United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Deep Creek (Magruder) Ranger Station

other names/site number Magruder Ranger Station, Magruder Guard Station (Smithsonian No. 10-IH-112)

2. Location

street & number West Fork Ranger District, Bitterroot National Forest [ ] not for publication

city or town Darby, Montana [X] vicinity

state Idaho ID county Idaho code 049 zip code 59829

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this _X_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property _X_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide _X_ local

Signature of certifying official/Title Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper Date of Action

Deep Creek (Magruder) Ranger Station
Name of Property

Idaho County, Idaho
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

.	private
	public - Local
	public - State
X	public - Federal

Category of Property
(Check only **one** box.)

	building(s)
X	district
	site
	structure
	object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
7	1	buildings
2		sites
4		structures
		objects
13	1	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions.)

GOVERNMENT / government office
TRANSPORTATION / road related (vehicular)
AGRICULTURE SUBSISTENCE / animal facility
AGRICULTURE SUBSISTENCE / agricultural field
DOMESTIC / single family
DOMESTIC / multiple dwelling

Current Functions
(Enter categories from instructions.)

GOVERNMENT / government office
TRANSPORTATION / road related (vehicular)
AGRICULTURE SUBSISTENCE / animal facility
AGRICULTURE SUBSISTENCE / agricultural field
DOMESTIC / multiple dwelling
DOMESTIC / hotel (for rental unit)

7. Description

Architectural Classification
(Enter categories from instructions.)

Other; vernacular rustic log

Materials
(Enter categories from instructions.)

foundation: CONCRETE
walls: WOOD; Log
WOOD, Shingle
roof: WOOD, Shingle
other:

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Deep Creek Ranger Station, also known historically as Magruder Ranger Station, is located in a remote part of the Bitterroot Mountains of northern Idaho.[1] This historic district encompasses roughly 10 acres of land, the bulk of which incorporates a cluster of administrative and domestic building and two horse pastures, all located adjacent to the Selway River. Most of the improvements occupy a level terrace on the east bank of the River. The area in the immediate vicinity of the administrative buildings is open, having been cleared of its native timber as the station developed. The cleared areas are seeded to grass for both lawn and horse pasture. Two fenced pastures, one on the east side and one on the west side of the river, are also included in the district. These cleared terraces stand in sharp contrast to the surrounding steep hill slopes that are covered with dense mixed stands of Douglas-fir, lodgepole pine, and Englemann spruce—the source of the raw material for the five rustic log buildings in the building cluster. Also included in the district boundary is a half-mile-long access road that links the building complex with Forest Road 468. A major component of the access road is the Deep Creek Bridge, a single-span arch structure made of native stone. Considered together, the buildings and structures in the district are representative of the rustic style of improvements designed and built by the Forest Service from the 1920s through the early 1940s. Although some buildings have been modified slightly, the district as a whole possesses all seven aspects of historic integrity: location, setting, materials, workmanship, design, feeling, and association.

Narrative Description

The following detailed narrative description of the Deep Creek Ranger Station is presented within the context of the general cultural landscape characteristics that are applicable to the ranger station. These include: *natural systems and features*, *spatial organization and land use*, *circulation, buildings and structures,* and *small-scale features*.

Natural systems and features

At the Deep Creek Ranger Station, building and land use patterns are defined principally by a response to the area's underlying topography. Although heavily timbered at the time that the station was first established, the terraces adjacent to the Selway River provided sufficient level ground to develop the administrative, domestic, and agricultural facilities required to support government employees and their families at a district headquarters in a remote station. Forest Service employees cleared roughly three acres of land, which they then seeded for horse pasture, and for a lawn adjacent to the administrative and domestic buildings. The steep hill slopes surrounding the site define the boundary of the improved areas.

Summary: The large-scale natural systems and features that influenced selection of the headquarters site and its subsequent development have changed little since the end of the historical period. The steep, timbered hill slopes that rise

[1] The property is located within the Magruder Corridor, an east-west oriented motorized transportation corridor that separates the Selway Bitterroot Wilderness from the Frank Church River of No Return Wilderness. The corridor and other area landmarks derive their names from the event referred to as the Magruder Massacre. In 1863 Elk City, Idaho, merchant, Lloyd Magruder, and four companions were murdered while returning to Elk City from Virginia City, Montana. The site of the massacre is about 12 miles west of the ranger station. The 600-foot-wide Magruder Corridor is centered on Forest Road 468 (also known as the Magruder Road), a narrow, two-lane mostly gravel road that connects Darby, Montana with Elk City, Idaho. In a few places along this route the corridor widens to incorporate facilities that existed prior to formal wilderness designation. One of these is the site of the Deep Creek Ranger Station and its access road. The access road crosses Deep Creek, just above its confluence with the Selway River. Currently, the Deep Creek / Magruder Ranger Station is administered by the West Fork District of the Bitterroot National Forest, which is headquartered in Hamilton, Montana.

above the Selway River provide strong edge definition to the historic district and contribute to its integrity of setting, and to the overall eligibility of the property.

Land Use and Spatial Organization

The organization of improvements within the Deep Creek Ranger station reflects the range of human use and activities (administrative, domestic, and agricultural) typically associated with a district headquarters complex. Important features affecting the organization and character of improvements within the site include the grade and elevation of the natural land surface and native vegetation. With the exception of the access road and its associated bridge, all of the permanent improvements at the station occupy the level terraces adjacent to the Selway River.

The terrace east of the river is the larger of the two, and wider at its north end, tapering to a narrow point at its southern end. The shape of this topographic feature influenced the placement of buildings and work areas within the site. The most public area of the site, i.e., the area containing the combination building with its multiple purposes, is located opposite the end of the access road, in the widest part of the terrace. The larger of the district's two horse pastures is located north of the administrative complex, divided from the latter by a jack-leg pole fence that completely surrounds the pasture. Facilities associated with maintenance (the garage / shop, and a flammable materials storage shed) and with housing livestock (a barn and corral) are located farther south, in an area removed from public view. The ranger dwelling is located at the base of a hill slope northeast of the administrative buildings, thus providing some privacy for the ranger's family.

On the less accessible west bank of the river there is much less level ground. After some selective thinning in the 1930s, this area was used principally as horse pasture. Still later, after the 1958 construction of a vehicular bridge connected the two pastures, trailers to house district's seasonal employees were placed in this area. Today, the area is used for pasture. Like the pasture on the east side of the river, the west pasture is enclosed with a jack-leg fence.

Summary: The historical pattern of spatial organization within the district remains evident on the landscape and contributes to the significance and eligibility of the property. In spite of the fact that some buildings have been removed, the organization of the core developed area, as well as its relationship to its associated horse pastures has not been altered. Contributing landscape features directly associated with land use include the north and west horse pastures. Each is counted as a contributing site.

Circulation

As stated above, the station's access road branches from Forest Road 468 and extends south for about a half mile to enter the developed portion of the district on the east side of the Selway River. Just south of its beginning, the access road is carried across Deep Creek by a concrete and stone single arch bridge built in 1938. The Deep Creek Bridge is about 76 feet long from approach span to approach span, with a 20 foot-wide road bed. The 35-foot-wide arch ring has a concrete core with stone veneer on the exterior surface. The abutments are made of concrete below the ground surface and rubble masonry on the exposed surfaces. The masonry is laid up in irregular courses, with the mortar raked out to a depth of about an inch. Stone guard rails are located on both sides of the bridge, rising about 2.5 ft. above the running surface. The railings are about 18 inches wide, with square stone end posts.

After crossing Deep Creek, the road contours around the base of the hill slope east of the ranger station buildings, before descending into the administrative area, just south of the ranger dwelling. The access road is built on a grade cut into the hill slope, with a shallow drainage ditch on the up hill side. The width varies from about 30 feet at the south end of the Deep Creek Bridge, to about 24 feet along the hill slope.

Once in the administrative area, the road branches with one branch leading northeast to the south side of the ranger's dwelling. Another branch extends west to access a vehicular bridge across the Selway River that connects the two horse pastures. Yet another branch heads south-southeast to the vicinity of the fire cache. A north-to-south oriented row of

large boulders extends south from the north pasture fence to the area in front of the fire cache. The boulders define a parking area and also prevent vehicles from driving across the lawn in front of the combination building. From the fire cache, the road heads south to access the maintenance area and finally the barn at the south end of the complex. The road ends in a turn bulb just north of the barn.

The vehicular bridge that connects the two horse pastures dates to 1958. The substructure of this single-span bridge consists of steel I-beams with horizontal web bracing, supported at either end by earthen abutments and by two, in-stream, columnar-type reinforce concrete piers. The timber bridge deck has a board running surface. Wooden guard rails are bolted to square wooden posts, which in turn are bolted to the timber deck.

Summary: The circulation systems established during the period of significance retain integrity and contribute to the eligibility of the historic district. Contributing resources directly associated with circulation include the station's access road, the stone arch Deep Creek Bridge and the I-beam bridge over the Selway River. Each is counted as one contributing structure.

Buildings and Structures

Ranger dwelling: The rangers dwelling is located at the north end of the building complex on a small elevated terrace overlooking the north horse pasture. Begun in 1934 and completed in1935, this 24 ft. by 28 ft dwelling is a one and one half story, log bearing building with side gable roof. It is built on a concrete basement, with the front porch supported by concrete piers. Walls are constructed of full logs joined with ventral saddle notches and daubed with tar. A distinguishing characteristic of this and other log buildings at this site is the lack of taper in the logs, which makes for tight horizontal joints that require little daubing. The gable roof has log purlins and dimensional lumber rafter ends and is covered with sawn cedar shingles, painted green, with a metal ridge finish with globe ends. A stainless steel stove pipe, and several metal pipe vents project above the roof on the east-facing slope. Like all historic-age buildings at this site, the exterior walls are stained brown and the door and window trim is painted white.

The west (front) wall of the building has a continuous roof porch. The porch has a 4 ft. high notched-log wall that supports four log columns. Concrete steps lead to a central opening in the porch. The wall beneath the porch contains a central entrance with window openings on either side. The entrance has a three-panel, one-light door and a wood-frame screen door. Both window openings contain a single, six-over-one-light double hung sash. On the south wall, the ground floor has two window openings, both with six-over-one-light single hung sash; the larger of the two openings contains two sashes and the smaller opening one sash. A six-by-six-light sliding sash window is located in the gable end. Fenestration on the east (rear) wall is identical to the front of the building. A framed entrance near the base of the wall north of the door leads to the basement. The north wall has a four-light hopper window near the east edge of the wall, and a six-by-six-light sliding window located high in the wall towards the north end. Like the south side of the building, the gable end contains a six-by-six-light sliding window. The ranger dwelling is counted as a contributing building.

Wood storage: A small structure for storing wood is located behind the ranger dwelling. This is of wood frame construction and has a shed roof. The exterior walls and roof are covered with wood shingles, as is a half-height door in its west wall. The date of construction of this structure is unknown: It does not appear in a 1938 photos of the station, but the materials used in its construction are similar to those used in improvements from the 1930s and 1940s. This resource is counted as a contributing structure.

Combination Building: The 28 ft. by 31 ft. combination building is located near the east bank of the Selway River channel. Currently referred to as the office/bunkhouse, this building was constructed in 1933. It is a one and one-half story, log bearing building constructed on a concrete foundation. The walls are made with full logs joined at the corners with ventral saddle notches and daubed with cement. Both the logs and the daubing are stained brown, and the door and window trim is painted white. The steep gable roof is covered with wood shingles painted green and has exposed dimensional lumber rafter ends. All of the window openings contain wooden sashes, most of which are original.

On the front (east) wall, an open, 8 ft. by 13 ft. shed-roof porch covers the north third of the wall. The edge of the porch roof is supported by three log columns that rest on the plywood porch deck. Originally, the portion of the wall beneath the porch had an open, recessed loading platform. Sometime after 1963, the open section was framed in, in order to prevent snow from drifting into the loading dock during the winter. The new exterior wall was enclosed with drop siding, and the shed roof porch added. The frame wall beneath the porch has an entry offset south of center and two windows—a four-light fixed window south of the door and a six-over-one-light double-hung window north of the door. The entry has a wooden door with three panels and one light. The original wall south of the porch contains a large window opening with a pair of six-over-one-light, double-hung sash.

The north and south sides of the building both have their original windows. On the north wall, these include a six-by-six-light sliding window offset west of center in the ground floor, and a six-by-six-light sliding window centered in the half story. On the south wall, the ground floor contains one six-by-six light sliding-sash window in the east half of the wall and a six-over-one-light double-hung sash in the west half of the wall. On the west (rear) wall, an entry is located south of center. A shallow, shed-roof overhang, supported by log columns, shelters the board entry stoop. This entrance contains a wooden door with three panels and one light. A six-by-six-light sliding-sash window is located in wall north the entrance. The wall to the south of the rear entry stoop has a plywood enclosure that houses a shower, which is accessible from the exterior of the building. The combination building is counted as a contributing building.

Wood shed: The wood shed is located southwest of the office. Built in 1934, this 15 ft. by 9 ft., this is a one story log bearing building constructed on a concrete foundation wall. Walls are made with full logs and joined with ventral saddle notches and daubed with concrete. The gable roof has exposed dimensional lumber rafter ends and is covered with wood shingles painted green. The north wall (facing the combination building) has a central entrance fitted with a board and batten door that slides on an overhead rail. The rear and side walls each have a single window opening; the openings on the south and east walls are currently shuttered on the exterior, while the west side window contains a four-light window. The wood shed is counted as a contributing building**.**

Fire Cache: Built between 1923 and 1926, the fire cache is the oldest surviving building at the site. Built originally as a store house, it is located about 60 feet southeast of the combination building. This 37 ft. by 17 ft., one-story log bearing building is built on a concrete foundation wall. Walls are joined at the corners with what appear to be "hog trough" corners, wherein wall logs are nailed into a vertical, two-sided dimensional lumber trough. Full logs are placed in the exposed exterior side of the trough, and contribute to the support of the log roof purlins. In addition, the logs appear to have been coped, i.e., a groove was cut on the underside of the wall logs to make a tight fit and eliminating the need for daubing. The exterior walls are stained brown and the door and window trim is painted white. The front-gable roof is covered with sawn cedar shingles painted green, has exposed pole rafter ends, and a metal ridge finish. On the rear of the building the original open, extended roof porch has been enclosed with logs.

The north (front) wall of the building has a pair of vertical board-and-batten doors offset east of center that are accessed from an 8 ft. by 12 ft. loading platform. A one-light fixed window is located to the east of this entry. The east side the original part of the building has two window openings, one with a pair of six-light wooden sash and one with a single six-light sash. On the west side, three six-light windows are evenly spaced within the original part of the building. On the south (rear) wall, a pedestrian entry with a wood panel door is centered in the wall and flanked on either side by a six-light window. The fire cache is a contributing as a contributing building.

Garage / Shop: The garage / shop is located about 75 feet south of the fire cache. The toe slope of the adjacent hill was cut back to make room for the 24.5 ft. by 74 ft. building. Its exact date of construction of has not been verified, but a frame five-stall garage with shingle walls is mentioned in a 1937 planning document, indicating that the original part of the building was constructed sometime prior to that year. A section at the south end of the building is believed to be an addition, which may have been built sometime between 1950 and 1962, when the shed-style roof of the original component was replaced with the current side-gable roof. In contrast to the majority of historic buildings at the site, this is a frame building. It is built on a concrete foundation wall. The roof is covered with sawn cedar shingles painted green and has a galvanized metal ridge finish with globe ends. Only the north wall retains its original wood shingle wall

covering; the east, west, and south walls have board and batten siding. All of the exterior walls are stained brown, and most of the wooden window sash and trim are painted white. An exception to the latter is the east wall window trim which is stained brown.

The west (front) wall of the garage / shop contains five garage doors, each about 10 ft. wide, along the north 50 ft. of the building. These X-braced doors slide sideways on overhead rails that are offset slightly to allow the doors to slide over one another. South of the garage door bays, there is a pair of plywood doors, accessed from a concrete ramp. A window opening at the south end of the wall contains a pair of four-light sliding sash. On the north wall, the ground floor contains two, evenly spaced window openings that have been boarded over. A large window opening with three, four-light sliding sash is located in the gable end. The east (rear) wall has two window openings evenly spaced within the ground floor of the original building. Both contain two, six-light fixed sash. The south (side) wall has two window openings, each with a six-light fixed sash; the gable end has a single opening with two, one-light sash. The garage / shop is counted as a contributing building.

