

Oregon Historic Site Form

Mary's Peak Microwave Radio Station
National Forest 3010 Rd
Philomath, Benton County

LOCATION AND PROPERTY NAME

| | |
|--|--|
| address: <u>National Forest 3010 Rd</u> <input checked="" type="checkbox"/> apprx. addr | historic name: <u>Mary's Peak Microwave Radio Station</u> |
| <u>Philomath</u> <input checked="" type="checkbox"/> vcnty <u>Benton County</u> | current/ other names: _____ |
| Optional Information assoc addresses: (former addresses, intersections, etc.) location descr: (remote sites) | block nbr: _____ lot nbr: _____ tax lot nbr: _____ township: _____ range: _____ section: _____ 1/4: _____ zip: _____ |

PROPERTY CHARACTERISTICS

| | |
|--|---|
| resource type: <u>site</u> height (# stories): _____ | total # eligible resources: <u>1</u> total # ineligible resources: <u>0</u> |
| elig. evaluation: <u>eligible/contributing</u> | NR status: _____ (indiv listed only; see Grouping for hist dist) |
| primary constr date: <u>1961</u> (c.) <input type="checkbox"/> secondary date: _____ (c.) <input type="checkbox"/> (optional--use for major addns) | NR date listed: _____ |
| primary orig use: <u>GOVERNMENT: General</u> | orig use comments: _____ |
| secondary orig use: <u>Communications Facility</u> | prim style comments: _____ |
| primary style: <u>Utilitarian</u> | sec style comments: _____ |
| secondary style: _____ | siding comments: _____ |
| primary siding: <u>Steel</u> | architect: _____ |
| secondary siding: <u>Aluminum</u> | builder: _____ |
| plan type: <u>Other/Undefined</u> | |
| comments/notes: The Mary's Peak Microwave Radio Station (Station) is evaluated as part of an analysis of Bonneville Power Administration's (BPA) historic microwave communication network. The stations in the study are evaluated as individual sites that contain, at a minimum, an antenna tower and a station building—essential features that characterize the site and its historic development. The site itself constitutes the station's most significant element, as location and line-of-sight to other communication facilities were critical to the station's development and function. | |

GROUPINGS / ASSOCIATIONS

| | | |
|--|---|---------------------------------------|
| survey project name or other grouping name | <u>Bonneville Power Administration Microwave Radio Stations, 2019</u> | <u>Survey & Inventory Project</u> |
|--|---|---------------------------------------|

farmstead/cluster name: _____ external site #: _____
(ID# used in city/agency database)

SHPO INFO FOR THIS PROPERTY

NR date listed: _____
ILS survey date: 5/23/2019
RLS survey date: _____
Gen File date: _____

106 Project(s)



Mary's Peak Microwave Radio Station, viewing sou

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ARCHITECTURAL / PROPERTY DESCRIPTION

(Include expanded description of the building/property, setting, significant landscape features, outbuildings, and alterations)

Largely constructed in 1961, the Mary's Peak Microwave Radio Station is located on a rectangular-shaped 0.23-acre parcel, approximately 15 miles west of Corvallis, Benton County, Oregon. The Station is at the summit of Mary's Peak in the Mary's Peak Scenic-Botanic Area and within the larger Siuslaw National Forest. The surrounding area consists of mountainous terrain covered with evergreen trees and native vegetation. On the western ridge of Mary's Peak is a 0.2-acre site that includes a Federal Aviation Administration building and a 20-foot-high three leg metal lattice antenna tower. The Mary's Peak Campground and Day Use area are approximately 2,000 feet to the northwest and north of the site, respectively. Adjacent to the site is a United States Forest Service (USFS) communication building and 40-foot high four-leg metal lattice antenna tower, as well as a 20-foot high four-leg metal lattice antenna tower owned by both the Oregon Department of Transportation and Oregon State Police. The immediate setting consists of an alpine meadow habitat where wildflowers grow in rocky outcrops (BPA 2016). The site is bounded by an unnamed gravel access road and native vegetation to the north and west and native vegetation to the south, and east. The site is accessed from the north by a gravel driveway (Z-8279) and National Forest Road 3010.

The Station's primary features include a station building (Z-0764) constructed in 1961 and a modern antenna tower constructed on an unknown date. Other features include a fuel distribution tank (Z-0000), roadways and driveways (Z-8279, and parking lots and storage yards (Z-8281). The one-story Mary's Peak station building, which contains the principal operational equipment, measures approximately 320 sq. ft. BPA internal records categorize the building as a BPA type 1530 station building. Built on a slab-on-grade concrete foundation, the building is constructed out of concrete masonry units with a stucco finish. The building displays exterior features representative of the Utilitarian architectural style that was prevalent for industrial uses at the time of the station building's construction. The Utilitarian design philosophy emphasized functionality over aesthetics, limited applied detail, one-story forms, and simple fenestration. The building has a nearly flat roof with metal coping, two roof ventilators, and is finished with built up roofing material.

