

From: Marek, Todd - NRCS, Temple, TX
To: jhalliburton@pccd.org
Subject: RE: Site 21 Erosion
Date: Friday, July 1, 2016 11:29:34 AM

Johnie,

Yes, please send me any additional pictures you take and any additional information you find out about these holes. I wish you a Happy Independence Day! How is your father doing, Dan mentioned a couple weeks ago that you were away from the office so that you could care for him?

Todd

Todd Marek
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From: jhalliburton@pccd.org [mailto:jhalliburton@pccd.org]
Sent: Friday, July 01, 2016 11:11 AM
To: Marek, Todd - NRCS, Temple, TX <Todd.Marek@tx.usda.gov>
Subject: RE: Site 21 Erosion

Todd,

Thank you for the information. Yes, it is two separate holes. After driving around it and then inspecting the site, I realized I had straddled a hole about 14 inches in diameter with my truck tires. It was in a possible tunnel leading to the main hole. Above the hole on the berm I found a second hole. They didn't appear to be connected but I did not check that close. It is a lot of grass in that area since the rains. Looking below the holes in the spillway bottom, it didn't appear to be much eroded dirt there and it was grassed over real good. It sure didn't appear to be enough soil below the holes to make up for what was lost. I just figured the dirt was suspended in water carried down the spillway and settled out over a much larger area. I am surprised the truck driver didn't say he saw two holes instead of one. But, I'm sure they were both there at the time. Again, I was shocked when I saw them. I just did not think we had enough rain in that area to cause damage like that. Heck, the structure has been like it is since 1962. I will check it closer next week. I am here today by myself keeping the office open. I will try to send you more pics if that is okay with you after I check it closer.

For what it is worth, I sent the same pics to our attorneys since this is the site causing so much controversy because of the proposed landfill. They may find some merit in it that I don't.

As always, thanks for your help and suggestions.

Johnie

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From: Marek, Todd - NRCS, Temple, TX [<mailto:Todd.Marek@tx.usda.gov>]
Sent: Friday, July 01, 2016 10:00 AM
To: jhalliburton@pccd.org; Hrebik, John - NRCS, Temple, TX
Subject: RE: Site 21 Erosion

Johnie,

Thanks for the pictures. Yeah, this is an odd occurrence and odd location for this to occur. I have to say I have not seen holes like this in the top of an auxiliary spillway berm before either, but I have seen similar around an embankment or auxiliary spillway. I do not think it is from water running across the ground surface, but rather from internal movement of soil into either a deep drying (desiccation) crack (most likely), some type of unidentified very pervious gravel seam beneath the berm or a void or depression that was not compacted well and got covered over during construction (least likely). But, I think if it was the latter, it would have shown up before now.

It looks like there are two separate holes, is that right? If there are two, did you happen to notice if when you line the two holes up by their respective centers there is a crack in the soil surface that connects them or is anywhere around them? Did you happen to see any place where it looked like soil maybe was freshly deposited in a delta type pattern at the base of the berm either on the outside where it blends into natural ground or where the bottom of the auxiliary spillway starts?

My suggestion would be to look around the holes for cracks and even soil probe some likely areas for a crack or other type of void. I would also try to probe the bottom of the holes for areas of easy penetration. Look around the adjacent area for similar holes maybe 50, 100 or 200 ft from these holes or cracks even. Document whatever is found or that nothing was found, where similar holes were looked for, where these holes are or are not, where cracks are or are not, to create a written record of the occurrence. If cracks or voids are found in the bottom of the existing holes, the following repair suggestion would be modified slightly by the addition of a sand or maybe even gravel first, then the compacted soil material.

I would suggest then to slope the sides back of the holes to create a new shape of the holes to look like a funnel. Then bring good quality fill dirt in placing it in the funnel shaped holes a layer at a time (no more than 12 inch thick), heavily compacting each layer to within 6 inches of the surrounding ground surface and in those 6 inches place good topsoil. Then depending on what grass type is growing around the holes, like grass seed can be sown onto the topsoil or maybe Bermuda springs

could be hand sprigged into the topsoil and then the topsoil compacted lightly.

If you have any questions, please let me know.

Todd

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From: jhalliburton@pccd.org [mailto:jhalliburton@pccd.org]

Sent: Thursday, June 30, 2016 3:36 PM

To: Marek, Todd - NRCS, Temple, TX <Todd.Marek@tx.usda.gov>; Hrebik, John - NRCS, Temple, TX <John.Hrebik@tx.usda.gov>

Subject: FW: Site 21 Erosion

Todd,

Just wanted to share this with you. Fertilizer truck driver spotted this erosion in his path on the outside berm of the auxiliary spillway. Hadn't had anything like this before. I guess it was from the flood. This site did not run around. It is site 21 where the proposed landfill property will be situated. It is almost like a tunnel under it. More material is soon to cave in. Like I said, never had a berm problem like this.

Johnie

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From: info@pccd.org [mailto:info@pccd.org]

Sent: Thursday, June 30, 2016 3:14 PM

To: Johnie Halliburton

Subject:

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