Flammable materials storage: This building is located across the interior access road from the shop. It is reported to have been built in 1945, but moved to its original location in 1955 and then enlarged in 1966. This is a one story, frame building constructed on a concrete foundation wall. It has a front gable roof covered with sawn cedar shingles painted green with a metal ridge finish. The exterior walls are covered with wood shingles with corner board trim and stained brown. The north (front) wall has a central entry with a plywood door. Both side walls contain two, evenly spaced window openings each with a six-light fixed sash. Like the other buildings in the complex the window sash and trim is painted white. The flammable materials storage building is counted as a contributing building.

Barn: The barn is located at the south end of the building complex, near the base of the hill slope. Built in 1934, the 17 ft. by 25 ft. barn is a one and one half-story, log bearing building with a front-gable roof built on a concrete foundation wall. Walls are made with full logs joined with ventral saddle notches. The roof is covered with sawn cedar shingles painted green and has exposed dimensional lumber rafter ends and a galvanized metal ridge finish. A pole corral, about 50 ft. square, is attached to the south wall of the barn.

The west (front) wall contains a single entry off-set south of center with a vertical board door. Am opening beneath the gable end has a pair of wooden shutters. The north and south side walls each contain three, evenly spaced window opens, each with a pair of four-light fixed sash. The east (rear) wall has a double-leaf, board and batten door offset south of center and a boarded open window in the north half of the wall. Like the west wall, the east wall has an opening beneath the gable end. On this side of the building a board platform is located outside the opening, attached to the building by steel cables. A board railing is located on the north side of the platform. A ramp made of small-diameter poles leads from the south edge of the platform to the edge of the attached corral, and appears to be used to slide hay bales from the storage loft into the corral. The barn is counted as a contributing building.

Modern pit toilet: Besides the historical buildings noted above, a modern pit toilet is also located at the site. Built for use by the visiting public, this building is of wood frame construction and is built over a concrete vault. It measures approximately 8 ft. by 7 ft., and has a shallow gable roof covered with sawn cedar shingles. It is a one story, new, wood frame building with a rectangular floor plan. It sits on a concrete slab foundation. Exterior walls are made of faux log siding. The shallow gable roof is covered with wood shingles. The outhouse has a plywood door. This modern resource is counted as a noncontributing building.

Summary: Although a few historic-era buildings have been removed, those that remain are excellent examples of the rustic style of building designed and built by the Forest Service, from the 1920s through the 1930s and early 1940s. The extant buildings and structures possess all seven aspects of integrity.

Small-scale features

The Deep Creek Ranger Station contains numerous small-scale features that are directly associated with the administrative, domestic, and agricultural activities that occur at the site. Although most are of a scale that precludes their inclusion in the resource count for the nomination, collectively, they contribute to the historical character of the district. The majority of these features are associated with managing and handling pack stock—horses and mules. These include two stock loading platforms, both located in the vicinity of the barn. One consists of a board retaining wall backfilled with earth. The second is a concrete retaining wall located adjacent to the hill slope directly north of the barn. An interesting detail of this feature is the mule shoes embedded in the top of the wall. In both cases, trucks can be backed up to the platforms, facilitating stock loading / unloading. Two pole hitching posts are also in the vicinity of the barn, one outside the corral and one adjacent to the board loading platform. In addition, although not original to the site, the pole jack-leg fences are valuable in that they define the boundaries of the two pastures. Similarly, the pole corral attached to the barn is built of modern materials, but is located close to the original corral.

Other small-scale features include a flagpole that stands in the lawn in front of the combination building. This simple structure, made by bolting a peeled pole between two posts, identifies the station as a government facility. With regard to domestic activity, a clothes line located behind the ranger's dwelling is evocative of the everyday lives of rangers' families. This structure consists of two dimensional lumber posts and cross pieces, strung with No. 9 telephone wire. The clothes line is similar to one shown in a 1938 photograph of the station.

Summary: The variety of small-scale features associated with administrative, domestic, and agricultural activities, contribute to the historical character of the property and to its integrity of feeling and association.

SUMMARY OF CONTRIBUTING AND NONCONTRIBUTING RESOURCES		
Resource type	**Contributing**	**Noncontributing**
Buildings	Ranger's dwelling	Modern pit toilet
	Combination building	
	Wood shed	
	Fire cache	
	Garage / Shop	
	Flammable materials storage shed	
	Barn	
Total for Buildings	**7**	1
Structures	Wood storage shed (by dwelling)	
	Access road	
	Deep Creek Bridge	
	I-beam bridge	
Total for Structures	**4**	0
Sites	North pasture	
	West pasture	
Total for Sites	**2**	0

Deep Creek (Magruder) Ranger Station | Idaho County, Idaho
Name of Property | County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses 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.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

Politics/Government
Architecture
Engineering

Period of Significance
1922 - 1965

Significant Dates
1922 (established)

Significant Person
(Complete only if Criterion B is marked above.)

Cultural Affiliation
N/A

Architect/Builder
Ole Tangen (Builder, barn, wood shed, ranger dwelling)
Art Kahn (Bridge engineer)
Region 1 Forest Service architects (standard plan buildings)

Period of Significance (justification)

The period of significance reflects the period of time when the station functioned as a ranger district headquarters.

Criteria Considerations (explanation, if necessary)

N/A

Summary Statement of Significance

The Deep Creek Ranger Station (also known as Magruder Ranger Station) is eligible for listing in the National Register of Historic Places at the local level of significance under Criteria A and C. Established in 1922, the organization of the station as well as the character of the buildings and structures located there are representative of USDA Forest Service policies and aesthetics that guided its permanent improvement program. The period of significance represents the roughly four decades during which the site functioned as a ranger district headquarters.

Origins of the Forest Service and the Development of its Permanent Improvement Program[2]

In the latter part of the nineteenth century the United States experienced an industrial revolution. The process of industrialization greatly accelerated the settlement of the West. The industrializing nation's thirst for precious ores spurred the development of mining camps and towns in the mountainous regions, booming beef prices gave rise to cattle kingdoms on the high plains, cities and towns blossomed along the new transcontinental railroad routes, while improvements in agriculture encouraged farmers to homestead the semi-arid intermountain and plains regions. The federal government greatly abetted the process by vanquishing the western Indian tribes and placing them on reservations, and by giving away millions of acres of public domain in the space of a few decades. Critics termed the period "the great barbecue." When the census of 1890 revealed that the western frontier was officially gone, many Americans began to wonder if it had all happened too hastily, with too little regard for native peoples and the environment.

One of the first glimmers of this new thinking occurred with the Forest Reserve Act of 1891, which authorized the President to set apart and reserve forest lands for the public interest. Although this marked an important turning point in federal land policy, the legislation was flawed by a lack of provisions for administration or protection of the forests from trespass and fire. As a result, the General Land Office (GLO) simply closed the reserves to entry or utilization of any kind, pending further congressional action. The withdrawal of these tracts from the public domain angered western stockmen, settlers, miners, and lumbermen and established a pattern of western opposition to forest reserves.[3]

President Grover Cleveland expanded the forest reserve system with his proclamation of thirteen new forest reserves in the West, including the first four in today's Region 1: the Lewis and Clark, the Bitter Root, the Flathead, and the Priest River forest reserves. Cleveland's action, taken at the end of his term on February 22, 1897, outraged many westerners, and Congress reacted with a bill authorizing the next President to cancel forest reserves, which Cleveland pocket vetoed shortly before leaving office.

In July, Congress passed the Organic Administrative Act. This law stipulated that the purpose of forest reserves was to protect watersheds and lands that were chiefly valuable for sustained timber production. It exempted lands that were better suited for agricultural or mining purposes. It provided for the rudiments of administration. Gifford Pinchot later described this act as the second most important law in the history of American forestry, marking the "beginning of Government Forestry in the woods.[4]"

The Department of Interior quickly issued regulations for the administration of the forest reserves, one of which was the appointment of a forest supervisor for each reserve. The forest supervisor was responsible for hiring rangers and assigning these men to ranger districts. This early administration of the forests by the GLO had many shortcomings. The

[2] The first part of Section 8 is summarized from the historic context written by Theodore Catton in 1991. Janene Caywood, Ted Catton, and James R. McDonald ,"Evaluation of Region 1 Forest Service-Owned Buildings for Eligibility to the National Register of Historic Places," contracted report prepared for Region 1, Missoula Montana, 1991.
[3] Samuel Trask Dana, *Forest and Range Policy: Its Development in the United States* (New York: McGraw-Hill Book Company, 1956), 100-2.
[4] Gifford Pinchot, *Breaking New Ground* (New York: Harcourt Brace, 1947) 113-117.

forest reserves were unsurveyed and there was much confusion about ranger district boundaries. All personnel were overburdened with paperwork, which diverted them from more urgent tasks in the field. Moreover, the GLO's use of the political patronage system led to the appointment of many incompetent or negligent administrators. The whole bureaucracy suffered from over-centralization, and a lack of appreciation in the nation's capital for the frontier conditions that pertained on the forest reserves.[5]

One of the GLO's most persistent critics was Gifford Pinchot, chief of the Division of Forestry in the Department of Agriculture. Pinchot replaced Bernhard Fernow as head of the division in 1898. Fernow, a German, had stamped the research-oriented Forestry Division with the scientific methods of the German school of forestry. The aggressive new chief forester was not satisfied with the Division of Forestry's traditional role as a research institution; he pushed for more involvement in the administration of forest lands. Pinchot was convinced that American forestry must be adapted to a situation of resource abundance, substituting practical, extensive forestry methods for the intensive forestry practices that were being developed in Europe. Under Pinchot, forestry soon achieved bureau status, while its staff increased from 11 to 179, including 81 student assistants, by 1901.[6] These dedicated young men, mostly educated in the new professional forestry schools, would later form a cadre for the U.S. Forest Service.

The chief forester's second objective was to affect a transfer of the administration of forest reserves from the GLO to his own bureau. In 1899, Pinchot personally inspected the Priest River, Flathead, and Lewis and Clark forest reserves, presenting his ideas for a reorganized forest service to the GLO commissioner. Under President Theodore Roosevelt's administration, Pinchot's Forestry Division regularly advised the GLO on management of forest reserves. Not satisfied, however, Pinchot had a bill introduced in Congress in 1902 for the transfer of the forest reserves from the Department of Interior to the Department of Agriculture. Although this bill was defeated, a similar bill passed both houses of Congress and was signed into law by President Theodore Roosevelt in 1905.

The Transfer Act of February 1, 1905 marks the beginning of the U.S. Forest Service and the jurisdictional transfer of millions of acres of forested land from the Department of the Interior to the Department of Agriculture. The secretary of agriculture was charged with the protection, administration, improvement, and extension of forest reserves. Five months after the passage of the Transfer Act, the Bureau of Forestry was officially renamed the U.S. Forest Service. Pinchot's utilitarian philosophy received expression in Secretary James Wilson's directive to the new agency that "all land is to be devoted to its most productive use for the permanent good of the whole people."

These three acts of legislation, the Forest Reserve Act of 1891, the Organic Administrative Act of 1897, and the Transfer Act of 1905, were fundamental to the development of the Forest Service in the Northern Region. The legislation set a pattern of federal leadership in the development of wise land use practices. The transfer of the forest reserves to the Department of Agriculture effectively combined in one agency the responsibilities for scientific resource planning and extensive land management. Most of the forest reserves were located in the West, and included lands that were wild, undeveloped, and virtually uninhabited. Thus, the federal government's venture into forestry had to reconcile a scientific approach with frontier conditions. Rustic accommodations, long periods of isolation, and frequent travel on foot or horseback became a way of life in the Forest Service. These frontier conditions are reflected in the buildings and other improvements constructed or used by the Forest Service.

The origins of the Forest Service also established the new agency's historic relationship to the West. Since a large majority of the national forest system is located in the West, western political support of Forest Service policies has remained vital to the agency. In the early days of the Forest Service, the attitude of westerners was problematical. Not only did rangers risk violent confrontation with the local population in implementing Forest Service regulations, but the entire agency was threatened with fiscal strangulation by hostile western congressmen. The land management policies of the Forest Service were at odds with traditional western land use patterns. Restrictions on homesteading the open range,

[5] E. T. Allen "Lest We Forget!: A Tribute to the National Forest Pathfinders." *American Forests* 36:392-395, 1939.
[6] Dana, *Forest and Range Policy: Its Development in the United States*, 143.

and game and timber harvests were greeted with open opposition. A hostile west was for the first time faced with an agency for which progress meant the management and not the taking of natural resources.

Because of the conflict and opposition to management, the Forest Service tried to blend in with the local culture. A significant provision in the Transfer Act required administrators to hire local men whenever possible. On many forests, early development work focused on improving the range for stockmen, and in some cases, rangers and cowboys shared quarters —the rangers occupying a cabin in the summer and the cowboys using it in spring and fail. Every effort was made to assure the local population that lands most suitable for agriculture would be reserved for homesteaders, and that the interests of the local settler would be best served by Forest Service controls:

> Had not the president created these additional reserves, a long time would have elapsed before the reassemblings of the congress, during which the timber syndicates would have as heretofore continued to gobble the public timber lands. … The forest bureau proposed to protect the small live stock owner from the aggressions of the wealthy stockmen, and as in the past to see that the settler has his rights conserved. Most people believe that miners and settlers whose lands are included within these reserves are losing their privileges. On the contrary, every privately owned tract remains exactly as it was before the reserve was created ... We want to prevent ... large bodies of the public domain from passing into the possession of greedy syndicates.[7]

Such rhetoric was not simply a reiteration of Progressive theory, it was designed to alleviate Western fears that homestead and ranching opportunities were being circumvented by an Eastern bureaucratic invention. The agency's desire to blend with local culture is reflected in Forest Service buildings. Building construction incorporated indigenous materials and vernacular styles of architecture.

Administration by the General Land Office, 1898-1904

Initially, the GLO assigned the administration of forest reserves to state superintendents. Later, the superintendents gained the assistance of forest supervisors, who were placed in charge of each reserve. Both the superintendents and the forest supervisors were politically appointed, often with the patronage of their congressmen. Critics like Pinchot charged that some of these men were patently unfit for their jobs. Others have argued that the political patronage system, despite its flaws, yielded fairly high caliber men for the job. As one early forester later wrote, "At that time there existed nowhere, in any Government department or in private life, a source of men technically and administratively trained to combine the varied and difficult requirements of forest management under conditions confronted."[8]

Superintendents, and then forest supervisors, hired a force of rangers to patrol the back-country and to protect the reserves from destruction by forest fire or timber trespass. These early rangers were usually local men, skilled with a horse and an ax but without much practical knowledge of forestry. They had to furnish their own horses and gear and pay their own expenses for a modest compensation of $50 per month. Frequently they were placed in charge of a district with a minimum of instruction as to how they were to make themselves useful. "They had little or no experience in representing Uncle Sam," one of them wrote later, "and found it hard, in the contests into which they were plunged, to know whether he expected firmness or leniency. Anyway he seemed very distant when some delegate to Congress vigorously supported their adversaries.[9]" Western opposition to the forest reserves was still intense; it was commonly believed that government forestry was a Republican idea that would be eliminated by the next Democratic administration. Ranger Clarence B. Swim recalled one resistant westerner in 1904 commenting to him, "Are you a forest ranger? God, rangers are getting thicker than fiddlers in hell!"[10]

[7] *The Western News* (Hamilton, Montana), March 4, 1909.
[8] Allen, "Lest We Forget!: A Tribute to the National Forest Pathfinders."
[9] Ibid.
[10] USDA Forest Service *Early Days in the Forest Service Vol. 1*(Missoula, Montana, USDA Forest Service, Northern Region, 1944),185.

The six years of forest administration by the GLO were a time of training and experimentation. Congress allotted scant funding for salaries and none for improvements such as administrative buildings. Forest supervisors did not attempt to develop systematic plans for development of roads and trails; instead, forest rangers built trails and other improvements on the basis of immediate need with whatever time they had available.

