

RECLAMATION

Managing Water in the West

TR-2012-05

Travel to Reno, Nevada to view scour near the Walker River Headcut Stabilization Project

Dates of Travel: February 17-18, 2012



**U.S. Department of the Interior
Bureau of Reclamation
Technical Service Center
Hydraulic Investigations and Laboratory Services Group
Denver, Colorado**

BUREAU OF RECLAMATION
Technical Service Center
Denver, Colorado

TRAVEL REPORT

Code: 86-68460 Date: March 23, 2012
To: Manager, Hydraulic Investigations and Laboratory Services Group
From: Bryan Heiner
Subject: Travel to Reno NV to view scour near the Walker River Headcut Stabilization project.

1. Travel period: 17 Feb 2012 – 18 Feb 2012
2. Places or offices visited: Fish and Wildlife Service Reno NV & Walker River at Lateral 2A
3. Purpose of trip: To view the Walker River at Lateral 2A during low flow and determine the depth of scour around an old siphon pipe that is no longer in use and will be removed during the Walker River Headcut Stabilization project.
4. Synopsis of trip: Bryan traveled to Reno early on Feb 17, 2012 by plane and rental car. After briefly meeting Lisa Heki at the USFWS office in Reno to discuss the visit he headed to the Walker River at Lateral 2A near Schurz, NV.

Bryan met Matt Spalding from the Bureau of Indian Affairs (BIA) at the Walker River Piute Tribe administration building and followed him to the Walker River at Lateral 2A near Schurz, NV. Flows entering the river from Weber Reservoir had been shut down a week prior to allow the river adequate time to de-water. River flows were estimated at 35 ft³/sec from a USGS stream gauge (Gauge #10302002). Most of the flow in the river was attributed to uncontrollable groundwater sources.

At the observed flow rate all river flow was traveling under the old siphon pipe. Elevation data was collected to determine the size and extent of additional scour relative to the top of the siphon since 2007. The scour hole has increased in size to approximately 8 feet deep and expands upstream about 25 feet and downstream 60 feet to the prior existing grade. This additional scour accounts for approximately 150 cubic yards of material that will need to be filled during construction of the Walker River headcut stabilization and fish passage structure. No adjustments to the spec design are necessary because excess cut material that will be stored on site can be used to fill the additional scour during construction.

Prior to visiting the site the BIA had a backhoe on site to remove a large debris pile that was building upstream of the old siphon pipe. Bryan asked that the backhoe be made available

Travelers: Bryan Heiner

during the visit so a hole could be dug to determine what type of base material was available at the site. Figure 1 provides a view of the approximate location where the hole was dug. During the digging, video was taken to document any organic material layers that may be problematic during construction. Groundwater filled the hole when approximately 2 feet below grade. No problem areas were visualized. A layer of roots and organic matter was present just above the water table but should be removed during construction stripping and are not a concern (Figure 2). The hole was approximately 5 feet deep and material brought from the bottom of the hole was sand and cobbles around 5-8 inch in diameter. This material will be suitable as base material during construction.



Figure 1 - Approximate location where the hole was dug to observe the base material



Figure 2 - Sidewall of the test pit showing the small layer of organic matter just above the water table.

5. Conclusions: The trip was successful and USBR engineers do not see a need to modify the existing quantities in the spec package. USBR engineers also feel confident that the base material will be suitable for construction. However, it should be noted that only one sample pit was dug during this visit and un-foreseen pockets of unstable material might be encountered during construction.

cc: Lisa Heki – lisa_g_heki@fws.gov
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SIGNATURES AND SURNAMES FOR:

Travel to: Reno, NV & Schurz, NV

Dates of Travel: Feb 17-18, 2012

Names and Codes of Travelers: Bryan Heiner, 86-68460

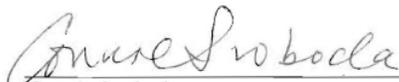
Travelers:



Bryan Heiner
Hydraulic Investigations and Laboratory Services Group

3/22/12
Date

Peer Review by:



Connie Svoboda
Hydraulic Investigations and Laboratory Services Group

3/16/12
Date

Noted and Dated by:



Robert F. Einhellig, Manager
Hydraulic Investigations and Laboratory Services Group

3/22/12
Date