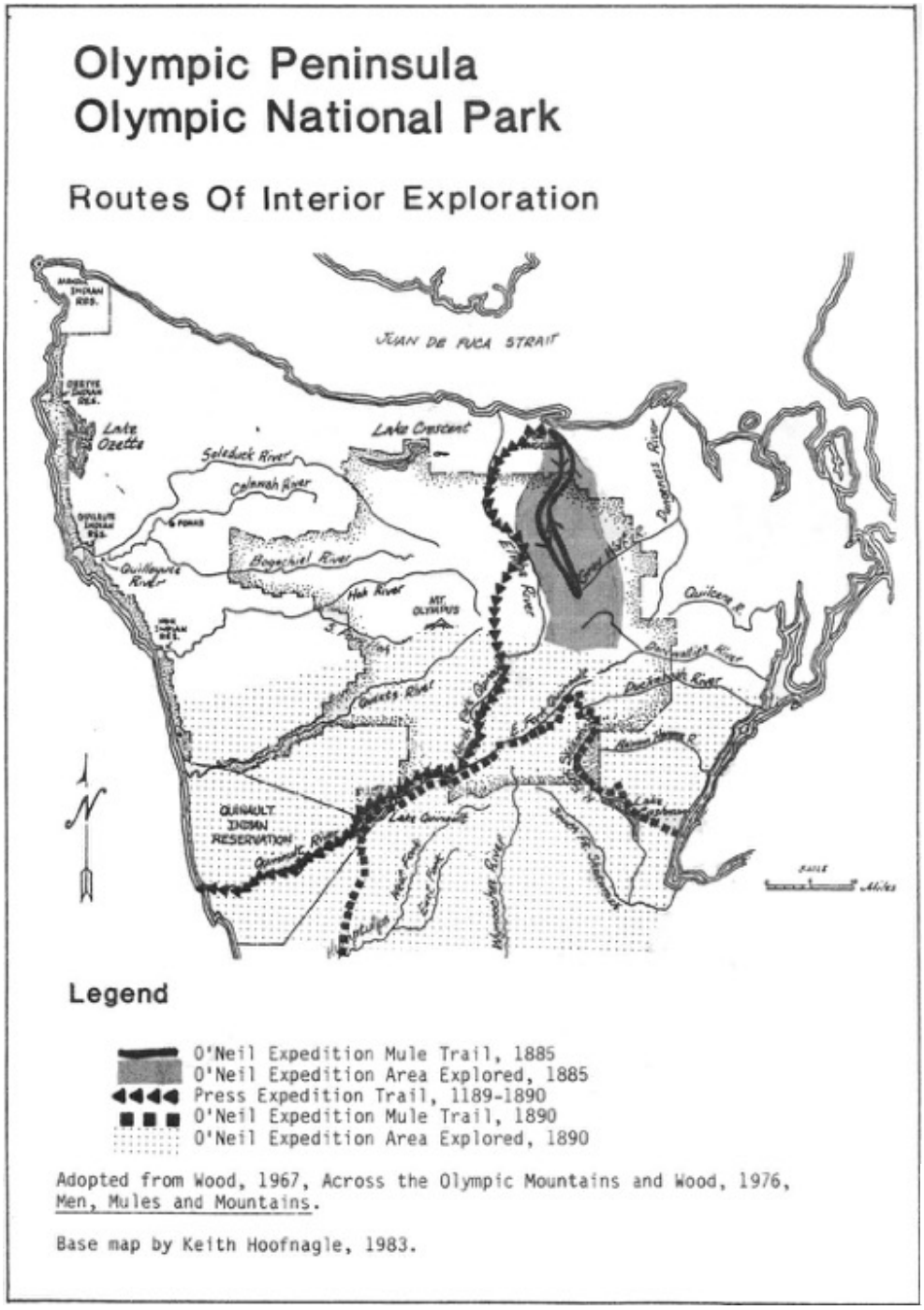
[2] Evans, Gail E.H. "Hard Work and Shattered Dreams: Settlement." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 61.

[3] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 11.

[4] Evans, Gail E.H. "Unknown No Longer: Exploration." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 18.

[5] Ibid. 19.

[6] Ibid. 23.



Source: Gail Evens *Historic Resource Study: Olympic National Park,* page 34.

Several expeditions into the Olympic range along various valleys followed in the decade after the Press Expedition. Among the most significant was the second O'Neil expedition in 1890. It was during this trek that the party cut 93 miles of trail along the North Fork of the Skokomish River down the East Fork of the Quinault, which continues to serve as a hiking trail in Olympic National Park today.[7] Records from that

[7] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region,

exploration remark on the beauty and abundant game present in the scenery while the land being unsuitable for agricultural cultivation and instead, having the potential to attract visitors on account of the scenery and hunting or fishing.[8]

North Pacific advertisement in recreation magazine promoting the outdoor opportunities of the Olympic Range. Source: *An Illustrated History of Mason County, Washington*

As early as 1902, accounts of traveling through the splendid beauty of the Olympics along Lake Crescent and the Elwha Valley were published in popular recreation magazines. The Northern Pacific Railroad, with a terminus is Tacoma, Washington, was an early promoter of the recreational opportunities of the Olympic Range through a promotional poster—shown to the left— titled "Wonderland 1903" in which it claimed the "Olympic Range and Puget Sound will satisfy either for ordinary recreation or for hunting or fishing or mountaineering. It isn't the stereotyped thing."[9]

1992. 17.

[8] Evans, Gail E.H. "Wild and Quiet Places: Recreational Development." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 202.

[9] Olsen, Susan C., and Mary Randlett. *An Illustrated History of Mason County, Washington*. Shelton, WA: Mason County Senior Center, 1978.

Olympic Forest Reserve & United State Forest Service (USFS)

The abundance of timber on the Peninsula as a resource was recognized from its early settlement in the 1850s. While logging occurred in the coastal settlements, much of the interior of the Olympic remained inaccessible and impractical due to the treacherous terrain. At the same time, nationally, the finitude of what once seemed to be a boundless supply of timber in the west began to be acknowledged. In 1896, Congress funded a report to establish a national timber management policy while also identifying potential forest reserves across the country. As a result of the research, on February 22, 1897, President Grover Cleveland established thirteen forest reserves, Olympic Forest Reserve being ninth on the list.[10] The commission described the area:

> "This proposed reserve occupies the high and broken Olympic Mountains region of Northwest Washington, and contains an estimated 2,188,800 acres… The forests here watered by more copious rains than fall on any other part of the United States, are composed of enormous spruces, firs, and cedars… This proposed reserve no doubt contains for its area the largest and most valuable body of timber belonging to the nation; and here is the only part of the United States where the forest unmarked by fire or axe still exists over a great area in its primeval splendor." [11]

The formation of the Olympic Forest Reserve established permanent active federal presence on the Peninsula.

The initial 2.18-million-acre size of the Forest Reserve was to be managed by the General Land Office. The boundary of the reserve was met with great resistance from the local residents claiming that the reserve restricted the agricultural growth of Clallam County. Additionally, the boundary had included area that had been previously homesteaded by 358 people. Bordering Jefferson County, residents likewise requested the reduction of the size of the reserve on account of the desirable land. Controversy over whether the motivation for the reduction of the reserve was in fact due to the desire for agricultural development or for economic gain for the abundant timber on proposed areas to be released to public domain sparked a US Geological Survey in 1899. As a result, in 1901, President William McKinley singed a proclamation reducing the Olympic Forest Reserve to 1.46 million acres.[12]

Between 1898 and 1905, the primary focus of managing the reserve was protecting the timber from poachers and wildfire. Simultaneously, recreational use of the area expanded after the passage of the Mineral Springs Act of 1899, which allowed the development of Soleduck—later known as Sol Duc— and Olympic Hot Springs. Further expanded regulations in 1902 allowed for other recreational activities such as camping.[13] By 1903, 5 miles of trail had been construction along the south shore of Lake Crescent. With

[10] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 22.
[11] Ibid.
[12] Ibid. 25-29.
[13] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 3.

the founding of the United State Forest Service (USFS), the jurisdiction of Olympic Forest Reserve was transferred from the General Land Office to the USFS in 1905. [14] That same year, the Forest Service issued permits for hotels and sanitariums as well as summer cabins to be built in the Reserve.[15]

The trail network began to be expanded in the early years of USFS management, as a result of a major fire in 1907, the Quinault Road was cleared and the Soleduck-Beaver trail was roughed in. By 1910, 73 miles of trail had been constructed in the reserve along with 12 miles of road, 9 miles of telephone line, 3 bridges, and 6 cabins.[16]

Caption of the photo reads: *Olympic N.F. Building a Wooden Trail Culvert c. 1905.*
Source: USFS Pacific Northwest Region Archives. Public domain. Digitized online at: https://www.flickr.com/photos/forestservicenw/21418537423/in/album-72157660369045530/.

Throughout the early USFS management years, the protection of the population of elk on the Olympic Peninsula became of great concern. Elk hunting had become popular at the turn of the century due to the fashion for men to wear elk teeth on their watch chains.[17] Several attempts were made to establish a national park or game reserve with the expressed purpose of elk and wildlife conservation before 1909, though despite public and political interest, no actions were taken. It was on March 2, 1909, that President

[14] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 31-32.
[15] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 3.
[16] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 32.
[17] Ibid. 35.

Theodore Roosevelt signed a proclamation establishing Olympus National Monument—610,560 acres within the Olympic Forest Reserve—as a result of the efforts to conserve the health of the elk herd. The boundary of the monument was eventually reduced by President Woodrow Wilson to 300,000 acres in 1915 due to tensions with the timber, mining, and agriculture industries.[18]

During the summer of 1910, a devastating fire season burned nearly five million acres in the northern Rockies of Montana and Idaho, leaving 85 people including 78 firefighters dead. The fires profoundly shaped the relatively young agency of the USFS place emphasis on fire prevention and suppression for the decades to come.[19] Development within USFS administered lands, including Olympic Forest Reserve, was driven by the mission to establish adequate fire monitoring networks through the backcountry.

In 1911, Rudo L. Fromme was appointed supervisor of the Olympic Forest Reserve. With the impacts of the fires of 1910 fresh in the USFS agency's mind, Fromme expressed his mission to initiate a comprehensive trail system to facilitate timber and resource management:

> "My general plan is about so: Trails and trails and trails all looping into one another into roads so as to allow crosscuts…Bye and bye all trails and roads paralleled with phone lines. Boxes and lots of tools at or near patrol telephone stations. Houses and sheds and shelters along trails where they will serve to shelter crews and patrolmen and all travelling officers and where the tools in the boxes can be concentrated in winter and protected." [20]

The Fromme initiative saw the construction of fire caches, simple shelters, and small patrol stations being constructed throughout the forest along a network of telephone lines.[21]

[18] Ibid. 42.
[19] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 3.
[20] Evans, Gail E.H. "Wild and Quiet Places: Recreational Development." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 215.
[21] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 3.

Caption of the photo reads: *Ranger hanging [telephone line] insulators Olympic NF WA, 1921*. Source: USFS Pacific Northwest Region Archives. Public domain. Digitized online at:
https://www.flickr.com/photos/forestservicenw/21416847134/in/album-72157660369045530/

By 1912, trailside shelters were built along the developing trail network, though the location and style of these shelters was undocumented at the time. Three-sided Adirondack style shelters popular in the eastern states had been present on USFS land in Oregon and Washington as early as 1916. Intended for administrative use, these shelters were built adjacent to trails and usually close to a meadow or nearby water source to provide feed for packer crews supplying fire lookouts.[22] As the trails were open to the public as well, the shelters naturally began to be used by hikers and equestrians venturing into the forest as pleasure-seekers.

The National Park Service (NPS) was established in 1916 with the passage of the Organic Act by President Woodrow Wilson with the expressed goal of protecting "the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of same in such a manner as will leave it unimpaired for the enjoyment of future generations." [23] Conversations regarding creating a National Park out of the Olympus National Monument had occurred prior to 1916, though no action had been taken due to the lack of relationship between the USFS and the newly formed NPS. The emphasis on recreation within the NPS did however, put pressure on developing recreational resources within USFS lands. In 1918, the Olympus National Monument remained largely inaccessible with no recorded trails having been constructed within its boundary.

The end of World War I saw an influx of recreational travelers across the country resulting in the USFS hiring its first "recreational engineer", Arthur Carhart, in 1919. By 1921, outdoor recreation was considered one of the major uses for national forests, which continued to gain momentum during the 1920s in part due to writings by nature advocates such as Aldo Leopold and Robert Marshall.[24] Talks about creating a national park on the peninsula continued through the 1920s, though there is no evidence showing the Park Service favoring the creation of the Park on the peninsula. In a 1923 annual report, NPS Director Stephen T. Mather made a statement regarding the creation of additional park units in Washington Statement claiming that, "…their establishment as national parks would at once lower the dignity and prestige of Mount Rainier as the noblest glacier-bearing peak in the Americas." Mount Rainier National Park was established in 1899.

On the Olympic Peninsula, the national dialogue and change in ideology associated with federal land management was being played out in the debate of the USFS multiple-use philosophy. A forest reserve was, in the end, a reserve of timber that would eventually be cut. The new emphasis on recreation and the management of natural resources led to F.W. Cleator—a USFS recreation examiner and engineer from Portland, Oregon—being sent in to evaluate the reserve and establish a management plan. The result was The Cleator Plan adopted in 1927.[25] This plan divided the forest reserve into areas of specified recreation and natural resources use where timber harvest would not be the highest priority.

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[22] Ibid. 31.

[23] Pletcher, K. "National Park Service." Encyclopedia Britannica. Accessed February 15, 2023. https://www.britannica.com/topic/National-Park-Service.

[24] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 5.

[25] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 45.

Caption of the photo reads: *Foresters at Work, Olympic N.F. Mt. Olympus from point on Soleduck Divide about half mile east of trail- (Forest office on "The Trail") Forest Officer on horse and with pack horse. Taken by F.W. Cleator 9-1927.* Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Photographs Relating to National Forest, Resource Management Practices, Personnel, and Cultural and Economic History. NAID: 7001558

As part of the recreational use, the Snow Peaks Recreation area was established and contained 316, 960 acres including Mt. Olympus and other snow peaks, largely subalpine meadows and watershed above timber line. Other recreation specific units were formed around Lake Crescent and Lake Quinault. Designated forested strips on the western slopes of river valleys containing the largest tree specimens were to be protected. All other heavily timbered areas were to be cut and sold. Additionally, the Olympic Primitive Area was a separate unit of 134,240 acres to the south and east of Snow Peaks, which was intended to remain in its natural condition by limiting development to only administrative improvements necessary for recreation and forest monitoring management including minimal trails, telephone lines, and a few rough shelters.[26]

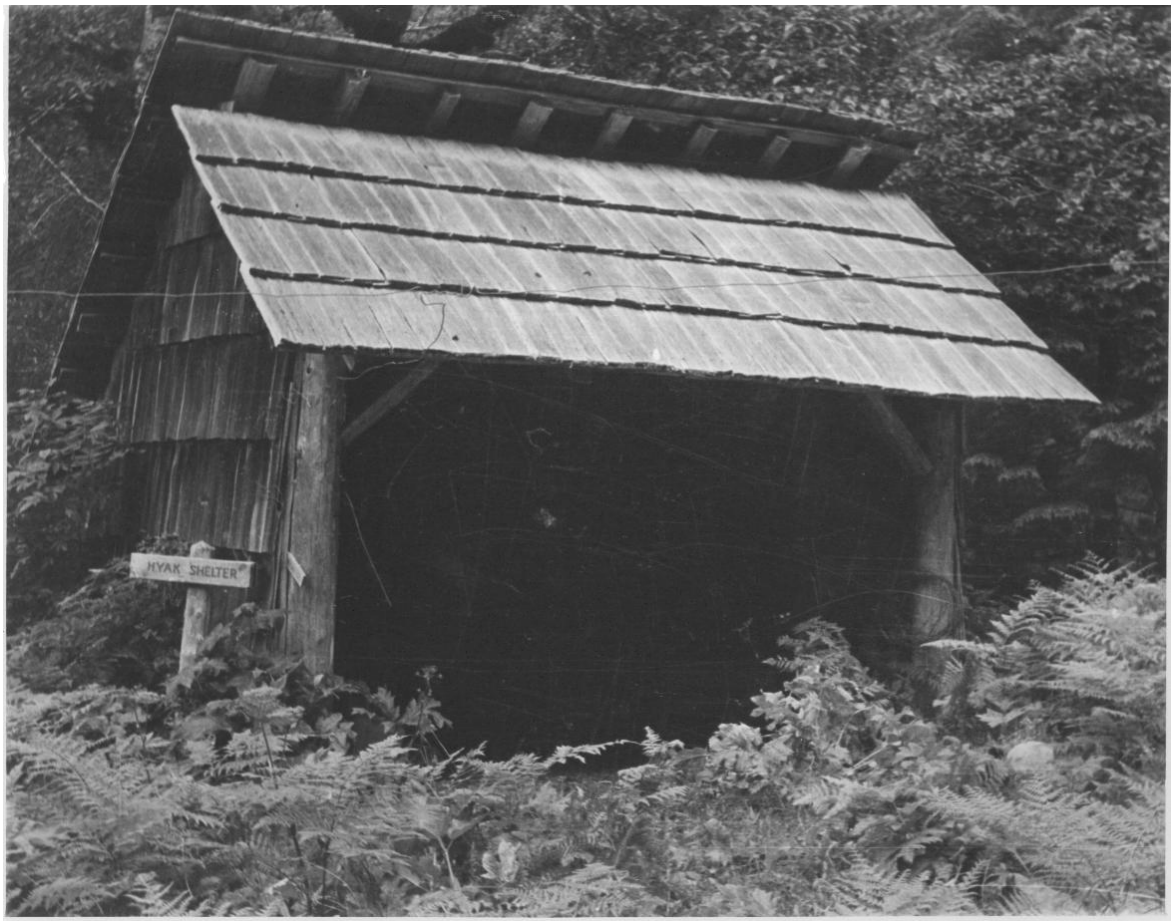
In addition to the designation of various areas of the Olympic Forest Reserve based on use, The Cleator Plan emphasized safety and comfort for those visiting the recreational areas. He envisioned trail depots and safety stations for visitors operated as commercial operations. In the mid-1920s, two private companies—the Olympic Chalet Company and the Olympic Recreation Company—were working with USFS to secure permits to build infrastructure in the Olympic backcountry, primarily in the Quinault Valley. Though the

[26] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 7.

Olympic Chalet Company proposed 3 chalets and 12 shelters, only the Low Divide Chalet and a shelter at Nine-Mile Post in the North Fork Quinault were constructed in 1927. In 1931, the famous Enchanted Valley Chalet was constructed by the Olympic Recreation Company, which was later sold to the NPS in 1939, ending the era of large private operations in the interior of the Olympics.[27]

Though Cleator's vision of commercial trail depots and safety stations never came to fruition, his 1927 Plan did prompt the construction of standardized and documented trailside shelters, the first of which were built in 1928. Development of the communities surrounding the Olympic Forest Reserve continued to increase with the completion of the Highway 101 as a loop around the Peninsula in 1931. In the 1936-1937 volume of the *Forest Club Quarterly*, Cleator wrote:

> "The Forest Service, in accordance with its preconceived recreational plans, had by 1933 constructed or bettered and posted many miles of remote country trail, and along these trails had about a hundred sturdy camping shelters of rustic material, with fireplaces and rough sanitary conveniences, to accommodate the red-blooded fisherman or wilderness seeker. These, of course, served also as administrative quarters for trail builders, fire patrolmen, and traveling forest officers, and were frankly intended to be a dual-purpose development." [28]



Hyak Shelter in the Bogachiel Valley built in 1928, pictured here in 1953. This shelter still stands today and is on the National Register of Historic Places. Source: Olympic National Park Archives and

[27] Ibid. 32-33.

[28] Fred W. Cleator, "Recreational Facilities of the Olympic National Forest and Forest Service Plan of Development," Forest Club Quarterly 10 (1936-37): 6.

With the increase of recreational visitors came added stress on the recreational infrastructure within the Forest Reserve.

In a letter dated March 14, 1932, forest supervisor, H.L. Plumb, wrote a list of the most urgent recreational needs of the Reserve, among which was the need to build additional trailside shelters for use by the public, even in areas where not needed for administrative use, noting "…due to frequency of inclement weather, it is rather imperative that some form of shelter be provided." He stated that in areas without shelters, visitors would build crude structures of their own, which ultimately posed a fire danger. Plumb attached a list of specific needs including the addition of "ice can stoves" in some shelters, listing Lena Lake and Seven Mile shelters. Additionally, he listed five sites that needed shelters: Rainbow Camp, Honeymoon Meadows, Winslow Springs, Chicago Camp, and Elwha Basin. Finally, Plumb listed popular campsites where future trailside shelters might be built including:

> Duckabush, Nine Stream, Brown's Point, and Upper Lena Lake in the Hoodsport District; Ten Mile Camp, Deer Park, Camp Colonel, Diamond Meadows, Doseforks, and Dosemeadows in the Quilcene District; Baltimore, Bankers, Cat Creek, Crackerville, Krause Bottom, and Heather Park in the Elwha District; Hoh Lake, Heart Lake, Mosquito Creek, Blue Glacier, Soleduck Falls, Bogachiel Park, Mink Lake, and Deer Lake in the Port Angeles District; and Wolf Bar, Francis Creek, Sixteen Mile, Graves Creek, O'Neil Creek, and West Fork Humptulips in the Quinault District. [29]

Each shelter was projected to cost roughly $75 each. In the fall of 1932, $950 of Plumb's $1,317 request in Emergency Relief was approved, one third of which had to be spent on construction of additional trailside shelters.[30]

In March of 1933, Plumb once again called for the construction of exclusive recreational shelters and hoped for emergency relief funds for four shelters: Cold Springs, High Divide, Elkhorn and Elwha Basin. These would cost $100 since they would have to be constructed to withstand heavy snow loads. He also listed two other shelters not mentioned the year prior at Elk Lake on Jefferson Creek and Soleduck Falls.

Meanwhile, ongoing efforts to create a national park continued in response to the need to protect the declining elk population. The increase of infrastructure and visitation resulted in the increase in hunting which, in turn, was exaggerated by the lack of USFS resources to monitor and protect the elk. In 1933, President Roosevelt signed Executive Order 6166, transferring jurisdiction of Mount Olympus National Monument from the USFS to the NPS. The Forest Service did not officially have jurisdiction over hunting activity in Olympic National Forest, which was made evident when, following the imminent presence of the NPS on the Peninsula, the Washington State Game Commission authorized a four-day open season on elk within Olympic National Forest and the boundary of Olympic National Monument. This hunt led to public

[29] Plumb H.L. letter to Regional Forester, Portland, Oregon. March 14, 1932. Olympic National Park Collections and Archives. Box: Historic Structures Reports, Box 1 of 3, Folder 32: Shelter History/ Use.

[30] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 35.

outrage at the USFS's failure to protect the herd at a time when the NPS was beginning to establish presence on the Peninsula.[31]

Before 1933, while Mount Olympus National Monument was still managed USFS, Plumb estimated that 90 trailside shelters had been built along the roughly 300 miles of trail that had been developed, 115 which were within the National Monument. In 1934, under the new National Park Service jurisdiction, an investigation conducted by Park officials noted that, "trail development within the monument is absolutely necessary in order to ensure safety for the traveling public."[32]

That year, Preston H. Macy assumed day to day administration of the monument. After touring the monument, he was unimpressed by its inaccessibility, due in part to the poor trail system, which were deemed not suitable for the National Park Service.[33] On this trip, he compiled a list of buildings he encountered including seven shelters—four in the Elwha, two in the Upper Sol Duc, and one in the Hoh. They measured 10 feet, appeared in good condition, and were filled with visitors. In December 1934, Macy submitted a public works funding request for projects including building shelters at Hoh Lake, Blue Glacier, Low Divide, Elwha Basin, Baltimore Camp, Enchanted Valley, Little Elkhorn, Dosemeadows, and Cold Springs. These projects were not approved in December of 1935.[34]

The winter of 1934 was particularly rough on the trailside shelters in the backcountry. In 1935, it was reported that one shelter had been washed away by high waters, two collapsed under snow loads, one lost in an avalanche, and another had been hit by a tree. Despite the damage to many other shelters and trail from that winter, Macy found that visitors continued to heavily use the trail network, filling the existing shelters nearly nightly. In August of 1935, Macy compiled a detailed list of twelve shelters within the monument boundaries giving their dimensions, water source, sanitation facilities, and location.[35] The list was as follows:

Duckabush District
- Duckabush, 14 x 14 feet, 9 years old [1926]
- Diamond Meadows, 14 x 14 feet, 6 years old [1929]

Elwha District
- Camp Baltimore, 14 x 16 feet, 2 years old [1933]
- Camp Little Elkhorn, 14 x 16 feet, 2 years old [1933]
- Elkhorn Guard Station, 14 x 16 feet, 2 years old [1933]
- Hayes River Camp, 14 x 16 feet, 4 years old [1931]
- Chicago Camp, 14 x 16 feet, 4 years old [1931]

North Fork of the Quinault District
- Sixteen Mile, 14 x 16 feet, 5 years old [1930]

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[31] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 51.
[32] Evans, Gail E.H. "Wild and Quiet Places: Recreational Development." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 215.
[33] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 10.
[34] Ibid. 30.
[35] Ibid. 41-42.

Hoh District

Sol Duc Park, 14 x 16 feet, 4 years old [1931]
Sol Duc Crossing, 14 x 16 feet, 3 years old [1932], badly damaged
Elk Lake, 8 x 10 feet, 8 years old [1927]
Olympus shelter/woodshed, 14 x 32 feet, 3 years old [1932]

Before the end of 1935, crews had added four additional shelters to the network—Low Divide, Home Sweet Home, Honeymoon Meadows, and Hayes River. These new shelters were larger than the existing USFS constructions, measuring 14 feet x 18 feet.[36] In a memorandum dated February 1, 1937, the name of all camps, roads, resorts and hotels, and shelters along with the estimated visitors of each resource are cataloged. Section 4 of the memorandum titled *Recreational Use surrounding Trail and Way Shelters* is included at the end of this chapter. As of that memorandum, 82 shelters were listed.[37]

With the on-going Great Depression beginning in 1929, Olympic National Forest and Mount Olympus National Monument, like many other public land agencies, experienced a back log of maintenance needs and necessary backcountry development. However, with an increase in public works funding and the establishment of the Civilian Conservation Corps (CCC) in 1933 by President Franklin Delano Roosevelt, the USFS and NPS lands on the Peninsula were to see significant developments in their infrastructure.

[36] Ibid.

[37] *Memorandum to Accompany Recreation Map (Item #9).* February 1, 1937. National Park Collections and Archives. Box: Historic Structures Reports, Box 1 of 3, Folder 32: Shelter History/ Use.

CCC Development Under the USFS

The influx of available CCC labor beginning in 1933 ushered a period of significant recreational development in the US, particularly within the USFS. By May of 1933, seven CCC camps had been approved on the Olympic Peninsula, though at the time, none were within the boundaries of the mount Olympus National Monument.[38] The primary focus of the USFS was the improvement of the transportation and communication development primarily for firefighting. CCC crews, therefore, worked on construction of roads, trails, and telephone lines. Remote areas saw improved trail signage and trails along with the construction of sturdy trailside shelters. With the establishment of the Division of Recreation and Lands in 1935, standardized designs for building constructions were available within the first few years.[39] Specific construction styles and history of the trailside shelters used by the USFS and NPS on the Peninsula will be provided in Chapter III.

