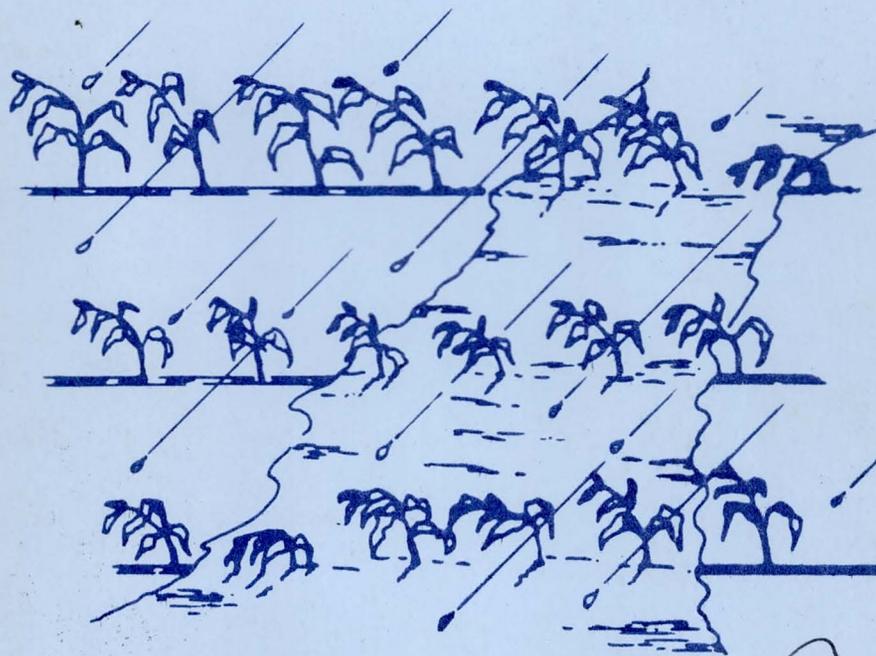


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# HARQUAHALA VALLEY

## FLOOD OF SEPTEMBER 24-26, 1976



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NOVEMBER , 1976

ARIZONA WATER COMMISSION

04.5-00-1-11176

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## HARQUAHALA VALLEY

Flood of September 24-26, 1976

Severe flooding occurred in Harquahala Valley on Friday evening September 24, 1976, and again on Sunday morning, September 26, 1976. Extensive damages resulted throughout the watershed. The flooding inundated approximately 3,800<sup>sq mi</sup> acres of prime agricultural land. Direct crop and road damages were high. Total damages were estimated to be about \$250,000.

The flood event that occurred on September 24-26, 1976, was estimated to have a recurrence interval of about once in four years. Heavy damages from a low frequency occurrence indicate the severity of the Harquahala flood problem. The Soil Conservation Service has proposed a P.L. 566 project that will furnish needed flood control protection to the Harquahala Valley. Had the project been constructed, all major flood damages would have been prevented.

A field flood evaluation of the watershed was initiated by the Flood Control District of Maricopa County (FCDMC), Soil Conservation Service (SCS), and the Arizona Water Commission (AWC). The resultant data are enclosed:

1. SCS trip report by R. McArthur, Harquahala Watershed - Flood Observation - Sept. 28-29, 1976.
2. Map showing approximate inundation area. (Flood of Sept. 24-26, 1976.)
3. Photographs and captions showing flood damages (Flood of Sept. 24-26, 1976).

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE River Basin-Watershed Planning Staff

Suite 326, Arizona Title Building, 111 W. Monroe St., Phoenix, AZ 85003

SUBJECT: WS - Harquahala Watershed - Trip Report of  
Flood Observations - September 28-29, 1976

DATE: October 15, 1976

TO: • Ronnie L. Clark  
RB/WP Staff Leader

On Monday, September 27, we received a telephone call from John Fronske, DC, Buckeye Field Office. He reported to Dick Reidhead that they had experienced flooding within the Harquahala Watershed on Friday night, September 24, and again Sunday morning, September 26.

We discussed the need for flood data and decided to drive into the area the next day. Tuesday, September 28, Dick Reidhead, Steve Erb, John Fronske, and I drove into the Eagle Tail and Harquahala Watersheds.

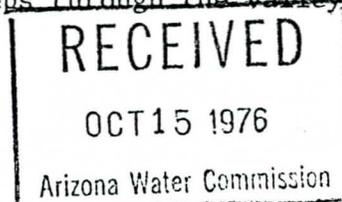
We observed the effects from minor flooding and related damages from runoff within the Eagle Tail Watershed. It appeared that the main damages were to road systems.

Harquahala Valley was more severely flooded with most of the water coming from Centennial Wash, but an appreciable amount from the Big Horn Mountains. Major flood damages appear to be land scouring and sedimentation, crop damages and road damages. Some of the farmland will require cleaning and releveling. The effected cropland will have some reduction in yields but the main impact will be the reduction in quality; this is especially true for cotton. Road damages were quite extensive. Farmers were busy repairing the less damaged roads but some of the more severely damaged roads will require hauling and rebuilding 200 to 800 foot stretches of roadway. There were several on-farm concrete ditches that were heavily damaged.

We looked at damages on the Frank Rogers, Clyde Tramps and Harry Porterfield farms. John Porterfield, son of Harry Porterfield, took us over their farm in his jeep. This farm was one of the most severely damaged.

At the conclusion of the day we decided that most of the effected area could still be seen from the air and aerial photos would be the most efficient way to map out the flooded area. John Fronske said he could meet with some of the effected landowners or operators and acquire flood damage information. Reidhead and Fronske took photos of damaged areas.

On Wednesday, September 29, I made arrangements with Chandler Flyers for a charter flight. We invited Bob Ward, FCDMC, and Steve Erb, AWC, to go along. We left Sky Harbor Airport at 1 p.m. and returned at 3:15 p.m. The flight followed a route taking us along the Gila River, up Centennial Wash to Harquahala Valley, four sweeps through the valley and out of the valley following Buckeye Road.



R.L. Clark  
October 15, 1976

2

Ward, Erb, and I took photos. I took about 60 photos which I have located on a map. Weaver, Reidhead, and I reviewed these and have sent them to the Arizona Water Commission. They have agreed to study them and map out the flooded area as well as possible.

*Robin P. McArthur*

Robin P. McArthur  
Hydraulic Engineer

cc:

John W. Peterson Asst. STC  
John Fronske, DC, Buckeye FO  
Steve Erb, AWC

John Weaver, Civil Engineer, RB/WP Staff  
Richard Reidhead, Jr., Agricultural Engineer, RB/WP Staff



Breach in distribution system.



Field road breach.



3

Main north-south drainage channel failure at Courthouse Road (looking northwest).



4

Breach in main north-south drainage channel at Courthouse Road (looking south).



Extensive sediment damage to cotton crop.

5



Looking northeast across Porterfield property.

6



7

Courthouse Road between Sections 6/31.



8

Looking southeast down Centennial Wash.



9

In addition to road and distribution system damage, sediment deposition will require removal and field re-leveling.



10

Damage to cotton field.



Breaches in irrigation canal.



Flooded field on Porterfield property.



13

Water overtopped from road resulting in extensive damage to distribution system.



14

Area of extensive floodwater inundation.



Damage to farm road and distribution system.

15



Sediment damage is evident.

16



17

Drainage ditch failure.



18

Area of extensive floodwater damage.



Sediment damage to cotton crop.

19



Looking southwest, Porterfield property below.

20



*Photo Missing*

Damage in adjacent Tonopah Watershed.