The building's primary (east) façade consists of an asymmetrically-located single-leaf, flush panel metal door. The south, west, and east elevations lack fenestration. The south elevation includes a large centrally located metal vent hood. The west elevation consists of a large wall-mounted metal air intake unit. The north elevation lacks architectural detail.

Alterations to the Station since its original construction became evident following a review of recent and historic photographs, aerial images, and historic documentation. Changes to the site include the in-kind replacement of the original wood monopole antenna tower, and removal of the original latrine (Dates Unknown) (BPA Photographs). Changes to the station building include the addition of metal coping to the roof and the addition of the two utility boxes to the east elevation (Dates Unknown) (BPA Photographs). The antenna tower has undergone minimal alterations, such as replacement of microwave antennas and associated transmission equipment, since its original construction.

HISTORY

(Chronological, descriptive history of the property from its construction through at least the historic period [preferably to the present])

BPA's Microwave Communication Network

The BPA, part of the U.S. Department of Energy, is a nonprofit federal power administration that markets wholesale hydroelectric energy throughout the Pacific Northwest. BPA's Transmission System, which provides nearly one-third of the region's electric power, operates primarily in Idaho, Oregon, western Montana, and Washington, as well as sections of California, Nevada, Utah and Wyoming, and interconnects with systems in British Columbia, Canada (BPA.gov 2017). A more detailed discussion of BPA's history and development can be reviewed in Curran (1998), Kramer (2010), and Kramer (2012).

In 1950, during the System Expansion Period's (1946-1974) early phase, BPA introduced the Pacific Northwest's first large-scale microwave radio communication system, substantially enhancing the power grid's efficiency and reliability, and greatly reducing operating costs. This microwave-based system ultimately replaced BPA's outdated radio frequency communication system. The new system consisted of "radio stations" built at high-ground sites, such as ridges and mountain peaks; associated equipment installed at end locations, such as control centers and power substations; and equipped mobile field units (AECOM 2019).

The radio stations provided instantaneous communication between end locations and with field crews involved in construction or maintenance activities. The newly activated microwave circuits enhanced data transmission functions for power line fault location, supervisory (remote) control of substations, telemetering, and others. The system also integrated communication and controls between BPA and other members of the Northwest Power Pool, an organization of the region's major electrical utilities that formed on August 1, 1942 (BPA 1943:14). The power pool originally included BPA, Montana Power (NorthWestern Energy), Idaho Power, British Columbia Electric, Tacoma City Light, Utah Power and Light (Rocky Mountain Power), Pacific Power and Light, Seattle City Light, Washington Water Power, Puget Sound Power and Light (Puget Sound Energy), and Portland General Electric (BPA 1951:28; Kershner 2016). The Northwest Power Pool now has 32 members. At the time of its initial activation, BPA's new communication system was crucial to dependable power pool operations throughout the region.

During the System Expansion Period, BPA expanded the radio station network, implementing technological innovations to increase capacity and reliability. Completion of the William A. Dittmer Control Center in 1974 marked the end of BPA's System Expansion Period, as well as the end of BPA's manual control systems. Dittmer housed new computer-based management systems that relied on microwave communication facilities to gather and transmit the massive amounts of data (BPA 1972:24). The implementation of Public Law 93-454, which transformed BPA's funding and operations, also helped mark the end of the System Expansion Period (Kramer 2012:3).

Since its inception, BPA has continually adapted to evolving regional and national priorities by incorporating new electric distribution, management, and communication technologies through system upgrades and expansion (Kramer 2012:ii). BPA's innovations in the field of microwave-based communications exemplify its ability to incorporate technological advances for improved operations.

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Mary's Peak Microwave Radio Station

Development of Mary's Peak began in June 1941 when the City of Corvallis leased 400 acres of land to the USFS for a 40-year period. The lease stipulated that the land was to be developed for public use. On June 30, 1941, the City of Corvallis donated 40 acres of land at Mary's Peak to the United States government (BPA 2016). The Civilian Conservation Corps constructed a fire lookout in 1942. By 1959, the log structure had become severely deteriorated, leading the USFS to demolish and replace it (Gazette Times 1959a).

In September 1958, BPA opened bids for the construction of a combination very high frequency (VHF) radio station and USFS lookout on Mary's Peak. The proposed station building would have three stories, 20 by 20-foot concrete block, aluminum, and glass construction, and an ultra high frequency (UHF) radio antenna mounted on the roof. The first floor would be designated for BPA radio equipment, the second floor for the public, and the third floor for the USFS. The project was expected to be completed within 45 days of the notice to proceed (Gazette Times 1958). Robert C. Wilson of Corvallis was announced as the lowest bidder on September 25 with a bid of \$37,941 (La Grande Observer 1958).