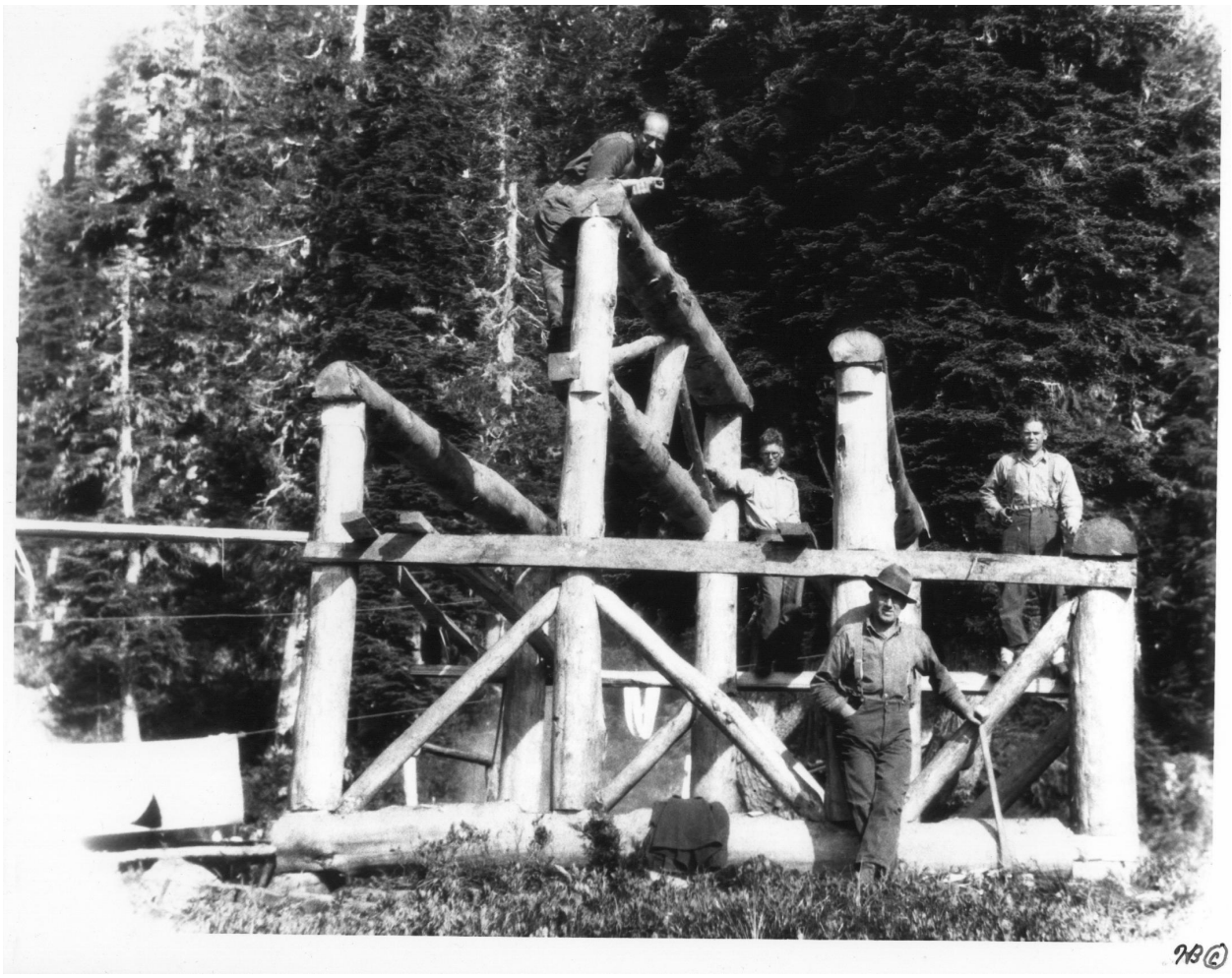
In 1935-36, Olympic National Forest published a series of recreational brochures for the different regions of the forest including Snow Peaks Wilderness, Hood Canal Recreation Area, and Lake Quinault. Along with listing commercial resorts, fire lookouts, ranger stations, and built trails, shelters are also represented as "Free Trailside Shelters". These brochures provide great insight into the extent of the trail and trailside shelter network available for use by the recreating public at the time. These maps are included at the end of this chapter. Shelters are described as such:

> "Shelters: These are open-front log structures constructed along forest trails in the back country. They were built primarily for the use of forest workers, but when not occupied, their use by forest visitors is permitted and encouraged. They are especially convenient during inclement weather."[40]

[38] Evans, Gail E.H. "Putting the Unemployed to Work: Depression years and the Federal Relief Programs." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 335.

[39] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 9.

[40] United States Forest Service. *Snow Peaks Recreation Area, Olympic National Forest, Washington, 1935*. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Published Maps and Recreation Guides. NAID: 299285. https://catalog.archives.gov/id/299285



Construction of shelter in Three Lake Basin circa 1935. Source: Olympic National Park Archives and Collections.

The Civilian Conservation Corps had a profound and lasting impact on the infrastructure present today in Olympic National Park. Within the backcountry, many of the guard stations, several of the shelters, and countless miles of trails used today were constructed by members of the CCC. The legacy of CCC was integral to the early development of the USFS, and later the NPS, as a recreational destination with adequate infrastructure to sustain the increasing number of visitors to the area.

Throughout the 1930s, talks continued regarding the establishing a national park on the Olympic Peninsula. The mounting concern about the Forest Service's inability to protect the elk population, especially in the light of the 1933 open-season hunt, highlighted the need for additional protections to be provided. By the mid-1930s, conservation organizations had long been in favor the creation of a park and, with the

establishing of the NPS presence on the Peninsula over the National Monument, it became not a matter of *if* a national park would be developed, but rather, how large it would be.[41]

Caption on back of photo reads: *Olympic National Forest [CCC] Powder Monkey Crew, South Fork, Skokomish Road. Photo By: Lee P. Brown Oct 1933.*

Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Photographs Relating to National Forest, Resource Management Practices, Personnel, and Cultural and Economic History. NAID: 7004732

[41] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 54.

President Franklin Roosevelt visiting with members of Quinault tribe at the Quinault Lodge on October 1, 1937. Source: Museum of History & Industry, Seattle, WA. ID# PI25007.

On June 29, 1938, President Roosevelt signed a bill creating Olympic National Park, nearly doubling the National Park Service jurisdiction from 320,000 acres to 634,000 acres. The new land brought with it the infrastructure that had been developed by the USFS to date, including roads, the hundreds of miles of trails and associated buildings and structures.

In July of 1938, a team including then superintendent Preston Macy and Secretary of Interior, Harold L. Ickes set out to survey the new park to inform the first management plan guiding the Park. The team, which included a wildlife technician, fish resource supervisor, and landscape architect, established three reasons for the creation of the park: the preservation of the rainforest; protection of the wildlife, particularly the Roosevelt Elk; and the "protection of one of the finest remaining scenic and wilderness areas of the nation, with emphasis on maintenance of wilderness conditions that benefit future generations."[42]

While the emphasis on wilderness meant keeping development such as roads to a minimum, it was acknowledged that visitors would largely be experiencing the park on foot or by horse. This required the new Park to construct additional trailside shelters, with popular campsites required larger footprints or multiple smaller ones. The 1938 survey team advised, "Very careful planning should go into the design of trailside shelters so that they be the most practical and efficient types yet give no impression of sophistication. Use of native materials which can be obtained at the site is, of course, most desirable." [43]

Secretary of Interior Harold L. Ickes strongly advocated for keeping Olympic a wilderness remarking:

[42] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 11.
[43] Ibid.

> "Limit the roads. Make the trails safe but not too easy, and you will preserve the beauty of the parks for untold generations… It is our intention to build overnight trail shelters for hikers and horseback parties, but those who want all the comforts of home, including facilities for reading while taking a bath, will have to look for them in the communities that encircle this park at the base of the mountains." [44]

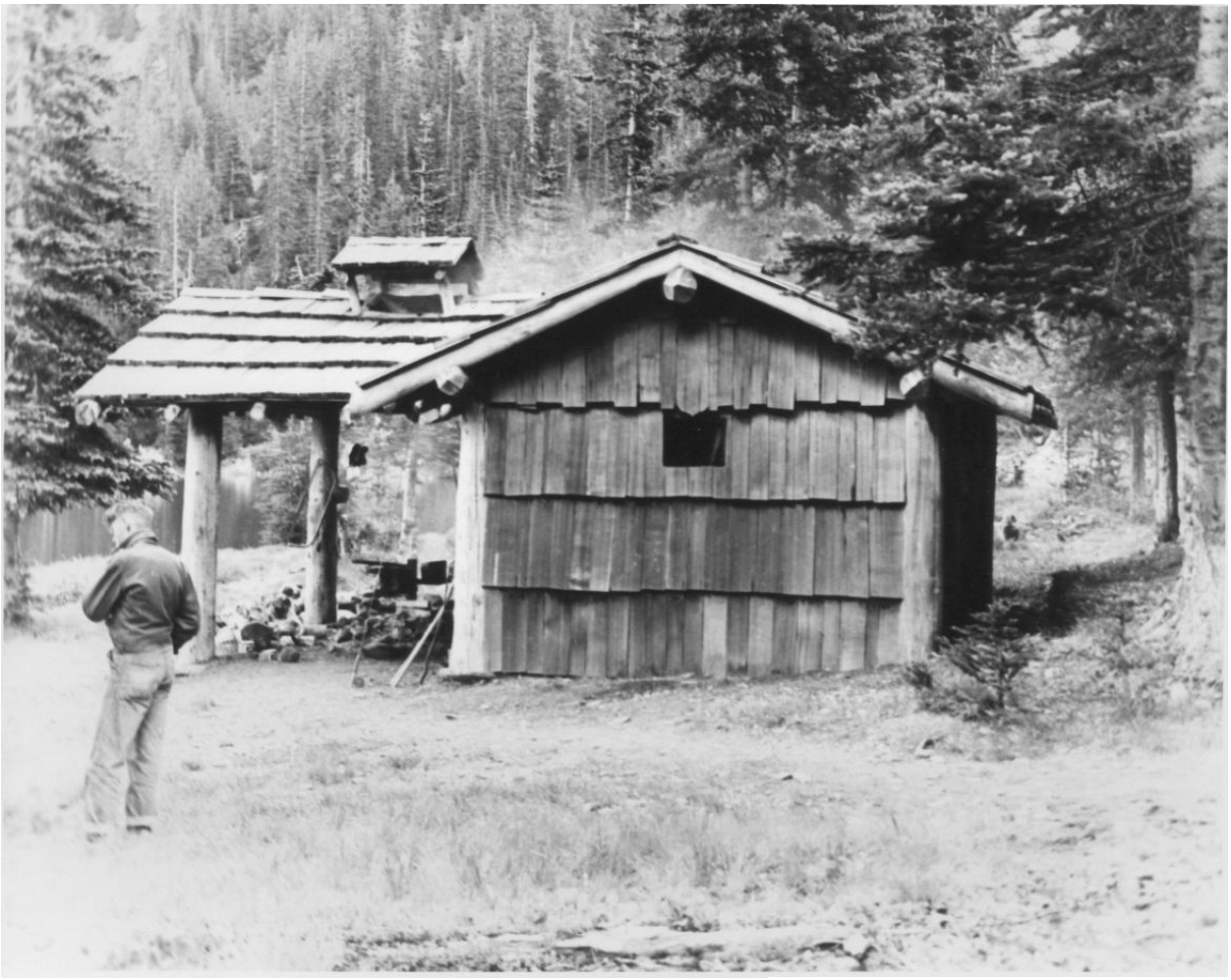
Trailside shelters were, therefore, regarded as part of the original wilderness vision of the creation of Olympic National Park.

The first Park Superintendent, Preston P. Macy, focused early management activities on improving the trail network inherited from the USFS. With funding aid of $205,500 from the Public Works Administration (WPA) given to the Park in 1938, $90,500 was allocated for trail construction. During this time, Max Walliser became the resident architected for the Park in 1938 and began drawing plans for several types of shelters. [45] In 1938, the National Park Service also published *Park and Recreation Structures* by Albert H. Good— a book providing design guideline and plans for constructions with the NPS units including admin buildings, signs, bridges, and shelters. Macy continued to utilize the CCC labor to construct trails and associated infrastructure to supplement the limited Park budget.

Moose Lake shelter circa 1953. Source: Olympic National Park Archives and Collections.

In 1939, CCC crews built Soleduck Falls shelter, a new style of shelter that deviated from the Adirondack Style that had been used up to that point. Plans for this style of shelter construction are provide in Chapter III. Similar shelters were built at Moose Lake and Hoh Lake. These shelters would be the last constructed in the Park until after World War II.[46]

[44] Evans, Gail E.H. "Wild and Quiet Places: Recreational Development." *Historic Resource Study: Olympic National Park*. Seattle, WA. Cultural Resources Division: National Park Service. 1983. 222-225.
[45] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 44-45.
[46] Ibid.



Moose Lake shelter circa 1953. Source: Olympic National Park Archives and Collections.

In 1941, with the US entering WWII, development and construction within the Park largely focused on defense military operations including the Aircraft Warning System (AWS), a network of observation posts established to monitor for military activity. The trail network and telephone lines continued to be developed until the Park was left shorthanded due to many rangers joining the war efforts.[47] With the end of WWII and the end of a need for the AWS system, the Park was able to refocus personnel on Park issues and infrastructure that had been neglected during the war years.

[47] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 13.

In the years immediately following WWII, the Park struggled to address the back log of maintenance concerns that had accumulated during the war. Recreational visitation began to increase immediately following the war though federal budgets remained low. Despite the strain, the need for backcountry accommodations for an increasing number of visitors resulted in a major program to build shelters starting in 1949. That year, five shelters—two at Lake Angeles, two at Glacier Meadows, one at Seven Lakes Basin—were completed and one other partially finished at Sol Duc Park. Nine additional shelters were completed in 1951 including two in Elwha Valley, two at Heart Lake and one each at Mary's Falls, Canyon Camp, Stony, Point, Camp Wilder, and Seven Lake Basin. Additionally, crews restored three shelters in the Elwha valley that year.[48]

Lunch Lake Shelter photographed in 1960, likely built between 1949-51. Source: Olympic National Park Archives and Collections.

The construction of two shelters in one location was a new idea for the Park. Prior to that, in order to accommodate larger numbers of hikers, shelters would be constructed with larger footprints than the

[48] Ibid. 50.

standard 14'x14'. The construction of a larger number smaller shelters, rather than one big one, addressed issues of privacy and became popular with hikers. [49] Dan Landers—a temporary employee who became a permanent staff member in the early 1950s— was integral in the construction of many of the shelters of that era. In collaboration with park ranger Jack Broadbent, new shelters began to be oriented towards views. In 1954, only the Graves Creek Shelter was under construction, costing $909.69. [50]

During the early post-war years, crews experimented with the use of metal roofs on shelters. This was seen as a solution for shedding snow and preventing visitors from using roofing materials are firewood. The experiment proved a failure, however, with roofs often severely leaking. By 1958, crews began replacing metal roofs back to their original split cedar shakes. They replaced metal roofs on Elkhorn, Canyon Camp, Mary's Falls, and Lower Cameron in 1958 and split more than two thousand shakes for repairs scheduled in 1959.[51]

In August of 1951, long time superintendent, Preston Macy, was succeeded by Fred Overly. In the 1952 Master Plan, it became clear that Overly did not intend to manage Olympic Nation Park under the same guidelines established by the 1938 management study focusing on the wilderness character of the park, which Preston Macy had promoted. Instead, Overly wanted to promote increased visitor use by embracing a more "visitor playground" approach. Under his philosophy some elements of the wilderness would be scarified to accommodate the full use and enjoyment by the public. [52] The language of the Organic Act of 1916 that had formed the National Park Service allowed for this change in management philosophy through its dual mission to both conserve park resources and provide for their use and enjoyment—a statement commonly known as the dual mandate.

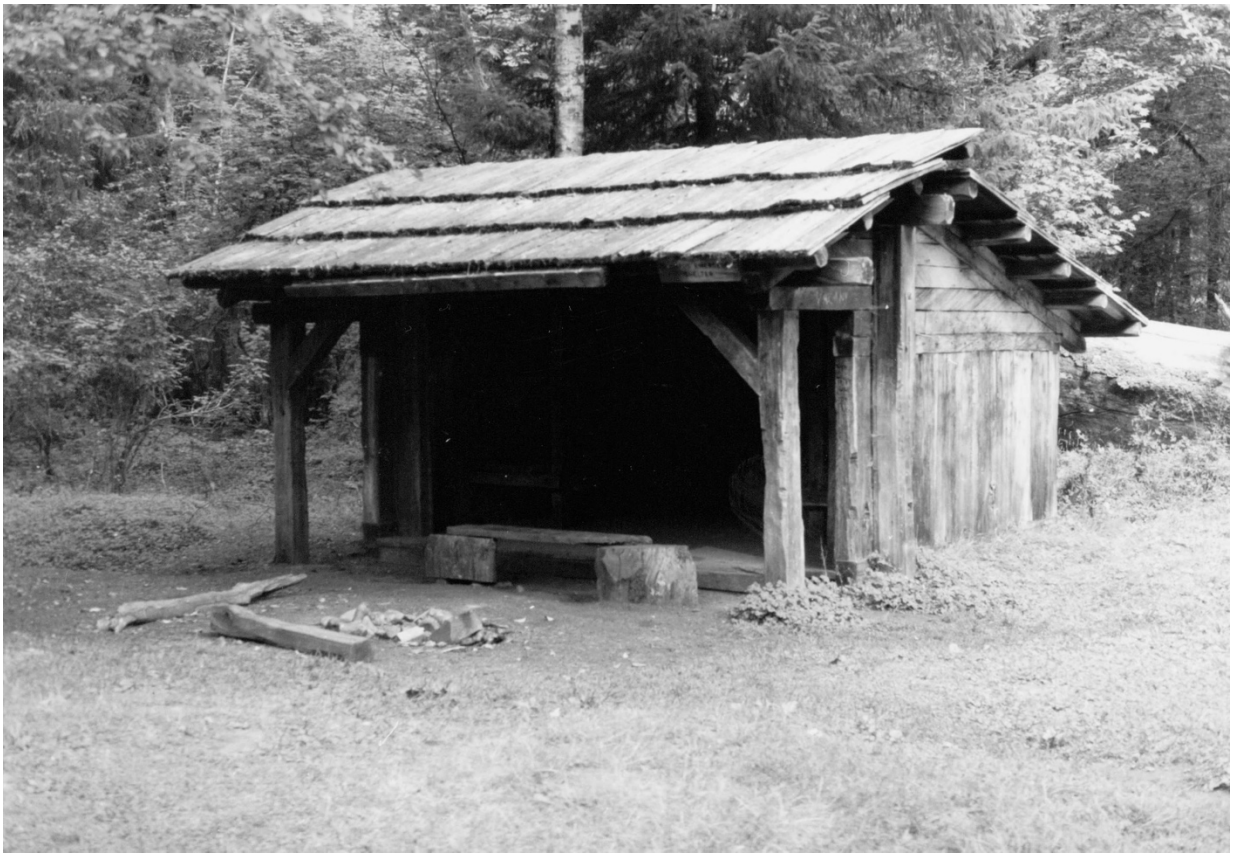
Overly's support for new visitor access development within the Park found a perfect vehicle of implementation under the National Park Service Mission 66 initiative, begun in 1955. As a result of a dramatic increase in park system visitation, the Mission 66 program was intended to study park needs as well as upgrade infrastructure within parks to support the visitor capacity. The program was to culminate by 1966, the 50th anniversary of the NPS.[53]

At Olympic National Park, backcountry visits nearly doubled between 1953 and 1959. This led to major degradation of the backcountry with inadequate sanitation, garbage pits, and shelters. In addition to many front country developments, including roads and campgrounds during the mid-1950's under the Mission 66 program, improvements to the trail network included construction of bridges and five shelters had been completed by 1958. In March of 1958, Overly expressed plans to repair existing shelters using day labor at a cost of $6,000. Fifty-three of the existing seventy-five shelters had been built by the USFS and were in need of major repairs and upgrades including privies and garbage pits. The superintendent also proposed the

[49] Ibid.
[50] Ibid. 52.
[51] Ibid. 51.
[52] National Park Service. Olympic National Park: An Administrative History. Seattle, WA: National Park Service, Pacific Northwest Region, 1992. 97.
[53] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 15.

construction of four new shelters that year as part of a larger imitative outlined in the Master Plan to build thirty shelters. [54]

In a report conducted by the Back County Study Committee in 1959, recommendations were made to address the deteriorating backcountry conditions brought on by the increase in visitation. In addition to upgrades to the telephone system and construction of new patrol stations, it was recommended that more trailside shelters be constructed concentrated in areas of heavy use spaced an easy day's walk apart. In this report, they were meant to "be used solely as havens during times of inclement weather, not…as required facilities for each overnight stop." These would be the standard 4-bunk size used previously.[55]



Olympus Guard Station Shelter pictured in 1983, built in 1963. Source: Olympic National Park Archives and Collections.

In 1957, the Student Conservation Association was formed under the Mission 66 program in an effort to supplement park staff with student volunteers. This program was supervised locally in the Park by Jack Dolstad. Under his supervision, an SCA crew built its first shelter in 1959 and repaired several others. In 1960, they added two additional shelters at Sand Point. SCA crews constructed three others by the end of 1963—Low Divide in 1961, Mosquito Creek in 1962, and Scott's Creek in 1963. That same year, Park

[54] Ibid. 52.
[55] Ibid. 53.

staff built eight shelters—one each at Olympus, Elwah Basin, Mink Lake, and Nine Stream, and two each at Elk Lake and the North Fork Quinault Trail. Seven more had been planned, but never built due to the passage of the Wilderness Act of 1964.[56] SCA and park crews continued to maintain and rebuild damaged shelters through the 1960s. The last shelter to be built in Olympic National Park was Toleak Point, constructed by another volunteer program, the Youth Conservation Corps, in 1971.[57]

The passage of the Wilderness Act of 1964 saw a new philosophy embraced in the management of resources in Olympic National Park. In regard to the shelters, resources that had been considered essential visitor infrastructure began to be seen as compromising wilderness values. Between 1970 and 1975, forty-five of the approximately 90 shelters were burned down or otherwise removed by park staff. An undated document titled *Olympic National Park: Shelters Removed Since 1970 and Existing Shelters* notes shelters and their removal dates and is included at the end of this chapter.[58] Shelters were said to increase the damage of the backcountry because of their tendency to concentrate visitor use in one area. This, however, did not take into account the overall increase in visitation to parks by a new generation.[59]

Under the direction of the 1974 Olympic Wilderness Environmental Impact Statement (EIS), some shelters were scheduled to be removed while others retained for emergency use. The General Management Plan of 1976 made a recommendation that only 12 of the remaining shelters be left to stand and the rest removed. This brought forth public outcry over the number of shelters due to be removed as well as the lack of criteria used in selecting which were to remain. Following public meetings and consultation, twenty-two were selected to remain in the Park, with the listed reviewed on an annual basis through the mid-1980s.[60] The twenty-two that remained in the Park in according to the 1983 Historic Resource Study, included:

Elwha District: Elkhorn, Crisler Hot Cakes (2)
Hurricane District: Deer Park (2), (Graywolf) Falls, Three Forks,
Hoh District: Fifteen Mile, Happy Four, Hyak, Bogachiel, Pelton, Creek
Lake Crescent District: Sol Duc Falls, Sourdough, North Fork Sol Duc
Quinault District: Low Divide, Three Lakes
Staircase District: Anderson Pass, Home Sweet Home, Ten Mile

It is unclear why Trapper, 21 Mile, and Mink Lake shelters—which are extant as of 2022— were not listed in the 1983 study. In a memorandum dated February 24, 1981, from Superintendent Roger Contor to the Chief Park Ranger after an internal meeting regarding the shelters, a note was made that:

> "No new shelters of any kind, size, or shape will be constructed, nor will any shelter receive major repairs that involve basic rebuilding as a result of the ravages of time and the forces of nature without full staff review and Superintendent's permission. This includes, but is not necessarily limited to structural members, beams, supports, siding and foundation base logs." [61]

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[56] Ibid. 54.
[57] Ibid. 55.
[58] *Olympic National Park: Shelters Removed Since 1970 and Existing Shelters.* Internal Document. Olympic National Park Collections and Archives. Box: Historic Structures Reports, Folder 39: BLDGs Removed.
[59] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 55.
[60] Ibid.
[61] Contor, Roger J. Memorandum: *Some notes from the February 18,1981, meeting on shelters.* Issued February 24, 1981. Olympic

In 1988, 870,00 acres—or roughly 95% of Olympic National Park—was designed Wilderness by Congress. As a result, several shelters were removed despite the lack of public consultation and the repair maintenance on the shelters was reduced. Note that most of the shelters had been removed prior to the official Wilderness designation. Three shelters collapsed in 1998, including Home Sweet Home and Low Divide. In a 2001 letter from the Washington State Office of Archeology and Historic Preservation (SHPO) to Paul Gleeson, then Chief Cultural Resource Manager at the Park, the SHPO confirmed the eligibility of 8 of the trailside shelters for the National Register of Historic Places including Deer Park Shelters 1 and 2, Graywolf Falls, Low Divide, Anderson Pass, Home Sweet Home, 21 Mile, and Olympus Guard Station.[62] The Park then made the decision to reconstruct Low Divide and Home Sweet Home off-site at the Park's Elwha maintenance yard to be flown in by helicopter upon completion to their original sites.[63] It was thought brief helicopter use would reduce the overall impact to the designated Wilderness as opposed to constructing the shelters on site.

The decision to use helicopters to fly in reconstructed shelters resulted in the 2005 lawsuit, WILDERNESS WATCH v. FRAN P. MAINELLA. The NPS ultimately lost the case, though it was recognized that the decision was not arbitrary or capricious, as was claimed by Wilderness Watch. [64] In 2016, another lawsuit was filed against Olympic National Park for their decision to repair 5 buildings, including 4 shelters located in the designated Wilderness. This case, WILDERNESS WATCH v. SARAH CREACHBAUM, once again claimed that the Park acted arbitrarily and capriciously in its decision to repair historic structures in designated Wilderness. The court ultimately ruled in favor of the Park, due to the diligence of the decision-making process prior to work being undertaken.[65] These court cases speak to the tension established by the seemingly contradictory aims of the Wilderness Act of 1964 and the National Historic Preservation Act of 1966. Further elaboration on this topic is provided in Chapter II.

Following the 2016, court decision, the Park has continued to maintain the remaining 19 shelters in accordance with the General Management Plan, utilizing the minimum tool requirement and prohibiting the use of power tools to maintain historic structure in the backcountry.

National Park Collections and Archives. Box: Historic Structures Reports, Box 1 of 3, Folder 32: Shelter History/ Use.

[62] Lauren McCroskey letter to Paul Gleeson. January 11, 2001. Olympic National Park Collections and Archives. Box: Historic Structures Reports, Folder 39: BLDGs Removed.

[63] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 56.

[64] Olympic Park Assocs. v. Mainella, No. C04-5732FDB, 2005 WL 1871114 (W.D. Wash. Aug. 1, 2005)

[65] Wilderness Watch, Inc. v. Creachbaum, 225 F. Supp. 3d 1192 (W.D. Wash. 2016)

Trailside Shelters & the National Register of Historic Places

The National Register of Historic Places (NRHP) was created under the National Historic Preservation Act (NHPA) of 1966 as part of a nation wide program to identify, evaluate, and protect places of historic significance within the United States. In essence, it is a list of buildings, districts, sites, structures, and objects that have been deemed worthy of preservation under at least one of the four criteria established by the NRHP guidelines. The nomination process for a property can be initiated by any member of the public submitting a nomination form to the State Historic Preservation Office—also established under the NHPA—who facilitates the process. While outlining the full process and guidelines for eligibility for the NRHP is outside of the scope of this project, it is important to note that major factors of eligibility are the age of the proposed resource, the criteria it is being considered under, the significance and the integrity that remains to convey that significance.

A property must—with some exceptions—be at least 50 years old to be considered eligible for the NRHP. Under this guideline, the trail network in Olympic National Park as well as its associated resources, such as the trailside shelters, are considered eligible. Secondly, the completed nomination form establishes a period of significance for the proposed nomination as well as at least one criterion under which its significance will be evaluated. The four NRHP Criteria for evaluation are:

A: Property is associated with events that have made a significant contribution of the broad pattern of events of our history

B: Property is associated with the lives of persons significant in our past

C: Property embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possess high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction

D: Property has yielded, or is likely to yield, information important in prehistory or history

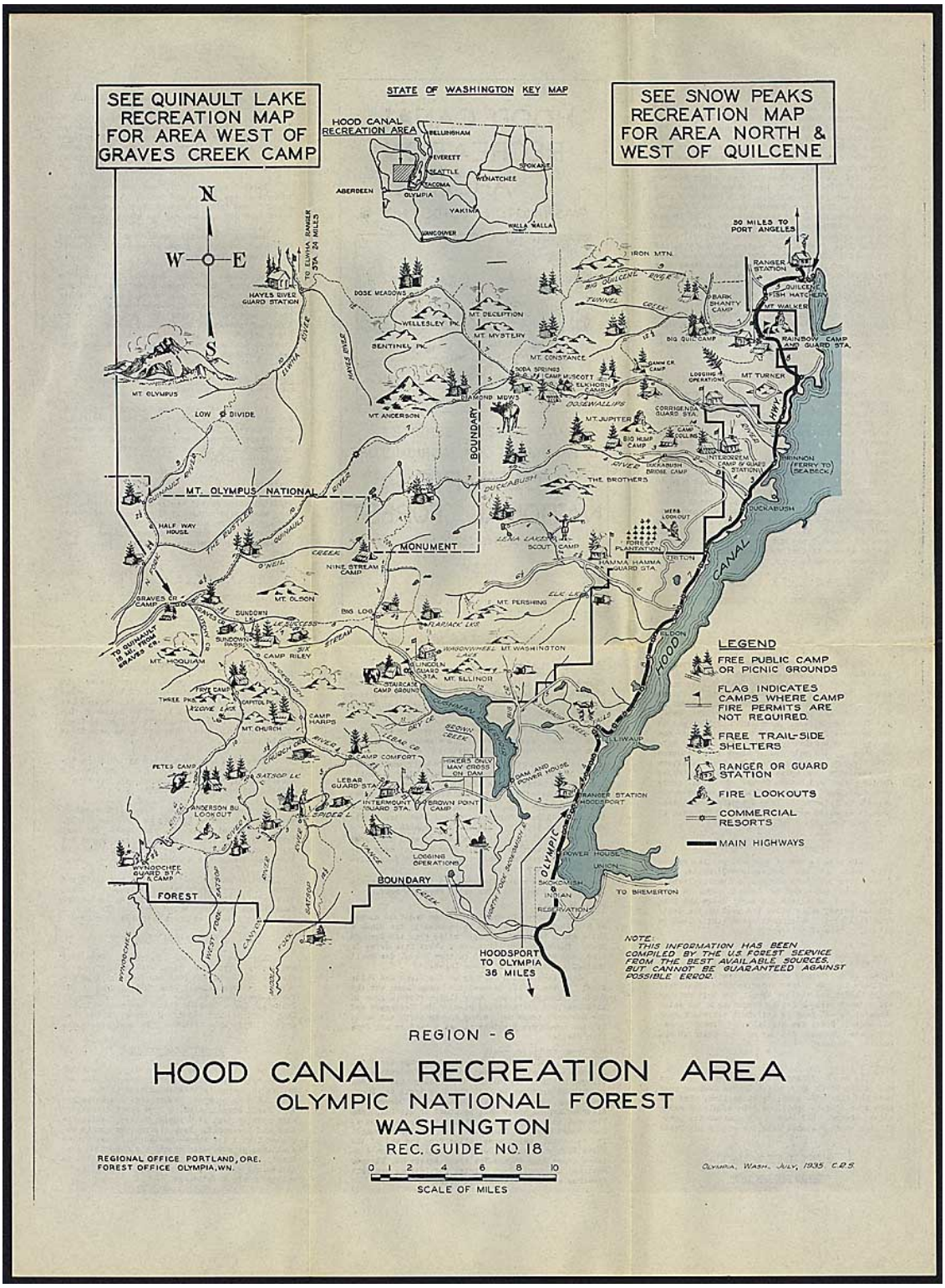
Lastly, the level of proposed significance—be it Local, State, or Federal—likewise plays a determining role in the addition of a property or district to the NRHP.

