



MEMORANDUM

Date: March 26, 2018

To: The Honorable Richard Elías, Chairman
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to read "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Santa Cruz River Sedimentation**

As an example for the need to restore the Santa Cruz River (SCR) capacity, I am attaching recent photographs taken by Region Flood Control District staff regarding the Caterpillar storm drain outlet into the SCR, which was planned and constructed based on the original channel bottom elevation of the SCR. Design shows that the outlet should be six feet above the bottom of the SCR. Based on the existing sedimentation, it is actually buried by three feet of sediment. This will become a stagnate pond and a potential health hazard for mosquito breeding and host for the Zika virus. This is just another example of serious problems due to lack of adequate flood flow capacity in the SCR.

CHH/lab

Attachments

c: Carmine DeBonis, Deputy County Administrator for Public Works
Suzanne Shields, Director, Regional Flood Control District
Andy Dinauer, Regional Flood Control District

Monica Perez

From: Monica Perez on behalf of Chuck Huckelberry
Sent: Friday, March 23, 2018 11:01 AM
To: Monica Perez
Subject: FW: Caterpillar Storm Drain Outlet vrs Santa Cruz River Sedimentatioin
Attachments: IMG_0095.jpg; IMG_0098.jpg; IMG_0097.jpg; IMG_0094.jpg;
DOC032318-03232018102725.pdf

From: Andy Dinauer
Sent: Friday, March 23, 2018 10:55 AM
To: Chuck Huckelberry <Chuck.Huckelberry@pima.gov>; Carmine DeBonis <Carmine.DeBonis@pima.gov>
Cc: Suzanne Shields <Suzanne.Shields@pima.gov>; Eric Shepp <Eric.Shepp@pima.gov>
Subject: Caterpillar Storm Drain Outlet vrs Santa Cruz River Sedimentatioin

As requested:

Attachments 1 and 2 show sedimentation levels adjacent to the respective north & south outlet headwalls for the Caterpillar storm drain.

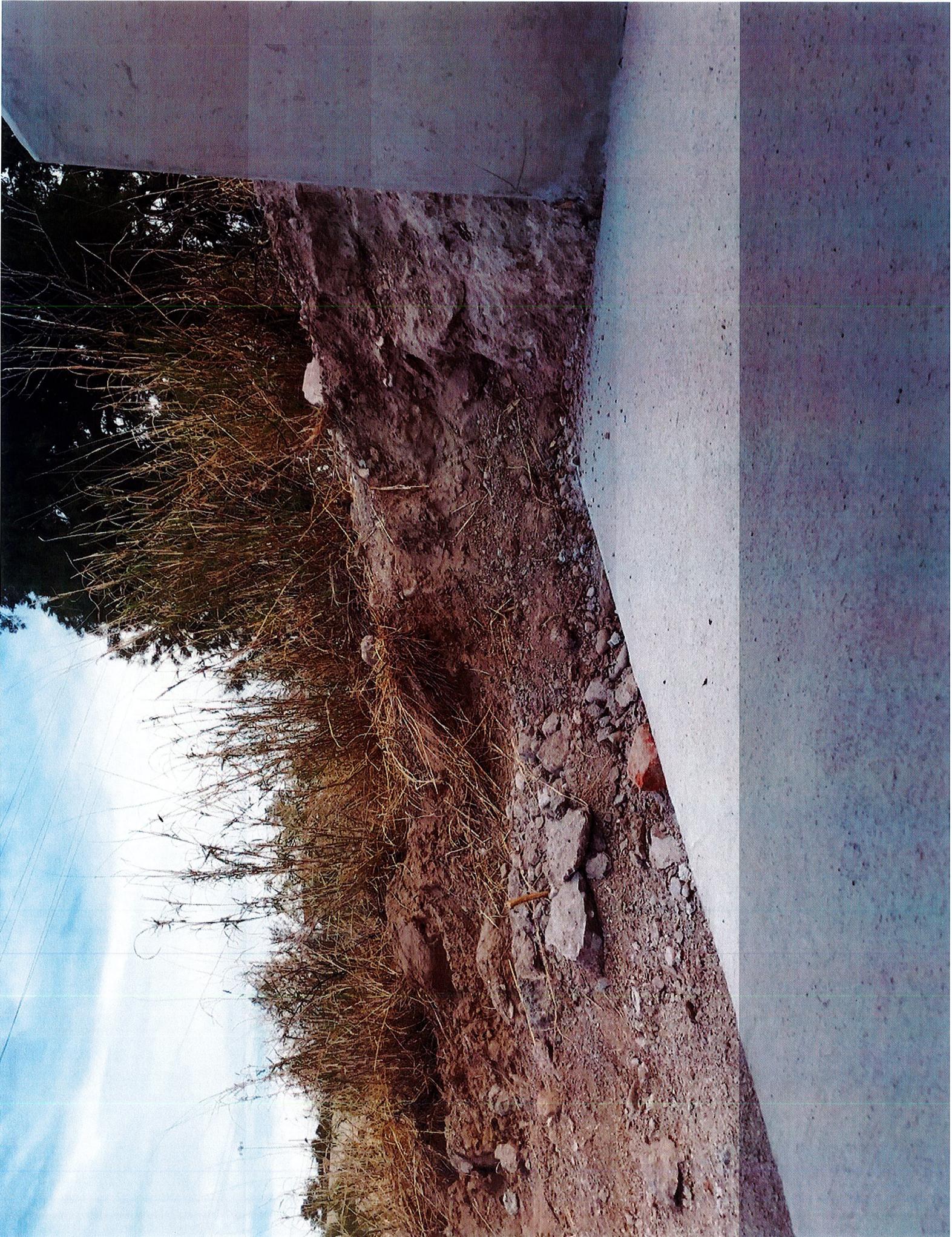
Attachment 3 is a (eye-level) view from the Caterpillar storm drain outlet apron to the east bank of the Santa Cruz River (this photo shows the Santa Cruz sedimentation level will result in a pond at the Caterpillar storm drain outlet when in fact the outlet invert is designed to be 6' above the Santa Cruz River channel bottom).

