



WATER-RIGHT DOCKET

Rocky Mountain National Park

Docket No: 66

KAWUNEECHE HOUSING AREA

Other Supporting Information

00-00-0000: memorandum to regional director from acting chief regarding trip report for travel to romo october 22, 1992



IN REPLY REFER TO

United States Department of the Interior

NATIONAL PARK SERVICE
Water Resources Division
1291 Oakridge Drive, Suite 250
Ft. Collins, Colorado 80525



L54(479)
ROMO/General

RECEIVED
JAN 04 1993

Memorandum

To: Regional Director, Rocky Mountain Regional Office
From: *for* Acting Chief, Water Resources Division
Subject: Trip Report for Travel by William Werrell to Rocky Mountain National Park, October 22, 1992

The attached trip report by William Werrell describes his recent trip to Rocky Mountain National Park (ROMO). The purpose of the trip was to provide ground water expertise to the dual issue at Kawuneeche Housing Area which includes drilling of a standby production well and addressing concerns of private parties regarding National Park Service ground water withdrawal. The trip report also recommends a study, including well drilling, to meet these needs.

If you have any questions, or if we can assist you further, please call Bill Jackson at (303) 225-3503 or William Werrell at (303) 225-3521.

Attachment

cc: ROMO - Superintendent, Ibost, Czarnowski
479 - Kimball, Jackson, Williams
RMR - Wise



IN REPLY REFER TO:

United States Department of the Interior

NATIONAL PARK SERVICE

Water Resources Division
1201 Oakridge Drive, Suite 250
Ft. Collins, Colorado 80525

December 28, 1992



L54(479)
ROMO/General

Memorandum

To: Chief, Water Operations Branch
Thru: Chief, Water Operations Branch *WJ*
From: William Werrell, Hydrologist, Water Operations Branch
Subject: Trip Report for Travel to Rocky Mountain National Park, October 22, 1992

PURPOSE: The trip was made to provide technical assistance in determining the location of a new standby production well and in designing a study to define the impacts of well pumping on ground water tables.

ITINERARY: Departed Fort Collins on October 22 and returned the same day.

CONTACTS: Craig Melvin, Architect
Ken Czarnowski, Hydrologist

DISCUSSION: Craig Melvin and I inspected the present production well at the Kawuneeche Housing Area. No data (depth, yield, etc.) on the well were available. Park plans are to enlarge the housing at this area which prompts the need for a standby well. Further, private property exists about 0.25 miles to the west and owners have expressed concern that their ground water supplies might be impacted by increased National Park Service (NPS) pumping.

The site of the well is on a valley flat associated with the Colorado River. An extensive meadow lies to the north of the site. No formation outcrops were seen in the general area. Colorado River flow is the likely source of groundwater recharge to the site.

At park headquarters I met with Ken Czarnowski. We discussed the issue at Kawuneeche and he stated that housing to the north (up the valley) was to be vacated and relocated at Kawuneeche. Further, proper water rights action would be taken to accommodate this move of water location. Thus the actual amount of water used by NPS within the valley would remain the same. He will acquire and forward to me all available well data.

I propose the following procedures in meeting the goals of this issue:

First, the site for drilling two observation wells will be selected. I recommend that the first well be drilled about 20 feet to the west of the production well, and the second drilled about 120 feet further to the west (observation wells would contain 4 inch diameter PVC casing). An aquifer test, using the existing production well, would then be conducted and data analyzed.

Second, based on the results of the aquifer test, the location of the standby well would be determined so that only minor draw down in the standby well would occur under normal pumping of the production well. The new standby well would then be drilled under specifications for a potable water supply well. A second aquifer test would then be conducted, while concurrently acquiring water levels in all of the new wells.

Third, a pump would be placed in the standby well and a final aquifer test conducted using the other wells as monitoring wells. This assumes that water levels can be obtained from the present production well, which may not be true due to the small diameter of the casing.

This process would: (1) allow placement of the standby well such that "well interference" would be minimal, if it were ever necessary to pump both wells at the same time, (2) provide actual cone of depression definition from field data, and (3) allow verification of the data by altering the pumped well.

I speculate that the cone of depression will extend on the order of 100 to 200 yards, far short of impact to private parties. However, from the standpoint of a private party, there can be no substitute for a report of the aquifer test(s) presenting actual field data and analysis.

It should be expected that some "glacial flour" (very fine silt) will be present in the alluvium. This material restricts alluvial water flow, causing greater well drawdowns (reduced well yield) than can be expected in nonglaciaded areas. However, since the present well has adequate yield for our purposes, the standby well is expected to be successful in potentially doubling our present quantity.

Further Water Resources Division assistance can be provided upon request and is offered in supervising the aquifer test(s), analyzing the test data, and preparing suggestions for standby well drilling specifications.

William Wenzel

Docket Information

Number of Documents in Docket 3

Documents Dated from 12/28/1992 to 12/28/1992

Docket Compiled: 6/16/2011