After the court decision in 2005, seven of the remaining eighteen trailside shelters were nominated and listed on the NRHP under a Multiple Property Document in 2007. The seven shelters listed are Canyon Creek (or Sol Duc Falls), Fifteen Mile, Hyak, North Fork Sol Duc, Three Forks, Happy Four, and Pelton Creek.[66] The individual buildings were evaluated for their statewide significance from the year of their respective construction until 1933 under criteria A and C. The shelters are considered for their association with the politics and government activities of USFS era as well as their distinctive construction styles. While the listing of these 7 shelters on the NRHP was a great step toward their protection, a new nomination for all 19 of the shelters as well as their adjacent trail system would be more comprehensive and appropriate. If evaluated as a cultural landscape, the trail network including the shelter could be nominated as a district under the NRHP. This is a common approach today as exemplified by evaluated cultural landscapes such as the Wonderland Trail in Mount Rainier National Park and the Appalachian Trail in Shenandoah National Park. An exploration of the trail network of Olympic National Park as a cultural landscape can be found in Chapter IV.

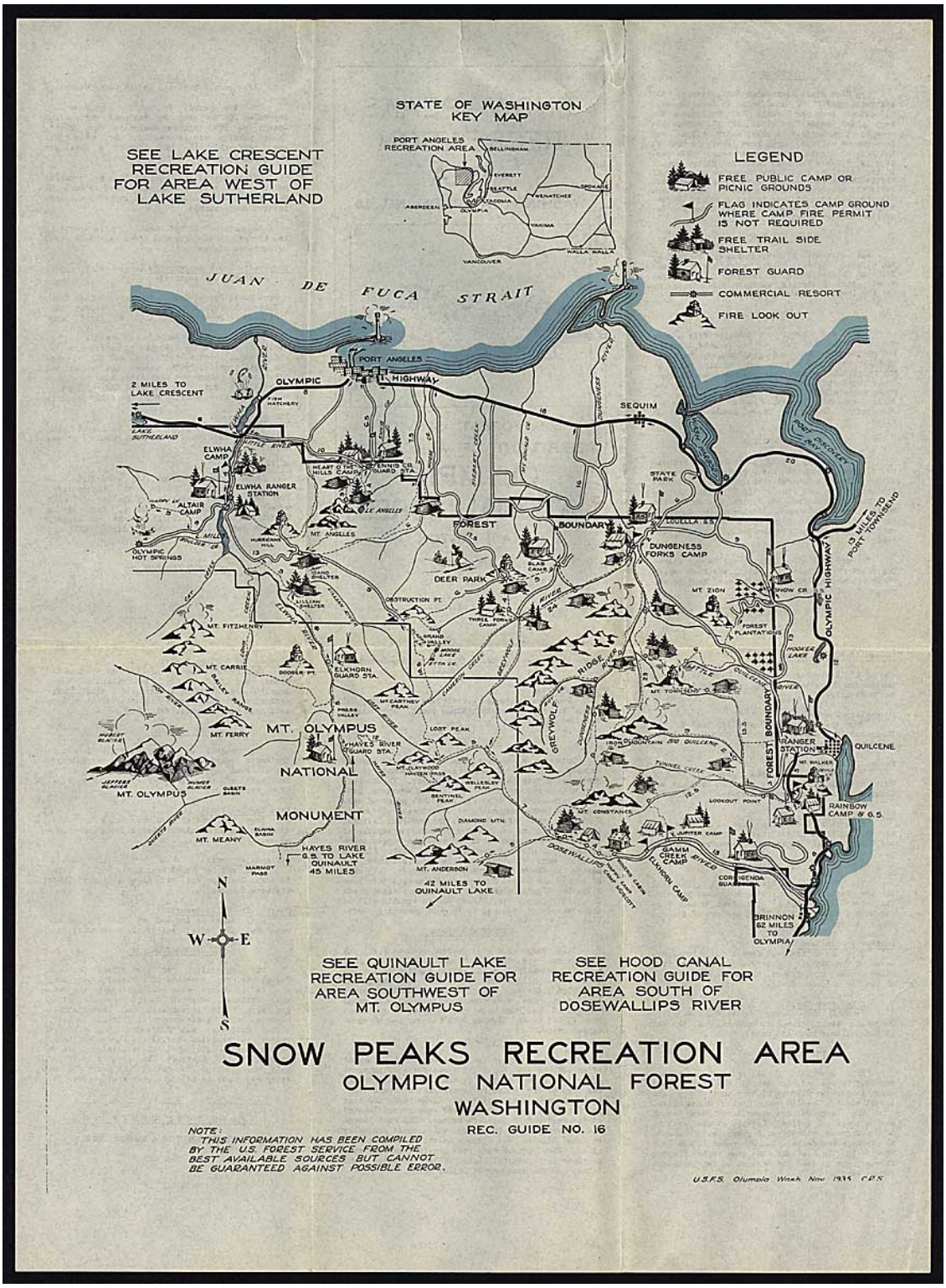
[66] All seven NRHP nomination forms can be found at: https://npgallery.nps.gov/NRHP/SearchResults?view=list

Name	Valley	Date Constructed
Fifteen Mile	Bogachiel	1928
Hyak	Bogachiel	1928
Deer Park 1	Deer Park	1930
Deer Park 2	Deer Park	1930
Three Forks	Graywolf	1930
North Fork Sol Duc	Sol Duc	1932
Elkhorn	Elwha	1933
Anderson Pass	Dose	1934
Happy Four	Hoh	1935
Canyon Creek	Sol Duc	1938
Blue Glacier 1	Hoh	1949
Blue Glacier 2	Hoh	1949
Wilder	Elwha	1951
Bear Camp	Dosewallips	1952
Elk Lake	Hoh	1963
Olympus Guard Station	Hoh	1963
Trapper	North Fork Quinault	1963
Happy Hollow	Elwha	1964
Mink Lake	Sol Duc	1964

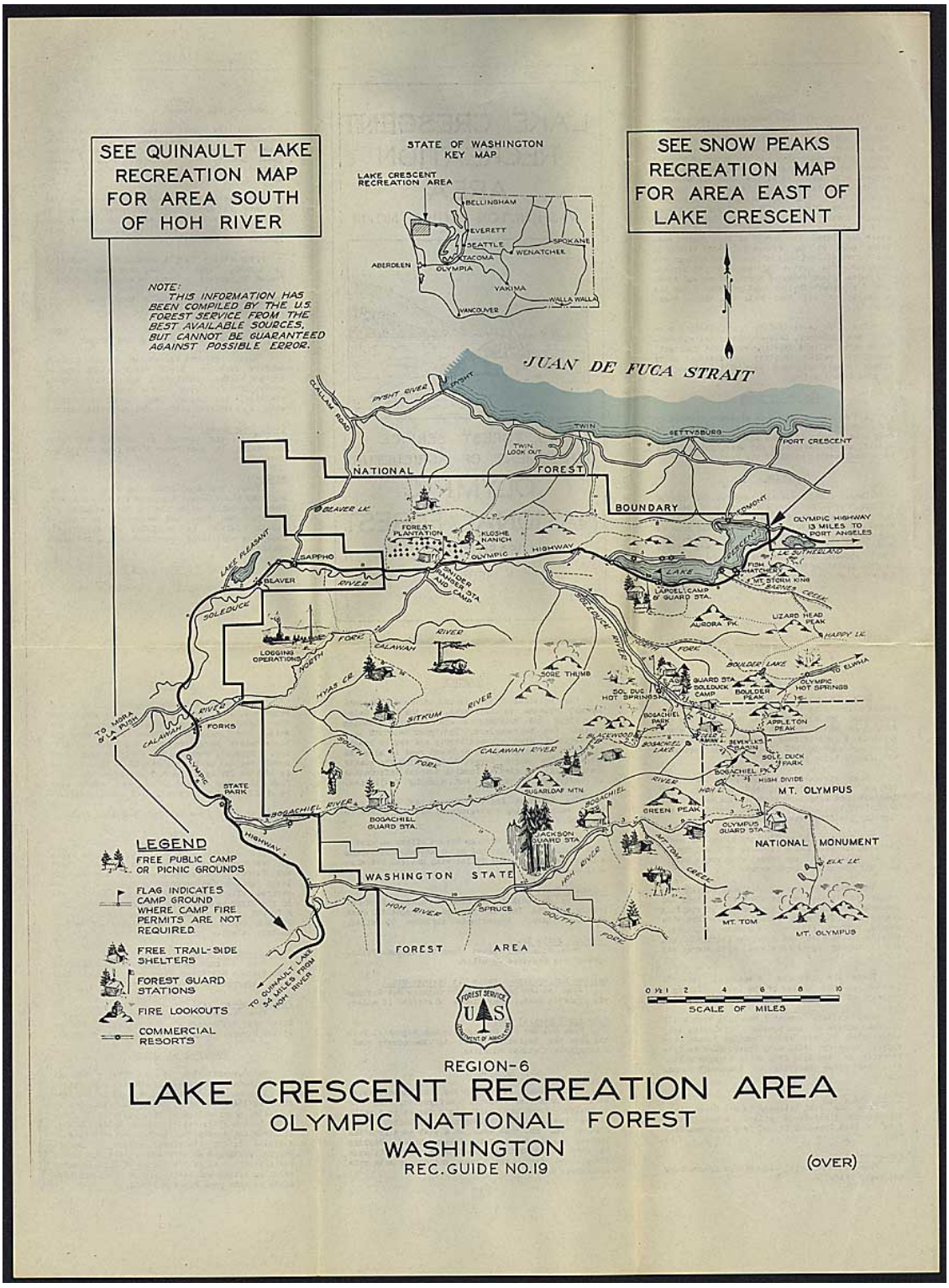
Chart of the remaining trailside shelters at Olympic National Park as of 2022. Made by author, 2023.



Olympic National Forest Recreation Brochure printed in 1936. Note the listing of "Free Trail-Side Shelters" in the legend and the distribution of shelters throughout the National Forest as well as National Monument boundary. Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Published Maps and Recreation Guides. NAID: 299252



Olympic National Forest Recreation Brochure printed in 1936. Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Published Maps and Recreation Guides. NAID: 299285



Olympic National Forest Recreation Brochure printed in 1936. Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Published Maps and Recreation Guides. NAID: 299257

LOCATION

The Snow Peaks Recreation Area occupies the northeast portion of the Olympic National Forest, and extends from the Olympic Hot Springs on the west to the Dosewallips River on the south. The area is characterized by high, sharp ridges, and deep narrow valleys, which have their sources at the base of rugged, snow capped peaks. This section is probably the most beautiful alpine region in the Olympics, containing thousands of acres of alpine fields filled with flowers, also mountain lakes and waterfalls of rare beauty. Many of the deep, narrow valleys form rather distinct recreational units within themselves, and these are described in more detail below:

HOW TO GET THERE

All entrances into this area are reached by the Olympic Highway. Short stub roads extend from the highway into the interior for comparatively short distances, at which point trails begin and lead to all sections of the forest.

CAUTION

These stub roads are comparatively narrow and unsurfaced, but auto travel is safe, providing reasonable care and good judgment is exercised by the driver. Cars can usually pass at any point, but where this is not possible, frequent turnouts have been provided. Some of the roads contain steep grades and cars should be in good operating condition and at no time should the speed of travel on these roads exceed 15 miles.

THE DOSEWALLIP

The Dosewallip River is one of the principal fishing streams of the Olympics. The narrow valley bottom is covered with a virgin forest typical of the east side of the Olympics. A forest road extends from the Olympic Highway up the valley for a distance of 13 miles. Two improved forest camp grounds (Gamm Creek and Elkhorn) and several camp spots are located adjacent to this road.

The end of the Dosewallip road is the starting point of the Dosewallip trail, and from which other wilderness trails branch and lead to all parts of the Olympic Forest.

SNOW PEAKS RECREATION AREA

WASHINGTON GUIDE NO. 16

U. S. FOREST SERVICE
DEPARTMENT OF AGRICULTURE

OLYMPIC NATIONAL FOREST

WASHINGTON

1936

CAMPING
(Free on all National Forest Campgrounds)

Campfire permit is required from July 1 to September 30 to camp on National Forest land except on the improved designated camp ground. These permits are secured from any forest officer, preferably the one closest to where you are going to camp.

Unless travel is by foot, you are required to have an axe, shovel and bucket to camp on National Forest land, except at improved and designated camp grounds.

Regulations forbid smoking while traveling in timber, brush, or grass areas except on paved or surfaced highways.

Improved Forest Campgrounds (Where campfire permits are not required)

Gamm Creek Forest Camp	Dungeness Forest Camp
Elkhorn Forest Camp	Elwha Forest Camp
Rainbow Forest Camp	Altaire Forest Camp

These improved campgrounds contain comfort stations, piped water systems, community kitchen, registration booths, individual and picnic camping spots provided with stoves and tables, and occasionally playground facilities such as swings teeters and wading pools for the children, and horse shoe courts for the older persons.

Other Campground

These are cleared or natural camp spots containing in some cases a few camp ground improvements.

Shelters

These are open-front log structures constructed along forest trails in the back-country. They were built primarily for the use of forest workers, but when not occupied, their use by forest visitors is permitted and encouraged. They are especially convenient during inclement weather.

PUT YOUR CAMPFIRE OUT

Dosewallip-Quinault Trail

From the end of the Dosewallip Road to the end of the East Fork Quinault Road via Diamond Meadow and Enchanted Valley. Approximate distance 32 miles.

Dosewallip-Dungeness Trail

From the end of the Dosewallip Road to the Dungeness Forest Camp Ground via Constance Pass. Approximate distance 30 miles.

Dosewallip-Elwha Trail

From the end of the Dosewallip Road to Hurricane Ridge Road via Hayden Pass and the Elwha River. Approximate distance 46 miles.

Mt. Constance-Tunnel Creek Trail

From the Dosewallip Road at Jupiter Camp to the Quilcene River Road via Mt. Constance and Tunnel Creek. Approximate distance 13 miles.

THE BIG QUILCENE

The Big Quilcene River and its tributaries is the favorite fishing stream of many anglers. The river is reached by trail from Rainbow Forest Camp, or by trail from the end of the Big Quilcene Road.

Rainbow Forest Camp

This is an improved forest camp ground located on the Olympic Highway approximately five miles south of Quilcene, and marks the terminus of the Big Quilcene Trail.

The Big Quilcene Trail

From Rainbow Forest Camp to the Dosewallip Dungeness trail, via Port Townsend Dam, the end of the Quilcene road and Marmot Pass.

THE DUNGENESS

This important forest recreational center can best be reached by taking the forest road that leaves the Olympic Highway west of Blyn and travel via the Louella Guard Station eight miles.

The improved Dungeness Forest Camp Ground has a beautiful setting, located at the junction of the Dungeness and Greywolf rivers, and surrounded by high mountains. The Dungeness Forest Camp Ground is the gateway to many fine fishing streams, and is also the termini of two important forest trails.

Dungeness-Dosewallip Trail (See Dosewallip-Dungeness Trail)

Grey Wolf Trail

From the Dungeness Forest Camp up the Grey Wolf River to the Dosewallip Elwha trail. Approximate distance 24 miles.

DEER PARK

This is a unique alpine area which is claimed by many to be the only mile-high playground in the northwest within 25 miles of tidewater. In the center of this recreational area is Blue Mountain, having an elevation of 6007 ft. From this point of vantage one can look out over the straits of Juan de Fuca and see Vancouver and the San Juan Islands. Looking east, one can see the picturesque skyline of the Cascade range and south and west the rugged snow-capped peaks of the Olympics. Acres of alpine flowers attract many visitors to this area in summer, and skiing is the major attraction in winter. 12½ miles of county and Forest Service road connects this area with the Olympic Highway. The long sustained grade is fairly steep in places, but no trouble will be experienced if the car is in good operating condition.

HURRICANE RIDGE

This ridge is a continuation of Deer Park, but is reached via the Elwha Ranger Station. The road ascends gradually from the ranger station to the top of Hurricane Ridge, and then along the top of the mile-high ridge for a distance of 10 miles to Obstruction point. The view from Hurricane Ridge is equal to that at Deer Park, but, in addition, an excellent view is had of Mt. Olympus with its retinue of snow-capped peaks.

THE ELWHA

The Elwha River valley is one of the longest of any in the Olympics. The first point of interest after leaving the highway is the improved Elwha Forest Camp Ground, which is located in a beautiful grove of maple, adjacent to the Elwha road; and next is the Altaire improved forest camp ground located at the west end of Soldiers Bridge. The road leaves the valley floor at this point and ascends gradually to the Olympic Hot Springs Resort a distance of 9 miles. View points have been provided on this road overlooking beautiful Lake Mills, the Upper Elwha Valley and the snow-capped Bailey Range.

Olympic Hot Springs Resort

This resort has hotel and cabin accomodations, and in addition, two swimming tanks supplied by natural hot water and healthful mineral springs. The resort has a beautiful setting amid high rugged mountains.

MT. ANGELES

The gateway to this recreational area is the Ennis Guard Station, which is reached by a forest road south from Port Angeles 6½ miles. Proximity of this area to Port Angeles makes it ideal for one day outings.

Lake Angeles Trail

From the end of road near Ennis Guard Station to Lake Angeles. Approximate distance 4 miles.

Mt. Angeles Trail

From end of road near Ennis Guard Station to Idaho Shelter via Mt. Angeles. Approximate distance 9 miles.

Heart O The Hills Resort

This resort is located at the end of the road and has hotel and cabin accommodations.

FOREST ORGANIZATION

The organization of the Olympic National Forest briefly consists of a Forest Supervisor, who is in charge, with headquarters in the Federal Building, Olympia, Washington. Assisting him is a field organization of five district rangers, with headquarters at Quinault, Snider, Elwha, Quilcene, and Hoodsport. Each district ranger is assisted during the summer months by Forest Guards, stationed at strategic points throughout his district. It is the desire of this organization to advise and assit you in every way possible to make your visit enjoyable.

DROWN YOUR CAMPFIRE

EXCEPT ONE BUILT IN A MASONRY STOVE

Olympic National Forest Recreation Brochure printed in 1936. Reverse side of previous maps. Note information regarding the use of "Shelters Source: National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Published Maps and Recreation Guides. NAID: 299285

OLYMPIC NATIONAL PARK
Shelters Removed Since 1970
and Existing Shelters

	NUMBER	LOCATION	DATE, IF REMOVED	DOCUMENTATION
Built 1949	1.	Lake Angeles	1970	Only 2 sides standing
	2.	Hayes River #1	1970	Poor condition, another shelter 40 feet away
	3.	Sixteen Mile	1970	Extremely poor condition, burned following removal of winter fatality
	4.	Old Elkhorn G.S.	1970	Very poor condition, adjacent shelters
	5.	Soleduck Park	1971	Very poor condition
	6.	Boulder Lake	1971	Natural cause (avalanche)
	7.	Halfway Rock	1973	A, B, D*
	8.	Dose Forks #1	1973	A, B, D
	9.	Dose Forks #2	1973	A, B, D
	10.	South Sand Point CG	1973	A, B, D
	11.	Dose Forks #3	1974	A, B, D, E, F, G
	12.	Flapjack Lakes #1	1974	A, B, D, E, F, G
	13.	Camp Pleasant	1974	A, B, D, E, F, G
	14.	Heather Park	1974	A, B, D, E, F, G
	15.	Lillian River	1974	A, B, D, E, F, G
	16.	Seven Mile	1974	A, B, D, E, F, G
	17.	Deer Lake #1	1974	A, B, D, E, F, G
	18.	Deer Lake #2	1974	A, B, D, E, F, G
	19.	Round Lake	1974	A, B, D, E, F, G
	20.	Flapjack	1974	A, B, D, E, F, G
	21.	Big Flat	1974	A, B, D, E, F, G
	22.	Tom Creek	1974	A, B, D, E, F, G
	23.	Falls Creek	1974	A, B, D, E, F, G
	24.	South Sand Point	1974	Accidental visitor fire
	25.	Old Hyak G.S.	1975	A, B, C, E, F, G
	26.	Hoh Lake	1975	A, B, C, E, F, G
	27.	Low Divide #1	1975	A, B, C, E, F, G
	28.	Gray Wolf	1975	A, B, C, E, F, G
	29.	Calawah	1976	A, B, C, E, F, G, H
	30.	Upper Cameron	1976	A, B, C, E, F, G, H
1951	31.	Canyon Camp	1976	A, B, C, E, F, G, H
	32.	Chicago Camp	1976	A, B, C, E, F, G, H
	33.	Diamond Meadows	1976	A, B, C, E, F, G, H
	34.	Dose Meadows	1976	A, B, C, E, F, G, H
	35.	Lower Elk Lake	1976	A, B, C, E, F, G, H
	36.	Flapjack Lake #2	1976	A, B, C, E, F, G, H
	37.	Francis Creek	1976	A, B, C, E, F, G, H
	38.	Hart Lake	1976	A, B, C, E, F, G, H
	39.	Hayes River #2	1976	A, B, C, E, F, G, H
Built [illegible]	40.	Lunch Lake	1976	A, B, C, E, F, G, H
1953	41.	Nine Stream	1976	A, B, C, E, F, G, H
	42.	Spruce Bottom	1976	Accidental visitor fire

* See Decision Documents for Shelter Policy

	NUMBER	LOCATION	DATE, IF REMOVED	DOCUMENTATION
	43.	Three Prune	1976	A, B, C, E, F, G, H
	44.	Ten-Mile		
	45.	Upper Duckabish		
	46.	Home Sweet Home		
1951	47.	Marmot Lake (Cleary Lake)		
	48.	Anderson Pass		
	49.	Bear Camp		
	50.	Three Forks		
	51.	Falls		
	52.	Grand Lake		
	53.	Lower Cameron		
B. 19[illegible]	54.	Marys Falls		
	55.	Elkhorn		
Built 1951	56.	Stony Point		
1951	57.	Camp Wilder		
	58.	Remann's Cabin		
	59.	Happy Hollow		
	60.	Sourdough		
	61.	North Fork Soleduck		
	62.	Soleduck Falls		
	63.	Mink Lake		
	64.	Bogachiel		
	65.	Fifteen-Mile		
	66.	Hyak		
	67.	Twenty-one-Mile		
	68.	Happy Four		
	69.	Olympus #1		
	70.	Olympus #2		
	71.	Elk Lake #2		
	72.	Glacier Meadows #1		
	73.	Glacier Meadows #2		
	74.	Smith Place		
	75.	Bob Creek		
	76.	Pelton Creek		
	77.	Sundown Lake		
	78.	Enchanted Valley Chalet		
	79.	Three Lakes		
	80.	Trapper		
	81.	Twelve-Mile		
	82.	Low Divide #2		
	83.	Mosquito Creek		
	84.	Toleak Point		
	85.	Scott Creek		
	86.	Chilean Memorial		
	87.	Cedar Creek		
	88.	Norwegian Memorial		
	89.	Sand Point #1		
	90.	Sand Point #2		
	91.	[illegible] #1 } Considered Front Country		
	92	#2		

An undated internal document titled "Olympic National Park: Shelters Removed Since 1970 and Existing Shelters" show the degree to which the systematic removal of trailside shelters occurred and accelerated in the early to mid-1970s. Source: Olympic National Park Archives and Collections.

Chapter II:

A Cabin in the Woods: Reconciling Wilderness & the Presence of People Within It

Elkhorn Guard Station District is located approximately 12 miles up the Elwha River Trail, within designated Wilderness. The station was built in between 1930 and 1934 under USFS management and is comprised of four buildings situated adjacent to a river-side meadow. Photo by author, 2022.

The topic concerning historic buildings and structures in designated Wilderness is a well-trodden subject of discussion. As such, I do not intend to further that debate here philosophically or politically. This section, instead, will serve as a general outline of the dialogue to provide the context for the legal issues that Olympic National Park has recently faced and how the courts ultimately reconciled the language of the two Acts in favor of the Park's decision to preserve the shelters. The lawsuits themselves are now part of the history of the trailside shelter network.

The debate is rooted in the interpretation of the Wilderness Act of 1964 and the National Historic Preservation Act of 1966—henceforth referred to as the Acts. The reconciliation of these Acts is ultimately a matter of land use and what is interpreted as being permitted in capital "W" designated Wilderness. A brief history of the legal efforts taken in the protection of natural and cultural resources in the United States helps set the stage for the discussion.

The legal protection of natural and cultural resources can be traced back to the Act of the Preservation of American Antiquities (known as the Antiquities Act) of 1906, passed by President Theodore Roosevelt. In the latter half of the 19th century, federally managed lands began to be set aside— owned federally in perpetuity rather than parceled off for private purchase— for resource management, such as timber, as well as for recreation purposes. In 1832, the Hot Springs Reservation in Arkansas was the first land to be set aside for purely recreational purposes.[67] Forty years later, in 1872, Yellowstone was created as the first national park in the U.S. From there, national parks and monuments began to be established across the country including Yosemite in 1890.

The Forest Reserve Act of 1891was established to protect forest reserves in effort to retain the dwindling timber supply for future use. In 1905, the US Forest Service was established to administer forest reserve areas. By then, the reserves had already been established as having value beyond their natural resources, namely cultural values such as recreation. By 1906, those cultural resources contained within the natural reserves were being compromised for profit—namely archeological sites and artifacts were being looted and sold. The Antiquities Act was passed in response to the looting and aimed to protect cultural resources managed by public land agencies. This law protected landmarks, sites, objects, and structures considered to

[67] "History of NPS Land Acquisition." National Park Service. U.S. Department of the Interior, December 15, 2022. https://www.nps.gov/subjects/lwcf/land-acquisition-history.htm#:~:text=Hot%20Springs%20Reservation%20was%20established,the%20Federal%20government%20for%20recreation.

be of historic or scientific interest.[68] This law also gave presidents the power to create national monuments and established the relationship between cultural and natural resources within federal lands—a relationship that was not mutually exclusive but rather integrated and seen as of equal value.

The importance of the relationship between natural and cultural resources was further solidified by the creation of the National Park Service (NPS) as a result of the passage of the Organic Act in 1916. Here, the expressed purpose of the Service is to, "conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."[69] This mission is often referred to as the dual mandate—to protect natural resources and historic objects equally.

The NPS was initially limited in its scope and protected mainly landscapes west of the Mississippi River. As the NPS network began to expand in the later 1920s and '30s with the identification of archeological and historic sites that represented the nation's heritage across the country, the role the agency played in administering those lands also grew. In 1933, with the President Roosevelt's signing of Executive Order 6166, historic sites managed by the Department of Agriculture and War were reassigned to be managed by the NPS. In the context of the Great Depression and efforts to create jobs through federal public works projects, archeological and historic preservation expertise increased in importance with efforts and programs designed to document and protect the nation's heritage.

In 1935, the Historic Sites Act was passed to further expand the role of the National Park Service to meet their increased responsibility in managing sites of cultural value. This Act importantly allowed the NPS to carry out programs to research, document, and acquire cultural sites of significance and manage them by cooperating with local agencies, creating public education programs, and physically restoring the sites. This was a major expansion in the role of federal involvement, mainly the NPS, in historic preservation and continues to be foundation for programs that administer historic sites to date.[70]

In the following decades, as the network of federal lands grew on the basis of conservation of natural and cultural values, the need for additional guidelines of what is permissible within those lands also grew. Following World War II, the rise of the automobile and the increased popularity of outdoor recreation as an American pastime, the stress on public lands and the NPS accordingly necessitated additional legal guidance that would provide a specificity for the multiple designations that public lands could be protected under.

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[68] "American Antiquities Act of 1906: Overview (U.S. National Park Service)." National Park Service. U.S. Department of the Interior, August 8, 2019. https://www.nps.gov/articles/american-antiquities-act-of-1906.htm.

[69] "Quick History of the National Park Service (U.S. National Park Service)." National Park Service. U.S. Department of the Interior, August 25, 2022. https://www.nps.gov/articles/quick-nps-history.htm.

[70] "Historic Sites Act of 1935." National Park Service. U.S. Department of the Interior, January 12, 2023. https://www.nps.gov/subjects/archeology/historic-sites-act.htm#:~:text=The%20Historic%20Sites%20Act%20established,people%20of%20the%20United%20States.%E2%80%9D.