Perhaps the most important development during these years was the dramatic expansion of the forest reserve system by presidential proclamation. When Theodore Roosevelt became President in 1901, Gifford Pinchot knew at once that the time was propitious to extend the forest reserves in the West. Between 1902 and 1904, Pinchot directed his Forestry Bureau to undertake boundary surveys of all the forest reserves and to recommend additional forest areas. Most of these surveyors were young men recently graduated from the new forestry schools in the East. Using a combination of GLO township plats, county maps, and U.S. Geological Survey maps, they rode through each township constructing their own rough maps of the forest cover. As each unit was completed a proclamation was drafted and submitted to President Roosevelt for his approval. In this way, most of the forested lands in the West, including a large portion of the national forest system in today's Region 1, were added to the forest reserves.[11] Many Montana forests, such as the Big Belt, Ekalaca, Hell Gate, Long Pine, and Missoula, had only a brief existence until they were combined with other forests. By 1907, the region contained nearly 30 million acres under federal protection. This total eventually dropped to 22 million as certain lands were determined to be more appropriate for agricultural use than they were for timber production or watershed protection.[12]

Establishment of the U.S. Forest Service, 1905-1910

The U.S. Forest Service of today traces its origins to the Transfer Act of 1905. This law reassigned administration of the forest reserves to the Forestry Bureau in the Department of Agriculture. It also provided for increased expenditures by the Forest Service for the protection, administration, and development of the forest's resources. Chief Forester Pinchot, in order to telegraph to the American public his agency's commitment to the use of the forests both by the present and future generations, had the forest reserves renamed national forests a year later.

Pinchot's first action was to appoint inspectors to visit the various superintendents and forest supervisors and recommend their retention or dismissal. Even though Pinchot had railed against the poor quality of politically appointed forest supervisors, many of them were found to be competent and sincere men and were invited into the ranks of the new agency. Still, there was an immediate need for new personnel, and a series of ranger examinations were held in Missoula, Bowman, and Neihart, to attract good local men.

As Pinchot had promised westerners, he wanted his agency's field administration to draw upon the local population and to reflect its traditions. The examinations included two days of outdoor events — riding a horse, packing a horse or mule, rifle and pistol shooting, use of an ax, and basic compass surveying and pacing — and one day for a written test. Elers Koch administered several ranger examinations between 1905 and 1910. The examinations, he later wrote, were a great success. "They included all sorts, from packers and bar-keeps to first-class woodsmen or cowpunchers ... The written test eliminated the illiterates and the field tests insured that we got experienced hands."[13]

The Forest Service soon acquired a reputation in the federal government for bureaucratic efficiency and extraordinary *esprit d'corps*. In part, this was due to the relative youth of the large majority of its field personnel. It was also due to the dynamism of Gifford Pinchot, who infused the agency with a strong sense of mission and institutional pride. A third

[11] Elers Koch, "Launching the U.S.F.S. in the Northern Region," *Forest History,* October, 1965.
[12] Robert D. Baker, Larry Burt, Robert S. Maxwell, Victor H. Treat and Henry C. Dethlogg, "A Living Legacy; The National Forests of the Northern Region 1908-1988." Draft Report, unpublished manuscript prepared for the Washington Office of the Forest Service, 1987.
[13] Elers Koch, "Launching the U.S.F.S. in the Northern Region."

factor for the high morale in the Forest Service was Pinchot's emphasis on decentralized authority, a tradition that his successors by and large continued.

One of the most significant innovations of the Forest Service after the Transfer Act of 1905 was the adoption of a pocket-sized "Use Book," containing a brief digest of forest regulations. Intended for both field personnel and the general public, this handbook set forth in simple prose the agency's standards and goals. It served to familiarize the new force of rangers with Forest Service policy, and to allay the public's fears that the agency intended to "lock up" resources on the national forests. The use book went through several editions during the first decade of the agency's existence, and was eventually expanded into several volumes on such topics as forest protection and timber sales. In its original form, it could be easily carried in a coat pocket or a saddle bag, for quick reference whenever the ranger needed to explain the government's policies to a wary public.

In Montana and northern Idaho, the ranger's most common contacts with the public were not, as one might expect, with lumbermen; rather they were with stockmen, miners, and homesteaders, all of whom were intent on using national forest lands for their own purposes. The rangers instituted grazing permits among the range users, organized stock associations, and promoted an understanding of wise range management among the public. They investigated mining and homestead claims to verify that the requirements of the law were followed. These activities frequently incited resistance, although most rangers reported that the local opposition to the Forest Service generally melted as the rangers made the government's regulations better understood. Ranger Roy Phillips recalled that he "learned to mingle and avoid heated arguments."[14] Ranger Albert F. Cole remembered that he accomplished his first task on the Deerlodge National Forest — the formation of a livestock association — with surprising speed, for the cattlemen were anxious to form such an association, but had been under the impression that the Forest Service would not cooperate.[15]

The Forest Homestead Act of June 11, 1906 provided for the withdrawal of national forest lands for agriculture upon the request of a claimant after examination and approval by the Forest Service. From the agency's standpoint, this law produced something of a land rush. Many forest rangers experienced a deluge of requests for surveys of these so-called "June 11 claims." It became evident that the sizable number of claims threatened to preempt the Forest Service from securing good agricultural and pasture land for its own administrative sites; farsighted officials believed that the Forest Service must make its own withdrawals in order to preserve the agency's ability to develop administrative sites in the future. Over the next several years, rangers were very busy not only investigating the June 11 claims, but recommending and surveying administrative site withdrawals for the government as well.

The use book provided rangers with a clear guide for selecting the most suitable administrative sites. "Eventually all the rangers who serve the year round will be furnished with headquarter cabins on the reserves," the 1905 edition states. According to the use book:

> Rangers' cabins should be located where there is enough agricultural land for a small field and suitable pasture land for a few head of horses and a cow or two, in order to decrease the often excessive expense for vegetables and feed. In course of time several rangers' camps will be needed for each township, and selections of sites should be made with this in view. The amount of agricultural land necessary to supply a ranger's family with vegetables and to raise hay and grain enough to winter his saddle and other stock will vary greatly in different localities, but as a general rule it will not be less than 10 nor more than 40 acres. The field must, of course, be inclosed by a stock-proof fence.
>
> The pasture should be of sufficient size to support the stock not in use by the ranger during the summer, and only in cases where it is obviously necessary should they include land that could be used for agriculture. They will

[14] Roy Phillips in, *Early Days in the Forest Service Vol. II* (Missoula: USDA Forest Service, Northern Region, 1955).
[15] Albert F. Cole in, *Early Days in the Forest Service Vol. II* (Missoula: USDA Forest Service, Northern Region, 1955).

> vary in size, according to the quality of the feed, from 40 to 200 acres. A two or three wire fence strung on posts or trees 30 feet apart will, in most cases, be sufficient to protect these pastures from range stock.[16]

Forest supervisors had to approve all administrative site withdrawals. Care had to be taken that the recommended sites did not conflict with prior mineral or homesteading claims. In subsequent years, Forest Service regulations required rangers to evaluate the potential for irrigation on all recommended administrative sites and to avoid sites which would "unnecessarily retard development by settlers of agricultural land within the national forest."[17] Rangers prepared a standard administrative site withdrawal form for each recommendation, which included such information as acreage, water supply, prior claims, existing improvements, and explanation of need.

Administrative sites functioned as staging areas for the re-supply of back-country rangers, seasonal forest guards and lookouts. Forest rangers selected administrative site parcels along common routes of travel — generally no more than one days horse ride from one another. Prior to the 1920s, there were few roads in the national forests, and travel by horse was the rangers' primary mode of travel. Therefore, selection of administrative sites with adequate pasture was of primary concern. Other considerations included providing convenient access to the general public, proximity to timber sale areas, or to areas with exceptional fire hazard.

In the early years, nearly all forest officers had to find or construct their own living accommodations, even in the back-country. Superintendents usually established their headquarters at some convenient point near the reserve, on a ranch, in a hotel room, in a house in town. Rangers often had to scrounge to find a livable place in their district. They frequently occupied cabins that had been left vacant by prospectors or trappers, or simply spent the summer in tents.

To some it seemed an enviable way of life. Clyde P. Fickes, who later contributed greatly to the development and formalization of Region l's building program, was camped with his cousin on the South Fork of the Flathead River one fall evening when he met two forest rangers and their packstring "bringing out the camps used during the summer." The pleasing impression that this made on Fickes led him to apply for a ranger job a year and a half later. In 1907, Fickes began his Forest Service career as the ranger of the Sun River district on the Lewis and Clark National Forest. [18]

In the early years, funds for improvements were still so scarce that authorization to spend anything for new building construction had to come from the chief forester. Nevertheless, the use books attempted to lay out standards for agency buildings. Cabins were to be built of logs wherever possible, with shingle or shake roofs. They were to be large enough to accommodate a ranger's family, and the ranger was to take proper care of the building and grounds. A 1907 circular to forest supervisors stated that all rangers' privies had to be more than fifty yards from the cabin, with at least a 6-foot vault.[19] Forest Service personnel, who generally had to donate the time needed to construct improvements, did not necessarily follow these instructions to the letter. However, the existence of these guidelines at such an early period, portended a time when greater funding would allow more direction and uniformity in building design and site development.

Meanwhile, the bureaucratic organization for administration of the national forests was evolving rapidly. As Pinchot gained confidence in the men that he had inherited from the General Land Office, he steadily shifted authority from his hand-picked "investigators" to the forest supervisors. William B. Greeley, head of the new Region 1 office in Missoula in 1909, supported the chief forester's aim of decentralization. Greeley recommended to Pinchot that the chief forester apportion annual improvement funds directly to each forest, based upon the forest supervisor's annual estimates for

[16] United States Department of Agriculture, Forest Service, *The Use of the National Forest Reserves: Regulations and Instructions* (Washington: Government Printing Office, 1905).
[17] United States Department of Agriculture, *Forest Service National Forest Manual 1911-1913* (Washington: Government Printing Office).
[18] Clyde P. Fickes, *Recollections* (Missoula: USDA Forest Service, Northern Region, 1972).
[19] Harold K. Steen, *The U.S. Forest Service: A History* (Seattle: University of Washington Press, 1976).

permanent improvements. Greeley's purpose was to allow the forest supervisor to transfer funds from one class of improvement work to another, without permission from the regional office, in order to ensure the completion of more projects.[20] As Greeley's plan was put into effect, forest supervisors became the key actors in planning and authorizing new building construction. The regional office thus assumed an oversight role, providing an increasing amount of technical assistance through its staff of civil engineers, architects, and landscape architects as the years went by.

The Beginnings of Management Planning

In 1910, President William H. Taft fired Gifford Pinchot from the position of chief forester and appointed Henry S. Graves, dean of the Yale Forestry School, in his place. Graves headed the Forest Service from 1910 to 1920, during which time his greatest challenge was to wring adequate annual appropriations from Congress to keep his agency viable. Five years of experimentation in fire control and preliminary administrative site surveys by the Forest Service had prepared the ground for a concerted program of management planning under the direction of Chief Forester Graves. Working with stringent budgets imposed by a skeptical Congress, Graves devised a system for management planning that was oriented around each national forest.

Graves required forest supervisors to prepare three types of plans. The preliminary forest plan provided an overview of long range objectives. The working forest plan was a more finished rendition of the preliminary plan, and would be the main management planning tool. The annual forest plan provided budget estimates for improvement projects in the forthcoming fiscal year. Each plan had to cover 1) general administration, 2) silviculture management, 3) grazing management, 4) permanent improvements, 5) forest protection, and 6) uses of the forest, such as settlements, special uses, water power, and administrative sites. Under the fourth category, permanent improvements, the plan had to address all classes of improvements relating to protection, administration, and development of the forest. These included trails, roads, bridges, telephone lines, signal systems, permanent and temporary quarters, pasture fences, lookouts, fire lines, fire tool caches, stock driveways, and anything else that was necessary for the use of the range or to improve timber access. The chief forester wanted cost estimates and maps. In addition, he requested a map of the whole forest showing all administrative sites either "selected" or "proposed," together with patrol and lookout stations, tree nurseries, and sites needed for logging operations[21].

Graves allotted funds to each forest for permanent improvements based upon the forest supervisors' plans and cost estimates. Following Greeley's recommendation to Pinchot, Graves authorized forest supervisors to transfer funds from one approved project to another, as long as it did not entail the abandonment of a project. Finally, the chief forester apportioned 5% of the total improvement allotment to the regional offices, as a contingent fund for completing projects that were experiencing cost overruns.[22]

Graves explained the necessity of permanent improvements on the national forests in his annual report for 1911. All construction projects were aimed at facilitating 1) forest protection from fire, 2) administration of the business of the forest, and 3) development of the forest's resources. These three broad categories — protection, administration, and development — served for years as a shorthand method for describing the agency's progress to Congress. They also neatly set priorities for the various projects in each forest's permanent improvements plans.[23] It was no coincidence that these categories echoed certain language in the Transfer Act, which charged the secretary of agriculture with the "protection, administration, improvement, and extension" of the national forests. Improvements relating to forest protection received first priority. Initially, the most vital forest protection work involved the development of communications — primarily roads and trails. Graves reported at the end of 1911, "The building of lookout towers and

[20] William B. Greeley to Gifford Pinchot, May 11, 1909. USDA Forest Service, Northern Region Archives, Missoula, Montana.
[21] United States Department of Agriculture, *Forest Service National Forest Manual 1911-1913* (Washington: Government Printing Office).
[22] Ibid.
[23] USDA Forest Service, *Report of the Forester for 1911* by Henry S. Graves (Washington: Government Printing Office, 1911).

establishing of telephone communications has as yet been hardly ... begun." In his 1912 annual report, Graves noted that the "main effort" continued to be construction of "trails, telephone lines, and lookout stations."

Administrative buildings received second priority. The chief forester deemed that quarters were essential for the efficient transaction of business, the safeguarding of government property, and the convenience of the public. Nevertheless, construction of new ranger stations was allowable only where no other accommodations were available; in most cases, rangers were expected to find their own housing and perform their official duties out of their home. The agency's stringent policy was in direct response to legislation, which stated that the cost of any Forest Service building could not exceed $650.[24]

Permanent improvements aimed at developing the resources of the forest were given last priority. Still, the Forest Service could report such improvements in this category as stock driveways, range fences, stock dams, and forest access roads, mostly built and paid for by the forest and range users themselves. In some cases, the Forest Service entered agreements with private interests for construction of such improvements on the condition that title would pass to the government after a given amount of years. In other cases, title was immediately vested in the government while private interests were allowed the use of the new facility.

The influence of automobile travel on Forest Service management and facilities development

The growing importance of the automobile in American life and the national economy did much to alter the frontier conditions of the first two decades of the twentieth century. The automobile helped to stimulate a construction boom in the 1920s that featured massive federal spending on road and highway development, with a sizable portion earmarked for roads on the national forests. New roads allowed an increasingly mobile public to visit the forests for sightseeing, picnicking and camping. The roads increased the value of the forests' timber and mineral resources by bringing them closer to markets. The Forest Service's adoption of motorized transport in the 1920s facilitated administration, resulting in the consolidation of many ranger districts. It also aided the movement of men and supplies for firefighting. Finally, roads on the national forests brought grocery stores and other amenities within a day's automobile trip for most forest officers, allowing the men in the field to enjoy a more domesticated lifestyle. All of these changes in forest development, forest use, and the Forest Service's budget profoundly influenced the agency's permanent improvement program in the 1920s.

