

Zion National Park Irrigation System,
Oak Creek Canal
Zion National Park
Springdale vicinity
Washington County
Utah

HAER No. UT-38-B

HAER
UTAH,
27-SPDA.Y,
2B-

PHOTOGRAPH
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Rocky Mountain Regional Office
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD

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Zion National Park Irrigation System, Oak Creek Canal

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Location: Oak Creek Canal Historic District, Zion National Park,
Springdale vicinity, Washington County, Utah

Date of Construction: 1935; Alterations, 1941, 1959, 1961

Architect/Designer: Harry Langley

Present Owner: National Park Service
U. S. Department of the Interior

Present Use: Irrigation Canal

Significance: The Oak Creek Canal retains much of its structural
integrity, as it follows its original course and
retains significant examples of its initial equipment,
such as the stone whowing drops located just to the
north of the Nature Center.

Researcher: James Jurale
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The head of the Oak Creek Canal is located on the west side of the north fork of the Virgin River, approximately 1/8 mile to the north of the Virgin River Bridge. The headworks consist of a concrete diversion dam, which spans the river; a single, screw-type headgate, and a cast-iron grizzly on the north end of an ashlar masonry diversion pier. A hand winch and swivel boom with ball and socket hand crank is located on the recessed deck of the pier. The winch is used to remove or insert a metal slide gate (by means of a wire cable) into a grooved, 5-inch wide spillway located to the immediate east of the headgate and extreme west of the diversion dam. The dam was constructed in 1941 and repaired in 1959.

Other structures located on the canal prior to its passage under the Virgin River Bridge include: a poured-concrete, 3x6-inch holding cistern with dual, metal, screw-type headgates and one wooden flashboard; a screening pumping station for the Visitor's Center and Pine Creek residential irrigation systems (constructed in March 1961), and a concrete, steel rod-enforced, measuring weir with a 3-foot drop.

The canal crosses the west side of the highway just to the north of the Zion National Park headquarters, and runs through a metal flume (replaced wooden flume on April 26, 1941) on the east side of the Oak Creek Bridge. It passes through stone whowing drops (constructed in 1935) north of the Nature Center, swings to the east and parallels the highway's west flank. The canal sends a series of laterals east to irrigate the South Campground area and terminates in a ditch which enters the Virgin River on the north side of the Watchman Campground entrance road. The canal is concrete-lined for much of its approximately 2-mile course.

The Oak Creek Canal was enlarged to a carrying capacity of approximately one second food by Civilian Conservation Corps enrollees in 1935, under the supervision of Engineer Cowell. The primary purpose of the canal was to convey water to a network of laterals which irrigated trees and shrubs planted in a reforestation program at the South Campground area. A siphon connected the South Entrance Plaza to the irrigation system.

Bibliography

Firm, Howard. "Photo Documentation, 1935," Zion National Park Photo Collection.

Rozell, F. R. "Civilian Conservation Corps Narrative Reports, 1935.