Attachment 4 is a westward view looking back at the Caterpillar storm drain outlet pipes (the Santa Cruz River channel bottom should actually be 6' below the bottom of the outlet pipes, not 3' above the pipes as can be seen by the vegetation levels to the left and right of the outlet headwalls).

Attachment 5 is a cross-section of the existing condition for the Caterpillar storm drain outlet as it relates to the existing conditions (sediment levels) in the Santa Cruz River channel.





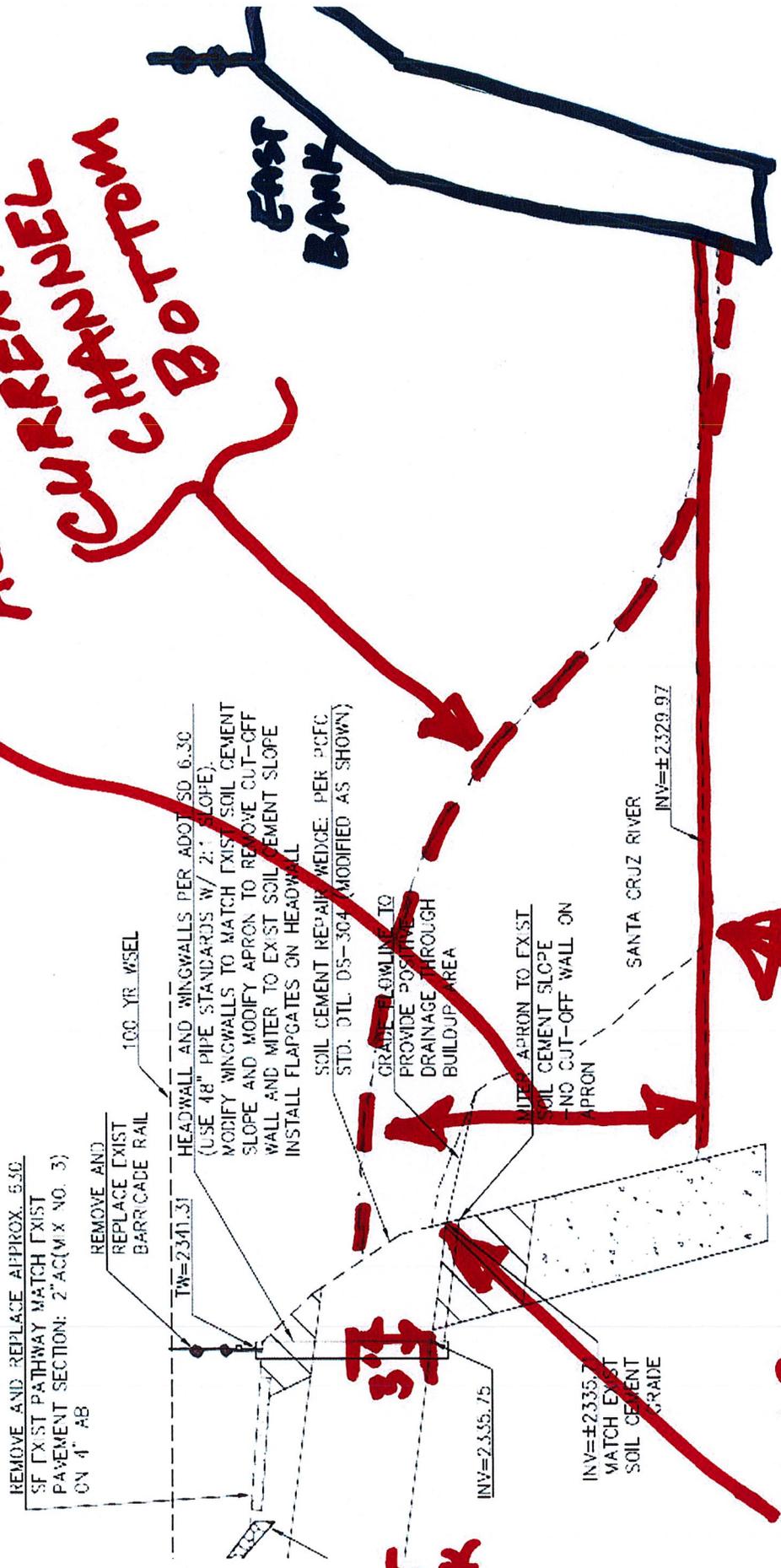




**8' OF SEDIMENT!
CURRENT CHANNEL
BOTTOM**

**EAST
BANK**

**CHANNEL BOTTOM
SHOULD BE HERE**



3'

**WEST
BANK**

**CATERPILLAR
OUTLET SHOULD BE
6' ABOVE CHANNEL
BOTTOM BUT IS BURIED
IN 3' OF SEDIMENT**

REMOVE AND REPLACE APPROX. 5.50
SF EXIST PATHWAY MATCH EXIST
PAVEMENT SECTION: 2" AC (MIX NO. 3)
ON 4" AB

REMOVE AND
REPLACE EXIST
BARRICADE RAIL

TW=2341.31

HEADWALL AND WINGWALLS PER ADOT SD 6.30
(USE 48" PIPE STANDARDS W/ 2:1 SLOPE).
MODIFY WINGWALLS TO MATCH EXIST SOIL CEMENT
SLOPE AND MODIFY APRON TO REMOVE CUT-OFF
WALL AND MITER TO EXIST SOIL CEMENT SLOPE
INSTALL FLAPGATES ON HEADWALL

SOIL CEMENT REPAIR WEDGE PER PCFC
STD. DET. DS-304 (MODIFIED AS SHOWN)

GRADE FLOWLINE TO
PROVIDE POSITIVE
DRAINAGE THROUGH
BUILDUP AREA

MITER APRON TO EXIST
SOIL CEMENT SLOPE
AND CUT-OFF WALL ON
APRON

SANTA CRUZ RIVER

INV=±2329.97

INV=±2355.75

INV=±2335.7
MATCH EXIST
SOIL CEMENT
GRADE