As early as 1912, Congress took action to stimulate road building on the national forests. The Agricultural Appropriation Act of August 10, 1912 entitled the Forest Service to 10 percent of all receipts from timber sales on national forests for construction of roads and trails in the forests where the sales were made. Between 1912 and 1916, the Forest Service spent $780,000 on road construction and maintenance, repairing 580 miles of road and completing 860 miles of new ones. Within Region 1, this included a new road between the Big Hole and Bitterroot Valleys, and an important road link between the Flathead Valley and the Spokane area, which was known as the Inland Empire.[25]

Despite this new source of funds, it was apparent that some other boost by the federal government was needed to provide the national forests with an adequate road system. Timber sale receipts on many forests were very small, owing mainly to the very lack of roads that the 10 percent fund was meant to overcome. Secretary of Agriculture James Wilson asked Congress for the means to plan road development in conjunction with timber appraisals and forecasts of the future income of each forest. Congress responded with the Federal Aid Road Act in 1916. This act included an appropriation of $1,000,000 a year for ten years for road construction on national forests. The Forest Service entered a cooperative

[24] Ibid.
[25] O. C. Merrill "Opening Up the National Forests by Road Building," in Yearbook of the United States Department of Agriculture (Washington: Government Printing Office, 1916).

agreement with the Office of Public Roads and Rural Engineering, whereby the former agency approved the projects and the latter performed the surveys, developed specifications, and supervised construction work.[26]

In 1917, Region 1 timber sales receipts rose significantly as lumbering increased in response to production requirements associated with the World War. As a result, the Forest Service's appropriation of $400,000 for permanent improvements and $1,000,000 for road construction in that year was augmented by an additional $427,305.77 available from timber sale receipts.[27] Further funds for road construction on national forests were included in legislation enacted in 1919 and 1921. The largest sums yet for road construction on national forests were provided by the Federal Highway Act of November 9, 1921.[28] By 1924, the Forest Service's annual budget for road construction had risen to $9,351,142.78, outstripping all other expenses by the agency by more than a million dollars.[29]

Prior to the 1921 act, construction of roads and trails consumed most of the Forest Service's annual appropriation for permanent improvements. After the Federal Highway Act was passed, roads became a separate line item in the Forest Service's annual budget, and the agency was able to devote most of its improvement funds to building construction. The chief forester's annual reports indicate that expenditures for new building construction reached a high in this decade of $1,177,937.76 in the 1924 fiscal year, dropped to $550,659.94 the next year, and rose incrementally to $932,680.28 by fiscal year 1930. Thus the Federal Highway Act contributed indirectly to a significantly expanded building construction program on the national forests in the 1920s.

Changing Forest Use: Recreation in the National Forests

The Forest Service modified its management plans in the 1920s to accommodate a burgeoning number of auto tourists, picnickers, and campers. In one tourist season nearly seven million people visited the national forests. The agency began to weigh aesthetic forest values against the dollar figures attached to timber sales, mineral leases, and grazing permits. Such a reorientation, Chief Forester William B. Greeley explained in 1924, was consistent with the Forest Service's dictum of managing the forests for "the greatest good of the greatest number in the long run." The chief forester emphasized that the Forest Service was responding to popular demand. "The American people," he wrote, "have taken possession of the National Forests as one of their great playgrounds."

The Forest Service had good reasons for welcoming recreational use of the forests. One reason was to obtain broad-based political support for the development of the forests. Public demand for access to the forests translated into federal dollars for road construction, which in turn increased the value of all other natural resources with which the forest were endowed. Another reason was the establishment of the National Park Service in 1916, which gave a considerable boost to the national park movement. Since most national parks were created from lands in the national forest system, the Forest Service found itself in an inter-agency struggle over land. The Forest Service promoted recreational use of the national forests partly to squelch the argument that the park Service was uniquely fitted for managing lands for public recreation.

Americans were visiting the national forests in increasing numbers mainly because automobiles gave them unprecedented ease of access. But the values that drew them to the forests ran deep. To the dismay of many, the United States was becoming an urban nation; the 1920 census revealed that for the first time a majority of its citizens lived in communities of greater than 2,500 people. Americans were adjusting rather nervously to a faster pace of life. American society's unease found expression in part in a return to the cult of nature, an awakening to the historical and spiritual importance of wilderness in American life. As Greely pointed out, America's forested heritage was an important part of the national

[26] Ibid.
[27] USDA Forest Service, *Report of the Forester for 1917* by Henry S. Graves (Washington: Government Printing Office, 1917).
[28] Dana, *Forest and Range Policy: Its Development in the United States.*
[29] USDA Forest Service, *Report of the Forester for 1924* by William B. Greeley (Washington: Government Printing Office, 1924).

character; it had given "bodily vigor, self-taught resourcefulness, and moral stamina to every generation of Americans."[30] Forty years ahead of the Wilderness Act of 1964, Greeley suggested that the agency's management planning could even accommodate "a few great stretches of untrammeled wilderness set aside for their wild life and for the more hardy and zealous among the seekers of the out-of-doors." The chief forester expressly stated the public's desire for wilderness areas in his annual report for 1926.[31]

Besides preserving key portions of the forest for their aesthetic value, the Forest Service set aside a certain portion of permanent improvement funds for recreational development. In the 1920s these funds were supplemented, often surpassed, by contributions from local communities and organizations, but they represented a beginning to recreation funding. In laying aside funds for recreational development, the Forest Service gave roads and trails first priority, followed by signboards and maps for guiding the forest visitor around the national forest. In addition to campgrounds, the Forest Service began planning organization campgrounds for the use of community, church, and youth groups such as the Boy Scouts, and permitted developers to build resorts and other tourist accommodations on the national forests. Not only did these facilities provide services to the public, but they also assisted the Forest Service's task of supplying its field officers.[32]

As public use of the national forests increased in the 1920s, the Forest Service sought to make its officers and administrative buildings more visible in the public's eye. Herbert Smith (1920), assistant forester in charge of public relations, wrote:

> Fifteen years ago almost all the Forest headquarters were in little settlements or out-of-the-way towns close to the Forests themselves. But for the better service of the public it has been necessary to move them, where possible, to more accessible points. For the forest supervisor is first and foremost a business man, the local manager of an important enterprise — the handling of some million acres of land permanently devoted to the advancement of the general welfare.[33]

Ranger stations, as well as supervisors' offices, were now designed to serve a larger public. More attention was given to architectural appearance and good grounds keeping.

Changes in Administration

The most visible change in national forest administration in the 1920s was the steady enlargement of ranger district boundaries. Rangers were able to cover wider and wider areas as the Forest Service benefitted from improved transportation and communications. More and more rangers were able to supplement or replace their saddle horse with a motorized vehicle. The expanding network of roads, trails, and telephone lines also increased the efficiency of national forest administration. More personnel could be concentrated at a single headquarters, where their functions were increasingly specialized. With fewer ranger districts, the forest supervisor was able to keep in closer contact with permanent improvement projects as well as other phases of the district ranger's work. Generally the consolidation of rangers' headquarters did not mean the abandonment of buildings; instead, the existing facilities were downgraded to seasonal guard stations, while improvement funds were invested in more substantial buildings for ranger district headquarters.

The single most important cause of the consolidation of ranger districts was the automobile. The Forest Service was slow in converting from saddle horse to automobile. At the beginning of the 1920s, Region 1 administrators were more

[30] William B. Greeley, "Recreation in the National Forests," *American Monthly Review of Reviews*, July, 1924.
[31] Harold K. Steen, *The U.S. Forest Service: A History*.
[32] William B. Greeley, "Recreation in the National Forests," *American Monthly Review of Reviews*, July, 1924.
[33] Herbert Smith, "How the Public Forests are Handled," *United Stated Department of Agriculture Yearbook* (Washington: Government Printing Office, 1920).

interested in acquiring pack horses and mules; they still regarded a ranger's means of transportation as his own responsibility, and the agency's regulations offered little incentive to the ranger to buy an automobile. In the 1920s, the Forest Service compensated an official five cents per mile for the use of his private vehicle in the line of duty. But it required the official to submit written justification of the cost savings of an automobile over a horse.[34]

The Forest Service was circumspect about providing housing and garage facilities for its personnel. For living quarters, regulations stipulated that "Only where there is an undeniable need for them and when it is impracticable for the officer to rent his own living quarters will houses be constructed at Government expense on either Government or leased land." The regulations continued:

> Where the use of horses or a car is regarded by the superior officer is essential to the work to be done, barns or garages may be provided at Government expense. In no cases will garages for privately owned automobiles be provided unless it is clearly established that the machine is necessary for and will be used largely on official work.[35]

One reason for the Forest Service's fiscal conservatism in the 1920s was the continuing restrictions placed upon its permanent improvement program by Congress. The Forest Service was constrained by the 1906 law from spending more than $600 per structure. Although the amount was raised in the 1920s to allow for inflation, first to $1,000, and later to $1,500, it remained restrictive. One method of circumventing the cost limitation when a project encountered cost overruns was to complete construction of the building in the next fiscal year, using either maintenance or contingency funds.

The prevalent method of the Forest Service for constructing buildings within the cost limitation was to use contributed time. The idea behind contributed time was that Forest Service employees would work on building construction at the end of the day, after their official duties were completed. Later, the term was broadened to include slack time during the winter months. Using this volunteer labor the Forest Service eked out its improvement funds and put all of the total allowable costs for a given project into materials. Contributed time was a kind of institution within the Forest Service, exemplifying the high morale of the agency personnel. So important was the use of contributed time, that the Forest Service undertook training projects to educate the men in the art of log construction. These training projects were informal but served to expose a lot of personnel to the craft.

During the 1920s, the Forest Service sought to increase efficiency by separating office and living quarters in the field. The consolidation of ranger districts facilitated this process, as new and larger headquarters complexes were required for a larger concentration of staff. Regulations called for a separation of office and living space whenever practicable, but for reasons of economy many new structures combined the two anyway. Moreover, regulations allowed a ranger to use part of his own home for office space and receive compensation from the government.[36]

While the regulations promulgated at the national level were still fairly loose, the Region 1 office in Missoula was implementing somewhat more detailed standards. In January 1917, for example, the office circulated a "0"Improvement letter which set forth uniform standards for all maintenance work. The office promoted standard plans for ranger dwellings, shelter cabins, barns, garages — even outhouses. Often, these met with resistance from the men in the field.

As permanent improvement projects proliferated in the early 1920s, forest supervisors and administrators in the Regional Office in Missoula shared a sense that not all work was being accomplished "up to standard." Regional Forester Fred Morrell proposed guidelines for ensuring adequate supervision of each forest's permanent improvement projects. He

[34] Ralph Space, personal interview conducted with Janene Caywood, 1989.
[35] United Stated Department of Agriculture, Forest Service, *The National Forest Manual Regulations and Instructions* (Washington: Government Printing Office, 1928).
[36] Ibid.

recommended a graduated system of supervision for the three administrative levels represented by the ranger district, the forest supervisor's office, and the regional office. For example, for new construction, the ranger should check the work of any crew of two or more men at least every two weeks. In addition, Morrell proposed that a topographic survey and development plan be made for each proposed ranger station, to assist the district office in designing or approving building plans. The supervision by the regional office would be undertaken by "improvement men, Chief of Operation, District (Regional) Engineer, District (Regional) Forester, and other men in the district (regional) office designated by the District (Regional) Forester." [37]

Morrell's scheme highlighted the growing importance of functional specialists in the regional office. In addition to professional foresters, the regional office was obtaining men trained in civil and mechanical engineering. All road construction projects were supervised by men in the regional office's engineering division. Supervision of buildings and other improvement work besides road construction was generally assigned to the branch of operations under an assistant regional forester.[38] .

In 1928, ClydeFickes was asked to join the branch of operations in the regional office in Missoula. His first assignment was to perfect his earlier design for a standard lookout house that he had developed earlier, but his superiors soon decided to place him in charge of all improvement work handled by the branch of operations. Fickes had a practical knowledge of carpentry and log building. The son of a carpenter, he had virtually grown up "among carpenter shop shavings and small building construction." He had furthered his knowledge and experience in twenty years with the Forest Service. Fickes soon decided that the rangers in the field could benefit greatly from a manual or handbook on all kinds of construction and maintenance work, from building with logs to mixing concrete to installing telephone lines. He began compiling illustrations and instructions on an array of projects. By 1935, the region had published a handbook entitled *Region One Handbook Construction and Maintenance of Forest Improvements*. The book was supplied to every ranger in Region 1, and was copied and reprinted by several other regions and the Washington, D.C. office.[39]

The decade of the 1920s was a time of transition in the Forest Service improvement program. Funding was greatly expanded, but most of the money was devoted to road and trail construction with relatively little left over for buildings. There was a movement at all bureaucratic levels of national forest administration toward standardization of building plans, yet much was still left to improvisation. Much of the administrative reorganization of the 1920s —the redrawing of ranger district boundaries, the proliferation of function specialists on each forest, and the appointment at the regional office of engineers and then Clyde Fickes, was important preparation for the decisive period in the Forest Service's improvement program, which began in 1933 with the formation of the Civilian Conservation Corps.

The Northern Region in the CCC Era

To most foresters, the New Deal of President Franklin D. Roosevelt is nearly synonymous with the Civilian Conservation Corps, or CCC. It was a time when the cause of conservation once again enjoyed the national limelight, when the man in the White House lent prestige to the federal government's role as steward of the land. The Forest Service in fact benefitted from a battery of New Deal programs in the 1930s, all aimed at "pump-priming" the economy. Other funds available to the Forest Service were provided by the Emergency Relief Act, the Emergency Highways Act, the Work Projects Act, the National Industrial Recovery Act, and numerous other sources. The theory was that the government, by means of deficit spending on unemployment relief programs, could increase the money supply and stimulate consumer demand, and thereby refuel the economy. It was understandable that the Forest Service should come to regard the CCC as the embodiment of the New Deal, for the CCC focused public attention on the agency while receiving the widest

[37] Fred Morrell, letter to Forest Supervisors, January 25, 1921, USDA Forest Service, Northern Region Archives, Missoula, Montana.
[38] Fickes, *Recollections.*
[39] Clyde P. Fickes, *Region One Handbook Construction and Maintenance of Forest Improvements* (Missoula: USDA Forest Service Region One, 1935).

public approval of any of the President's relief measures in the 1930s. Lasting from 1933 to 1942, it also bracketed the New Deal era for the Forest Service.

During the turbulent political campaign of 1932, presidential candidate Roosevelt offered one of the few specifics of his promised "New Deal" for the American people—a Civilian Conservation Corps comprising hundreds of thousands of the ailing nation's unemployed young men. Roosevelt envisioned a program that would simultaneously bring unemployment relief and accomplish much needed conservation work. He stated that 250,000 men could be organized in camps by the beginning of the summer. In order to allay fears that such a program could compete with free labor and drive down wages, Roosevelt promised that the work of the CCC would be confined to areas of low economic activity, principally forest and soil conservation work. Within days of his inauguration in March 1933, President Roosevelt steered his first New Deal program through Congress. It was to be the most popular and remembered emergency relief program of the era.[40]

The Forest Service assumed an important role in implementing the CCC program. Even before passage of the bill, Chief Forester Robert Y. Stuart drafted an executive order offering his version of the relationship between the CCC and other federal agencies. Stuart's plan was for the Forest Service to operate the camps along the same lines as subsistence camps which it was already operating in cooperation with state and county officials in California and Washington. Stuart advocated incorporating eastern state and private forests into the program, so as not to cause a mass movement of unemployed youth to the western states. Stuart's plan was accepted, but it soon became apparent that the Forest Service did not have sufficient manpower to organize and run the camps. Instead, the army built and operated the camps, while the Forest Service, Park Service, and other federal agencies directed the projects. The Forest Service handled the lion's share of CCC projects, employing more than 50 percent of all enrollees. CCC enrollment peaked in September 1935 at 500,000. In that summer there were 82 camps in Idaho and 32 in Montana.[41]

The foremen who were put in charge of building construction were usually local craftsmen who were under-employed or out of work. True to the era's penchant for acronyms, they were called L.E.M.s, short for local experienced men.[42] Many of the enrollees in the Region 1 camps came from large cities outside of Montana, Idaho, and South Dakota. Most of those who wound up in the Bitterroot's CCC camps were from New York State. These boys were mostly inexperienced in the woods; their efficiency depended greatly on the training and supervision that they received from Forest Service personnel and their crew foremen.