The development of the multi-use building was stalled when the proposed plans exceeded the USFS's \$27,000 budget. Plans for the project cost \$6,000 and the aluminum BPA required for construction was estimated at \$10,000. Due to insufficient funds, the USFS decided to construct its own building at a former USFS lookout site (Gazette Times 1959b). Meanwhile, BPA decided to relocate its proposed site to a public domain property on the northeast side of the peak. The newly selected site was surrounded by land owned by the City of Corvallis and USFS and that drained into the city's watershed. Both the city and USFS protested BPA's new plans, arguing it would jeopardize the watershed and interfere with lookout operations (Gazette Times 1959c).

Corvallis City Manager, John F. Porter, opposed any development on Mary's Peak. On July 16, 1959, Porter wrote to Oregon Senator Richard L. Neuberger requesting assistance to prevent Mary's Peak development. Porter argued that the BPA radio station would be detrimental to recreational activities and contribute to the contamination of the city's water supply. He also stated that it could set a precedent for additional development that would "clutter the top of the mountain with a forest of radio and micro-wave antennas." (Gazette Times 1959b). To reach a compromise, Porter called for the USFS and BPA to agree on an option that would neither limit the public's use of the peak nor appear too prominently on the skyline (Gazette Times 1959c).

On October 2, 1959, the Corvallis Gazette Times reported that BPA and the USFS had signed a Memorandum of Understanding (MOU), stipulating to the construction of a BPA microwave radio station next to the USFS's lookout on Mary's Peak (Gazette Times 1959c). The MOU also stipulated that the BPA building would provide space for radio equipment for the Federal Bureau of Investigation and the Bureau of Land Management (Medford Mail Tribune 1959). BPA internal documents indicate that the USFS granted BPA an easement for the radio station site and a beam path in November 1959.

Bids for the construction of the Mary's Peak, Kenyon Mountain, and Scott Mountain radio stations were announced in the Eugene Guard on May 30, 1960. Each station would supplement the BPA's land mobile network in the Willamette Valley and southwest Oregon. BPA identified Peifer and Pierce of Battle Ground, Washington, as the lowest bidders for all three sites. Completion of the sites was expected within 120 days (Guard 1960). Historic photographs indicate the station was complete or near completion by November 1960 (BPA Photographs).

Evaluation

Based on the requirements of the BPA Multiple Property Documentation Form (MPDF) and additional integrity considerations provided in the BPA Microwave Radio Stations Historic Resources Technical Report (Section 2.1.3), the Mary's Peak Microwave Radio Station is eligible for inclusion in the National Register of Historic Places under Criterion A for its significance in the areas of Communications and Industry (Kramer 2012; AECOM 2019; NPS 1997). The Station became a key component of BPA's early microwave communications network, facilitated grid operations, and supported business and industrial development throughout the region, particularly the Corvallis, Oregon area. Alterations to the site are minimal and do not diminish overall integrity, based on the guidelines provided in the MPDF and additional integrity considerations provided in the BPA Microwave Radio Stations Historic Resources Technical Report (Kramer 2012; AECOM 2019). The Station retains integrity of location, design, setting, materials, workmanship, feeling, and association and meets the minimum eligibility requirements in the BPA MPDF. The original antenna tower is no longer present, but was replaced in-kind. The site continues to represent its historic spatial organization (design) and expression of historic function and technology (workmanship), which in addition to location are the key aspects of integrity. The antenna tower maintains line-of-sight with associated microwave communication sites. The recommended period of significance for the Mary's Peak Microwave Radio Station is 1961, the Station's construction date, to 1974, the end of BPA's period of significance for historic resources as outlined in the MPDF (Kramer 2012).

RESEARCH INFORMATION

(Check all of the basic sources consulted and cite specific important sources)

- | | | | |
|---|--|---|--|
| <input type="checkbox"/> Title Records | <input type="checkbox"/> Census Records | <input type="checkbox"/> Property Tax Records | <input type="checkbox"/> Local Histories |
| <input type="checkbox"/> Sanborn Maps | <input type="checkbox"/> Biographical Sources | <input type="checkbox"/> SHPO Files | <input type="checkbox"/> Interviews |
| <input type="checkbox"/> Obituaries | <input checked="" type="checkbox"/> Newspapers | <input type="checkbox"/> State Archives | <input checked="" type="checkbox"/> Historic Photographs |
| <input type="checkbox"/> City Directories | <input type="checkbox"/> Building Permits | <input type="checkbox"/> State Library | |

Local Library: _____ University Library: _____

Historical Society: _____ Other Repository: BPA Archives/Library

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