MEMORANDUM

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

From: C.H. Huckelberry  
County Administrator

Re: Santa Cruz River Sedimentation

Date: March 26, 2018

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 stagnant 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
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 Sedimentation
Attachments:
IMG_0095.jpg; IMG_0098.jpg; IMG_0097.jpg; IMG_0094.jpg
DOCO32318-03232018102725.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 Sedimentation

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

CHANNEL BOTTOM SHOULD BE HERE

8' OF AGGERATION!

CURRENT CHANNEL BOTTOM

WEST BANK

8' WSEL

HEADWALL AND WINGWALLS PER ADOPT 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 METER TO EXIST SOIL CEMENT SLOPE
INSTALL FLAPGATES ON HEADWALL
SOIL CEMENT REPAIR WEDGE PER PCFC STD. DL-5504 (MODIFIED AS SHOWN)
GRADE SLOWLY TO PROVIDE POSITIVE DRAINAGE THROUGH BUILDUP AREA
WRITE APRON TO EXIST SOIL CEMENT SLOPE NO CUT-OFF WALL ON APRON

SANTA CRUZ RIVER
INV=+2329.07

EAST BANK