The Region 1 office undertook a myriad of projects with the CCC. Road and trail construction received first priority. The primary objective was to open more country to truck transport and thereby improve the agency's ability to fight forest fires. Within two years the CCC constructed 1,850 miles of forest roads, 320 miles of trails, and 350 bridges on the national forests. In contrast to the road-building of the 1920s, all but 100 miles of this new road construction was classified as truck trails: one-lane, low-standard routes primarily designed for protection and administration purposes.[43] Eventually, the CCC completed 3,476 miles of truck trails, or secondary roads, on the national forests in the Northern Region.[44] The CCC made important contributions to administration and development of the national forests as well. CCC crews in Region 1 built numerous administrative buildings and structures, developed dozens of new campgrounds and other recreational facilities, stocked streams and lakes with fish, planted cut-over lands with seedlings, and improved forest stands by tree thinning.[45]

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[40] John A. Salmond, *The Civilian Conservation Corps, 1933-1942: A New Deal Case Study* (Durham: Duke University Press, 1967).
[41] Ibid.
[42] William Fox, personal interview with Donna Hartmans, September 1, 1989.
[43] USDA Forest Service, *Report of the Forester for 1936* by F. A. Silcox (Washington: Government Printing Office, 1936).
[44] USDA Forest Service, Press Release 904 "Work Done by CCC Boys Reported." USDA Forest Service, Northern Region Archives, Missoula, Montana.
[45] Ibid.

The CCC's influence extended beyond the physical legacy of its innumerable permanent improvement projects. The creation of such a large manpower reserve of unskilled labor created a need for hundreds more supervisory personnel than the Forest Service could put into the field. As a result, the agency received authorization under the Emergency Relief Act to recruit unemployed or underemployed men whose salaries could not exceed ten percent of the existing payroll. Hundreds of new graduates from schools of forestry found employment with the Forest Service who otherwise would have been forced to drift into other occupations. These young men — or "ten percenters" as they were sometimes called — were quickly thrust into supervisory roles with the CCC. Thus the CCC contributed immeasurably to professionalizing the Forest Service. [46]

In the Region One office, a share of these ten percent funds were allotted to the division of engineering, and Clyde Fickes was placed in charge of recruiting a staff of architects, landscape architects, and mechanical draftsmen to supervise the Forest Service's improvement program. William Fox, a Butte native and recent graduate of the University of Washington's School of Architecture, remembers traveling to Missoula in 1933 to interview for a position as the region's first architect. Fickes told Fox his ideas — he wanted an architectural staff to design ranger stations, dwellings, lookouts, and all other buildings required by the Forest Service. Fox was skeptical, thinking that the job would entail more structural engineering than architecture. But the country was in the Great Depression and jobs were scarce; Fox was then working with other college graduates on a garbage truck crew in Seattle. He took the job. In the ensuing years, Fickes brought a number of other young architects into the regional office.[47] Fox eventually headed a staff of six or seven architectural draftsmen under Fickes' general supervision.[48]

Over the next eight years, the architects in the division of engineering turned out a steady stream of plans, supervised construction and maintenance projects, and reported any irregularities to Fickes. Typically a ranger or forest supervisor selected a plan from the Region One Improvement Handbook, and the architectural staff made adjustments to the plan to accommodate special requirements of the facility and to fit the topography and surroundings of the site.[49] Fickes had something to say about virtually every project. No detail was too small to escape his notice. He prescribed specifications from cabinet designs to lighting fixtures, interior wall varnishes, heating elements, fireplace designs, flooring materials, chinking materials, and interior color schemes.[50]

Fickes and his staff could design somewhat more elaborate buildings than those of the 1920s, because considerably more money was available. The Forest Service received larger appropriations for building construction, and the cost ceiling per building was raised from $1,500 to $2,500. These dollars went further as costs for building materials dropped after the Crash of 1929 and remained low during the 1930s. More significantly, however, the Forest Service was able to employ funds from a number of federal relief programs. The most important source of funding was the Emergency Conservation Work Act, which created the CCC. Emergency Conservation Work (ECW) funds were used to augment permanent improvement funds when a project reached the cost limit. At first there was no ceiling placed on the amount of ECW funds that could be expended on a single structure; by 1939, the CCC imposed a limit of $5,000, raising the total allowable cost of a building to $7,500.[51] Other valuable sources of funds were the Emergency Relief Act (ERA) and the Work Projects Act (WPA). Funding certain projects from a combination of federal programs sometimes became a complicated juggling act, as each program carried different stipulations.

The Forest Service was able to employ more skilled labor during the CCC era as well. Construction in the private sector was so depressed in the 1930s that many carpenters, stone masons, cabinet makers and other craftsmen could only find

[46] USDA Forest Service, *Report of the Forester for 1936*; Steen, *The U.S. Forest Service: A History*.
[47] Fox, 1989.
[48] Fickes, *Recollections*.
[49] Fox,1989.
[50] Fickes, *Region One Handbook Construction and Maintenance of Forest Improvements*.
[51] Cort Sims, *Ranger Stations on the Idaho Panhandle National Forests* (Coeur d'Alene: USDA, Forest Service Supervisors Office, 1986).

work with the government's relief programs. These men, the so-called L.E.M.s became the foremen on CCC, ERA, and WPA crews. For building projects, the L.E.M.s were more highly valued than the crews, and there was a tendency among project supervisors to concentrate the L.E,M.s efforts on the skilled work while diverting the crew labor elsewhere. As a result, many Forest Service structures built during the CCC era display some kind of decorative detail work or stone masonry that was not possible in the years before or since.

As the regional office gained experience with the CCC crews, it developed increasingly sophisticated training programs. The regional office established training programs at its shops in Missoula, Spokane and Sandpoint, where selected CCC enrollees rotated through for two weeks of instruction in shop mechanics. Later, the regional office instituted a "Standard Specifications Training Program" aimed at providing more intensive training on the job and improving the quality of construction work.[52]

In developing these training programs, the Forest Service worked closely with the army. The original agreement between the secretaries of war and agriculture contemplated a neat separation of responsibility between the CCC enrollees' working hours and non-working hours. While the Forest Service supervised CCC crews on work projects, the army was responsible for maintaining order, discipline, and morale in the CCC camps. But the separation of responsibilities began to blur; an early emphasis on night classes and academic training in the camps was gradually abandoned in favor of vocational training on the job. As Army Reserve officers and Forest Service personnel worked together to improve the CCC organization, there was a trend toward workshops and other training exercises that further integrated the CCC boys into the Forest Service organization. The large CCC camps with bunkhouses and cookhouses that were prevalent in the mid-1930s increasingly gave way to "spike camps" of 25-odd enrollees living in tents. Army officials, CCC administrators, and Forest Service officials worked together in deciding where the camps could be most advantageously located.[53] Regional Forester Evan W. Kelley lauded the CCC program in 1942 for the valuable experience in large group organization that it provided both to his agency and the army.

The Forest Service increasingly sought uniformity in its buildings. There was a kind of military efficiency in the development of standard plans for everything from ranger dwellings to tack sheds. After a while a ranger could recognize a Plan 1 dwelling or a Plan 2 dwelling. When he was transferred from one ranger station to another, he could move into a nearly identical home. His furniture would fit the rooms; his housewares would fit the standard color scheme.[54]

By the mid-1930s, Fickes and his staff of architects in the regional office were providing detailed plans for virtually every building project in Region 1. With the exception of remote lookouts, most significant building projects in this period received at least one field inspection by Fickes or one of his staff. Standardization of design was perhaps the most visible legacy of building construction in the CCC era.

Although the trend was already evident in the 1920s, it was during the CCC era that each region in the national forest system developed a distinctive architectural style. This was mainly a function of the standardization of plans by each regional office. From a supervisory standpoint, the regional office was the obvious administrative level in the national forest system in which to concentrate a staff of architects, draftsmen, and engineers. The Forest Service's engineering division in Washington, D.C. was too far removed to be able to exercise any meaningful supervision, and simply offered technical advice when it was solicited by the regional offices.

Some effort was made to standardize architectural design on a nationwide scale (the Washington D.C. office published the Improvement Handbook in 1937) but such attempts generally failed. The main reason was that each regional office's engineering division was intent on protecting its prerogatives. When an official tried to introduce a building plan from

[52] Evan W. Kelley to Regional Forester, June 10, 1941, Folder 14, Box 3, RG 95 Records of the Forest Service, 1870-2008, National Archives and Records Administration- Seattle, Washington, NARA Seattle (Hereinafter, RG95, NARA Seattle).
[53] Clarence C. Strong, Memorandum May 2, 1939. Folder 6, Box 40, RG95, NARA Seattle.
[54] William Worf, personal interview with Theodore Catton, March 24, 1989.

another region, it was apt to be modified out of existence by the engineering division. Former Assistant Regional Forester E. G. Heilman referred to this as the NIH syndrome, not invented here.[55]

Forest Service architects sought to harmonize buildings as much as possible with their surroundings. This too contributed to an emergent architectural style in each region, as natural settings and native building materials differed widely from forest to forest. Native materials were also used for reasons of economy. Building designers were mindful of the fact that ECW and ERA funds were intended mainly for wages, and relatively little could be spent for building materials. Hence log construction was favored over frame designs, wood shakes were preferable to asphalt shingles, and native stone was used more commonly than imported stone.

The Effects of World War II on the Forest Service Improvement Programs

A month after the Japanese attack on Pearl Harbor and the U.S. declaration of war against Japan and Germany, Regional Forester, Evan Kelley sent a circular to all forest supervisors, division chiefs, and the experiment station. "These are days of anticipations, doubts, questions, contemplations," he began. "What is going to be the impact of national defense activities upon the Forest Service? Upon the respective regions? Upon the respective forests?" Kelley was looking at departmental estimates for the coming fiscal year. The Bureau of the Budget had classified all Forest Service activities according to their contribution to national defense. "Nonessential" projects included such items as wildlife management, recreational use, and construction of improvements. Kelley commented on each item, differing with the Budget Bureau on some items, accepting others. Construction of improvements, Kelley wrote, could be "automatically cast out, since it is quite apparent that there will be no money available for construction." The proposed budget for fire control, on the other hand, was actually increased to counteract the perceived threat of sabotage. The War Department was contemplating the use of certain Region 1 lookouts by the army for its enemy aircraft warning system.[56]

In the following months, the Forest Service's role in the national defense took clearer shape. In fact the army never manned any lookouts in Region 1, although it did take a number of lookouts over on the forests in Washington, Oregon, and California. Nor did Region 1 experience any acts of sabotage. The Forest Service's basic contribution to the war effort was, as Kelley anticipated, to accept extremely austere budgets. The total budget for the agency was cut nearly in half in 1943-44. Moreover, in 1943, the Forest Service pumped nearly a third of its total fiscal resources into rubber tree plantations in California in an attempt to replace the supply of Southeast Asia rubber cut off by the Japanese. This emergency rubber project was abandoned the next year as synthetics were developed.[57]

The Forest Service soon faced a manpower shortage as well as a constricted budget. Not only were the CCC camps phased out during 1942, but the Forest Service faced considerable attrition from its ranks into the armed services. Nationwide, 2,000 Forest Service men joined the military (Steen 1976). All road and trail development stopped in Region 1 except in selected areas where the government wanted access to strategic metals such as chrome and tungsten.[58]

Postwar Adjustments

Millions of returning servicemen were intent on marriage, children, and home ownership at the end of World War Two. Millions of women, too, yearned for domestic tranquility after years of financial insecurity and sacrifice. The home construction industry boomed after the war, and lumbering manufacturers could not keep up with the demand for wood products. National forests, particularly in the Pacific Northwest where lumber industries increasingly concentrated their

[55] E. G. Heilman, personal interview with Theodore Catton, March 15, 1989.
[56] Evan W. Kelley, Letter to Forest Supervisors, Division Chiefs, and Experiment Station, January 19, 1942. ." USDA Forest Service, Northern Region Archives, Missoula, Montana. .
[57] USDA Forest Service, *Report of the Chief of the Forest Service, 1943* (Washington: Government Printing Office, 1943); USDA Forest Service, *Report of the Chief of the Forest Service, 1944* (Washington: Government Printing Office, 1944).
[58] USDA Forest Service, *Report of the Chief of the Forest Service, 1942* (Washington: Government Printing Office, 1942).

activity, could not keep up with the demand for timber sales. The Forest Service responded to the shortage by giving access road construction highest priority. It allocated $7,000,000 for new access roads from its regular appropriation in 1946, and this money was supplemented by funds from the National Housing Agency (USDA 1946). Later, the Forest Service encouraged logging companies to construct access roads in return for discounts on the price of timber sales.

The greatly increased logging activity on Region 1 national forests created an administrative problem. Timber sales significantly enlarged the workload for the Forest Service, and the work force had to be correspondingly expanded. But there was an acute shortage of housing for the new personnel. Many foresters had to be housed in converted office buildings, old school houses, former CCC or army barracks, even campgrounds until new accommodations could be built. Moreover, the changing nature of the workload, from forest protection to intensive silviculture and timber sale management, required concentrations of personnel in different areas of the forests than had been the case in the 1920s and 1930s.

There was a need for new housing and work facilities in areas that were close to road construction projects and timber sales; otherwise a great deal of time was lost in transporting Forest Service personnel to their work places. Still another problem was to provide appropriate housing for the growing number of Forest Service employees many of them veterans of World War II with wives and children. Most ranger dwellings of the CCC era were designed for single or married men without children.[59]

The housing shortage was exacerbated by the fact that the Forest Service faced a backlog of maintenance and replacement work that had accumulated during the war. New building construction received low priority, given the need for access roads first, and maintenance or rehabilitation of existing buildings second.[60] The Forest Service's answer was to acquire inexpensive prefab structures and portable units that could be disassembled or moved as the locus of timber sales changed. Some army surplus and former CCC buildings were obtained for almost nothing. Thus a hodgepodge of buildings, old and new, permanent and portable, developed in areas of concentrated Forest Service field activity.

The Forest Service called these sites "work centers," a functional substitute for the rather old-fashioned and misleading term "guard station," which had acquired the wrong connotations in the context of World War II and the Cold War. The development of the Roundtop Work Center on the St. Joe National Forest was characteristic of the new approach to building construction. The site had been a ranger district headquarters from 1908 until the mid-1930s, when the headquarters were moved to the Avery Ranger Station and a CCC camp was established at the site. In 1956, as a number of timber sales were planned in the area, it was reoccupied as a work center. Forest Supervisor George H. Duvendack informed the regional office:

> There will be a tremendous amount of slash and brush disposal work out of this work center during the next ten years at least. Therefore, it is necessary to provide accommodations for the employees to be stationed there, which will approximate 50 men.

Duvendack then described a conglomeration of existing and proposed structures, including the original log ranger station, an old CCC barracks, an army surplus bunkhouse, a trailer, a log cookhouse, four portable barracks, and various utility units.[61]

In the late 1950s, Congress finally acted to arrest the gradual deterioration of government property on the national forests. Operation Outdoors gave the Forest Service a badly needed infusion of federal funds with which to construct buildings and improve campgrounds. Many campgrounds had received virtually no maintenance since the CCC era. In 1959, the

[59] USDA Forest Service, *Report of the Chief of the Forest Service, 1952* (Washington: Government Printing Office, 1952).
[60] USDA Forest Service, *Report of the Chief of the Forest Service, 1947* (Washington: Government Printing Office, 1947).
[61] George H. Duvendack to the Regional Forester, April 17, 1956. On file at Idaho Panhandle National Forests Supervisor's Office, Coeur d'Alene, Idaho.

Forest Service completed some 233 new housing units; in 1960, it built 86 dwellings and 44 barracks, as well as other buildings.[62] While these numbers were small compared to the building construction that occurred during the CCC era, Operation Outdoors represented the first significant advance in Forest Service building construction since the beginning of World War II.

Following Operation Outdoors, the Forest Service received a second boost from another federal program, the Accelerated Public Works (APW) program. Like the much larger CCC, WPA, and ERA of the New Deal, the APW aimed primarily at putting people to work. Unlike the CCC, the APW did not have a mandate for conservation, but it did target rural, economically depressed counties which were often characterized by poor agricultural soils and cutover forest lands. These areas were in great need of soil conservation and reforestation work. The Forest Service's proven record with the CCC recommended the agency for managing a large share of APW projects. As a result, the Forest Service was the first federal agency to get APW projects underway, and ultimately managed more than sixty percent of all APW projects.[63]

Most APW projects on the national forests employed from 10 to 100 men; a few projects had as many as 600 men. The Forest Service accomplished a lot of building maintenance and construction under the APW program. APW crews repaired and renovated and built additions to hundreds of old CCC buildings. Numerous new ranger stations were constructed in public view of highways to replace CCC-built offices that had been inconveniently located for forest visitors.[64] The Forest Service received a total of $60 million from the APW in1962-64, for which the national forests gained nearly 7,000 new campsite and picnic units and 918 new buildings, in addition to valuable conservation work accomplished in erosion control, tree plantings, and timber stand improvement.[65]

In the post-World War II era national forests confronted a burgeoning demand for timber: receipts for timber sales on national forests mushroomed from $2-4 million before the war to $148 million in 1960. The mining and petroleum industries also demanded greater access to national forest lands. In the l960s and 1970s, the use of the national forests for outdoor recreation grew enormously. More recently, the environmental movement has persuaded Congress to pass numerous environmental laws affecting national forests and Forest Service policy. The Forest Service's fundamental goal to manage the forests for "the greatest good of the greatest number for the long run" has become increasingly difficult to fulfill as competition between forest users grows more and more hard-edged. In recent times, Pinchot's utilitarian dictum for the Forest Service has been re-coined in the phrase "multiple use management." Forest Service policy today must somehow weigh present and future needs, aesthetic and economic values, and local and national interests.