The Wilderness Act was passed in 1964 in response to that increase in development. In the Act's own words:

> "In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." [71]

Wilderness Areas were to be established within existing public lands managed by their respective agencies—be it NPS, Forest Service, or Bureau of Land Management—who would continue to have jurisdiction over the administration of the new designation.

The Wilderness Act defined Wilderness as,

> "A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." [72]

This new definition of Wilderness provided much needed guidance on how these areas were to be managed to promote the ongoing wilderness character in a time of substantial development in the infrastructure of the surrounding public lands. Despite the seemingly clear definition, the language of the law leaves room for legal interpretation. For example, how can "the imprint of man's work substantially unnoticeable" be quantified if compared to the otherwise developed urban or semi-urban development? The interpretation of the law would be ultimately left up to the jurisdiction of the respective agency. Furthermore, Section 4 of

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[71] United States Forest Service, "The Wilderness Act of 1964 - US Forest Service." fs.usda.gov. Accessed April 15, 2023. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd645666.pdf. 1.

[72] Ibid. 2.

the law establishes that the Wilderness Act is to be supplemental to the already existing purposes of which national forest, national parks, and wildlife refuge areas were created and managed.[73] The use of Wilderness Area was distinctly defined in the Act stating, "Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use." None of these uses explicitly takes precedence over another other.

The Act, however, clearly prohibits the general use of certain equipment within Wilderness Areas to retain the wilderness characteristics. The use of motorized vehicles and equipment, as well as mechanical transport and the installation of any roads or structures is prohibited in Wilderness Areas except in the instances deemed necessary to meet the minimum requirements for administration of the area by the governing agency. This includes exceptions made for the uses specifically outlined in the Act. As defined, this would include purposes of recreational, scenic, scientific, educational, conservation, and historical use. The final provision of establishing what the minimum requirements for the administration of a wilderness area can be widely interpreted and as led to the process of conducting a Minimum Requirement Analysis (MRA) in any circumstances that a prohibited use is being considered within a Wilderness Area. Each respective agency undergoes an analysis in a given scenario meaning that exceptions for prohibited uses are made on a case-by-case basis after thorough evaluation of the needs and conditions of use in that unique area. This accounts for why there are discrepancies for what tools are considered necessary in managing a Wilderness area. A prime example being the use of chainsaws in some National Parks when maintaining hiking trails over the use of almost exclusively crosscut saws on Forest Service lands, even within the same geographical area.

A trail worker bucks a spruce tree measuring over 4-feet in diameter that has fallen across the Hoh River Trail, within the designated Wilderness Area, with an approved chainsaw. Photo by author, 2019.

[73] Ibid. 4.

It was in the same cultural climate of widespread infrastructural development that prompted the passage of the Wilderness Act that the National Historic Preservation Act (NHPA) was also passed. In 1966, Lyndon B. Johnson signed the NHPA as an Act that established permanent institutions to enact historic preservation policy and created and defined the process of evaluation of historic resources as well as the standards for documenting and treating those historic properties. Until its passage, historic preservation policy was still largely administered under the provisions of the Historic Site Act of 1935. Outlining the full scope of the NHPA is outside the scope of this project. What is relevant to this project is the provision of the Act the requires that any federal project—not only of properties on federally managed lands, but any project using federal funding—must comply with a review process (known as Section 106 and Section 110 after the respective sections within the Act) to consider the effects of the project undertaking on historic properties.

In defining the Section 106 process, the NHPA also established the criteria for consideration when evaluating what constitutes a historic property. Properties were first and foremost, with some possible exceptions, to be at least 50 years old to be considered eligible. This was largely to account for the critical temporal distance necessary for a cultural to understand the significance of a given history. The NHPA likewise established the National Register of Historic Place (NRHP) —a list of districts, sites, buildings, and objects that were considered worthy of preservation due to their local, state, or national significance as determined under the four criteria of consideration. In order for a property to be placed on the NRHP, it must successfully go through the nomination process that involves a review period with all stakeholders and the eventual approval (or denial) by the given State Historic Preservation Office (SHPO), a state agency also established by the NHPA. If a building or site has been listed or is eligible for the NRHP then any federally funded project that may impact the ability of the property to convey its history must be avoided, minimized, or mitigated.

While the Wilderness Act and the NHPA largely govern different areas of defined uses in the United States, there is the narrow percentage of properties and lands where both Act's jurisdiction overlap. This is where the debate of historic properties, such as the trailside shelters in Olympic National Park, contained within designated Wilderness Areas arises. To reconcile what could be interpreted as conflicting agendas between the two acts, one must first understand the evolution of wilderness within American culture.

It would be difficult to define a concept from a cultural perspective without first defining whose culture one is referring to. In this context, when exploring the cultural value of "wilderness", I am largely defining it from the perspective of "American" culture, understood more generally by the social trends and subsequent legislation that represent the cultural values of citizens of the United States. Of course, even that necessitates a broad generalization given that the US can hardly be characterized by only one set of cultural values. However, the evolution of wilderness provided here will be understood culturally though the language of the law as evidence by the changing ideology. The Wilderness Act of 1964 represents the most recent cultural definition of "wilderness" but is by no means the first nor likely the last.

Prior to the passage of the Wilderness Act, the areas that would come to be encompassed within boundaries defined as Wilderness, had longs been impacted by people. Buildings, structures, objects, designed landscapes, and archeological sites as well as the natural environment on-which and often of-which they were built served to tell the history of the land and human presence within it. The concept set out by the Wilderness Act of a "untrammeled" and "primeval" landscape would have to be, in a way, created by managing the land in a way in which it had not been at any time in recorded history.

Environmental historian, professor, and author William Cronon in his essay *The Trouble with Wilderness; or Getting Back to the Wrong Nature,* writes about the evolution of the idea of Wilderness, especially within European and American conceptual framework. He traces wilderness back to 18th century usage in describing areas considered to be barren, savage, or a waste.[74] Wilderness was regarded in stark contrast to civilization, beginning the cultural division between the human and non-human, nature versus culture. Cronon refers to biblical associations of the term noting that Adam and Eve were expelled out of the Garden of Eden into a wilderness to redeem themselves and that Christ has struggled with the devil in the wilderness for 40 days.[75] The wilderness was something to be feared and conquered by civilization.

In the mid-19th century, writers such as Henry David Thoreau, John Muir, and many others evolved the concept of wilderness in having the cultural qualities we associate it with today. Positive associations of Edenic landscapes were represented in paintings and later, in photography. This wilderness began to be seen as the place where humanity could redeem itself from the burden of the civilization that was evolving. In the US, areas of natural beauty were regarded as spectacular sites to be witnessed by visitors—the guiding principles that established Yosemite as the first wildland park in 1864 and Yellowstone as the first national park in 1872. Cronon writes that the wilderness became the embodiment of two romantic notions gaining cultural value at the time: the sublime and the frontier. [76]

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[74] Cronon, William. "The Trouble with Wilderness; or Getting Back to the Wrong Nature." Essay. In *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton, 1995. 70.

[75] Ibid. 71.
[76] Ibid. 72.

This romanticism of the natural landscape grew parallel to the rapid industrialization in the US during the mid-19th century. With the growth of urban areas as centers of commerce and wealth and the increasing mechanization of industries surrounding the cities that many people inhabited, the availability of natural spaces for those people to enjoy were diminished. As a result, a trend towards primitivism—or returning to a more simple and unrefined way of life—began to take hold as an alternative to city life and the estrangement of labor caused by increasing mechanization. The vision of wilderness transformed from a place of terror and fear to an Eden of redemption and purity.

In his essay, Cronon argues that the wilderness was inextricably woven into the American identity of the rugged individual as manifested in the notions of the frontier.[77] He writes:

> "Among the core elements of the frontier myth was the powerful sense among certain groups of Americans that wilderness was the last bastion of rugged individualism…By fleeing to the outer margins of settled land and society—so the story ran—an individual could escape the confining structures of civilized life. The mood among writers who celebrated frontier individualism was almost always nostalgic; they lamented not just a lost way of life but the passing of the heroic men who had embodied that life."

Cronon goes on to chronical the rising trend of outdoor leisure travel that came about after the Civil War, when more and more people began to seek out travel into the wilderness as recreation and the temporary reprieve from civilized life. At the time, however, this type of travel was mainly enjoyed by the wealthy. Well-off industry men began creating "dude ranches" where they could retreat to a comfortable camp and live out the frontier fantasies of hunting and cattle ranching as a leisure pass time. Figures such as Theodore Roosevelt—who would be immensely instrumental in the development of public lands and national parks—were greatly influenced by their experiences within wilderness. The value placed on large swaths of what was considered untouched and pristine natural landscape was, in short, a cultural invention brought forth by the conditions of industrialization. In first half of the 20th century between World Wars, the emergence of the automobile, and a growing middle class, outdoor recreation in nature became more widely available to people outside of the wealthy sportsman.

What we more clearly understand now— more than 150 years removed from that initial shift in the ideation of wilderness—is that what was not being considered at that time was that the lands that the Euro-Americans revered for their natural and untouched beauty was land that had been inhabited and cultivated for hundreds, if not thousands, of years prior. Indigenous people had long maintained a deeply interwoven relationship with the lands that they were forcibly removed from as Euro-American settled the area and

[77] Cronon, William. "The Trouble with Wilderness; or Getting Back to the Wrong Nature." Essay. In *Uncommon Ground: Rethinking the Human Place in Nature*. New York: W.W. Norton, 1995. 77.

began to enjoy what they saw, in contrast to their industrialized civilization, as pristine wilderness—one the vision of which never in fact existed. Cronon explains,

> "The myth of the wilderness as 'virgin', uninhabited land had always been especially cruel when seen from the perspective of the Indians who had once called that land home. Now they were forced to move elsewhere, with the result that tourists could safely enjoy the illusion that they were seeing their nation in its pristine, original state." [78]

This myth of nature as a place untouched by the hand of humanity worked to create the perceived division between the human and non-human world, wilderness and civilization, the nature versus humanity dichotomy still deeply ingrained in our psychology today. This artificial separation has hindered our ability to understand the interconnection between the "natural" and the human and has contributed to the current climate crisis we have begun to acknowledge in the 21st century.

It is important to elaborate on the evolution of the concept of wilderness here in order to historically understand the intentions and motivation for the passage of the Wilderness Act of 1964 and ultimately why historic preservation can be interpretated as being in conflict with Wilderness principles. The definition of Wilderness has not been static. From the early days of management of public lands in the first decades of the 1900s—with resorts, hotels, and motor camps readily providing all sort of amenities to outdoor visitors—to the change in mentality in keeping places more rugged by limiting the comforts offered in public lands in the 1930s and post-WWII years and further, to the removal of infrastructure in effort to re-wild places after the passage of the Wilderness Act, the concept continues to evolve.

The rise of the middle-class enjoyment of outdoor recreation and their ability to reach natural areas via automobile in the early part of the 20th century, led to a growing and robust outdoor recreation industry that could capitalize from this new pastime. Olympic National Park was no exception, as was outlined in Chapter I, resorts and camps and the administrative infrastructure required to manage the increase visitation began to encroach on the very wilderness those people had come to seek. The human presence in the woods was increasingly present.

At the same time, especially after WWII, cities and towns across the country were experiencing the urban renewal programs of the 1950s and '60s as a result of legislation such as the Housing Act of 1949 where—due to a mass exodus of people from cities to newly established suburbs—urban areas deemed as blight were being torn down and replaced with large housing and transportation infrastructure projects such a highways and apartment blocks. Despite the Historic Sites Act of 1935, there was not a legal process by which to evaluate and protect sites considered to be of local, state, or national significance. Without a process of evaluation, in some instances, urbans renewal projects of those decades, resulted in the essential erasure of entire communities and sites of historical significance from the urban landscape. Minority

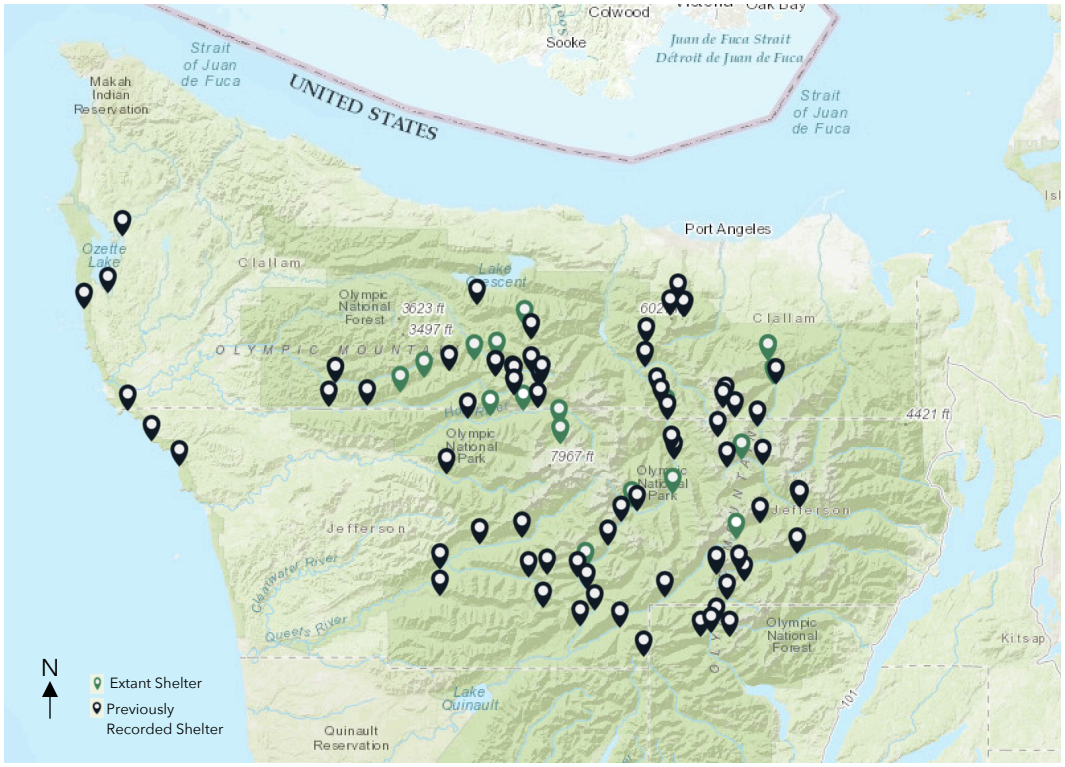
[78] Ibid. 79.

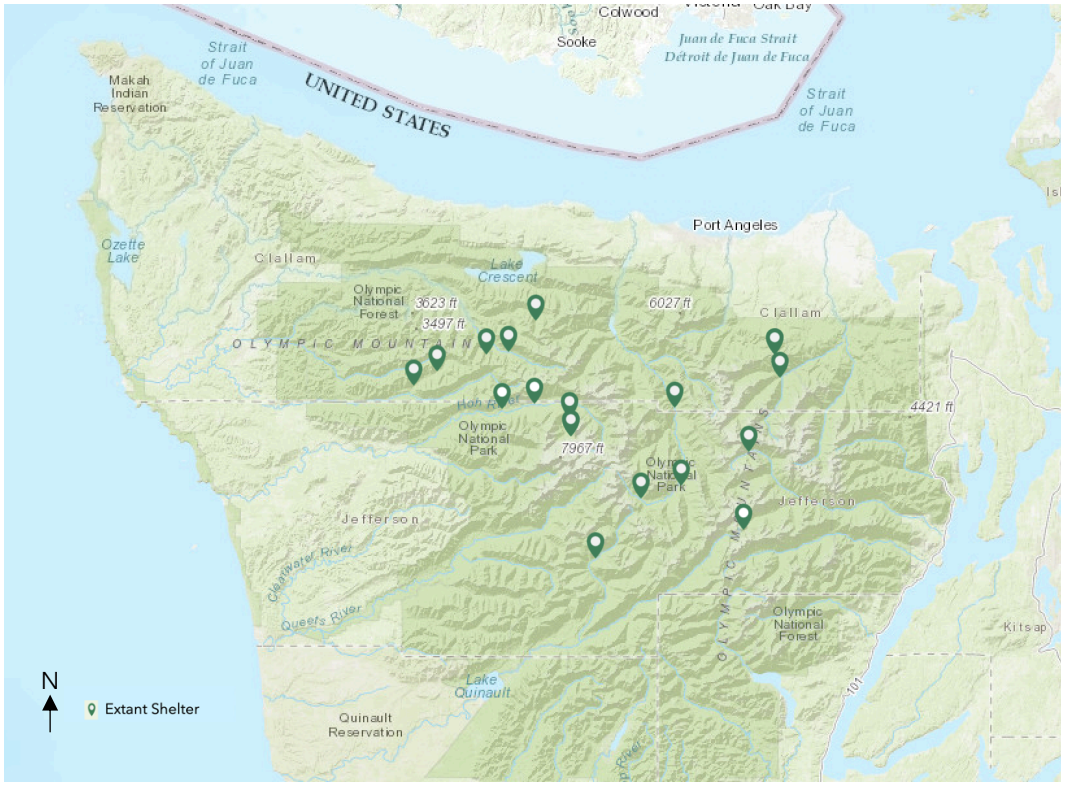
communities were disproportionally displaced by urban renewal programs due to discriminatory policies implemented at both local and federal levels.

As communities saw their homes and businesses disappearing—the built fabric of which characterized and defined their identity—grassroots movements began to form across the country to protest the demolition of historic sites and areas that expressed their community heritage. A famous example was the demolition of Pennsylvania Station, destroyed in 1963, despite significant public opposition. The National Historic Preservation Act of 1966 was passed to establish institutions to manage the preservation of historic resources by formalizing the process of evaluation and the standards with which to treat and maintain those properties within an everchanging urban fabric.

In the context of the history of the 1960s, both the Wilderness Act and the NHPA were passed at a time when aspects of American heritage were being eroded by the forward march of what was considered progress. Natural spaces were being impacted by expanding development including infrastructure used to promote outdoor recreation. Heritage and community spaces in urban environments were being destroyed by urban renewal projects. Fundamentally, both Acts arose out of the instinct to preserve aspects of American culture and identity. Though the built environment and the natural environment may seem culturally at odds, understanding the drive of preservation in both allows for a deeper reconciliation of the legal aspects that govern their conservation.

A Place for Trailside Shelters in the Wilderness of Olympic National Park





Above: Map representing recorded trailside shelters in the Park throughout the periods of their construction

Below: Map representing remaining extant shelters as of 2022

Points of shelters are approximated and complied from the following historical maps and trail hiking guides:

US Forest Service Recreation brochures (1936) provided at the end of Chapter 1

Road and Trail System Plan by the NPS (1942)

Trail System Plan by the NPS (1951)

Roads and Trails of Olympic National Park by Frederick Leissler (1957, 1965 editions). Note: shelters no longer listed in map symbology in third edition printed originally in 1976

Olympic in Relief map by Richard A. Parageter (1956)

Trail hiking map published by the NPS (1974)

With the passage of the Wilderness Act and the NHPA, the buildings, structures, constructed landscapes, and archeological sites that were on newly designated Wilderness lands found themselves in the crossfire of a legal conflict. At Olympic National Park, the initial interpretation of the Wilderness Act resulted in the removal of dozens of trailside shelters that had been constructed since the USFS management era and into the NPS decades. Most were destroyed by way of burning or disassembly from 1966 until 1980. The Olympic Wilderness Area —now the Daniel J. Evans Wilderness Area— was not designated until 1988.

The shelters that did survive the initial decades of removal were no longer maintained and succumbed to collapse under natural forces due to benign neglect. Many of those shelters removed would and should have been subject of evaluation under the NHPA after its passage in 1966. This, however, did not happen.

As the Park continued to remove shelters into the 1980s, members of the public began to voice their opposition which led to the Park halting their systematic removal in the late 1980s. By that time, less than a quarter—approximately 22— of the original number of shelters remained. The conversation began to form around how and if the language of the Wilderness Act and the NHPA could be aligned in the case of historic properties housed within Wilderness areas.

In her legal article *When Old Becomes New: Reconciling the Commands of the Wilderness Act and the National Historic Preservation Act* published in the Washington Law Review in 2013, lawyer Nikki C. Carsley elaborates on the two Acts and their ultimate ability to coexist. Of particular importance was the fact that neither of the Acts are established to have legal precedence over the other. While the Wilderness Act was passed two years prior to the NHPA, the language clearly states that the law is "within and supplemental" to other land use laws. [79] The Antiquities Act of the 1906 and the Historic Sites Act of 1935 would have had to be referenced. The language of the Wilderness Act also clearly states that it "in no manner lower[s] the standards . . . [of] any other [a]ct of Congress which might pertain to or affect such [wilderness] area, including, but not limited to…" which would include statues of historic preservation legislation.

Perhaps the clearest point of reconciliation of the two Acts is the Wilderness Act's plain language outlining the goal of the Act to promote "recreational, scenic, scientific, educational, conservation, and historical use." The apparent contradiction between the Act's definition of Wilderness as "…an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation" and its tolerance of protection and promotion of "recreational, scenic, scientific, educational, conservation, and historical" uses shows the intention to use discretion when interpreting and applying the Act. A discretion that would be left up to the interpretation and process of the respective land management agency.

[79]Carsley, Nikki C. Comment, *When Old Becomes New: Reconciling the Commands of the Wilderness Act and the National Historic Preservation Act*, 88 WASH. L. REV. 525 (2013). 530. Available at: https://digitalcommons.law.uw.edu/wlr/vol88/iss2/8

If considering that the Wilderness Act was written during a time of rapid industrial growth and encroachment of built infrastructure into the last swaths of natural areas, we should not assume that existing historic properties within its boundaries need to be destroyed. The Act ultimately does not appoint a specific federal enforcement agency, leaving those decisions once again to be made by the administrating agency. This is why, even today, we find discrepancies between interpretations by varying agencies such as the USFS and the NPS.

As Olympic National Park navigated their new responsibility for interpreting what the two Acts would mean for their network of backcountry structures—not only shelters but ranger stations and corrals—two lawsuits were brought forth against the Park as a result of their management of buildings within the designated Wilderness. Although outcomes of each lawsuit have been extensively reviewed in legal and cultural articles regarding historic properties in designated Wilderness, the full case made by of each of the lawsuits will not be outlined here. Instead, the outcomes will be summarized to understand the management of the trailside shelters remaining in the Wilderness today.

Trail attorney, Christopher Chellis outlines the two lawsuits and their arguments and implications in his article titled *Playing Nice in the Sandbox: Making Room for Historic Structures in Olympic National Park.* The first suit came forth in 2005 in the *Olympic Park Associates, Wilderness Watch, and Public Employees for Environmental Responsibility v. Fran P. Mainella, in her Official Capacity as Director of the National Park Service, an Agency of the United States Department of Interior; Jonathan B. Jarvis, NPS Regional Director of the Pacific West Region; and William G. Laitner, Superintendent of Olympic National Park* (Olympic Park Associate v. Maniella, for short). This case came as a result of the Park's decision to preserve two shelters—Home Sweet Home and Low Divide—that had collapse as a result of neglect. The decision was made that the way to preserve the shelters while having the least impact on the Wilderness would be to reconstruct them off-site in a front country maintenance yard and fly them into their sites via helicopter.

Olympic Park Associates et al. argued that the Park violated the Wilderness Act in its decision to reconstruct two historic trailside shelters that had collapsed due to negligence off-site at a Park front country maintenance yard then have them flown and placed in the Wilderness via helicopter. The court ultimately ruled in favor Olympic Park Associates deeming that the Park did not meet the Minimum Requirement Analysis for the use of a helicopter which was in violation of the Wilderness Act. Beyond the use of a helicopter, the court also added that,

> "Furthermore, the NHPA's goal of preserving historic structures allows for 'rehabilitation, restoration, stabilization, maintenance,' (16 U.S.C. § 470w(8)), among other things, but it does not require reconstruction. Thus, where the former shelters at issue here have been destroyed by natural forces, NHPA does not require reconstruction." [80]

[80] Olympic Park Assocs. v. Mainella, No. 3:04-cv-5732-FDB, slip op. at 5 (W.D. Wash. Aug. 1, 2005). 10

This court decision, however, did not prevent the Park from preserving and maintaining the 18 remaining shelters that still stood in the Wilderness by means that did not include tools and other uses in violation of the Wilderness Act, allowing the Park to continue cyclic maintenance on the shelters. At the time, all 18 of the shelters in Wilderness were eligible for or already placed on the National Register of Historic Places and protected under the NHPA.

In 2015, a second lawsuit was brought against Olympic National Park as a result of their decision to repair Botten Cabin and four trailside shelters—Canyon Creek, Elk Lake, Wilder, and Bear Camp. In the case, *Wilderness Watch v. Sarah Creachbaum, in her Official Capacity as Superintendent of Olympic National Park; and the National Park Service* (Wilderness Watch v. Creachbaum), Wilderness Watch argued that the Park "arbitrarily and capriciously" repaired the buildings in Wilderness and did not consider the minimum impacts when undertaking the repairs. The repairs once again, considered helicopter use as the preferred alternative in supplying the more remote locations of Botten Cabin, Wilder, and Bear Camp as well as the use of a manual dolly in supplying Canyon Creek. [81]

This time, the court favored the Park in the lawsuit arguing that the Park had done their due diligence in determining the minimum amount of work necessary to preserve the building's historic integrity while also diligently considering the alternatives by completing the Minimum Requirement Analysis process when considering the work being undertaken. The helicopter use, in the instance, was approved because the process of the Minimum Requirement Analysis was completed by the Park. This exemplified the case-by-case of interpretation of the Wilderness Act and its application in accordance with the discretion of the governing agency.

The 2015 court decision continues to provide precedence the preservation of the remaining 18 of the over ninety original trailside shelters that once stood within the boundaries of Olympic's designated Wilderness today. The Minimum Requirement Analysis process is strictly followed when planning repairs and maintenance on the shelters and the multiple historic ranger station districts and homesteads that remain. As a result of the lawsuits, the Park currently has established that no power tools can be used when maintaining historic properties in the Wilderness, meaning that the preservation work performed is largely done using traditional hand tools including crosscut saws instead of chainsaws and hammers and nails instead of pneumatic nail guns. This inadvertently provides the opportunity to preserve the traditional trades — skills largely obsolete in today's construction industry—while preserving these structures.

[81] Wilderness Watch, Inc. v. Creachbaum, No. 3:15-cv-05771-RBL (W.D. Wash. Oct. 27, 2015). 7.

Preserving Traditional Trades in Designated Wilderness

A crosscut saw—affectionately referred to as a 'misery whip'—used to cut rounds of western red cedar to into roofing shakes, instead of a gas-powered chainsaw. Photo by author, 2022.

The legal issues that have surrounded the management of cultural resources located within designated Wilderness over the last several decades shows that the interpretation of the language of law is anything but static. For better or worse, how we preserve historic resources will evolve out of necessity with changing ideologies regarding land use, culture, and what Wilderness means. This sentiment—that no way of management is either right or wrong but rather an on-going interpretation—is mirrored at all levels of

project engagement, including on the ground in the day-to-day decisions that are made by the craftspeople performing the necessary work.

This work is a collaboration. First, as expressed in the chapter prior, it is a collaboration between all the administrative stakeholders —individual Parks, organizations, tribes, legislative powers, and ultimately, the public at large. From there, the work performed is also a collaboration with those in the woods, in the case of Olympic shelters.

Technologies in construction have advanced dramatically in certain respects in the last 100 years, let alone since the rise of the industrial age. To narrow the conversation, even with respects to the trailside shelters in Olympic National Park, over the course of the less than 50 years in which they were being constructed, the technologies used in their making changed dramatically. While specifics of the construction methods used will be elaborated in the following chapter, it is important to understand that the knowledge of how to build held by those craftspeople has likewise changed.

Preservation is as much about the intangible aspects of our nation's heritage as it is about the physical fabric of our built environment. The often over-looked conversation when it comes to matters of historic preservation is the preservation of traditional trades and methods of construction. In the same way that cultural resources can be lost by neglect and lack of use, knowledge can, too, be lost over the course of only a few generations. Historic resources such as cabins and shelters that are located within designated Wilderness offer the unique opportunity to preserve traditional skill sets.

In the example of Olympic National Park, the change in interpretation of the Minimum Requirement Analysis (MRA) necessitated by the Wilderness Act dictates the tools that can be used when performing projects on historic buildings and structures in the Wilderness. Currently, this means no power tools. While the use of gas-powered chainsaws may be permitted when clearing trails to allow for visitor access, it is not the tool that we use for preservation work on cultural resources. We put down the chainsaw and pick up the crosscut. We don't think twice about hammering every nail of roof by hand. We laboriously hand hew logs and place them next to ones milled by chainsaws 60 years ago.

To the attuned eye, this is the conversation of historic preservation in the very fabric of the built environment. It represents the ever-growing interpretation of Wilderness as well as our human impact within it. Beyond that, it manifests the knowledge of how people have built over time— a knowledge that is then perpetuated into an epoch in which it is largely obsolete. There are few circumstances left in which a tradesperson can learn to split cedar roofing shakes using a froe and mallet or hew logs for walls with only a broadaxe. Yet, in our nation's history, there was a time when these trades quite literally built our society.

Woodworking in Olympic National Park is but one traditional trade that can be passed down and preserved if this interpretation of the stipulations of the Wilderness Act is promoted. There are designated Wilderness Areas throughout the United States. Many of those Wilderness Areas contain cultural resources that express the relationship of humans with their respective environments. Adobe pueblos in the southwest, stacked log

homesteads in timber lands, granite walls in stone country—the myriad of resources found in the United States each offer the opportunity to pass on the knowledge of how to traditionally work with those materials. This knowledge can extend beyond only building tradition. The interaction of humans with the natural environment is present in our landscape in ways that are often more subtle than physical construction. From a meadow that exists because of early indigenous burning practices used to propagate grasses and wildflowers that now slowly disappears due to encroachment of vegetation to watering troughs dug by early ranchers now a watering hole for native wildlife in the desert, preserving traditional trades and crafts promotes a continuity of understanding of our human place within nature, rather than separate from it.

As we become increasing aware of the perils of a blind technological progress that has informed and solidified our sense of separation of the human and the non-human environment, the knowledge of trades and craft skills used in the past is one way a culture can aim towards a sustainable future. Promoting such a knowledge of history through traditional skills ingrains that heritage into the hands of those performing those skills in a way that no written or visual documentation can ever realize the full perspective of. This perspective, when taken along with all others needed to collaboratively manage our public lands, is invaluable in making well-informed decisions about what history is told into the future.

The Wilderness Act, with its, "[devotion] to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use" allows for the inclusion of methods not governed by values such as time efficiency due to advanced technologies or the like. In short, we can do things for the sake of preserving knowledge just as the land can exist for the sake of itself.

Using wedges and a single-jack hammer to split dead-and-down western red cedar into roofing structural members for preservation maintenance of Fifteen Mile shelter. Photo by author, 2022.

Chapter III:

Guiding Principles of Design & Shelter Construction Typologies

Emergence of "Rustic" Architecture, or Parkitecutre

The early guiding design principles of both the United States Forest Service (USFS), established in 1905, and the National Park Service (NPS), established in 1916, were similar in their respective use of what could ultimately be characterized as a vernacular rustic style. The circumstances that led each agency to adopt the rustic style varied, but ultimately resulted in a unified early vision of architecture in parks—be it USFS or NPS.

Early USFS construction was primitive in that administrative facilities were constructed by local rangers who, to gain their employment would be tested on their knowledge, among other topics, of cabin construction. Initially, rangers occupied rented rooms in local towns or abandoned homesteads. Constructed administrative buildings were guided by fluctuating budgets and availability of local materials. The *Use of the National Forest Reserves* book, often referred to as the *Use Book,* published in 1905 stated that, "It is the intention of the Forest Service to erect the necessary buildings as rapidly as funds will permit. Usually, they should be building of logs with cedar shingle or shake roofs."[82] This scarcity of resources and lack of standard construction planning throughout the agency accounts for the regional variations and general blending of the built environment into the local landscape of early USFS administrative constructions.

[82] Grosvenor, John R. *The History of the Architecture of the USDA Forest Service*. United States Department of Agriculture, 1999. 5.

Alta Ranger Station built in 1899–considered to be the oldest Ranger Station in the US–is an example of early vernacular construction built to serve public lands under the Forest Reserve and later USFS. The use of local materials naturally blended into the environment from which they were harvested and would come to inform the "Rustic" architecture popular with agencies such as the USFS and NPS. *National Archive and Records Administration. National Archives Catalog. Record group 95: Records of the Forest Service. Series: Photographs Relating to National Forest, Resource Management Practices, Personnel, and Cultural and Economic History. NAID: 7003660*

While individual forest reserves established their own regional construction plans in the 1920s—such as the Cleator Plan at Olympic National Park discussed in Chapter 1— in 1938, USFS published the *Acceptable Plans: Forest Service Administrative Buildings.* The document stated the guiding principle for construction within Forest Service buildings should be "chosen on the basis of harmonious adaptability to local characteristics and natural environments of various Regional subdivisions." In the Forward of the document, W. Elias Groben, consulting architect of the Forest Service, writes,

> "No matter how well buildings may be designed, with but few exceptions, they seldom enhance the beauty of their natural settings. They are, however, required and necessary to satisfy definite uses which arise to meet human needs, in spite of their encroachment upon Nature's pristine beauty.

> While this idealistic attitude is very commendable and worthy of being kept constantly in mind, its application consists chiefly of erecting only such structures as are absolutely essential to fulfill specific requirements and then only of designs which harmonize with, or, to express it differently, are the least objectionable to Nature's particular environment." [83]

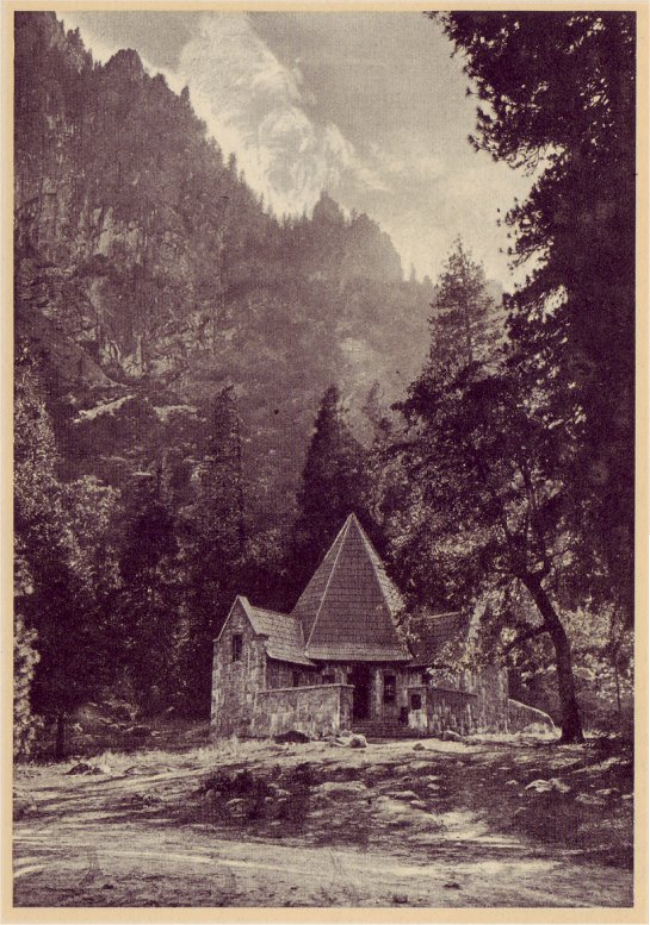
The National Park Service, on the other hand, arrived at similar rustic guiding principles along a different path. The earliest lands set aside as national parks were Yosemite in 1866 and Yellowstone in 1872. Management of these parks were initially disorganized which led to extensive timber poaching and political scandal. In 1883, the US Army was authorized to protect Yellowstone followed by Sequoia, General Grant, and Yosemite after 1890. Buildings constructed during the Army occupied era were done so according to standardized Army specifications that paid little mind to the natural surroundings.[84]

In early parks managed by the Department of Interior, similar circumstance to that of the USFS guided the construction of administrative buildings. Places such as Crater Lake, Mount Rainier, and Glacier generally built small shacks, cabins, or tents to facilitate administrative needs while the majority of visitor accommodation was done by park concessioners. Railroad companies were among the first to establish recreational architecture within parks. While originally not guided by rustic ideals—as evidenced by the Lake Hotel in Yellowstone built in 1891—landscape architectural influences of Andrew Jackson Downing and pupils, Frederick Law Olmsted Sr. began to solidify a romanticism of construction built to strengthen the connection with natural environment. The move away from colonial revival and other formalized architectural styles to the eventual rustic ideal is evidenced in the use of local materials by the construction of the LeConte Memorial Lodge in Yosemite Valley and the Old Faithful Inn in Yellowstone, both constructed in 1903.

[83] Norcross, T. W. *Acceptable Plans Forest Service Administrative Buildings.* United States Department of Agriculture, 1938.
[84] Law, Henry G., Laura E. Soulliere, and William C. Tweed. *National Park Service Rustic Architecture 1916-1943.* National Park Service, 1977.1.

The Lake Hotel was built in 1891 to accommodate visitors of Yellowstone National Park. The hotel was built in a colonial revival style popular at the time. Despite the use of wood, the formalized columns and pedimented gables bear little connection with the wooded natural surroundings, creating a lack harmony between the hotel and the environment. Source: *Library of Congress, Prints & Photographs Division, HABS, Reproduction Number: HABS WYO, 20-LAK,1A–3.*

As the NPS became more organized as an agency through the 1920s and 1930s, projects began to adopt the romantic rustic ideals becoming showcased in concessioner architecture. In 1938, the same year the USFS published their *Acceptable Plans: Forest Service Administrative Buildings,* the NPS published *Parks and Recreation Structures*—a series of three volumes outlining the guiding principles of NPS construction styles and specification. The volumes include examples of floor plans for administrative buildings such as office headquarters, maintenance facilities, and employee housing as well as smaller scale constructions such as bridges, retaining walls, and signage.



The LeConte Memorial Lodge was built in Yosemite Valley in 1903. Despite the formal Tudor Revival architecture, the use of local materials including granite and wood shingle, give the building a sense of harmony with the natural environment. The steeply pitched, hexagonal roof mirrors the surrounding jagged peaks. *Photo by Ansel Adams, postcard accessed at: http://www.yosemite.ca.us/library/lights_and_shadows/old_landmarks.html*

Old Faithful Inn, also built in 1903, served visitors of Yellowstone National Park. In contrast to the Lake Hotel, this Inn utilized log construction methods, stacked stone, and shingles to create a blending of the building into the surrounding woodland environment. This would be a precursor to the developing rustic architecture utilized eventually in administrative buildings of the USFS and NPS. *Library of Congress, Prints & Photographs Division, HABS, Call number: HABS WYO, 20-YELNAP,1, Control Number: wy0093.*

Several passages from the first volume of the *Parks and Recreation Structures* are included here in their entirety because they eloquently capture the guiding philosophy of the early era of NPS construction. In the *Apologia,* author Albert H. Good writes:

> "Time was when only areas of superb scenery, outstanding scientific interest, or major historical importance held interest for the sponsors of natural parks. There was proper concentration on saving the outstanding natural wonders first, and it was probably along with the acquisition of the first superlative areas that structures in parks came to be frowned on as alien and intrusive…. Here man must first have felt that his best-intentioned structural efforts had reached an all-time high for incongruity and that structures, however well designed, do not contribute to the beauty, but only to the use, of a park of conspicuous natural distinction.
>
> …Those who have been called on to plan the areas where structural trespass is not a justifiable taboo have sought to do so with certain grace. We realize that the undertaking is legitimized or not by harmony or lack of it. We are learning that harmony is more likely to result from a use of native materials. We show signs of doubting the propriety of introducing boulders into settings where nature failed to provide them or of incorporating heavy alien Timbers into structures in treeless areas. We sometimes even experience a faltering of faith in the precision materials produced by our own machines…
>
> As we have vaguely sensed these things, we inclined to a humble respect for the past period we became aware of the unvoiced claims of those long-gone races and earlier generations that tracked the wilderness, plains, or desert before us. In fitted tribute we seek to grace our park structures by an adaptation of their traditions and practices as we come to understand them."[85]

In the first chapter, Good also writes about the use of the "Rustic" style, remarking:

> "The style of architecture which has been most widely used in our forested national parks, and in other wilderness parks, is generally referred to as "rustic". It is, or should be, something more than the worn and misused term implies. It is earnestly hoped that a more apt and expressive designation for the style may evolve, but until it appears, rustic, in spite of its inaccuracy and inadequacy, must be resorted to in this discussion. Successfully handled, it is a style which, through the use of native materials in proper scale and through the avoidance of severely straight lines and over sophistication, gives the feeling of having been executed by pioneer Craftsman with limited hand tools. It does achieve sympathy with natural surroundings and with the past." [86]

[85] Good, Albert H. *Park and Recreation Structures*. 1. Vol. 1. 3 vols. National Park Service, 1938. 2.
[86] Ibid. 5.

Eras of Rustic Shelter Typologies in Olympic National Park

Trailside shelters have a long a tradition of use by hunters and trappers prior to their introduction as part of public lands infrastructure. Adirondack shelters, or lean-tos, were popularized in the Adirondack Mountains of Upstate New York and would eventually become the standard construction model for shelters built throughout the United States on both USFS and NPS managed land. These buildings consisted of three walls, with an open elevation faced away from prevailing winds. A modified low-sloped gable or shed roof was clad in shingles or shakes while walls were constructed of local materials such as wood or stone. Variations included bunk features as well as fire pits and floorboards, additions which were often left to the jurisdiction of individual regions.

With some exceptions, the Adirondack plan shelter was by far the most adopted on lands managed by the USFS and NPS. The Olympic Forest Reserve and later Olympic National Park was no exception. Construction of trailside shelters was permitted in the Olympic Forest Reserve prior to the USFS management under General Land Office administration. In the 1902 *Forest Reserve Manual* published by the US General Land Office, remarks regarding trails and shelters under *Section 5: Permanent Improvements* read:

> "In any case the random blazing through the woods should be avoided. If a trail is worth making it is usually worth doing well, and therefore should be properly planned, laid out, and then cut out and worked… Every improvement of this kind should be made with a view to doing as much good as possible.
>
> The construction of shelters, cabins, etc. should be done economically, and should, like all work of this kind, be done only with the approval of a supervisor. All work should be reported promptly and intelligently." [87]

Though no shelters were officially documented in location and style prior to 1928, it is clear that a network of trails and shelters was constructed prior to this date.

The shelter network in Olympic had been started by 1912 when Parish S. Lovejoy, Forest Reserve Supervisor beginning in 1911, remarked in his general plan:

> "Houses and sheds and shelters along the trails where they will serve to shelter crews and patrolmen and all traveling officers and where the tools in the boxes can be concentrated in winter and protected. Think this very important. We have made a fair start to the shelters this season and the boys have the idea and will develop it if encouraged." [88]

The trailside shelter network style and construction plan can be roughly divided into four distinct typologies broken down by eras of construction. Despite the prevailing use of the Adirondack stye throughout the

[87] General Land Office. *Forest Reserve Manual*. United States Government Printing Office, Department of Interior. 1902. 55.
[88] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 21.

eras, variations in construction methods, material, and techniques are evident, thus creating distinct typologies. The four typologies are still present in the remaining shelters in Olympic National Park today and can be broken down as follows:

I. Pole and Shake Adirondack shelters under USFS management between 1907 and 1938
II. Cross gable shelters constructed by CCC under early NPS management 1938-1941
III. Shed roof Adirondack shelters constructed under NPS in the post-World War II era 1945-1955
IV. Adirondack milled log shelters constructed under NPS during Mission 66, 1956-1966

It is important to note that while each typology had certain distinct characteristics, variations existed between shelters built in the same era. The following sections will provide in-depth details of each era of shelter construction along with minor variations still evidenced.

Pole & Shake Adirondack: USFS 1907-1938

During the early management of the Olympic Forest Reserve, many trailside shelters were constructed alongside the developing trail network. The trail network being developed during the first decade of the 20th century was focused not on meeting recreation needs but rather, on wildfire monitoring and timber resource management, as elaborated on in Chapter one. Shelter construction accelerated after the devastating 1910 wildfire season in the Rockies. Despite the guidelines and emphasis on planning and approval of any infrastructure, no documentation regarding early construction of shelters has been found. In that way, it is difficult to know how many shelters and of what style they were constructed.

Wolf Bar shelter, construction date unknown. Source: Olympic National Park Archive and Collections.

Within the USFS, there was initially no standard designs for trailside shelter in the Pacific Northwest region. Shelters built generally drew inspiration from the typical Adirondack shelter found in the eastern state reserves, with some location variation. These were mostly three-walled with shed or modified gable roof constructions, wood framed with either whole log or split log supports. The foundation consisted of a few courses of dry stacked stone with dirt floors. All materials were found on-site and thus, the specific wood used reflected the local resources. Occasionally, storage lean-tos or additional coverage of the open elevation would be provided. For example, Wolf Bar shelter, pictured right, shows a variation of the standard Adirondack shelter that would have been constructed according to the needs and desires of the individuals in the field tasked with its construction. Though the date of this shelter is unknown, it was likely prior to the standardized designs provided by the 1927 Cleator Plan.

It was with this plan— *Recreational Facilities of the Olympic National Forest and Forest Service Plan of Development* often referred to as the Cleator Plan— in 1927 that trailside shelters were first designed and documented in then Olympic National Forest. Shelters were to be built an easy day hike apart, between 3 and 5 miles, and constructed of locally harvested materials. The plan essentially codified the primary style of construction already in use including the modified gable roof clad in split cedar shakes, peeled log or split cedar lumber framed construction also clad in split shake siding, on a stacked stone foundation. It is unclear whether original plans accounted for firepits, though they likely would have been made in close proximity to the

shelters. Footprints approximated 14 feet by 14 feet with two to four wooden bunks to accommodate workers and would be located near meadows and water sources to provide feed to administrative stock support animals. The first shelters built of this vision were erected in 1928, of which two—Fifteen Mile and Hyak in the Bogachiel valley—still stand as excellent examples of the original vision.

Hyak (top row) and Fifteen Mile shelters were both constructed in 1928 and are examples of the early USFS pole and shake Adirondack construction style common during the era. These two shelters were part of a network of several shelters, spaced between 3 and 5 miles apart leading up the Bogachiel River valley and are the last two remaining. At roughly 4, they represent the pattern of spacing shelters a short day-hike apart. *Photos by author.*

Other shelters constructed during this initial era that are still extant include: Deer Park 1 &2 (1930), Three Forks (1930), and North Fork Sol Duc (1932).

Three Forks (pictured right) shelter, built 1930 and Happy Four (pictured right) shelter, built 1935, are standard examples of the USFS pole and shake Adirondack style. Both are still extant today. *Photos by author and Jessica Schmitt respectively.*

Beginning in 1933, with the increase of Civilian Conservation Corps (CCC) labor, the network of trailside shelters expanded under the guiding design principles with some variation. Anderson Pass shelter (1934) has a larger footprint than the typical shelter of that era, measuring 22 feet by 19 feet. This variation may have been made to accommodate a larger number of visitors in an area at a higher elevation prone to more inclement weather. Several of the extant shelters of this era are presently clad in board and batten siding, though would have been originally covered in split shakes. These shelters include Anderson Pass, Elkhorn, as well as both shelters located at Deer Park campground. According to the NPS Cultural Resource Inventory System (CRIS) database, this change in siding occurred in the 1950s along with other changes such as the addition of wooden floorboards.

Left: Deer Park 1 shelter is one of two identical shelters built in 1930 of the USFS construction design. The original shake siding was replaced with board and batten in the 1950s. *Photo by author.*

Right: Anderson Pass shelter was built in 1934 and has a larger footprint than most shelters built of that era. The diagonal bracings at the corner posts are not original to the construction and currently used to stabilize the structure. Like the shelters at Deer Park, the original shake siding was replaced with board and batten in the 1950s. *Photo by author.*

Left: Elkhorn Guard District shelter was built in 1933 as part of the larger Elkhorn Guard District including a ranger station, shed, and horse barn. This shelter has been moved from its original position in the meadow due to the threat of being washed away by the Elwha River. The original shake siding was replaced with board and batten in the 1950s. *Photo by author.*

It is unclear whether shelters of this era were designed to include either fireplaces, camp stoves, or nearby firepits. In 1932, Forest Supervisor H.L. Plumb notes the need to add "ice can stoves" in existing shelters as well as any newly constructed ones, though no definition nor design for specifications of these stoves has been found.[89] However, in 1937, the USFS published *Camp Stove and Fireplace,* a manual for constructing types of fireplaces within varied infrastructure found throughout USFS units. This included a section outlining "Fireplace Shelter Types" (shown to the right) and the importance of shelters and camp stoves in areas prone to heavy and unexpected storms, of which the Olympic Mountains would have been a case example. The manual outlines that fireplaces near shelters should be oriented so that prevailing winds do not carry smoke into the shelter, be at a distance no greater than 8 feet away from the front drip line of the shelter, and additionally that shelters and fireplaces be oriented to command grand views of mountain scenery.[90] Three types of shelters are depicted in the manual including the Adirondack shelter built of wood which would have a fireplace located outside of the front line of the shelter. It is unclear if the shelter network in Olympic built formal firepits according to these standards, but they likely did have primitive firepits in close proximity similar to unofficial firepits near shelters today. One 1939 photograph of Big Flat shelter does show a stove pipe projecting from its roof suggesting that there may have been variation of camp stove types used throughout this period. Similarly, a 1953 photograph of Hayes River shelter shows what appears to be a mortared, stacked stone firepit in front of the shelter.

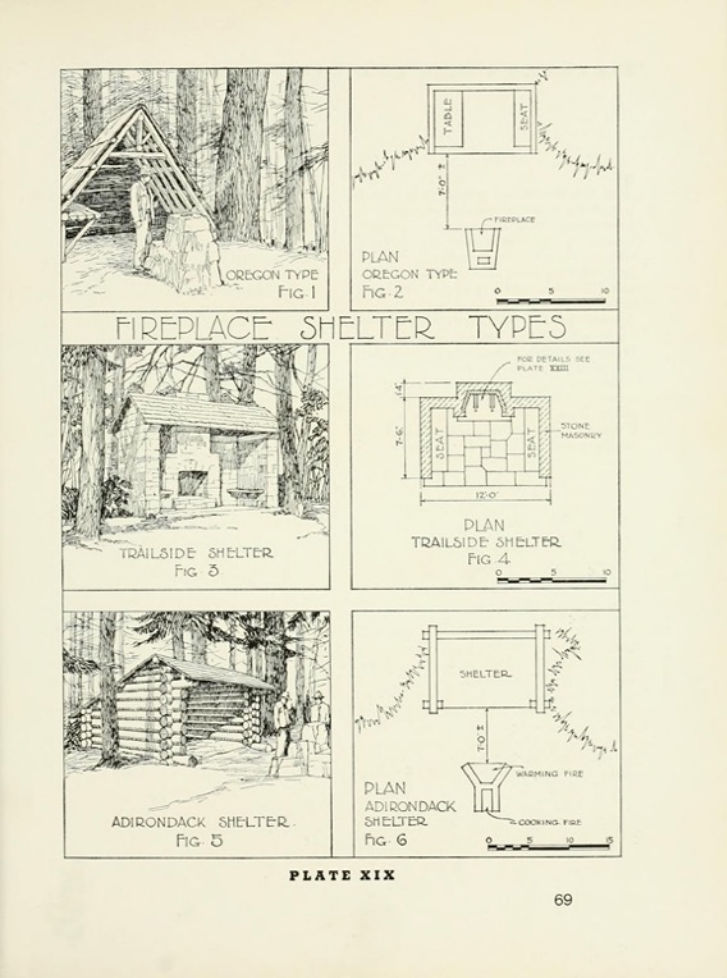
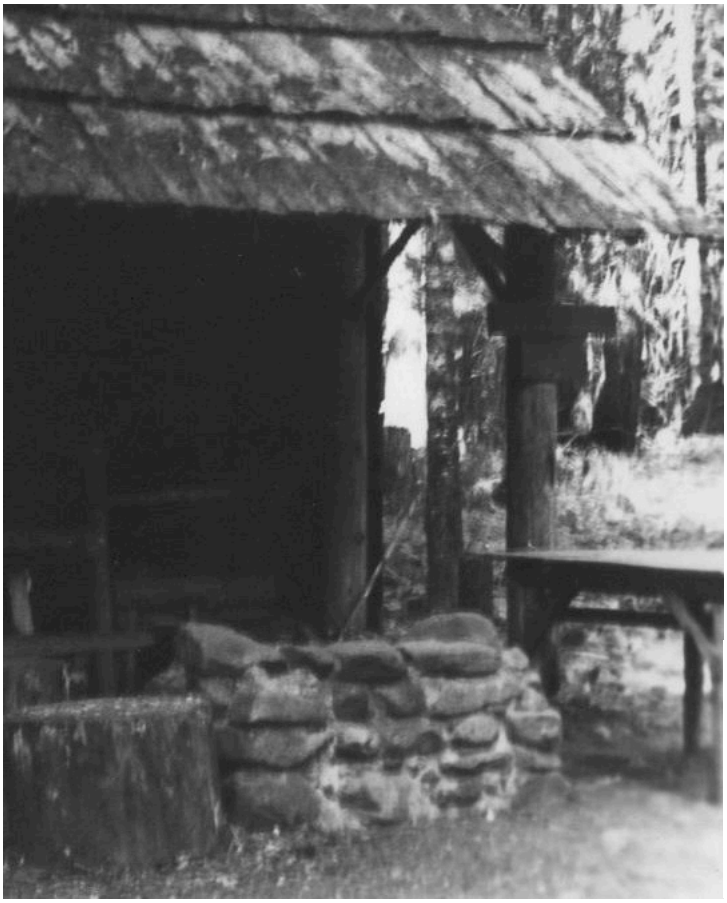


Plate detailing fireplace shelter types provided in the 1937 *Camp Stove and Fireplaces* manual published by the USFS.

[89] Ibid. 34.
[90] United States Forest Service. *Camp Stoves and Fireplaces*. Washington: United States Government Printing Office, 1937. 61.

Big Flat shelter pictured in 1939 shows stove pipe emerging from the entrance elevation roof. Canvas covering the front was presumably being used to provide further insulation or privacy. Note the addition of a lean-to storage on the far right of the shelter. *Source: Olympic National Park Archives & Collections*



Detail photograph dated 1953 of Hayes River shelter shows what appears to be a mortared, stacked stone firepit in front of shelter. *Source: Olympic National Park Archives & Collections*

Below are a series of historic photographs of shelters built during the USFS era of the Adirondack design featuring individual variations. These shelters are no longer extant.









Top Row:
21 Mile, Pelton Creek, Big Flat

Second Row:
Halfway Rock, Home Sweet Home, Bogachiel Guard Station

Third Row:
Three Prune, Dose Forks, Belview

Photos courtesy of Olympic National Park Archives & Collections








Top Row:
O'Neil Creek, Mt. Tom Creek, Calawha

Second Row:
Tshletshy Creek, Bob Creek, Hayes River

Third Row:
Low Divide, Diamond Meadows

Photos courtesy of Olympic National Park Archives & Collections

Civilian Conservation Corps Cross-Gable: 1938-1941

When much of the Olympic National Forest was transferred to the National Park Service with the creation of Olympic National Park in 1938, the infrastructure including the trailside shelter network changed administration. Under NPS management, a new vision of shelter construction initiated. Several new plans for shelter construction were proposed that deviated from the typical primitive Adirondack shelter built under the USFS.

In the 1938 *Parks and Recreation Structures* series published by the NPS, trailside shelters plans included the Adirondack style and variations of that design used throughout the country. While some of these shelters retained the Adirondack form, aspects such as chimneys or fireplaces were far more elaborate than what had been previously found in the USFS constructions in Olympic.

The tendency toward a more elaborate shelter design is evidenced in three plans that were proposed in Olympic National Park during the first two years of NPS administration.

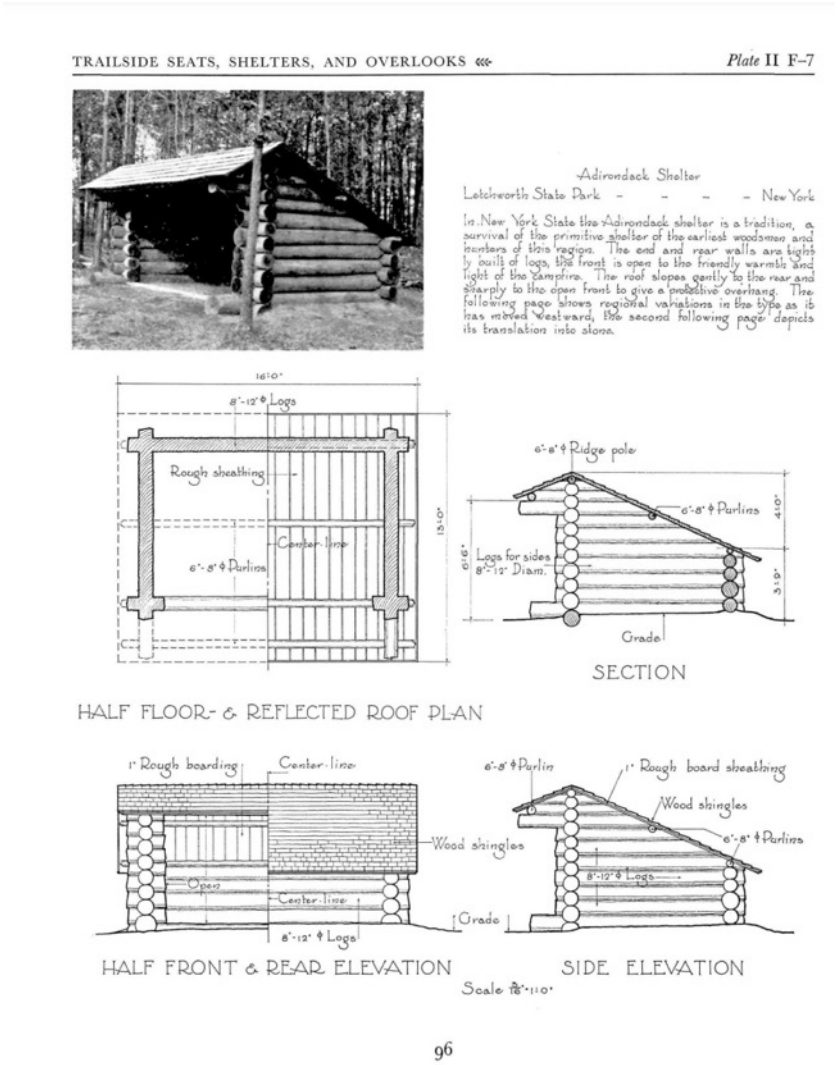


Plate II F-7 of the 1938, NPS publication *Parks and Recreation Structures,* providing examples and guidance for acceptable design and construction of trailside shelters.