[62] USDA Forest Service, *Report of the Chief of the Forest Service, 1959* (Washington: Government Printing Office, 1959); USDA Forest Service, *Report of the Chief of the Forest Service, 1960* (Washington: Government Printing Office, 1960).
[63] Edward P. Cliff, "A. P. W.: A Profit Formula," *American Forests* 69:28-30, 1963
[64] Worf, 1989.
[65] USDA Forest Service, *Report of the Chief of the Forest Service, 1964* (Washington: Government Printing Office, 1964).

Development of the Deep Creek (Magruder) Ranger Station[66]

In 1922, US Forest Service personnel established a tent camp on the east bank of the Selway River, just above its confluence with Deep Creek. Originally called Deep Creek Ranger Station, the camp marked the end of a road that extended from Darby, Montana, westward over Nez Perce Pass into Idaho, and into the Deep Creek drainage to Kit Carson Ranger Station. Construction of the roughly eight mile segment of road linking Kit Carson with the site of the Deep Creek station was completed by 1920, and provided access for fire protection personnel into the remote Selway River drainage, formerly reached only by pack trail.[67]

By 1923 the first permanent building, a "commissary" or back-country supply depot, had been constructed on a level, timbered terrace on the east bank of the Selway River, well back from the stream channel. The construction crew probably cut the logs for the commissary from the immediate vicinity. Historical photographs of the commissary show a north-south-oriented, rectangular building, with saddle-notched corners and a gable roof covered with split shakes.

A 1926 "layout plan" for the Deep Creek Ranger Station indicates that the Bitter Root National Forest[68] anticipated the addition of several more permanent improvements. These included: a 24 ft. by 16 ft. mess and bunk house; a 24 ft. by 24 ft. ranger dwelling with an associated 10 ft. by 12 ft. wood shed; a 12 ft. by 12 ft. root cellar; and, an 18 ft. by 24 ft. barn. Although it is difficult to distinguish between existing and proposed improvements on the plan, the dimensions for two buildings, the aforementioned commissary and a store house, are not shown on the drawing, and it is likely that these buildings had been built prior to the drafting of the plan on December 1, 1926.[69] The store house on the 1926 plan is shown as slightly larger than the commissary, but sited the same way, with its long axis oriented north to south. Although also made with logs, the corners on the store house, appears to be joined with "hog-trough" corners.

Likely because of the agency's limited funding for permanent improvements, implementation of the 1926 plan did not begin immediately. In fact, it was not until May of 1929 that Bitterroot National Forest Supervisor, John Lowell, notified the regional office in Missoula that he wanted to begin construction of a ranger dwelling at Deep Creek Ranger Station in

[66] When first established, the Deep Creek Ranger Station was located within the administrative boundaries of the Selway National Forest. However, all planning efforts from the mid 1920s through the 1930s were done through the Bitterroot National Forest. This may have been due to accessibility, as the station was more easily reached from the Montana side of the Bitterroot Mountains. In 1931, two presidential proclamations and an executive order added the Idaho lands to the boundary of the Bitterroot National Forest. As a result, two of the former Selway National Forest districts (Salmon Mountain and Paradise) were combined to create the Magruder Ranger District of the Bitterroot National Forest. Consequently, the Deep Creek Ranger Station was renamed Magruder Ranger Station. Although the name of the district and the station changed in 1931, Forest Service planning documents and correspondence continue to refer to the station as Deep Creek through the 1930s. After World War II, the Forest Service used the name Magruder Ranger Station. O. F. Schumaker, "Presidential Proclamations and Executive Orders Establishing and Changing the Bitter Root Forest Reserve and the Bitterroot National Forest," 1968, manuscript on file, Heritage Files, Bitterroot National Forest Supervisors Office, Hamilton, Montana (Hereinafter HF, BNF).

[67] According to former district ranger, O. F. Schumaker, in 1914 the US Forest Service built a trail west from Allen Ranger Station across Nez Perce Pass to access the remote Salmon Mountain Ranger District on the Selway National Forest. Salmon Mountain is located about 19 miles west of Magruder Ranger Station. O. F. Schumaker, "Presidential Proclamations and Executive Orders Establishing and Changing the Bitter Root Forest Reserve and the Bitter Root National Forest."

[68] The original spelling of the forest reserve was two words, "Bitter Root." This spelling continued after the forest reserves became known as national forests in 1907 (34 Stat.1269). The implementation of Executive Order 883, in 1908, resulted in the agency adopting the current spelling, "Bitterroot."

[69] "Layout Plan Deep Creek Ranger Station," Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," Box 39, Forest Supervisor's Alphabetical Files, c. 1900-1960 (hereinafter BIT05), RG 95, NARA-Seattle. This hand drawn site plan is dated 12/1/26. A stamp indicates that it was received in the Bitter Root National Forest offices in Hamilton, Montana on December 6, 1926.

the coming fiscal year. He requested copies of the R-3 standard plan for a ranger dwelling, with a log body.[70] Apparently, Lowell did not receive his requested appropriation, as the development plan for the station remained unimplemented for another three years.

In July of 1932, Clyde Fickes (then head of the region's improvement program), and Bitterroot Forest Supervisor Lowell, conducted an inspection of the Deep Creek Ranger Station to discuss the improvement plan. In his memorandum of the trip, Fickes stated that he found the plan to be "… entirely satisfactory, - the buildings being located to the best advantage, considering the conditions." He also found the two existing buildings (the commissary/office and the store house) to be of "… mediocre construction and … not up to the Regional standard for such buildings."

Fickes recommended making only one change to the plan, that the proposed cook and mess house be replaced with a "combination office, warehouse, mess hall, and sleeping room for the headquarters guard, since this would provide a structure in which one man could dispatch practically all of the headquarters activities and still be on the telephone." He felt that the combination building should have a full basement (to store the station's groceries) and noted that its proposed location was "such that a driveway to the cellar entrance, providing for the easy unloading of trucks, could be provided." Lowell agreed with Fickes' suggestion to build a combination building instead of a cook and mess house. Further, if funding for the construction of the combination building could be allotted from the "unemployment appropriation," the office/commissary could be converted to a bunkhouse and the existing storage building could continue to be used for that purpose or converted to a shop.[71]

Apparently, the forest did receive funding for construction of the combination building, as it was completed in 1933. Although built in the location noted on the development plan (northwest of the two original buildings, near the bank of the river), the building was not oriented as Fickes, or the District Ranger, Russell Fitzpatrick, had wished:

> In setting up this building the rear or loading platform elevation was used as the front side and the office is, therefore, located on the up-river side of the building, entirely away from the approach to the station. Fitzgerald said that the building is just the reverse of what he wanted but that Lowell and Neitzling insisted that the loading platform was the front side of the building and consequently it was so located. As a matter of fact, the building should have been turned with the ridge at right angles to its present location and the plan turned over so the loading platform was on the up-river side of the building. However, the mistake has been made and we will have to live with it as it is.[72]

Other permanent improvements followed in 1934, when a log barn (built according to standard plan B-1) and a wood shed were added to the site. In a 1935 memo, Clyde Fickes indicated that the barn was well built, mostly with CCC labor. In spite of Fickes' statement, it is likely that the enrollees worked under the supervision of Ole Tangen, a skilled carpenter employed by the CCC in 1934 to work at the Deep Creek Ranger Station.[73] Both Tangen and the CCC

[70] John W. Lowell to District Forester, May 23, 1929. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle. Schumaker maintains that the district ranger, Russell Fitzgerald, and his wife lived in Building 2200 until completion of the ranger dwelling in 1934/35, O. F. Schumaker, "Presidential Proclamations and Executive Orders Establishing and Changing the Bitter Root Forest Reserve and the Bitterroot National Forest."

[71] Clyde P. Fickes, Memorandum, August 1, 1932, RG 95, NARA Seattle. In this same memorandum, Fickes discussed the poor condition of the telephone installation at Deep Creek, for which he recommended for replacement. Also, that the nearly 100-mile-long line linking Darby to Deep Creek served 18 telephones: "It is a wonder to me that any service can be maintained of such a loaded line."

[72] Clyde Fickes, Memorandum for Operation, June 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle.

[73] Ole Tangen immigrated to the United States from Norway in 1905. By 1907, he had found work in the Anaconda Copper Company logging camp on Lick Creek. By 1914, Tangen patented a 160-acre homestead in the vanity of the current Painted Rocks Reservoir, but sold it in 1920 and settled in Hamilton. In the 1930 federal census, Tangen listed his profession as a building contractor. Besides the Deep Creek buildings, he is credited with the construction of the Slate Creek Ranger Station, several buildings at the West Fork

enrollees lived in a spike camp (Camp F-45) adjacent to Deep Creek about a mile from the Deep Creek station. Tangen was paid $140 per month for his labor, which included selecting appropriate logs for use in the buildings, notching and finish work.[74]

It is likely that the new log dwelling for the ranger was begun in 1934, also under the supervision of Ole Tangen. In his 1935 memorandum, Fickes described the dwelling as "a very good job of construction," although it remained incomplete. Tasks to be finished included the chinking and sealing of the inside walls with Plastic Fiber Seal. In addition, because of improper grading, water had leaked into the basement, which was flooded when District Ranger Fitzgerald arrived to begin work at the headquarters. To correct the problem, the area around the foundation would need to be excavated to below the basement, drainage tile installed, and the trench filled with three feet of rock. Fickes also recommended screening in the front porch and building a small enclosed porch on the rear of the building. Although he stated that he discussed the last two items in detail with the ranger, there is no evidence to indicate that either project was accomplished.[75]

Fickes complimented the ranger for cleaning up the area near the station by removing the old stumps and blow-down timber, noting that it was ready to be seeded to grass. He also noted that CCC enrollees had done some work towards fire-proofing the site, by clearing downed timber on the hill slope east of the station. Fickes recommended that some additional thinning be done in this area, and that flat area on the west side of the Selway River should be cleaned and thinned. The cleanup on the west side of the river would have the added advantage of providing more horse pasture, which the station needed. He recommended that an acre of cleared land between the commissary and the new barn be smoothed over and seeded.[76]

Fickes visited the Deep Creek Ranger Station in June of 1935, to discuss the need for a new office and warehouse with District Ranger Fitzgerald and the new Forest Supervisor, G. M. Brandborg. Both Fitzgerald and Brandborg advocated the construction of a 30 ft. by 40 ft. building according to Standard Plan C-16. If the new office/warehouse was approved and built, the 1933 combination building could, after appropriate modifications, be used as a cook house and bunkhouse. Furthermore, the construction of a new office/warehouse would facilitate the removal of the two original log buildings that the district continued to use as a bunkhouse and store house. Although Fickes approved of the idea, he found fault with Brandborg's notion that he could construct the new building with CCC labor under the supervision of "one skilled mechanic."

> I informed him that this was entirely contrary to the Director's specific instructions and that aside from excavating the basement and running the concrete foundation, CCC enrollees could not be used on any other part of the construction, and skilled mechanics must be employed for this purpose. Brandborg contended that those instructions did not apply to such isolated places as Deep Creek. I told him that there were no exceptions and that if he used enrollees to replace skilled mechanics on this building that it might be too bad for him.[77]

Ranger Station, and numerous log homes in Hamilton and the Bitterroot Valley. "Immigrant Ole Tangen Hears Cry of 'Timber' Man of Unusual Ability Is With Us No More," *The Western News*, April 21, 1971. p 1 and 5; 1930 U.S. Federal Census for Ward, Ravalli County, Montana (accessed through Ancestry.com).

[74] Statement of Ole Tangen, September 8, 1934. Folder "CCC Personnel – Bitterroot, Robertson, Dale," Box 3, BIT05, RG 95, NARA Seattle.

[75] C. P. Fickes, Memorandum for Operation, June 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," Box 39, BITO5, RG 95, NARA Seattle.

[76] Ibid. CCC crews from the Deep Creek spike camp may have been responsible for this work, as indicated in a 1935 memo concerning the accomplishment of roads and trails crews stating that they had completed the placement of 240 feet of stone riprap along the Selway River, and cleared two acres of land at the Deep Creek Ranger Station. Memo dated 5/12/1935, Folder E. Roads & Trails- Bitterroot – Selway River Road #223, Box 14 BIT05, RG 95, NARA Seattle.

[77] C. P. Fickes, Memorandum for Operation, June 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," Box 39, BITO5, RG 95, NARA Seattle.

Besides the issue of using CCC labor in replace of skilled craftsmen, Fickes also felt that Brandborg's plan to pay for materials and labor was too optimistic "in view of the present overhead allowance for CCC camps." Finally, Fickes warned the supervisor not to initiate any construction until the plan for the new building, including its location within the station, could be reviewed by the Regional Planning Board.[78]

The board appears to have acted on the matter quickly, as a plan marked with the approved location of the new building was returned to Brandborg on July 2, under the signature of Regional Forester, Evan Kelley. In his cover letter, Kelley expressed doubt as to Brandborg's plan to fund the building project from his Emergency Conservation Work allotment, much of which was intended to fund the work of the CCC enrollees in construction of a road down the Selway River from the Deep Creek station.[79]

Over the course of July, Brandborg traded letters with Kelley about the proposed location of the new office/warehouse. Brandborg did not like the approved location and thought that the decision had been influenced by the presence of the two old existing structures, which he felt to be of little value.[80] Kelley responded by referencing a principle espoused by Professor Peck of Oregon State College, that the office building is the most important structure at any ranger station and that it needed to be "one of the best looking structures on the premise, and should occupy one of the most commending (sic) locations …." Besides this guiding principal, Kelley noted the practical limitations of the site, where "… the available ground there is pretty well butchered up by improperly located buildings already in existence." Kelley gave Brandborg the opportunity to suggest an alternate, prominent location, but there is no evidence that Brandborg followed up on Kelley's offer.[81]

The following year, Clyde Fickes conducted another review of the Deep Creek site. In a follow-up memo, he noted that because of restrictions on expenditures, the development plan needed to be altered once again. Instead of a combination office/warehouse, they proposed to build a smaller, less expensive office building containing "a private office for the ranger, sleeping quarters for the alternate and despatcher (sic) and a small bathroom." Other elements of the revised plan included the conversion of the 1933 combination building into a cookhouse and the construction of at least three new buildings—a bunkhouse, a warehouse, and a blacksmith shop—as well as a wash rack with a hydraulic lift. Fickes also mentioned the limitations of an existing garage, which had a shed style roof unsuitable for the heavy snow that characterized the area. He suggested that it would be better to reconstruct the garage roof to a "full gable type," which would have the added benefit of providing much needed storage. Finally, Fickes noted the inadequacies of the existing water system, and proposed extending a pipe line from Hells Half Acre Creek to provide water to the station and to power a small hydroelectric plant. The survey for the new water system was scheduled for the fall. [82]

In fact, the survey for the new water system did not take place until July of 1937, when the Forest's first engineer, Edward E. Morris, visited the Deep Creek Ranger Station. In a memorandum following the visit, Morris listed the seven buildings present at the site. These included: a log dwelling in good condition; a log "admin" building in good condition; a frame five-stall garage with green doors and shingle walls; a log woodshed in good condition; a log bunkhouse in poor condition; and, a log warehouse in poor condition. Besides the results of the water system survey, Morris noted other needed improvements for each building. For the ranger residence he reiterated the need for a screened porch and a back stoop. He also advocated for an increase in the lawn area in front of the building "on a flatter terrace which can be maintained." The garage needed a concrete floor with a drain pit, a heating stove and chimney, a girder above the drain

[78] Ibid.
[79] Kelley to Brandborg, July 2, 1935; Brandborg to Kelley July 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle.
[80] Brandborg to Kelley, July 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle.
[81] Kelley to Brandborg, July 19, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle.
[82] C. P. Fickes Inspection report, 1936, RG 95, NARA Seattle.

pit for a hoist, and a partition between the shop and storage part of the building. He also advocated for relocating the woodshed and for "grading … about the grounds; fences and landscaping, etc." [83]

Morris also brought up the need for a new approach road into the ranger station, a need first suggested by Clyde Fickes in 1935:

> The present entrance road goes along the hillside to the rear of the new dwelling. This has several undesirable features which are immediately obvious. It would not take a great deal of time or money to construct a new road following closely the high water mark along the river and approaching the building site across the comparatively level flat to the north of the building. This would put the entrance drive in front of the swelling and it would also approach the other buildings centrally.[84]

In July, Morris returned to the Deep Creek Ranger Station with a landscape architect from the regional office, C. M. Beardsley, to meet with Ranger Fitzgerald in order to discuss the plans for development. Beardsley prepared a memorandum for Forest Supervisor Brandborg in which he laid out his recommendations for building a new access road into the site and its relationship of the proposed site of a new administration building:

> By approaching the station from the bottom it is possible to set the administration building up as the center of interest and make it the appartent terminus of the drive. In the proposed plan the road enters the grounds on the centerline of the building group. The administration building is located at the end of the main drive, framed on either side by the bunkhouse and cookhouse.[85]

Beardsley proposed keeping the road profile low through the meadow, with 5:1 slopes, in order to minimize the amount of pasture lost to the road. As Fickes had said earlier, if additional pasture was needed, it could be created on the west side of the river, by some cleanup and selective thinning, and could also be made more accessible by improving the west approach to the stock bridge across the Selway River. Beardsley also mentioned that the new road alignment could work well with the proposed location of the new bridge that would carry the station access road across Deep Creek, where it branched from the main Deep Creek / Selway River Road.