Bismarck Metropolitan Park, Bismarck, North Dakota

Scenic State Park, Minnesota

VARIANTS OF THE ADIRONDACK SHELTER

The Adirondack shelter moving westward undergoes changes. Above enter informality of axe-cut log ends and added rakishness of contours. The next example, with forward "log cabin corners" omitted, appears unstable, even though very long spikes doubtless make it structurally safe. Next example indulges in variant details characteristic of location. Below are derivations in the traditional squared log construction of the Indiana pioneer which invoke doubt as to whether they are converted from old cabins, reconstructed from remnants of the old, or are new construction cleverly "antiqued."

Crowley's Ridge State Park, Arkansas

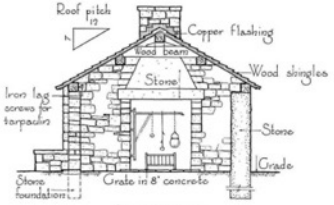
Brown County State Park, Indiana

Clifty Falls State Park, Indiana

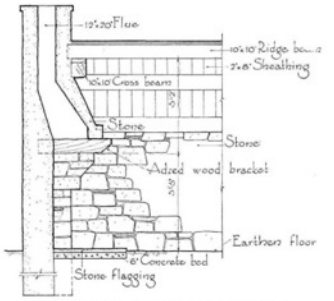
Shelter

Clarence Fahnestock Memorial State Park – New York

This simple and pleasing building promises to be a cool retreat during midsummer and, by virtue of its fireplace and single open side, a well-protected shelter at other seasons. The roof and supporting members have desirable weight, the stonework has informal but structurally satisfying character.

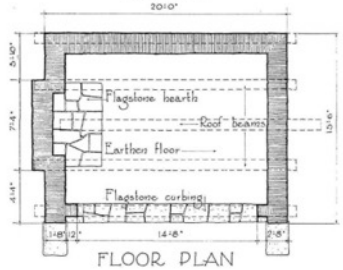


SECTION

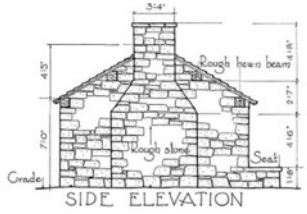


SECTION OF FIREPLACE

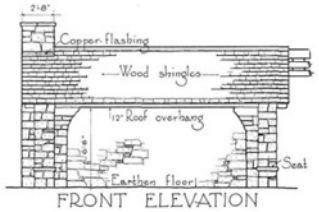
Scale ⅜"=1'-0"



FLOOR PLAN



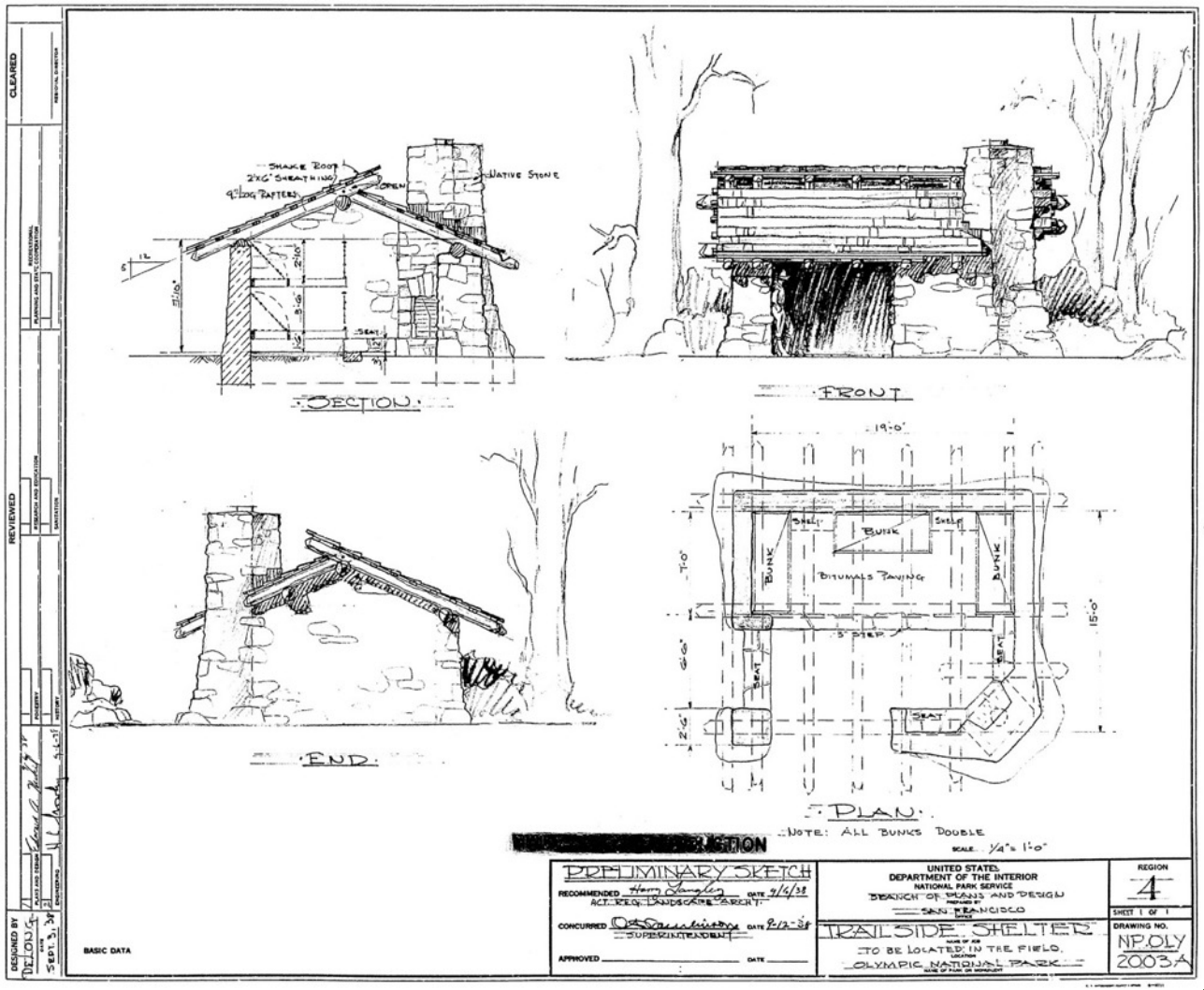
SIDE ELEVATION



FRONT ELEVATION

Scale 8'-1"-0"

Plate II F-8 gave examples of regional variation permitted in the construction of shelters according to available native materials. Plate II F-9 shows that large fireplaces were also acceptable as part of the construction of these trailside shelters.



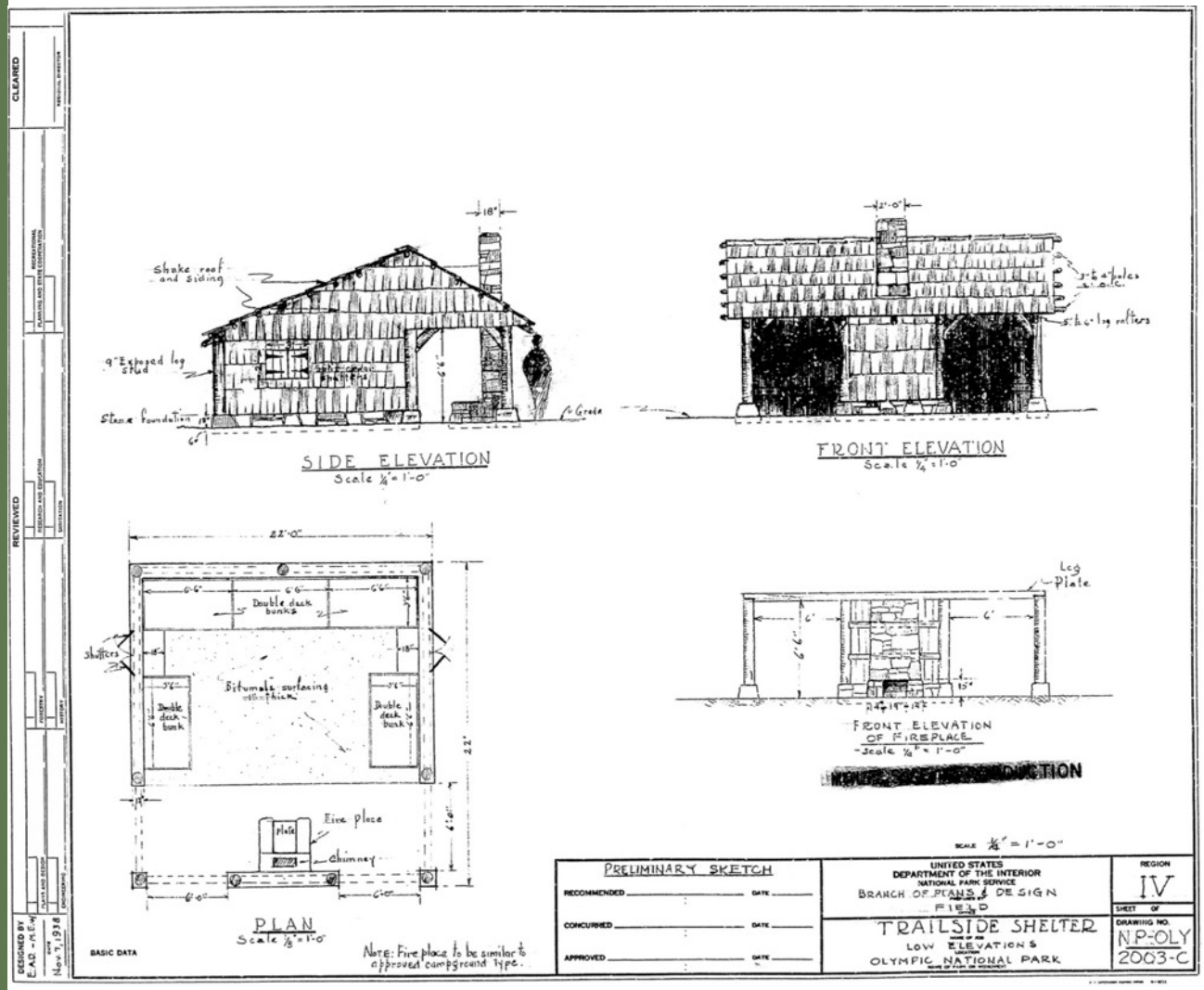
Trailside shelter plan designed by Delong, dated September 13,1938. *National Park Service Electronic Technical Information Center (e-TIC), TIC #: OLYM-2003.*

Delong Plan, proposed September 13, 1938

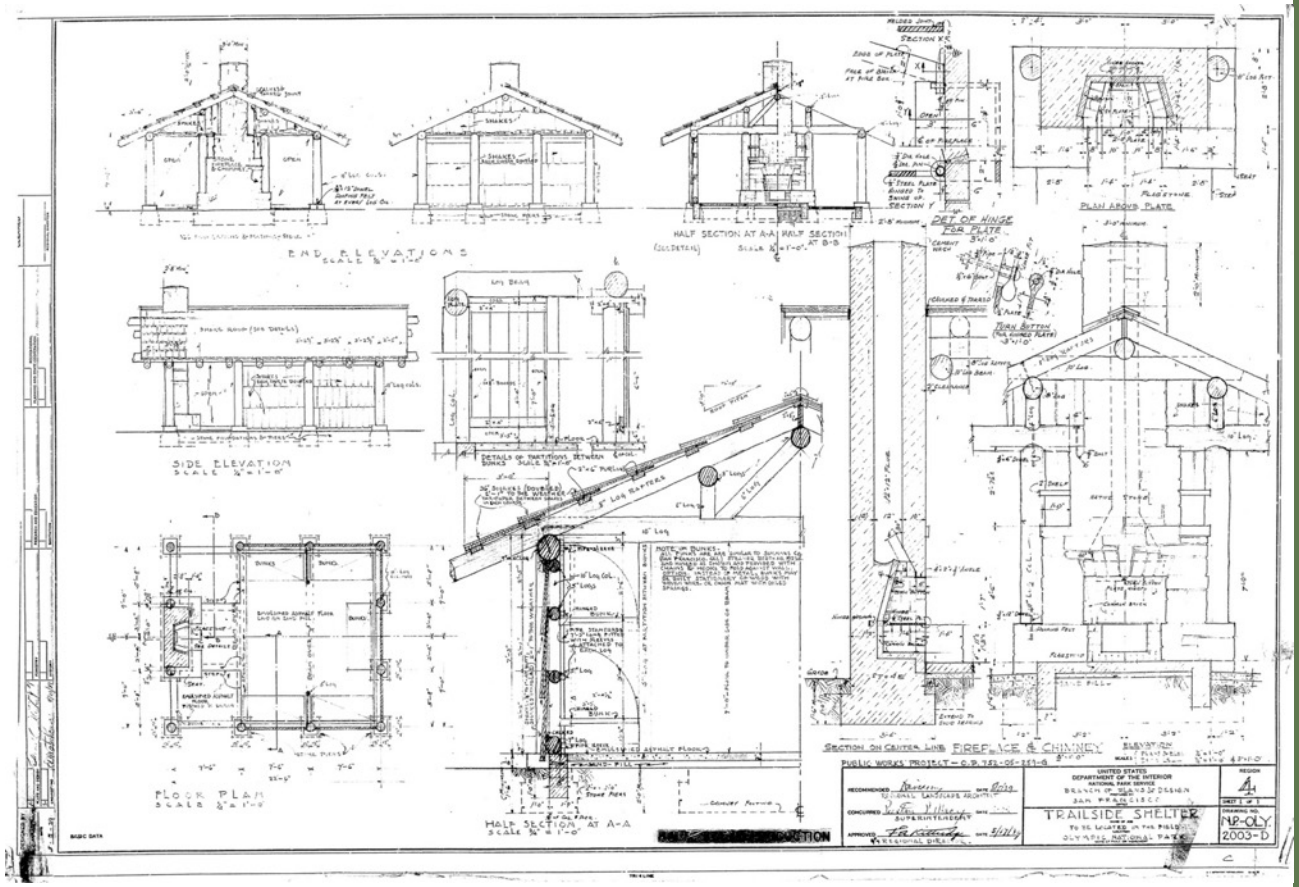
The first of the proposed plans, the Delong plan, features a modified Adirondack style that deviated from the traditional open front with a half-wall partially enclosing the entrance elevation. The footprint measures 19 feet by 15 feet, larger than those typically constructed by the USFS. The standard modified gable roof was changed to be of equal length, though one side of the gable plan would be left extended away from the prevailing winds. While the roof remained constructed of peeled logs covered in split shakes, the walls in this design would be constructed of native stone featuring a large stone hearth built-in to one corner of building. The move towards using stone in an area of timber abundance may point to the NPS decision to make shelters more sturdy and long standing, requiring less maintenance over time. Additionally, the plans called for the use of "bitumals paving" on the rear half of the interior of the shelter, presumably referring to an asphalt like paving using bitumen. This was a strong deviation from the previous use of simple dirt floors, keeping with the practice of using only native materials in shelter construction. Lastly, the Delong plan also featured built in bunks and seating along the interior periphery of the building. There is no evidence that shows that any shelter of this style was constructed in Olympic National Park.

E.A.D – M.E.W. Plan, proposed November 7, 1938

A second plan proposed the same year as the establishment of Olympic National Park and the Delong Plan, was the E.A.D – M.E.W. Plan. This 22 foot by 22-foot shelter returned to the standard modified gable roof and the wood frame construction clad in cedar shingles. The entrance elevation did, however, feature a central, partially enclosing exterior wall, the interior of which was a centralized stone fireplace with chimney extending from the front elevation roofline. The building would sit on a stone foundation and would also feature the bitumals surfacing, one inch thick, on the interior flooring. Additionally, two shuttered window openings on either of the side elevations would be provided as well as double deck bunks on the rear and sides of the interior. The large footprint as well as the abundance of sleeping bunks may point to the NPS motivation to accommodate a greater number of visitors. There is no evidence that shows that any shelter of this style was constructed in Olympic National Park.



Trailside shelter plan designed by E.A.D – M.E.W, dated November 7,1938. *National Park Service Electronic Technical Information Center (e-TIC), TIC #: OLYM-2003-C.*

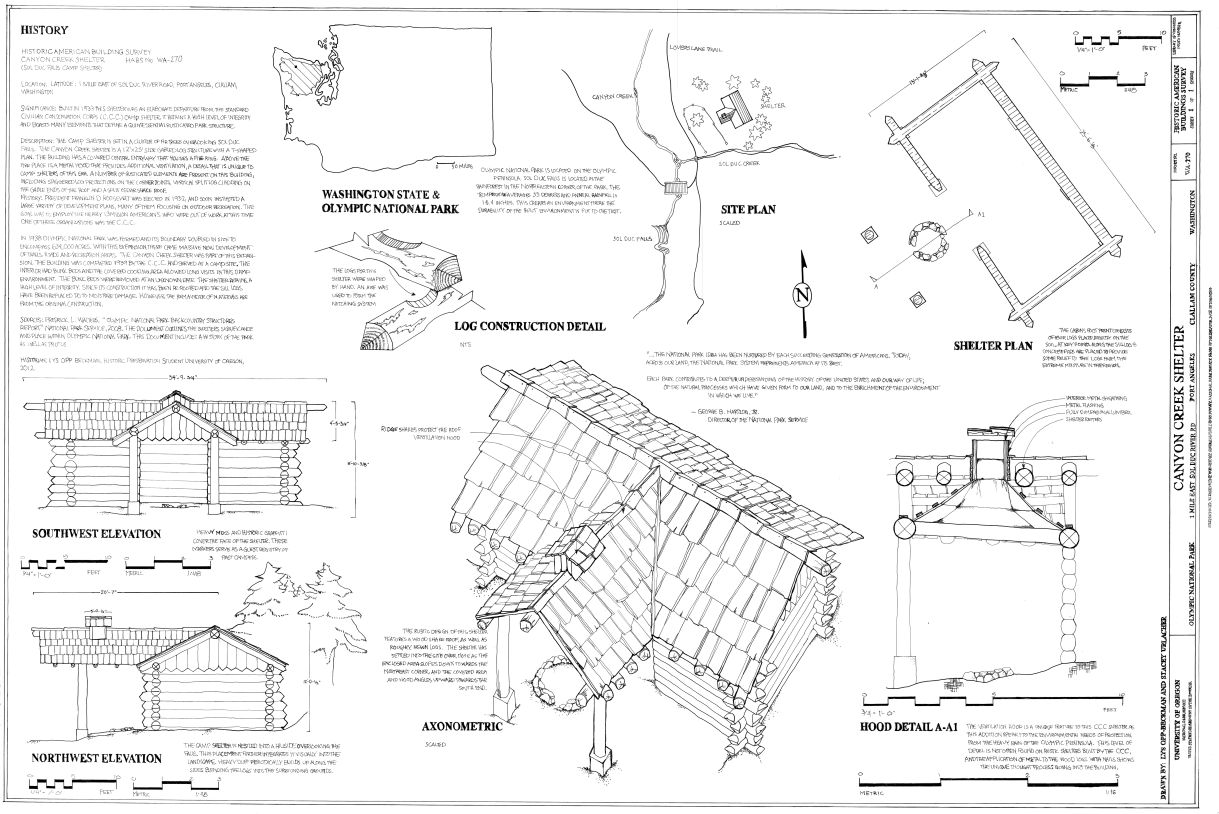


Trailside shelter plan designed by Arthur, dated May 5,1939. *National Park Service Electronic Technical Information Center (e-TIC), TIC #: OLYM-2003-D.*

M.C. Arthur Plan, proposed May 5, 1939

A third plan for shelter design was proposed in 1939 and strayed the furthest away from the Adirondack style. This plan, proposed by M.C. Arthur, feature a standard conventional sloped gable roof with entrance on the gable end, as opposed to the typical side gable entrance. The squared footprint measures 22 ½ feet and was of peeled log constriction covered in split shake siding with a shake roof. The foundation would be post on stone piers with and emulsified asphalt floor laid on fill sand. Like the E.A.D. – M.E.W. plan, the entrance elevation features a central common brick fireplace with native stone chimney extending though the gable end. The shelter also included five sets of hinged bunks around the periphery of the interior to accommodate several visitors. While the plans have signed approval from the regional landscape architect, superintendent, and regional director, there is no evidence that show any shelters at the Park built to these specifications.

While the three plans provided above never appear to have been constructed at the Park, a fourth style of cross gable, T-shaped design was built under the CCC between 1938 and 1941. While the formal plan of this design was not found, Canyon Creek (or Sol Duc Falls) shelter, constructed in 1939, is an example of this type that is extant today.



Canyon Creek (also referred to as Sol Duc Falls) shelter plan drawings. Included in the Library of Congress, drawings from Survey HABS-WA 270, the construction date listed needs to be corrected to 1938, rather than 1933. Regardless, the scaled drawing is effective in showing the construction detailing of the shelter. Library of Congress, Prints & Photographs Division, HABS, Call number: HABS-WA 270 Control Number: wa0900.

Canyon Creek shelter exhibits the trend of the early NPS early toward a sturdy, more long-lasting shelter design. Abandoning the Adirondack tradition all together, the centralized cross gable, T-shaped footprint measures roughly 13 feet by 25 feet with a 10-foot by 10-foot centralized gable roof —akin to an extended, oversized portico—supported by peeled log posts and concrete piers covering a firepit. The gable roof over the firepit includes a vaulted vent with metal hood for ventilation of the firepit and is open on three sides. The main area of the shelter is notably constructed of horizontal stacked, round logs saddle notched at the corners with staggered log ends and projecting ridge beam and concrete pad intermittently supporting the sill logs. The gable ends on the main shelter as well as the projection are enclosed with horizontal, round logs cut at 45° on both corners, forming a point. The construction as a whole more closely resembles a log cabin than a traditional trailside shelter.

Canyon Creek (also known as Sol Duc Falls shelter) photo dated 1983. Note the concrete blocks supporting the vertical post as well as the firepit with iron or steel cooking rack. *Source: Olympic National Park Archives and Collections.*

This cross gable, T-shaped shelter style was present in two other locations within the Park and constructed during the same era using CCC labor—Moose Lake and Hoh Lake. While no photographs of Hoh Lake have been found, photographs of Moose Lake shelter taken in 1953 shows some variation perhaps to account for available materials. Moose Lake shelter utilizes a wood frame construction and was clad in split shake siding while also featuring a small window opening, likely to let in light, on the gable end. Moose Lake shelter is no longer extant.

Moose Lake shelter circa 1953. *Source: Olympic National Park Archives and Collections.*

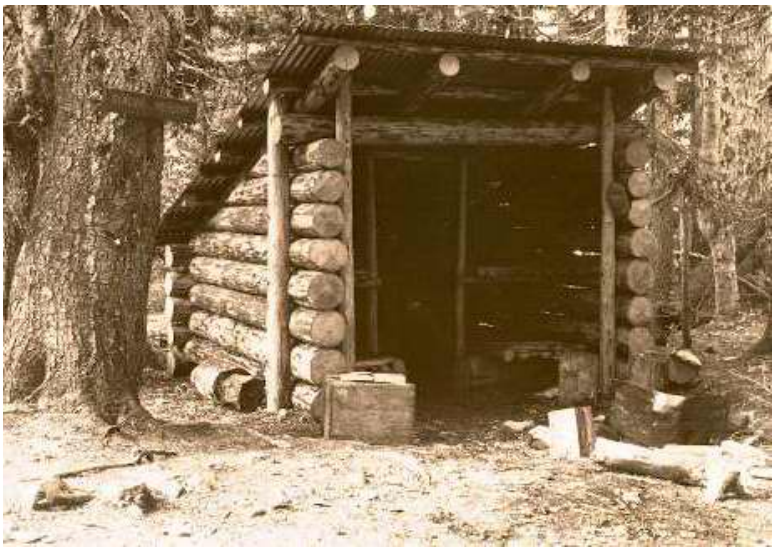
The shelters at the Canyon Creek, Moose Lake, and Hoh Lake of the cross-gable design were the last trailside shelters to be built in the Park prior to United State involvement in World War II, when all construction and maintenance was redirected to the war efforts. It is unclear if, had the war efforts not disrupted the construction of future trailside shelters, more would have been built according the approved, more elaborated shelter designs.

Moose Lake shelter circa 1953. *Source: Olympic National Park Archives and Collections.*

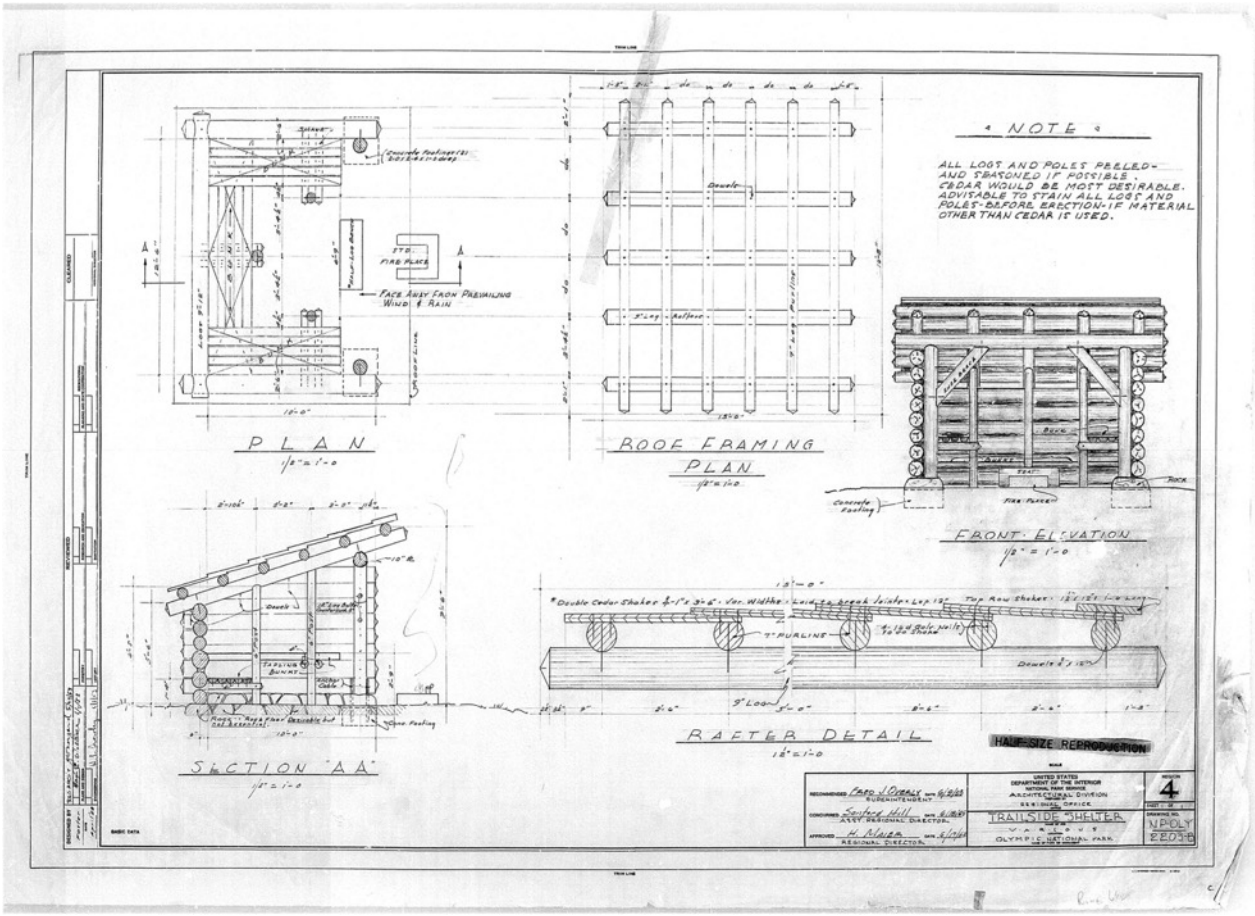
Post WWII Shelter Design and Construction: 1945- 1955

With the end of WWII, the backlog of maintenance needs because of the shortage of funds and labor available during the war years was stressed by the increase in visitation by a newly motivated public. Despite the increase of visitation, parks struggled with stagnated funding that did not cover the needs necessary to maintain park infrastructure. Even so, the need for additional trailside shelters to accommodate a new generation of backcountry travelers meant that new shelters were to be built, this time under a new design.

A new simple, stacked, peeled log construction with a shed or modified gable roof was evidenced as early as 1949, with the construction of the two shelters at Blue Glacier. In 1951, the Foster Plan was proposed and solidified the construction design of shelters in the post-WWII era.



Blue Glacier (or Glacier Meadows) shelters 1 and 2–originally built in 1949 but preserved in 2009 after significant structural damage–are examples of shelter construction during the early post-WWII years, prior to the Foster plan being proposed. Note the corrugated metal roofing used in the top photograph (dated 1951) now replaced with wood shingle. Also, note the use of lag bolts with washers in the lower photograph to provide additional stability. These would have been added during the later era of shelter preservation.
Top Source: Olympic National Park Archives and Collections; lower Source: Jessica Schmitt.



Foster Plan, proposed May 29,1953

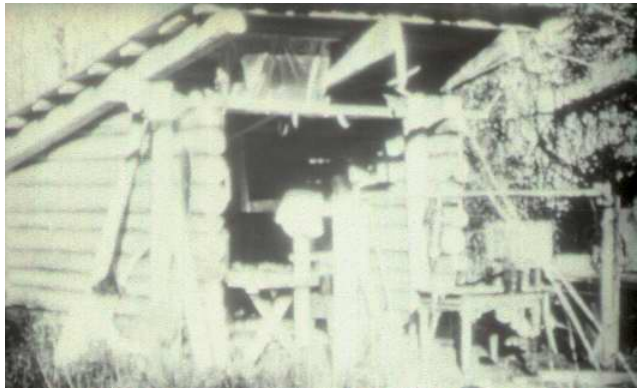
This plan was a return to a variation of the side gable, Adirondack shelter that utilized a low-sloped, shed roof as opposed to a modified gable. Rounded logs were to be stacked and attached to posts anchored to concrete piers on the entrance elevation and saddle notched in the rear. The shelters would measure 16 feet by 15 feet and would be oriented to face away from prevailing winds. A fireplace would be constructed outside of the shelter, straddling peak. Sapling bunks would line the interior periphery of the shelter on all sides. Additionally, the plans called for a rock floor that would be desirable, but not necessary. The design would utilize anchor cables between the posts and the concrete footings. It is unclear whether any shelters were built to the exact specifications of the Foster plan, as the shelters that remain extant of this era did not appear to utilize cable anchors on concrete footings and all have simple dirt floors.

Along with the two shelters at Blue Glacier, Wilder (pictured top row) and Bear Camp (pictured bottom row) are the only remaining shelters of the early post-WWII years stacked log construction design. Built in 1951, Wilder most closely resembles what would be the Foster Plan proposed in 1953. It does not, however, feature a firepit near the entrance. Bear Camp shelter, built in 1952, shows a variation of the rounded stacked log construction with a modified gable roof. Both shelters have undergone extensive preservation due to major structural damage including the choice to replace the original split shake roof on Bear Camp with standing metal seam panels. This was done due to the substantial snow loads common at its location. *Photos by author 2022.*

Below are a series of historic photographs of shelters built during the early post-WWII era of the shelter design featuring individual variations. These shelters are no longer extant.







Top Row: Lunch Lake, Sol Duc Park, Lake Angeles, Canyon Camp'
Bottom Row: Allen's Bay Trail, Marmot Lake, Seven Lake Basin

Photos courtesy of Olympic National Park Archives and Collections

Mission 66 Era Shelter Construction, 1956-1966

The decade following WWII, was characterized by an NPS-wide backlog of maintenance needs and inadequate funding to address an increase in visitors. In an effort to modernize the parks and meet the needs of a growing visiting public, Park Service Director Conrad Wirth proposed a decade-long infrastructure improvement program to be funded by Congress called Mission 66. It was approved by Congress and president Dwight D. Eisenhower in 1956 and would end in 1966. As a result, park units across the country received funding to improve infrastructure including visitor services, park staff housing, as well as recreational needs such as trails and their associated services.

At Olympic, park superintendent Fred Overly, who had already begun to repair and expand the existing network of trails and shelters in the initial post-WWII decade, proposed a plan to further expand the network by an additional thirty shelters while also repairing many of the existing shelters. By 1958, five additional shelters had been built with four others proposed for the following year. By 1963, eight additional shelters had been built—Olympus, Elwha Basin (Happy Hollow), Mink Lake, Nine Steam, two at Elk Lake, and two along the North Fork Quinault Trail.[91] Seven more had been planned, though were never built due to the passage of the Wilderness Act of 1964.

Additionally, the Mission 66 program formed the Student Conservation Association, aimed at supplementing park staff with supervised student volunteers. Locally at Olympic, this group—under the direction of Jack Dolstad—helped construct trailside shelters through the 1960s, moving to exclusively repairing and maintaining shelters after 1964. In 1971, another volunteer organization, the Youth Conservation Corps, constructed the last shelter built in Olympic National Park—Toleak Peak. The A-Frame construction of Toleak Peak shelter is not featured here as an individual design of shelter construction because, as far as evidence shows, it was the only one built of its kind and did not reflect a greater pattern of construction in Olympic National Park.

Below are photos of shelters built during the Mission 66 era that are still extant in Olympic National Park

[91] Walters, Frederick L. Backcountry Historic Structure Report. National Park Service, 2008. 56.





Top Row: Olympus Guard Station, Mink Lake, Happy Hollow (Elwha Basin)
Bottom Row: Trapper, Elk Lake

These five shelters are the last of the Mission 66 era construction style extant as of 2022. Note the variations including the use of 3 or 4 sided milled walls logs and rounded corner support posts. Olympus Guard Station also is the only one that features wood plank flooring. *All photos courtesy of author and Jessica Schmitt 2021-2022*.

Note: combination of rounded and flat milled wall-log construction. Also note, marks of chainsaw used for milling.

Note: used of plank flooring and blackening of roof beam due to proximity of unofficial firepit

Note: bunk and roof construction detailing

Note: sill long joint repair and eras of wood quality evidenced by differing color

Note: chamfering detail found of majority of roof members on shelters of Mission 66 era

Top Row: Happy Hollow, Olympus Guard Station, Mink Lake
Bottom Row: Elk Lake, Happy Hollow

While no construction plans of the style of the Mission 66 era shelters were found, several still extant examples provide adequate insight into the building specifications of this period. Shelters constructed during this time returned to the early USFS modified gable roof of the traditional Adirondack style with footprints measuring 14 feet by 14 feet—the size originally proposed by the 1927 Cleator Plan. While returning to some aspects of the earlier USFS style, these new Mission 66 shelters differed in that they were of stacked log construction, rather than wood framed. These stacked logs however also differed from the rounded stacked log construction of the post-WWII era under the Foster Plan design in that wall and support post logs were largely squared off on at least 3 sides.

The lower section of logs was aligned vertically—some resembling thick deck boards—that stood on sill logs, while the gable end log sections were stacked horizontally and resembled dimensional lumber. The logs were generally milled using chainsaws that had become available at that time, rather than being constructed using hand tools such as broad axes for hewing. The roof structural members were also of milled lumber while the entrance elevation vertical support beams were often left as round logs. The roof and foundation of this style continued in the use of traditional split cedar shakes with a dry stack stone foundation.

Variations in construction of shelters of this era did exist. For example, the vertical wall logs of Olympus Guard Station (built 1964) shelter are milled flat on 4 sides while at Happy Hollow (also built 1964), vertical wall logs are only milled on three sides, leaving the rounded log face on the outside of the building. The orientation of the bunks constructed on the interior also exhibit slight variations with most providing 4 bunks, two on each side. Trapper, however, provides an additional bunk along the rear interior of the building.

The construction of the shelters built during the Mission 66 era is generally more structurally sound than the preceding eras. The thickness of the timbers used in the support structure provide a sturdiness to the construction, especially under heavy loads such as snow or fallen trees, while the wall logs being milled flat and joined provide for additional stability. While there is no evidence that firepits or stoves were officially part of the construction plans of shelters built of this era, there is evidence extant today that firepits—whether built by park staff or visitors—are generally placed within 10 to 15 feet of the entrance elevation of shelters in areas at elevations that permit open fires.

Chapter IV:

Cultural Landscapes & the Historic Trail Network of Olympic National Park

The trailside shelters were constructed alongside the creation of the trail network and as such, the two features are integrated convey the history of Olympic National Park. The study and tools used to evaluate cultural landscapes within the National Park Service provide a useful lens to evaluate of the Historic Trail Network of Olympic National Park as a potential cultural landscape that is potentially eligible for the National Register of Historic Places. This chapter will briefly outline the development of cultural landscapes as cultural resources within the NPS and the tools used to evaluate them to establish a case for documenting the Historic Trail Network in Olympic National Park as a cultural landscape and list it as a district, along with the trailside shelters, in the National Register of Historic Places.

Kestner Homestead, a cultural landscape resource in Olympic National Park, is a 200-acre site of one of the oldest surviving settler-built homesteads in the Quinault Valley. The evolution of the resource is present in the landscape allowing the physical fabric to speak to its history. Photo by author, 2022.

As discussed in Chapter II, the National Historic Preservation Act (NHPA) of 1966 established the legal process by which to consider historic properties as well as provided the four standards used to treat those resources. The National Register of Historic Places (NRHP) criteria is used as the classification system and vocabulary through which significance of a historic property is evaluated. In the NRHP, properties must be classified as one of the following:

NATIONAL REGISTER PROPERTY AND RESOURCE TYPES

Type	*Definition*	*Examples*
BUILDING	A building, such as a house, barn, church, hotel, or similar construction, is created principally to shelter any form of human activity. "Building" may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.	houses, barns, stables, sheds, garages, courthouses, city halls, social halls, commercial buildings, libraries, factories, mills, train depots, stationary mobile homes, hotels, theaters, schools, stores, and churches.
SITE	A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archeological value regardless of the value of any existing structure.	habitation sites, funerary sites, rock shelters, village sites, hunting and fishing sites, ceremonial sites, petroglyphs, rock carvings, gardens, grounds, battlefields, ruins of historic buildings and structures, campsites, sites of treaty signings, trails, areas of land, shipwrecks, cemeteries, designed landscapes, and natural features, such as springs and rock formations, and land areas having cultural significance.
STRUCTURE	The term "structure" is used to distinguish from buildings those functional constructions made usually for purposes other than creating human shelter.	bridges, tunnels, gold dredges, firetowers, canals, turbines, dams, power plants, corncribs, silos, roadways, shot towers, windmills, grain elevators, kilns, mounds, cairns, palisade fortifications, earthworks, railroad grades, systems of roadways and paths, boats and ships, railroad locomotives and cars, telescopes, carousels, bandstands, gazebos, and aircraft.
OBJECT	The term "object" is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be, by nature or design, movable, an object is associated with a specific setting or environment.	sculpture, monuments, boundary markers, statuary, and fountains.
DISTRICT	A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.	college campuses; central business districts; residential areas; commercial areas; large forts; industrial complexes; civic centers; rural villages; canal systems; collections of habitation and limited activity sites; irrigation systems; large farms, ranches, estates, or plantations; transportation networks; and large landscaped parks.

Table reproduced from *National Register Bulletin 16A: How to Complete the National Register Registration Form,* 15.

While the NRHP definitions provided guidelines for understanding historic properties, it became apparent that historic districts and sites required a more elaborate classification system and categorization vocabulary due to the complex nature of the individual components that comprise a district as a whole. The study of cultural landscapes by geographers and landscape architects dates back several decades, though cultural landscapes did not begin to be considered as such in the NPS until the 1990s.

The concept of a cultural landscape gained traction in 1925 when geographer Carl O. Sauer wrote *The Morphology of Landscape*. In it he famously defined it stating, "The cultural landscape is fashioned from the natural environment by a cultural group. Culture is the agent, the natural area is the medium, the cultural landscape the result." Defining it as such binds the concepts of the natural and the human built environment together, linking them inextricably as one, rather than promoting their separation. It implies a particular area—understood by a set boundary—that has been shaped by a cultural group as well as the limits of the natural environment that surrounds it.[92] Throughout the 20th century, the concept of the cultural landscape was further developed by those in the fields of geography, landscape architecture, architecture, and ecology, but was not applied as management tool to help manage historic properties in the NPS until 1984.

In 1984, the National Park Service published *Cultural Landscapes: Rural Historic Districts in the National Park System* written by Robert Z. Melnick with Daniel Sponn and Emma Jane Saxe. This was the first document that provided an early classification and evaluation system that would identify landscape components within a district.[93] Along with extensive planning guidance, the document established the importance of designating a well-defined boundary around a district and provided guidance for determining that boundary. Within that boundary, the areas of consideration of a landscape were broken down in ten components:

1. Over all patterns of landscape spatial organization
2. Land-use: categories and activities
3. Response to natural features
4. Circulation networks
5. Boundary demarcations
6. Vegetation related to land use
7. Cluster arrangement
8. Structure: type, function, materials, construction
9. Small scale elements
10. Historical views and other perceptual qualities

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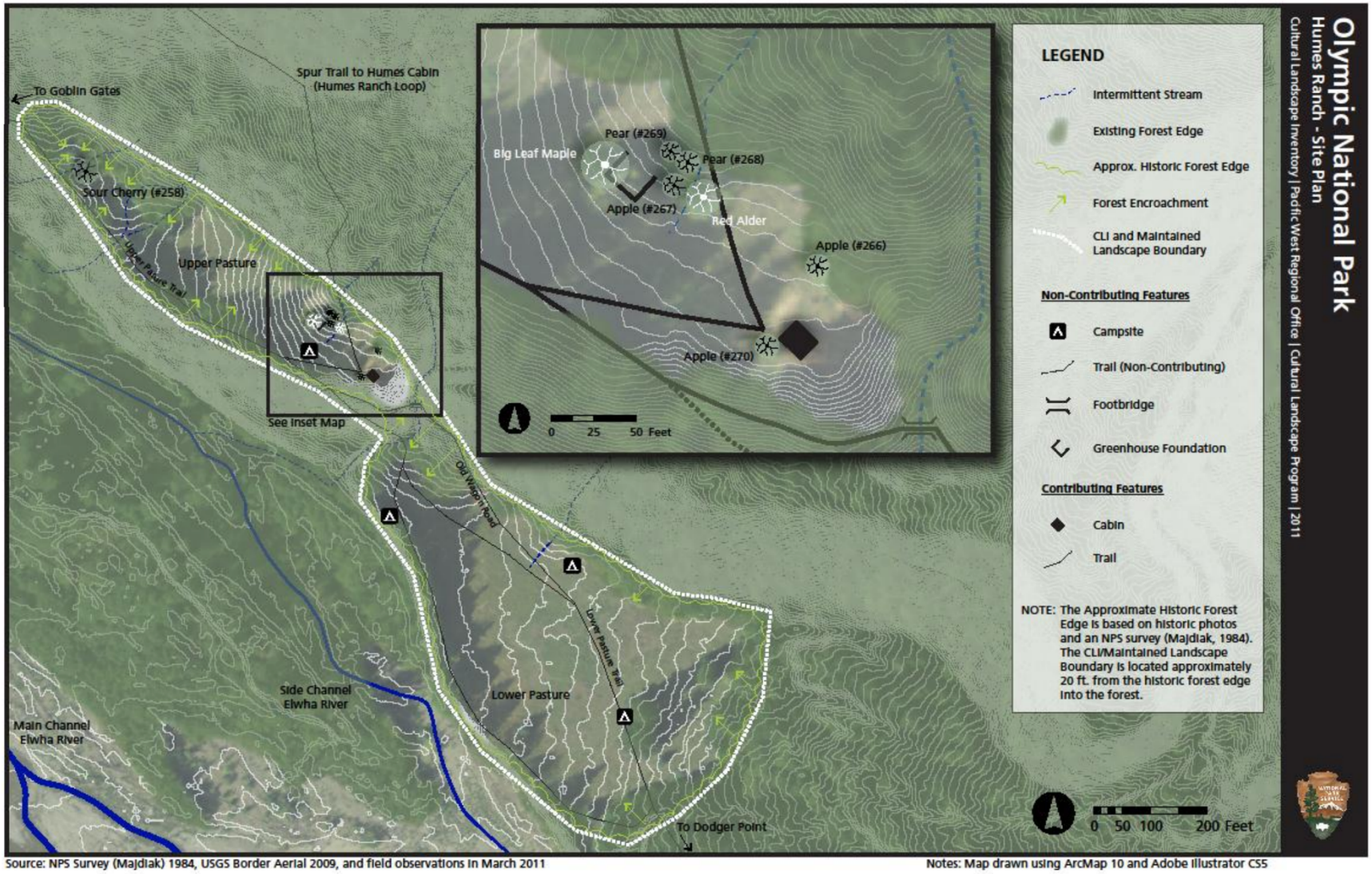
[92] Wilson, Chris, and Paul Groth. "The Polyphony of Cultural Landscape Study: an Introduction. *"Everyday America: Cultural Landscape Studies after J.B. Jackson*. Berkeley: University of California Press, 2003.

[93] Melnick, Robert Z. et al. *Cultural Landscapes: Rural Historic Districts in the National Park System*. Washington DC: National Park Service, 1984. *http://Npshistory.com/Publications/Landscapes/Rural-Historic-Districts.pdf*.

This document helped solidify cultural landscapes as an area of research and distinct cultural resources to be considered within the guidelines of the NPS. The field continued to be developed with the publishing of *National Register Bulletin 18: How to Evaluate and Nominate Designed Historic Landscapes* in 1987, *National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes* in 1990, which has since been revised, and further, *Preservation Brief 36: Protecting Cultural Landscapes* by Charles Birnbaum in 1994. These documents worked together to develop the guidelines and classification system necessary to understand unique and complex cultural landscapes.

In 1996, recognizing that *The Secretary of Interior's Standards for the Treatment of Historic Properties (SOI Standards)* would have to be revised considerably to incorporate the nuances of cultural landscapes, the NPS published *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Treatment of Cultural Landscapes*. The procedure of evaluating cultural landscapes has evolved as research continues to find new factors to consider when looking at cultural landscapes as historic properties. Today, there are thirteen landscape component characteristics under which features are classified in a given cultural landscape unit. Further information about these characteristics can be found in Chapter V.

Hume's Ranch Cabin, part of Hume's Ranch District, a cultural landscape up the Elwha Valley located within designate Wilderness. Photo by author, 2022.



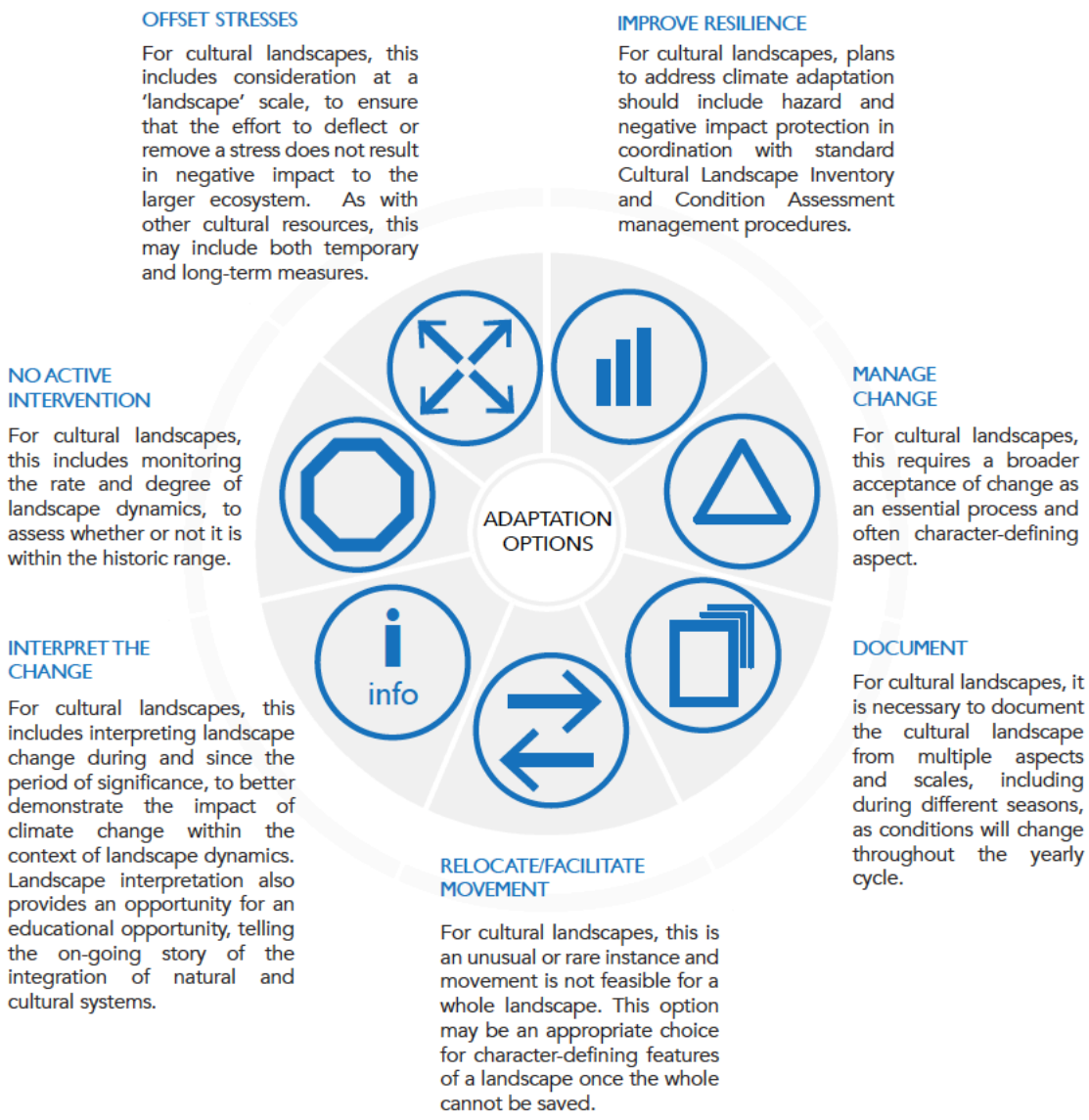
This site plan of Hume's Ranch Historic District in Olympic National Park provides an example of how cultural landscapes are evaluated and documented within an established site boundary. Features that contribute to the period of significance are documented as well as features considered to be non-contributing, allowing for understanding of the changes in the landscape over time. Source: Cultural Landscape Inventory, Humes Ranch, 2012. *https://irma.nps.gov/DataStore/DownloadFile/606884*

While all cultural resources necessarily undergo some degree of change over time, cultural landscapes are particularly dynamic. Because they are essentially an amalgamation of the human built environment and the natural context surrounding that built fabric, larger—often gradual—changes in the condition of the landscape are inherent. A good example of the changing nature of cultural landscapes is the vegetation as a landscape characteristic. Whether it be a meticulously designed English garden or vernacular fruit orchard associated with a historic homestead, the vegetation components naturally grow and evolve with time. This growth impacts adjacent characteristics in the landscape such as circulation, buildings, views, and others as appropriate that are found within that boundary. Identifying and evaluating all applicable characteristics in a cultural landscape is essential to understanding the cultural resource as a holistic system rather than the sum of its parts. Only when a comprehensive evaluation and documentation of the change in features over time has been made can responsible treatment recommendations be applied.

While the same methods of treatment established by *The Secretary of Interior's Standards for the Treatment of Historic Properties*, further discussed in Chapter VI, are similarly defined and applied to cultural landscapes, the application of treatment allows for greater nuance. In a landscape, multiple treatments can be applied as needed to corresponding landscape characteristics while following a broad treatment guideline for the landscape as a whole. This flexibility embraces the inherent change of a landscape over time—allowing the history of the site to be understood in a broader context. When considering the establishment of a previously undocumented cultural landscape, the change present in that landscape should be considered in the narrative of the documentation to fully understand the evolution of that landscape.

As new research arises around factors that impact cultural landscape resources, the documentation and treatment consideration must adapt. In recent years, climate change has made an increasing impact on cultural landscapes leading to the need to develop ways to consider how we apply preservation treatments to these resources under new environmental conditions. Increase or decrease of precipitation or heat in a region can impact the species of plants that can sustainably thrive in a cultural landscape. Changing river channels due to increased glacial melt can erode circulation or other built resources in a heritage site boundary. When deciding how to manage these resources into a changing future, factors such as climate change must be considered to make the most well-informed management decisions.

In 2016, the University of Oregon's Cultural Landscape Research Group, in collaboration with the NPS and other subject matter experts, published *The Study of Climate Change Impacts on Cultural Landscapes in the Pacific West Region.* This study outlined climate projections within the NPS Pacific Northwest Region and outlined the hazards and impacts of those changing environmental conditions on cultural landscape resources. Additionally, the research used six case studies to exemplify how climate data can be applied to a landscape resource to predict possible future adaptations necessary while providing for next steps that park units can take in the future to manage those resources.



New climate change research shows increasing environmental factors to be considered when managing historic cultural landscapes. These changes require new methods of assessment and evaluation to be applied in order to ensure the appropriate actions are taken when thinking about the future of a cultural resource. This diagram shows potential adaptation options that can be applied to cultural resources in NPS units and beyond. Much like cultural landscapes themselves, the research around these factors is constantly evolving and leading to new ways of thinking about how to preserve our nation's cultural resources. Source: *The Study of Climate Change Impacts on Cultural Landscapes in the Pacific West Region*, 2016. *https://irma.nps.gov/DataStore/DownloadFile/598396*

The Historic Trail Network of Olympic National Park as a Potential Cultural Landscape

A trail weaving through the Hoh rainforest represents several characteristics that can be applied in evaluating a cultural landscape. Photo by author, 2019.

With the understanding of how the NPS defines cultural landscapes and how they differ from buildings and structures, the case can be made for establishing the Historic Trail Network of Olympic National Park (henceforth referred to as the Trail Network) as a cultural landscape. There are many management tools that can be applied in the initial evaluation and assessment of this newly identified cultural resource, some of which have been outlined already. In this section, the case for eligibility and evaluation of the Trail Network will be made using the parameters established by the National Register of Historic Places (NRHP) as well as the NPS specific tools of a Cultural Landscape Inventory and, potentially, a Cultural Landscape Report once the eligibility of the landscape has been determined and management and treatment is needed.

The Trail Network clearly meets the eligibility requirement for the NRHP by being at least 50 years old. This provides for its protection and consideration under the National Historic Preservation Act of 1966, discussed in Chapter II. The Trail Network was developed under multiple eras of land management, as

outlined in Chapter I, including early the Forest Reserve management under the United State Forest Service. During this era between 1905 and 1938, most of the trail network and the associated features were constructed. To date, while several resources associated with historically significant eras of management have been nominated and placed on the NRHP, the trail network has not similarly been evaluated. This trail network continues to play a significant role in the existence of Olympic National Park today by establishing early access to the abundant resources. This access helped lead to the awareness of the importance of the conservation of such resources—such as wildlife, biodiverse forest ecosystems, as well as recreation opportunities found within the boundaries of now Olympic National Park.

It is outside of the scope to this project to write a formal NRHP nomination for the Trail Network. However, broadly speaking, the cultural landscape could be nominated as a district under Criterion A as defined by the NRHP, "[Properties] that are associated with events that have made a significant contribution to the broad pattern of our history." Two types of events under which a property can be evaluated are defined as, "a specific event marking an important moment in American prehistory or history and a pattern of events or a historic trend that made a significant contribution to the development of community, a State, or a nation."[94] To be eligible, a case must be made that a property is associated with either or both of the types of events listed. This is one example supporting the listing of the Trail Network in the NRHP under the four criteria but will be the primary criteria applied in this project.

Initially, the Trail Network was developed primarily for resource management of the Forest Reserve, first under the General Land Office, but later, under the US Forest Service, expanded for recreational purposes that developed over the early decades of the 20th century led directly to the protection and uses of the Park today. The growth of the Trail Network and its associated infrastructure in the early part of the 20th century reflects the greater national trend of the public engagement in outdoor recreation. Similarly, the investment in the development of the Trail Network, as shown by the creation of public agencies such as the Civilian Conservation Corps, reflects the larger trend of legislative policy that provided for greater access of public lands to the public at large. This increased focus on recreation use under the USFS ultimately led to the recognition and appreciation for the importance of the natural resources of the Olympic Mountains to be protected in perpetuity a National Park. Previously, the Forest Reserve was protected for eventual resource extraction, such as timber harvest.

In addition to using the NRHP to evaluate the significance of the Trail Network of Olympic National Park, the National Park Service has created tools for management of park cultural resources considered eligible. Two such tools specific to managing cultural landscapes as cultural resources include a Cultural Landscape Inventory (CLI) and a Cultural Landscape Report (CLR). A CLI provides for the initial summary history and inventory of a landscape and can be used in lieu of a NRHP nomination to establish its eligibility. If determined eligible, a CLR provides guidance to help manage the historic character of a cultural landscape

[94] *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*. National Park Service, 1990. *https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf*.

as well as accommodate for changes in the landscapes as needed due to adapted use, climate change, or management needs.

A CLI is the preliminary inventory of the cultural landscape in which the site history and chronology to present, existing conditions, and analysis and evaluation of features are established.[95] This report is developed through extensive research of the landscape to understand the site's context and extent of the possible contributing resources within a proposed boundary. To complete a CLI, a site visit is required to inspect the existing condition of the landscape and its associated features as well as the changes present in the landscape. Next, the features are analyzed and evaluated the integrity section which outlines each landscape characteristic feature, including historically contributing and non-contributing features. A CLI also provides a condition assessment of the impacts on the landscape including climate factors, public use, or lack of maintenance. Lastly, the CLI can be used to streamline the process of evaluation of the resource is sent to the State Historic Preservation Office for concurrence, which helps provide the Park with clarity over the status of the resource.

Once a CLI is completed, a Park could establish if the evaluation provided necessitates a CLR. A CLR includes the information provided in the CLI in section one and further develops a specific and detailed treatment recommendation plan to inform management of a given resource in section two. CLRs are extensive reports often done in collaboration with local Park staff from multiple divisions, regional cultural resource managers, as well as additional subject matter experts such as landscape architects, archeologists, horticulturalists, ecologists, engineers, and architects. While CLRs are extensive and costly, they provide the most well-informed and up-to-date information needed to appropriately manage our nation's cultural landscapes.