Of the proposed bridge itself Beardsley wrote:

> The type of bridge to be used at this point should be given special consideration in that it will be located at a very prominent point in a distinctive natural area. It will be viewed broadside by travel coming form either direction. It would seem that any structure as harsh and glaring as a steel or concrete bridge would be out of place in this setting. The abundance of rock and timber in the vicinity suggests either a bridge faced with stone or one built entirely of logs. Either type would blend in well and be in keeping with this setting. The scenic values involved should justify any additional expense incurred in this type of construction.[86]

This recommendation may have been influenced by the fact that, just a year earlier, the Forest Service had included a large block of country north of the Selway River in the newly designated Selway-Bitterroot Primitive Area. Such areas

[83] Edward E. Morris, Memorandum dated July 27, 1937, BITO5, Box 39, RG 95, NARA Seattle. Morris also prepared a list of native shrubs and plants found at the Deep Creek station, presumably in anticipation of preparing a planting plan for some areas with in the headquarters area. A planting plan was prepared for the vicinity of the ranger's dwelling. Although not dated, the plan probably was prepared about the same time as Morris and Beardsley were making general development plans for the site. There is no indication, however, that this plan was ever implemented.
[84] C. P. Fickes, Memorandum for Operation, June 5, 1935. Folder O "Improvement, Bitterroot – Deep Creek Ranger Station Dwelling," BITO5, Box 39, RG 95, NARA Seattle.
[85] C. M. Beardsley (Landscape Architect), "Memorandum for Supervisor Brandborg," August 16, 1937, Folder O: Improvement, Bitterroot – Deep Creek Ranger Station, Box 3, BITO5, RG 95, NARA Seattle
[86] Ibid.

were valued and managed for their natural and scenic qualities rather than for other resources, such as timber. Management guidelines limited development such as road building, but did not prohibit the construction of buildings in remote administrative sites.[87]

The regional office followed Beardsley's recommendations to the letter. In 1938, regional bridge engineer, Art Kahl, produced plans for a stone arch bridge to be constructed at the location selected by Ed Morris. Notes on the plan provided the construction crew with specific directions regarding the character of the stone to be used in the bridge and the manner in which the joints were to be mortared. For example, Kahl specified that discolored, moss covered stones were to be used on all exposed faces of the arch ring and walls, while the stone face in contact with mortar was to be clean and free from moss and dirt. In joints exposed to public view, the masons were to rake the mortar to a depth of one inch, while joints on the underside of the arch could be left full. Similarly, Kahl specified that the masons should not apply mortar to the tops of the safety railings and end posts so that the natural face of the stone would be visible.[88]

According to Ed Morris, the Forest Service hired a bridge foreman and two stone masons of Lithuanian descent to build the structure. A few "CCC boys"from the Deep Creek spike camp were assigned to roll rocks down to the road from slides in the vicinity, after which the masons took over. "The bridge was not cheap. The masons earned $2.00 / hour plus board and lodging and it was slow work. The result was excellent and I believe worth the price."[89]

While the bridge was under construction the question of realigning the station's access road remained unresolved. However, in November of 1938, Regional Forester, Evan Kelley, wrote to supervisor Brandenborg stating, in what he must have considered no uncertain terms that "the present road route is to be used as the approach to the station." Kelley elaborated further:

> The decision is based upon three points:
> 1. Cost of a new route is not warranted by the benefits returned.
> 2. It appears to be altogether offensive to rip up and disfigure the only soothing topographical feature around the site to provide an ideal approach. Let us worship things natural as much as affairs having to do with the personal convenience and engineering perfections.
> 3. There are many jobs awaiting action of far greater importance than this one, even if the construction did not violate acceptable principles of land use.[90]

Although Brandborg attempted to continue the discussion into March of 1939, a new access road was never built into the ranger station.[91]

During the late 1930s, little progress was made in completing the improvement plan for the Deep Creek Ranger Station. One exception was the addition of a cook house in 1937. However, rather than new construction, the building was a 1927-vintage "portable" building moved to the site from a road camp. It was placed south of the combination building on a temporary footing. The slowdown in building improvements may have been due to the cost of the bridge, which likely diverted funding from other building projects. Certainly, the dissolution of the CCCs and the loss of funding from other Depression-era federal programs after America entered World War II were also to blame. Indeed, improvement work at the station ceased entirely during the war years.

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[87] The remote and undeveloped character of the Deep Creek Ranger Station is evident from the fact that the Selway-Bitterroot Wilderness Area was one of the first to be designated after the passage of the Wilderness Act in 1964. Designation of the adjacent, River of No Return Wilderness Area followed in 1980. In 1984, the latter was renamed the Frank Church – River of No Return Wilderness Area.

[88] Plans for Rubble Masonry Arch Bridge,"May, 1938, HF BNF.

[89] Ed Morris, letter to the Bitterroot National Forest, November, 1982, HF BNF.

[90] Kelley to Brandborg, November 3, 1938. BIT05, RG95, NARA Seattle.

[91] Brandborg to Regional Forester, March 7, 1939. BIT05, RG95, NARA Seattle

After the end of the war, the Forest Service slowly resumed its work. Additional improvements to the Deep Creek Magruder station did not occur until 1948, when half of an old CCC barracks that had been relocated to the Bertie Lord Road Camp, was moved into the station. The building was placed about 40 ft. southeast of the 1927 log building, which had served as the station's bunkhouse for quite some time. In 1949, the old barracks was remodeled to function as a bunkhouse, and the 1927 log building returned to its original function as a storage facility.[92]

In 1950 district personnel tore down the original, log commissary built in 1923. This may have been done in anticipation of another round of planning, as just three years later, the Forest prepared a new "construction plan" for the station. The 1953 plan contemplated major reorganization of the space. Anticipated changes included the following: the 1933 combination building (referred to as the office in 1953), was to be converted to a bunkhouse. A new 30 ft. by 40 ft. office would occupy the site of the 1927 log building, which was to be removed. Another new building, a duplex cottage, would be built on the hill slope west of the machine shed (presumably the garage). Access to the duplex would require the construction of a new road that would contour around the hill slope. The bunkhouse moved into the site in 1947 was to be removed and the area used for a parking lot. The cookhouse would be retained, but moved about 10 feet and placed on a permanent foundation. The machine shed (again, presumably the garage) was to be moved southwest to the vicinity of an existing grease rack; the latter would also be shifted and placed next to the machine shed. A new vehicular bridge would replace the old "trail" bridge across the Selway River, after which, the barn and corral would be moved to the west side of the river.[93]

Ultimately, few of the changes recommended in the 1953 plan were implemented—although some recommendations found in earlier plans were executed. For example, in 1950 the district began to remodel the shed roof on the garage / shop, a job that was not completed until 1962.[94] In 1955, district personnel moved a small oil house from the area behind the barn to a location in front of the garage / shop, where it was used for the storage of flammable materials. Ole Tangen reportedly used salvaged lumber to build the oil house in 1945.[95] Finally, in 1958, the district replaced the trail bridge leading to the west pasture with a vehicular bridge; the barns and corrals remained on the east side of the river.[96]

In 1964, Congress created the Selway-Bitterroot Wilderness Area. The following year, the Bitterroot National Forest combined the Magruder District with the West Fork District, and most administrative functions moved to the latter, more accessible station. The former ranger district headquarters was downgraded to a work center, used by fire, trail, and wilderness administration crews, who worked from it during the summer field season. Although the station was not expanded, a few modifications have been made to existing buildings. Sometime after 1963, the opening in the recessed loading dock on the east wall of the combination building was framed and enclosed. A shed roof porch also was added to shelter an entrance in the new portion of the wall. On the west wall of the building, the section of wall south of the rear door enclosed to create a shower room. Although the cookhouse (moved to the site in 1937) and the bunkhouse (moved to the site in 1948) remained on site until the late 1960s, they had been removed by 1984.[97]

In 1991, the property was determined eligible for listing in the National Register of Historic Places through a consensus determination of eligibility between the US Forest Service and the Idaho State Historic Preservation Office. Since that time, the Bitterroot National Forest has managed the guard station as a significant historic resource. All maintenance has been conducted according to the Secretary of the Interior's Standards and Guidelines for Preservation. Major preservation maintenance project accomplished to this date include: the in-kind replacement of the stained cedar shingle

[92] O. F. Schumaker, "Presidential Proclamations and Executive Orders Establishing and Changing the Bitter Root Forest Reserve and the Bitter Root National Forest."
[93] "Magruder Ranger Station, Bitterroot National Forest, Construction Plan," 1953. HF, BNF.
[94] O. F. Schumaker, "Presidential Proclamations and Executive Orders Establishing and Changing the Bitter Root Forest Reserve and the Bitter Root National Forest."
[95] Ibid. Schumaker says that the district enlarged the building in 1966.
[96] Ibid.
[97] Site Inventory Report for Magruder Guard Station, 1984. HF BNF.

roofs on the ranger dwelling (in 1992), the fire cashe and garage/shop (in 1993), and the combination building and the barn (in 1995). In 2000 and 2004, National Park Service and Forest Service Region 1 Preservation crews replaced rotted sill logs on the ranger dwelling, the combination building, and the warehouse.

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Bitterroot National Forest, Heritage Files, Supervisors Office, Hamilton, Montana

Idaho Panhandle National Forests, Supervisor's Office, Coeur d'Alene, Idaho.
National Archives and Records Administration, Seattle, Washington, Record Group 95, Records of the Forest Service, 1870-2008.

USDA Forest Service, Region One Archives, Missoula, Montana

Deep Creek (Magruder) Ranger Station — Idaho County, Idaho
Name of Property — County and State

___ requested)
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey #_____
___ recorded by Historic American Engineering Record # _____
___ recorded by Historic American Landscape Survey # _____

___ Other State agency
_X_ Federal agency
___ Local government
___ University
_X_ Other
Name of repository: National Archives and Records Administration, Seattle

Historic Resources Survey Number (if assigned): N/A

10. Geographical Data

Acreage of Property About 10 acres
(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	11	677522	5064093
2	11	677550	5064107
3	11	677841	5063561
4	11	677770	5063307
5	11	677741	5063303
6	11	677683	5063399
7	11	677700	5063486
8	11	677668	5063495
9	11	677601	5063694
10	11	677715	5063732
11	11	677739	5063693
12	11	677778	5063707

Verbal Boundary Description (Describe the boundaries of the property.)

At the north end of the district, the boundary begins 20 feet from the west edge of the access road just south of its junction with Forest Road 468 (1) then extends east to a point roughly 20 feet west of the access road (2). From this point the boundary extends south, 20 feet from and parallel to, the access road to a point just east of the ranger dwelling (3). From this point, the boundary extends south-southwest to include the open area south of the barn, then turns southwest(4) to extend to the edge of the terrace on the east bank of the Selway River (5). From this point the boundary extends north along the east bank of the river to a point just below the vehicular bridge linking the east and west banks of the river (6 & 7). From this point, the boundary extends across the river to the southwest corner of the west horse pasture (8), then north to the northwest corner of the pasture (9), then northeast to the northeast corner of the pasture (10), then south to a point on the west bank of the river (11). From this point, the boundary extends east, accross the Selway River to a point about 20 feet from the west edge of the access road (12), and thence northward, 20 feet from and parallel to the access road to the point of beginning.

Deep Creek (Magruder) Ranger Station | Idaho County, Idaho
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Boundary Justification (Explain why the boundaries were selected.)

Unlike most administrative sites, the Forest Service did not file an administrative withdrawal for the Deep Creek Ranger Station. The boundary proposed for this property encompasses the area developed for use by station personnel during the performance of their duties. Specifically, it includes the area in the vicinity of the building cluster, the two horse pastures, one on each side of the Selway River, and the access road into the site with its associated stone arch bridge.

11. Form Prepared By

name/title Janene Caywood
organization CRCS date November 28, 2012
street & number 1002 South 6th St. West telephone 406 728-9190
city or town Missoula state MT zip code 59801
e-mail crcs@montana.com

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Deep Creek (Magruder) Ranger Station | Idaho County, Idaho
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Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

All Photos:

Name of Property: Deep Creek Ranger Station

City or Vicinity: Vicinity of Darby, Montana

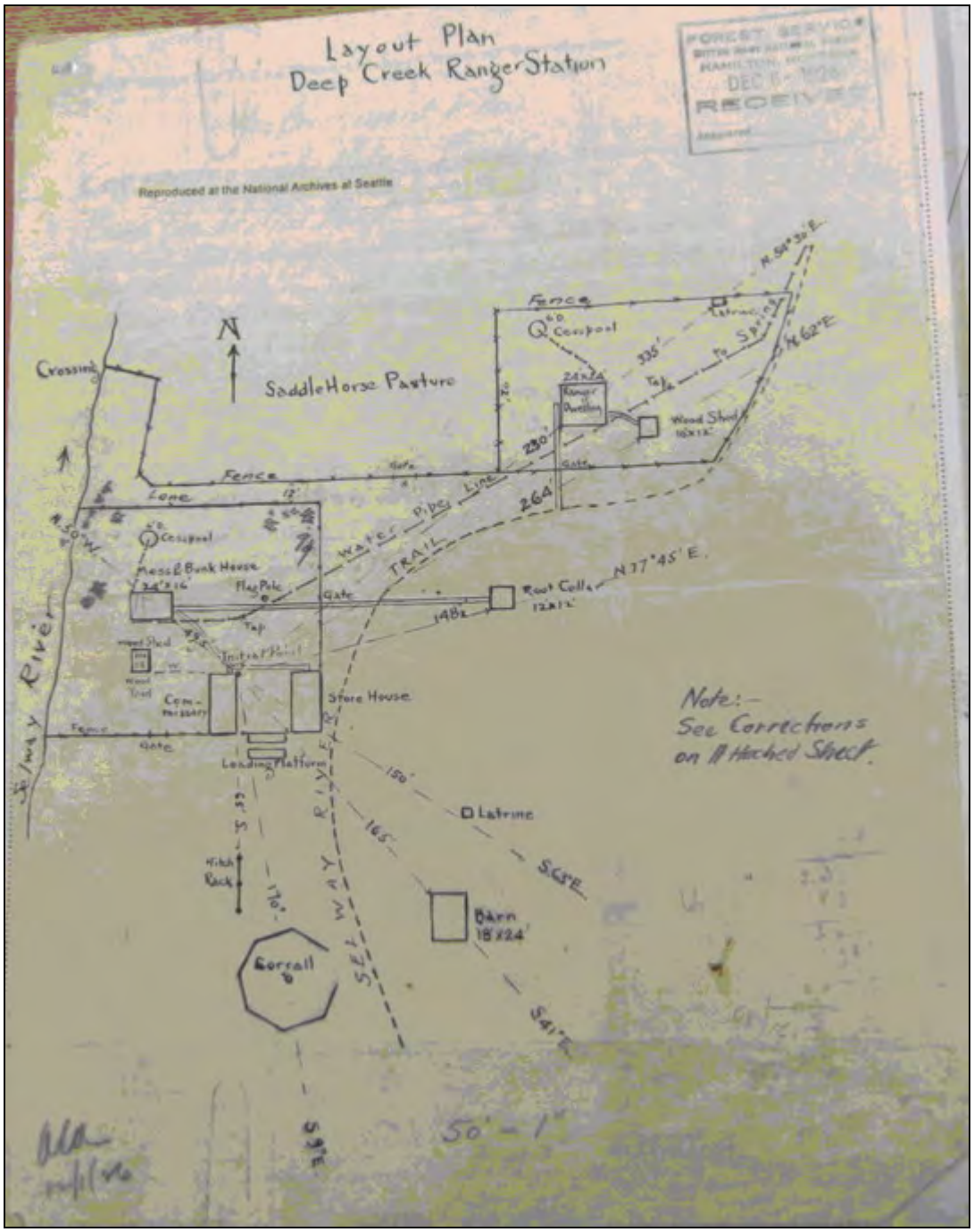
County: Idaho State: Idaho

Photographer: C. Milo McLeod

Date Photographed: October 21, 2011

Description of Photograph(s) and number:

1 of ___.



1926 Layout Plan for the Deep Creek Station
(Folder O, Improvement, Bitterroot – Deep Creek Ranger Station, Box 39, BIT05, RG 95, NARA Seattle)

Pre 1933 photo of the original commissary (middle) and the store house (left). View to south. Note the dense forest that covered the terrace east of the Selway River. (HF BNF)

Pre 1933 photo of the 1923 commissary (left) and the store house (right), View to north. (HF BNF)

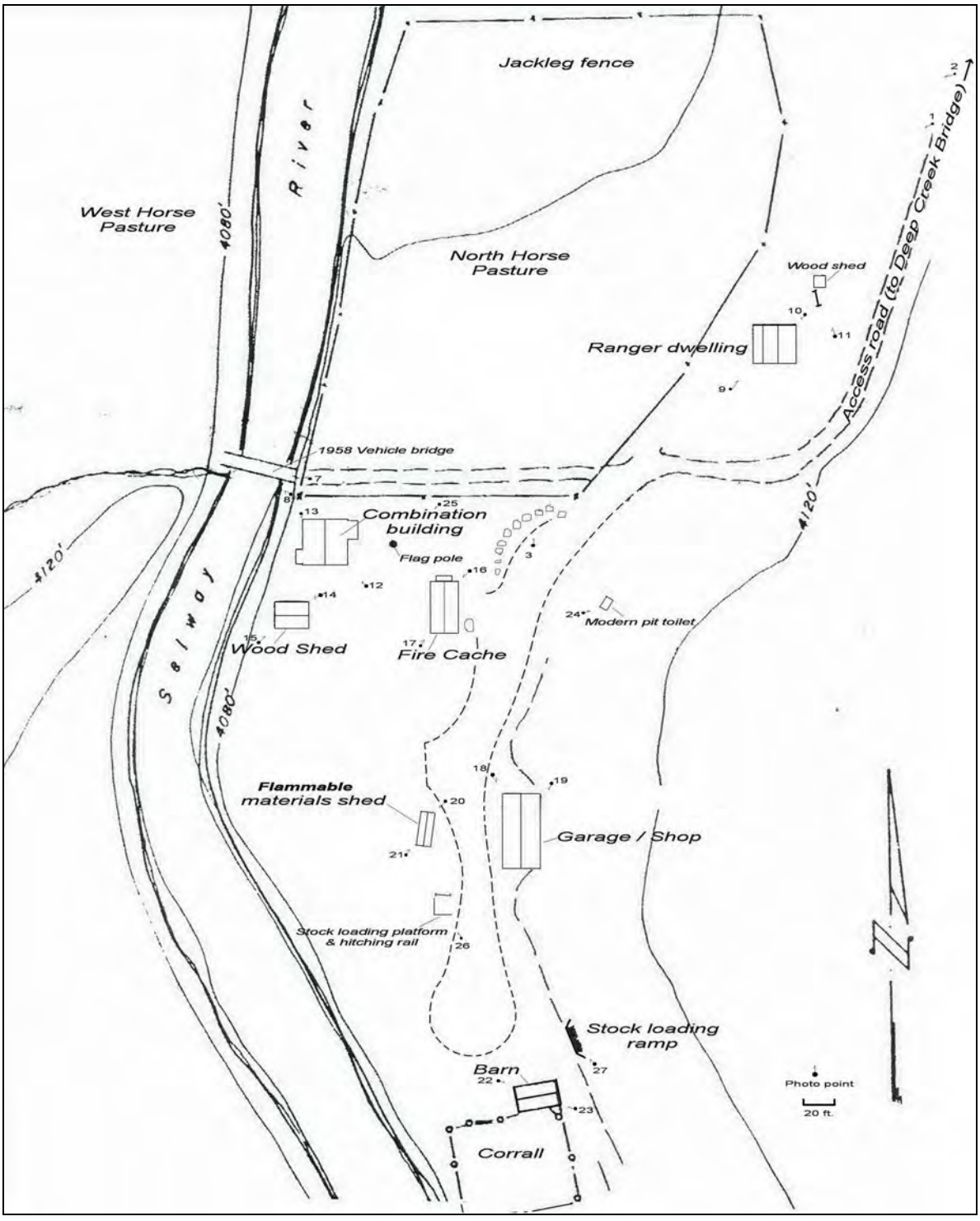
Looking south across the horse pasture to the warehouse, commissary and combination building. This photo was probably taken in 1937 to show the proposed location of the new access road.
(Folder O, Improvement, Bitterroot – Deep Creek Ranger Station, Box 39, BIT05, RG 95, NARA Seattle.)

Overview looking southwest over the station buildings from the access road. Ranger dwelling in foreground. From left to right in rear ground, warehouse, commissary, woodshed and combination building. Note the old trail bridge across the Selway River to the right of the combination building.
[Photo No. H-68, McGregor Collection (1941-1942), HF BNF]

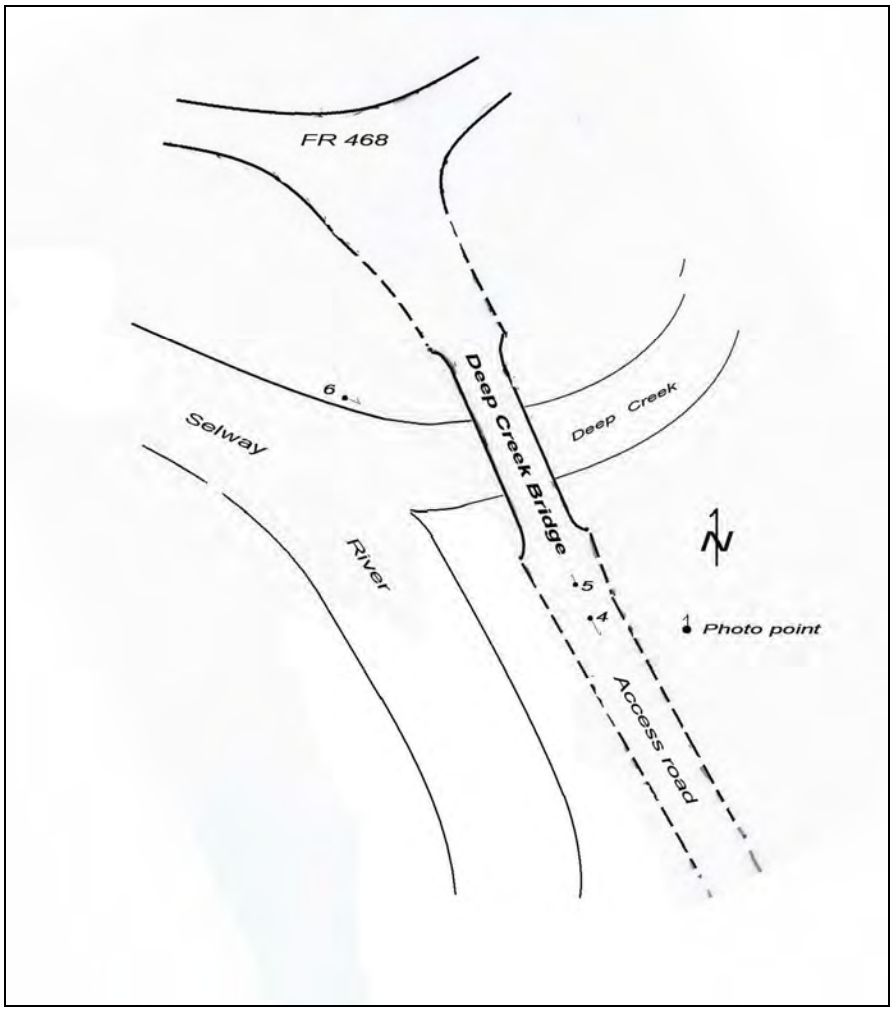
1963 photo of the east (front) wall of the combination building. Note the recessed loading dock, which should have been at the rear of the building. (HF BNF)

1938 photo of the Deep Creek Bridge under construction. (HF BNF)

Google Earth image showing Deep Creek (Magruder) Ranger Station historic district boundary.



Deep Creek (Magruder) Ranger Station core area site plan



Sketch of the Deep Creek Bridge area

All Photographs:
Name of Property: Deep Creek Ranger Station
City or Vicinity: Vicinity of Darby, Montana
County: Idaho State: Idaho
Photographer: C. Milo McLeod
Date Photographed: October 20, 2011
Description of Photograph(s) and number:

Photo 0001. Overview looking southwest from the access road into the core area.

Photo 0002. Overview looking west, view of the west pasture from the access road.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

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Photo 0003. Overview looking north across the north pasture from the access road.

Photo 0004. Looking southwest along the access road.

Photo 0005 Looking northeast across the running surface of the Deep Creek Bridge.

Photo 0006 Looking northeast at the west face of the Deep Creek Bridge.

Photo 0007 Looking east across the I-beam bridge.

Photo 0008 Looking north-northwest to the I-beam bridge.

Photo 0009 Looking northeast to the west (front) and south (side) walls of the Ranger's Dwelling.

Photo 0010 Looking southwest to the east (rear) and north (side) walls of the ranger's dwelling

Photo 0011 Looking northeast at the wood storage shed and clothes line located behind the ranger's dwelling.

United States Department of the Interior
National Park Service

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N/A
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Photo 0012 Looking northwest at the south (side) and east (front) walls of the combination building.

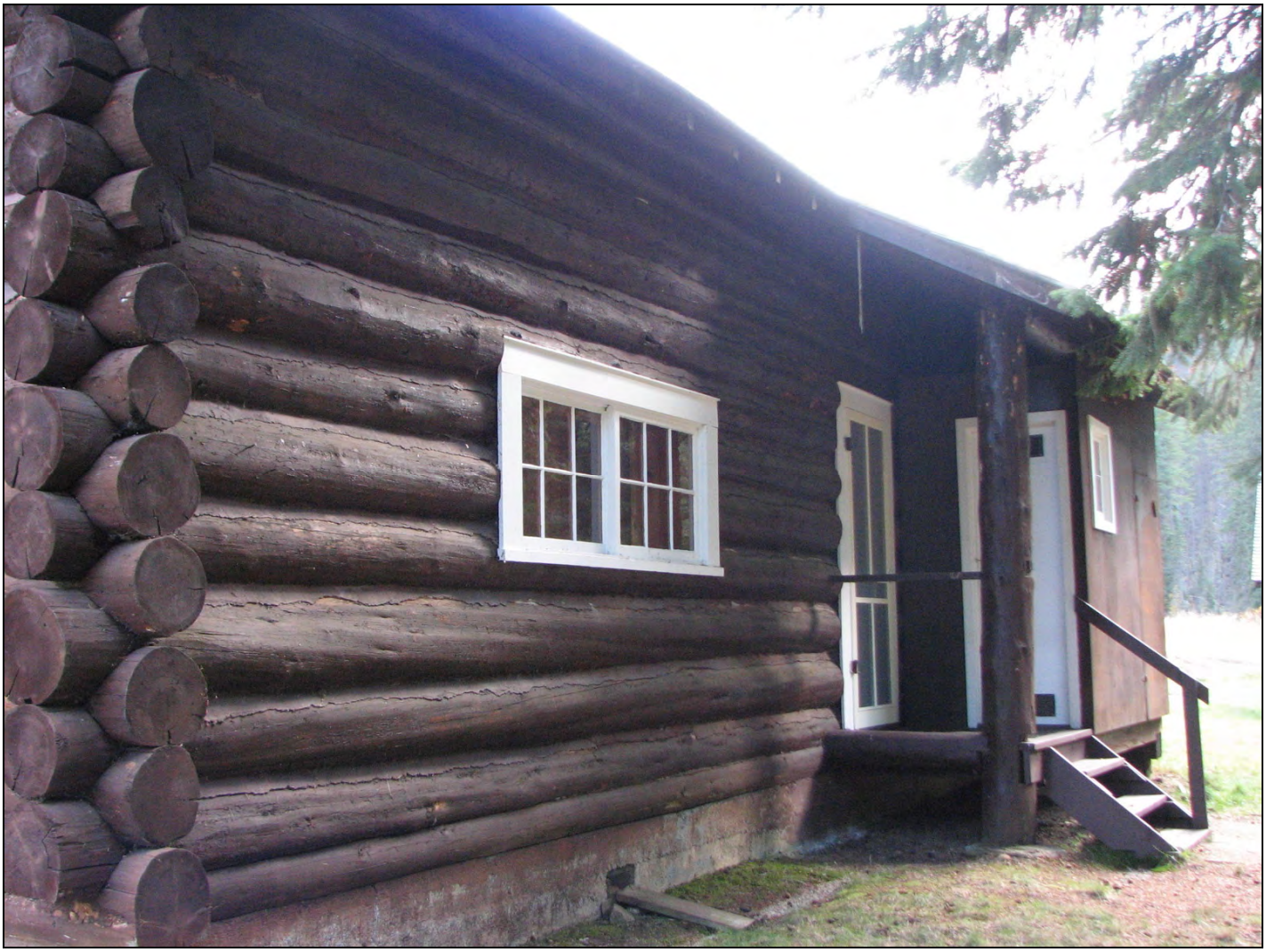

Photo 0013 Looking south-southeast to the west (rear) wall of the combination building.

Photo 0014 Looking southwest to the east (side) and north (front) walls of the wood shed.

Photo 0015 Looking northeast to the west (side) and south (rear) walls of the wood shed.

Photo 0016 Looking southwest to the east (side) and north (front) walls of the fire cache.

Photo 0017 Looking northeast to the west (side) and south (rear) walls of the fire cache.

United States Department of the Interior
National Park Service

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Photo 0018 Looking east-southeast to the north (side) and west (front) walls of the garage / shop.

Photo 0019 Looking south-southwest at the east (rear) wall of the garage / shop.

Photo 0020 Looking southwest to the east (side) and north (front) walls of the flammable materials shed.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

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N/A
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Photo 0021 Looking east-northeast to the west (side) and south (rear) wall of the flammable materials shed.

Photo 0022 Looking southeast to the north (side) and west (front) walls of the barn.

Photo 0023 Looking northwest to the south (side) and east (rear) walls of the barn.

Photo 0024 Looking northeast to the west and south walls of the modern pit toilet

Photo 0025 Looking southwest to the flag pole.

Photo 0026 Looking northwest to the stock loading platform and hitching rail near the garage / shop

Photo 0027 Detail photo of the mule and horse shoos embedded in the stock loading ramp adjacent to the Barn.