There are roughly 600 miles of trails comprising the Trail Network in the 922,651-acre boundary of Olympic National Park. Much of the network was constructed during the USFS era and continued to develop under NPS jurisdiction especially in the Mission 66 era. The potential cultural landscape of the Historic Trail Network of Olympic National Park would include the entire trail network as well as the associated features. Trailside shelters would be included as features of the landscape characteristic of building and structures as defined by the *Cultural Landscape Inventory Professional Procedures Guide* published in 2009.

Along with the shelters, ranger stations districts that were used in managing the trail network and the natural resources would also be evaluated and could be included. Trailhead operations that exist outside of designated Wilderness as well as backcountry districts within the Wilderness would likewise be inventoried and evaluated. For example, contributing components districts such as Elkhorn and Olympus Guard Station would be within the boundary of the potential Trail Network CLI and thus evaluated. Other cultural

[95] National Park Service. "Research." U.S. Department of the Interior. July 7, 2021. *https://www.nps.gov/subjects/culturallandscapes/research.htm.*

landscapes such as Hume's Ranch, while adjacent to the trail network may not necessarily be listed as contributing to the Trail Network cultural landscape due to its lack of association with the established significance of trail system. Hume's Ranch, however, would still be inventoried and evaluated accordingly. Adjacent cultural landscapes can then be established as component landscapes to the parent landscape of the trail network.

Features such as this trail footlog would be inventoried and evaluated as a feature within the Trail Network cultural landscape. Photo by author, 2022.

A comprehensive CLI would also provide inventory of trail structures and small-scale features such as constructed bridges, retaining walls and stair sets, as well as trail signage and stock features such as corrals and gates. Additionally, the features, once evaluated, can be tied to the Park's facility management so that their conditions and repairs over time can be tracked in the NPS' Facility Management Software System (FMSS). Provided below is a table of landscape characteristics and their features that could be evaluated when conducting a CLI. This table could further be expanded to include characteristics such as archeological sites, spatial organization, cultural traditions, and views and vistas if a CLI were to be funded and undertaken by the Park.

Landscape Characteristic	Feature
Buildings and Structures	Trailside Shelters
	Ranger and Guard Stations
	Monitoring Lookouts
	Privies
	Major Trail Bridges
	Trail Retaining Walls
	Trail Stair Sets
Circulation	Individual Trail Segments
	Secondary Trails
Small Scale Features	Trail Signage
	Foot Logs
	Telephone Line Remnants
	Culverts
	Rope Ladders
	Other Minor Trail Features
Vegetation	Narrative description of the impact of the vegetation on the trail network including native forest, high mountain, and coastal area vegetation
Land Use	Narrative description of change in land use patterns in the boundaries of the Park include areas effected by early logging and mining operations, USFS trail development for fire monitoring, later expansion of trail network and infrastructure to accommodate high recreational use, recreational use influence on designation of Wilderness
Natural Systems and Features	Narrative description of trail planning being influences by features sure as rivers and high mountain area as well as points of interests such as overlooks, waterfalls, or groves of timber
Topography	Narrative description of how varied topography influenced the development of trail network including favored mountain passes and areas suitable for development of administrative infrastructure

The Trail Network of Olympic National Park is arguably one of the foundational aspects of the built environment that led to the development of Olympic National Park as we know it today. Trails within the Park provided access to experience both the front country and backcountry regions of the Olympic Mountains and the surrounding coastline leading to public appreciation and legislative protection of the natural and cultural resources was made possible and continues to promote the area's protections to this day. The natural resources within the boundaries—namely lumber—continue to be of great economic value yet are protected from harvest. Recreation resources provided by the Park, however, make up their

own local economic opportunities. In 2015, a report shows that 3,243, 873 visitors spent roughly $2.4 million in communities surrounding the Park in 2014 and created 3,592 associated jobs.[96]

The Trail Network—with hiking and camping being primary recreational attractions to the Park—has played a major role in the history and development of Olympic National Park and the surrounding communities. As such, the network should be provided due consideration and evaluation as a cultural resource and management steps should be taken to adequately preserve it as such. Further elaboration on conducting a CLI as a treatment recommendation for the Park along with trailside shelter specific treatments are provided in the following chapter.

Trail signage would be among the small-scale features evaluated in the cultural landscape. Photo by author, 2022.

[96] National Park Service. "Tourism to Olympic National Park Creates $365,559,900 in Economic Benefits." U.S. Department of the Interior. April 23, 2015. *https://www.nps.gov/olym/learn/news/tourism-to-olympic-national-park-creates-millions-economic-benefits.htm.*

Chapter V:

Treatment Recommendations

Applying treatments to historic properties is a conversation between the history of that particular property and its future proposed use and function. As such, recommendations are not to be taken as gospel but instead, understood on their own terms, in context, as presented by the team preparing those recommendations. My hopes are that this project provide additional context and documentation to the team making decisions regarding the management of trailside shelters—and further the historic trail network—in Olympic National Park. The recommendations provided here represent a plan intended to preserve the remaining shelters until further analysis and evaluation has been made regarding their history and landscape of Olympic National Park.

When planning an undertaking such as applying extensive treatment to a historic property or cultural landscape on federal land such as Olympic National Park, compliance with Section 106 of the National Historic Preservation Act of 1966 is necessary. While it is outside of the scope of this project to outline the full procedure, proper and approved compliance is of utmost importance and should be completed with the public and the legacy of the cultural resource at the forefront of decision making.

Though no feature of the Historic Trail Network cultural landscape takes precedence in treatment over any other, the focus here will be on the trailside shelters due to the extent of their decline and treatment contentiousness of their location in a designated Wilderness. An outline of the *Secretary of Interior's Standards for the Treatment of Historic Properties* will be provided here followed by specific suggested recommendations for the Park to take both in the solidifying of the proposed cultural landscape and hands-on preservation work required to maintain the trailside shelters.

Secretary of Interior's Standards for the Treatment of Historic Properties

The *Secretary of Interior's Standards for the Treatment of Historic Properties (SOI Standards)* outlines four options to consider when applying treatments to historic properties. These include Preservation, Restoration, Rehabilitation, and Reconstruction. The guidelines are meant to promote responsible preservation practices by providing extensive definitions for each treatment type then further elaborating on material specific recommendations. The definition of each of the four treatment types is provided below.

Preservation

is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment. The Standards of Preservation require retention of the greatest amount of historic fabric along with the building's historic form.

Rehabilitation

is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.

Restoration

is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project. The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, and finishes, and spaces from its period of significance and removing those from other periods.

Reconstruction

is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

While these definitions largely refer to historic buildings, the four treatment alternatives are similarly defined in the *Guidelines for the Treatment of Cultural Landscapes.*

Choosing the appropriate treatment for a historic building, structure, object, district, or cultural landscape is left up to the site's administrative agency. In the cases of federal management, proper consultation between the agency, preservation experts, and stakeholders—including the public—is of utmost importance when deciding how to manage a given historic property. When choosing what treatment method to apply, decisions must be informed by a property's level of significance, current condition, proposed use and function as well as any other code or regulatory needs specific to the site.

When considering treatments for the Olympic National Park trail network cultural landscape, it is important to remember that the application of any one treatment is not static. Given the extent of characteristics and features considered in such an expansive landscape, multiple treatments can be applied to various features based on the given feature's use and significance. To make the most well-informed decision regarding appropriate treatments, the Park must first understand the extent of the landscape and what is significant within it. To do so, it is recommended that the Park conduct a Cultural Landscape Inventory (CLI) for the Historic Trail Network performed by a team of professionals that meet the *SOI Standards* qualifications.

Newly reconstructed windows to be installed where original windows were missing or damaged beyond sustainable repair. Notice restored window shutter and replaced wall log that was replaced in kind in material and workmanship. The cumulative treatment of Preservation was applied to the guard station as a whole. Olympus Guard Station adjacent to the trailside shelter pictured previously. Photo by author, 2019.

Conducting a Cultural Landscape Inventory (CLI)

As discussed in Chapter IV, a Cultural Landscape Inventory is management tool that provides a comprehensive understanding of the defined landscape, its component and characteristics, its National Register of Historic Places status, as well as NPS specific details such as legal interest and management information. A CLI establishes a historic context, a statement of significance, a full inventory of the characteristics and features including contributing or non-contributing status, and ultimately provides an analysis and evaluation of integrity of the established landscape. In addition, a CLI can provide a condition assessment of the landscape at large while outlining specific types of impacts effecting that landscape. With a comprehensive inventory at hand, the Park can better understand how the various features in the Trail Network landscape function together to convey the historic significance and sense of place of Olympic National Park. A useful precedent to look at when envisioning what a CLI for an extensive trail system might look like would be the *Appalachian Trail-South District in Shenandoah National Park* conducted in 2007. Further, a Cultural Landscape Report that provides useful precedent would be *Pathmakers: Cultural Landscape Report for the Historic Hiking Trail System of Mount Desert Island* as well as The Wonderland Trail at Mount Rainier National Park

Conducting a CLI for the over 600 miles of hiking trails in Olympic National Park would require a team of professionals versed not only in cultural landscapes and historic preservation but in navigating the backcountry safely. This would provide an opportunity for park staff and the cultural resource professionals to collaborate, resulting in a more dynamic understanding of the landscape as a whole.

There are thirteen landscape characteristics that are considered under the CLI format when evaluating a cultural landscape. An "Other" characteristic is provided if two characteristics are appropriately combined for analysis, such as Land Use and Topography. Each individual characteristic is well defined in the *National Park Service Cultural Landscape Inventory Professional Procedures Guide* published in 2009. Cultural landscapes are comprised of any number of these characteristics and their associated features and must be composed of at least one to have a complete inventory unit record. In the case of the Olympic Historic Trail Network, the most relevant characteristics in understanding the landscape would include circulation, buildings and structures, vegetation, natural systems and features, land use, topography, and small-scale Features. These could be amended as seen fit by the team preparing the CLI.

Landscape Characteristics

- Archeological Sites
- Buildings and Structures
- Circulation
- Cluster Arrangement
- Constructed Water Features
- Cultural Traditions
- Land Use
- Natural Systems and Features
- Other
- Small-Scale Features
- Spatial Organization
- Topography
- Vegetation
- Views and Vistas

For example, those characteristics listed could specifically relate the trail corridors in Olympic to the backcountry buildings, such as the shelters, with trail structures, such as bridges and retaining walls, and further to the native forest vegetation, the system of water ways such as rivers, and smaller scale features such as trail signage. Additionally, the recreational land use and the physical topography would likewise inform the understanding of the cultural landscape.

Olympus Guard Station historic district during preservation maintenance in 2019. The district is a great example of a cultural landscape with many characteristics contributing to the overall integrity. Note the relationship of the trail to the guard station and the shelter with small scale features like the information kiosk and flagpole. The meadow vegetation surrounded by old growth rainforest is also a contributing characteristic.

Analysis of these cultural landscape characteristics and their features would inform the overall integrity of the landscape as defined by the seven aspects of integrity by the National Register Criteria for Evaluation.

Seven Aspects of Integrity

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling
- Association

Developing an extensive understanding of the interrelationship of all these features will inform the analysis and evaluation of the Historic Trails Network in order consider a well-informed treatment plan that looks at how the landscape works as a whole, rather than its constituent parts.

In addition, conducting a CLI would provide much of the background information needed to complete a National Register of Historic Place nomination form for the Historic Trail System as a historic district.

Applying Treatment Recommendations to Individual Features

The conducted CLI can be used to inform the Park's decision on which of the *SOI Standards* should be applied to each feature based on the significance, condition, and proposed use of those features. Multiple treatments can be applied in a single landscape. For example, while a preservation approach might be appropriate for a trailside shelter wherein the building would be stabilized and maintained in its existing form, a more extensive rehabilitation approach might be appropriate for a high use trail bridge that is consistently damaged by fluctuations in the river levels. Whenever possible, retaining the character defining features of each aspect of the landscape would be preferred such as replacing materials in kind and workmanship character.

Each treatment applied to individual features will have a cumulative effect on the integrity of cultural landscape. For example, changing the materials of backcountry bridges from native split wood to dimensional lumber may diminish the integrity of material and workmanship of the landscape. However, the effects could be mitigated by the presence of trailside shelters that continue to retain those materials and convey the workmanship that would have been similarly present in the bridges such as the quality of hand split cedar. The presence of the bridges alongside the shelters would speak to the evolution of trail material and technologies and thus provide an enriched understanding of history. If, however, the bridges were to be changed and the trailside shelters lost, the ability for the landscape to convey its history on site without interpretation would be greatly diminished.

In a landscape as expansive as the trail network in Olympic, a CLI would provide a necessary limitation on what is to be considered—namely a boundary wherein lies the greatest concentration of landscape features. The width from the center of the trail corridor along with boundaries around existing buildings and structures as well as other included features such as established campgrounds, privies, corrals, and bear wire hangs would then allow for features to be evaluated by type so that treatments can applied accordingly. For example, establishing a treatment plan for backcountry trailside signage would ensure a consistency that continues throughout the Park. While not all features can be broken down into types due to their individual scale and characteristics, having a comprehensive inventory of all features within the Historic Trail Network in Olympic would provide a foundation from which to make critical treatment decisions.

Example of trail bridge replacement before (left) and in progress (right) showing a rehabilitation approach to a landscape characteristic. While the new bridge meets contemporary needs of durability to withstand increased use, changes in materials and workmanship thus compromise the historic integrity of the landscape if considered individually.

Bear Camp Shelter photographed in 2022. The original shake roof was replaced with a standing metal seam roof in the mid-2000s due to frequent collapse under snow loads. Photo by author, 2022.

Shelter Preservation

Funding and conducting a CLI is a great undertaking that would require years of planning and logistics. While there is no substitute or shortcut for having such a comprehensive inventory to inform a treatment plan, the Park can take routine measures to ensure that resources that contribute to the Historic Trail Network are not compromised or lost in the meantime. Of glaring concern is the system of shelters along the trails due to extreme extent of their loss over the last 50 years. Preserving the 18 remaining backcountry shelters—out of the over one hundred that once existed—is of utmost importance when considering their impact on the integrity of the cultural landscape as a whole.

The most appropriate overarching treatment in the case of the shelters would be *preservation*, as defined by the *SOI Standards*. This treatment approach prioritizes retaining the greatest amount of historic fabric while applying measures that sustain the existing form and integrity namely through routine maintenance and repair of materials as necessary. Compiling up-to-date condition assessments on the remaining shelters than prioritizing more extensive maintenance and repairs on those in poor condition so as to return all the shelters to baseline condition of "Fair" would ensure that no one feature be lost, thus compromising the integrity of the landscape as a whole. Any shelter, such as Anderson Pass Shelter at Camp Siberia, that is in jeopardy of collapse and is being stabilized by external means beyond its original construction should be immediately addressed.

When extensive shelter repair projects are conducted, extra materials such as roofing shakes and foundation stones, should be stored in or around the shelter for use in future maintenance and repair as needed. Consideration should be given to the potential of public use of that material as firewood or otherwise, making documentation and communication of material storage sites within the maintenance crew imperative. This includes resource areas such as cedar mines and borrow pits. Even a minimal supply of ready-use material to repair shelters will greatly improve the capability of future maintenance crews performing repairs are part of a cyclic maintenance plan.

Upon return of all the shelters to a "Fair" condition, shelters can be routinely monitored and maintained on a yearly basis in conjunction with trail maintenance being conducted.

Interior of Anderson Pass shelter showing diagonal bracing log secured with metal strapping used to stabilize construction due to building's poor condition, 2022. Photo by author.

Cyclic Maintenance

Shelter maintenance should be conducted as part of the yearly routine trail maintenance program executed by Park staff. While not all repairs and maintenance needs can be addressed without a more extensive project timeline, basic maintenance and repair may be figured into the cyclic maintenance plan. Below is a table detailing cyclic maintenance that can be performed yearly on trailside shelters.

Actions	Notes
Establish/ maintain existing drainage around building perimeter	▪ Drainage should correlate with drip edge of roof ▪ Shed moisture away at least 10 ft. downslope ▪ Drain should have gradual rather than trenched sides of at least a standard shovel's width and be lined with rock or gravel whenever resources are available
Clear roof of excess debris	▪ Remove fallen branches and leaf litter ▪ Proper PPE including fall protection should be considered
Brush vegetation away from building	▪ Consider vegetation type to determine appropriate level of brushing o Low ground cover (ie. Salal, trailing blackberry) brush up to 2 feet from established drainage o Large woody shrubs (ie. salmonberry, thimbleberry, vine maple, etc.) brush 10 – 12 ft. away from established drainage o Trees (ie. Western Red cedar, Douglas Fir, etc.) under 6" DBH cut back 15 – 20 ft. away from established drainage. More in areas of rapid growth such as valley bottoms o For trees larger than 6" DBH, prune branches with pole saw around and above building taking care not to remove more than 20 – 25% of tree's total canopy to ensure tree health ▪ Note: Consider wildfire standards as possible radius for defensible space if deemed appropriate by supervisor
Remove hazard trees with direct target of buildings	▪ Shelters are areas of concentrated visitor use and as such, mitigating potential windfall of dead snags to ensure public health and safety is essential ▪ Hazard tree removal should be done by qualified feller in accordance with Park policy
Addressing any manageable winter storm damage	▪ Re-inserting any dislodged foundation stones & securing with dry crushed stone ▪ Patching or replacing damaged roof shakes ▪ Filling rodent holes around foundation with stones ▪ Documenting extensive damage requiring specialized equipment and reporting it to project manager/ supervisor to be addressed as possible.

Appendix I:

Condition Assessment of 7 Trailside Shelters in Olympic National Park

In the summer of 2022, along with performing preservation maintenance on Fifteen Mile shelter in the Bogachiel Valley with the National Park Service (NPS) trail crew under backcountry carpenter, Cascade Hahn, I had the opportunity to hike across Olympic National Park to inventory historic resources throughout the landscape. With preservationist and colleague, Jessica Schmitt, we collected condition information used to update the NPS' Cultural Resource Inventory System (CRIS). Along with inventorying historic ranger station districts and homesteads, we were able to visit and assess several of the extant trailside shelters. Provided here will be condition assessments of seven of the remain 18 backcountry trailside shelters. These condition assessments are, however, not conclusive and, if maintenance projects were to be undertaken, would require additional site visits for more comprehensive structural evaluation. Instead, the condition assessments provided here, while they may serve as a broad guideline for needed treatments, are meant to document the general condition of the buildings as of 2022 for further referenc

Detail of vertical and horizontal wall logs of Happy Hollow Shelter. Photo by author, 2022.

Anderson Pass (1934)

Assessment Date: August 9, 2022

Physical Description:

A peeled log frame, rectangular building with board and batten siding measuring roughly 22' by 19'. The shelter has a modified gable roof on round log rafters and purlins covered with split cedar shakes. The foundation of the building sits on horizontal log sill resting on stones. A raised platform provides a sleeping area in the rear of the building. The interior footprint features wood plank floorboards. The primary entrance is on the south elevation.

General Condition Notes:

Roof:	Fair condition. Split cedar shakes; recently cleaned of organic matter; appears free of leaks with the exception of west elevation edge where structure has shifted and exposed rafter and purlin ends few shakes missing on east elevation edge; dry rot on rafter ends primarily on south elevation
Foundation:	Poor condition. Sill logs on stacked stone; largely buried; visible moisture damage on west and east elevation sill logs especially primary south elevation
Siding:	Fair condition. Board & batten; approx. 7 boards & battens missing on east elevation—replaced horizontally for structural bracing; approx. 2 boards & battens missing on west elevation; moisture damage at ground contact of boards throughout
Floor:	Poor condition. Plank flooring; water damage throughout; several missing planks
Notes:	Shelter has been stabilized with diagonal bracing logs and metal strapping to prevent collapse; predominant lean towards east; in need of extensive restoration and maintenance to prevent further collapse and historic fabric loss; siding would have originally been constructed of split cedar shakes and was changed to board and batten in the 1950s

< West elevation showing missing board and batten siding; damaged purlin end; mild ground contact deterioration on siding boards; missing upper trim and fascia board on southwest edge

^ East elevations showing diagonal logs added to stabilize structure; missing east elevation siding boards replaced with horizontal boards

< North and west elevations showing ground contact deterioration on siding boards; roof and siding shifted due to structural lean toward east; exposed rafter missing shakes on western edge

< Detail of sill rot on southeast corner

Detail of sill and post rot on southwest >

< Example of deterioration present on many of structural roof members

Missing or water damaged floor planks at southwest corner; note several missing siding from bunk structure >

Bear Camp (1952)

Assessment Date: August 3, 2022

Physical Description:

A round, stacked log rectangular building measuring roughly 12' by 16'. The roof structure is constructed of rounded log rafters and tongue and groove nailer boards covered in standing metal seam paneling. The foundation sill logs sit on a stacked rock foundation. The primary entrance is on the south elevation.

General Condition Notes:

Roof:	Good condition. Original building would have been constructed with split cedar shakes as roofing material
Foundation:	Good condition; mild vegetation encroachment around periphery of building
Siding:	Good condition. Stacked logs showing mild weathering and checking
Floor:	Good condition. Dirt floor.
Notes:	Shelter has been extensively preserved with members replaced since the date of construction

< West elevation showing extent of weathering on siding logs and condition of stacked rock foundation

^ North and west elevations showing extent of vegetation encroachment around periphery of building

< East elevation

Elkhorn Shelter (1933)

Assessment Date: August 29, 2022

Physical Description:

A peeled log frame, rectangular building with board and batten siding measuring roughly 14' by 14'. The roof construction consists of rounded log rafters with dimensional lumber purlins covered in split cedar shakes. The shelter contains raised wood plank flooring with bunk sleeping platforms built into the east and rear interior elevations. The foundation is constructed of sill logs resting on corner stones. The primary entrance is on the south elevation.

General Condition Notes:

Roof:	Fair condition. Split cedar shakes; accumulation of debris and organic growth throughout; shakes in need of replacement
Foundation:	Fair condition. Log on stacked stone; mild moisture damage and organic growth on sills logs; evidence of powder post beetle deterioration on west elevation sill log
Siding:	Good condition; board and batten; some red bio-growth throughout; mild moisture deterioration along bottom of east elevation siding planks; 1 broken board on SW elevation corner near entrance support post
Floor:	Good condition. Plank flooring; exterior south elevation porch planks heavily deteriorated; mild damage to SW corner floor joist
Notes:	Adequate vegetation clearing around structure; general weathering throughout; shake roof in need of replacement to avoid potential failure and deterioration of interior roof structure; nearby tree limbs encroaching; south elevation entrance porch planks heavily deteriorated; siding would have originally been constructed of split cedar shakes and was changed to board and batten in the 1950s

< West and South (primary) elevations. Note deterioration of exterior porch planks and half damaged siding board on SW corner

^ North and east elevations. Note encroaching tree branches.

< North and west elevations. Note accumulation of debris on roof; note encroaching tree branches along east elevation

< Detail of mild water damage along east elevation siding boards; red bio growth throughout; organic growth on sill log

^ Detail of damage to SW corner floor joist

< Evidence of powder post beetle deterioration on west elevation sill log

Happy Hollow (1964)

Assessment Date: August 31, 2022

Physical Description:

A rectangular stacked, partially milled log building measuring roughly 14' by 14'. The foundation sill logs rest on stone footings. The roof construction consists of milled rafters and purlins covered in split cedar shakes. Bed bunks line the west, east, and north interior elevations. The vertical logs along the walled elevations are milled on 3 sides with a 4th left rounded facing to the exterior. The primary entrance is on the south elevation.

General Condition Notes:

Roof: Poor condition. Split cedar shakes; significant debris accumulation and organic growth on shakes; damage to NE corner roof structure from fallen tree including broken purlin and several missing shakes exposing roof structure to water damage; south elevation roof bean splitting; evidence of moisture damage on interior roof structure components due to roof failure including ridge beam and rafter ends

Foundation: Fair condition. Log sill on stone; organic growth along north, east and west sill logs; mild deterioration throughout sill logs; sill logs making ground contact with stone foundation buried; lack of adequate drainage around building compromising foundation

Siding: Good condition; chainsaw milled log; corner support posts showing evidence of moisture damage at ground contact; vandalism throughout in form of carvings and drawings

Floor: Good condition. Dirt floor.

Notes: Shelter has suffered impact from fallen tree; access trail blocked by another fallen tree; several hazard trees within vicinity; vegetation encroachment around structure should be brushed out to maintain adequate ventilation and drainage around structure; river proximity and possible erosion damage to be considered (riverbank 15-20 ft. from SE corner of structure); shake roof in need of repair and replacement

< South (primary) and east elevations showing vegetation encroachment on all sides including interior

^ Detail of roof on south elevation; note encroaching vegetation and lack of adequate drainage around structure; accumulated debris on roof

< North and west elevation showing tree damage to NW corner roof structure

< Example of moisture damage on interior roof structure found throughout

Split in south elevation roof structure; note poor condition of roof shakes >

Detail of damage on NW corner of roof structure >

< Detail of organic growth on north and west corner foundation logs; note lap joinery; similar growth along entirely of north, east, and west sill logs

Three Forks (1930)

Assessment Date: August 2, 2022

Physical Description:

A peeled log frame, rectangular building with spit cedar shake siding measuring roughly 14' by 14'. The shelter has a modified gable roof with round log rafters and split cedar purlins. The foundation is constructed of sill logs resting on a shallow stacked stone foundation. A bed platform is built into the rear interior elevation with a table platform braced into the west interior elevation. The primary entrance is on the south elevation.

General Condition Notes:

Roof:	Fair condition. Shows signs of weathering; accumulation of debris and bio-growth
Foundation:	Fair condition. Sill logs showing signs of deterioration and bio-growth; several loose stones in stacked stone foundation
Siding:	Fair condition. Split cedar shakes showing signs of weathering and moisture damage; significant deterioration along bottom course of north elevation shakes; deterioration around fasteners
Floor:	Good condition. Dirt floor.
Notes:	Encroaching tree branches primarily on rear elevation; evidence of moisture related decay along several split purlins

< North and east elevations showing vegetation encroachment

< North and west elevations showing debris and bio-growth on roof shakes

^ West and south elevations

< Example of shake deterioration present along bottom course of north elevation; note deterioration of sill log at ground contact

< Example of deterioration of purlins and rafters; note previous purlin replacement

< End of sill log at ground contact; note extend of deterioration and what appears to be copper nail in the heart of the log

Trapper (1963)

Assessment Date: August 31, 2022

Physical Description:

A rectangular stacked, partially milled log building measuring roughly 14' by 14'. The foundation sill logs rest on stone footings. The roof construction consists of milled rafters and purlins covered in split cedar shakes. Bed bunks line the west, east, and north interior elevations. All siding members except for the corner posts and post supporting the ridge beam are milled on all sides. The primary entrance is on the west elevation.

General Condition Notes:

Roof:	Good condition. Split cedar shakes; appears to have been recently swept off; mild evidence of moisture damage to interior roof structure
Foundation:	Fair condition. Log on stacked stone; heavy moisture damage and organic growth on sills logs; insect damage on west elevation sill log; gap in foundation stones; support posts heavily deteriorated and causing the building to generally lean/sink in the NW corner
Siding:	Good condition. Sawn lumber and wide planks; support posts are heavily deteriorated at ground and foundation stone contact; vegetation encroaching around structure
Floor:	Fair condition. Dirt floor; evidence of moisture accumulation in interior rear of building; water bar at west elevation entrance sunken
Notes:	Shelter in overall fair condition; the sill logs are deteriorating from moisture and bio-growth; vertical support post deteriorated at ground contact; the structure is leaning significantly towards the NW corner; vegetation is encroaching on structure; proper drainage should be re-established around structure; shelter generally located in an area of heavy moisture

< North and west elevation

^ East and north elevation showing ground cover encroaching around sill logs

< West and south elevation showing vegetation encroachment

< NE corner sill log; example of deterioration found along extent of sill logs; note lap joint

Evidence of moisture accumulation in interior >

Example of deterioration found at both corner posts >

< Detail of deterioration of vertical support posts on north elevation; building generally leaning/ sinking in the NW corner.

Wilder (1951)

Assessment Date: August 30, 2022

Physical Description:

A stacked round log, rectangular building measuring 12' by 12'. The foundation sill logs sit on a stacked stone foundation. The shed roof is constructed of round log rafters and purlins covered by a split cedar shake roof. Two bed platforms line the north and south interior elevations. The primary entrance is the west elevation.

General Condition Notes:

Roof:	Good condition. Split cedar shakes; some accumulation of debris from tree canopy; interior roof structure in good condition; small portion of rot along west elevation entrance secondary roof beam
Foundation:	Good condition. Log on stacked stone; gap in foundation stones on north elevation potentially a result of burrowing critters
Siding:	Good condition. Stacked log with saddle notches and sandwiched support beams
Floor:	Good condition. Dirt floor.
Notes:	Shelter in overall good condition adequate vegetation clearing around structure; shelter was extensively restored in 2010 as a result of significant damage

< West and south elevations; note double roof ridge beam

East and north elevations >

South and east elevations >

< North and west elevations

< Detail of interior

< Potential evidence of critter burrowing between foundation stones

^ Detail of chamfering around log edges

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