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MCRD PARRIS ISLAND
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EMAIL REGARDING U S EPA REGION IV COMMENTS ON OUTFALL ASSESSMENT AT SITE 14 STORM SEWER OUTFALLS MCRD PARRIS ISLAND SC
7/28/2009
U S EPA REGION IV

From: Llamas.Lila@epamail.epa.gov
To: Priscilla Wendt
Cc: Meredith Amick; Susan Byrd; Charles Cook; Heber Pittman; Annie Gerry; Sladic, Mark; Mac McRae; Pat Franklin; Churchill, Peggy; Timothy Harrington; Tom.Dillon@noaa.gov
Subject: RE: MCRD Outfall Assessment
Date: Tuesday, July 28, 2009 5:37:35 PM

Hi Folks,

I just spoke with Don Vroblesky regarding groundwater infiltration into the stormwater drains and tidal influences. Don will be a good source to go to when and if the time comes to discuss the timing of outfall "pipe water" sampling. He can explain to us what he observed at Site 45 during his storm water drain study and outfall sampling, and can help us think through what we need to know about other locations to determine when it is most appropriate to sample them, depending on what we are looking to sample from the pipe (groundwater, stormwater, tidal waters, etc.)

Lila

"Priscilla Wendt" <WendtP@dnr.sc.gov>
07/28/2009 11:17 AM

To
"Meredith Amick" <AmickMS@dhec.sc.gov>, Lila Llamas/R4/USEPA/US@EPA

cc
"Susan Byrd" <BYRDSK@dhec.sc.gov>, "Annie Gerry" <GerryAM@dhec.sc.gov>, "Pat Franklin" <pat.franklin@mail.com>, "Charles Cook" <charles.cook2@navy.mil>, <Tom.Dillon@noaa.gov>, "Mac McRae" <mmcrae@TechLawInc.com>, "Mark Sladic" <Mark.Sladic@tetratech.com>, "Peggy Churchill" <Peggy.Churchill@tetratech.com>, "Heber Pittman" <darrel.pittman@usmc.mil>, "Timothy Harrington" <timothy.j.harrington@usmc.mil>

Subject
RE: MCRD Outfall Assessment

You're welcome, Meredith, but I am not sure if we are recommending the same thing. What I really think would be most informative is to sample the undiluted "first-flush" (within the first half-hour) effluent from each outfall during one (or, preferably, a few) rainfall events, before the effluent enters the receiving water body. My guess is that sampling the ambient surface water near the outfall pipe is not likely to show anything because of dilution. If there is groundwater discharge to some of the outfalls due to breaches in the stormwater system, I would think there would be a continuous discharge from the affected outfall, which is not dependent on rainfall and which could be sampled at any time. (I'm not a hydrogeologist, though, so I don't know if that is a correct assumption).

Priscilla

-----Original Message-----
From: Meredith Amick [mailto:AmickMS@dhec.sc.gov]
Sent: Tuesday, July 28, 2009 10:08 AM
To: Priscilla Wendt; Llamas.Lila@epamail.epa.gov
Cc: Susan Byrd; Annie Gerry; Pat Franklin; Charles Cook; Tom.Dillon@noaa.gov; Mac McRae; Mark Sladic; Peggy Churchill; Heber Pittman; Timothy Harrington
Subject: RE: MCRD Outfall Assessment

Priscilla, thanks for your input supporting the Department's suggestion of collecting surface water samples at the outfalls. The team will surely benefit from your technical experience.

Lila, the DHEC team (Susan, Annie and I) does not understand why EPA is willing to concur with DNR's suggestion but did not concur with the same general technical concept when first presented by DHEC (see attached email).

Meredith

>>> <Llamas.Lila@epamail.epa.gov> 7/24/2009 6:10 PM >>>
Thanks Priscilla! I did not see this before I sent what I just sent. That was more than two cents worth. I really think we could benefit from you and Tom being involved in our discussions as they take place. Think about it, if your schedule will allow.

Thanks,
Lila

"Priscilla Wendt" <WendtP@dnr.sc.gov> 07/24/2009 11:59

To "Sladic, Mark" <Mark.Sladic@tetratech.com>, "Meredith Amick"

AM <amickms@dhec.sc.gov>, "Annie Gerry" <GerryAM@dhec.sc.gov>, Lila Llamas/R4/USEPA/US@EPA, "Pat Franklin" <pat.franklin@mail.com>, "Charles Cook" <charles.cook2@navy.mil>, <Tom.Dillon@noaa.gov>, "Mac McRae" <mmcrae@TechLawInc.com>, "Heber Pittman" <darrel.pittman@usmc.mil>, "Timothy Harrington" <timothy.j.harrington@usmc.mil>

cc

"Susan Byrd" <BYRDSK@dhec.sc.gov>, "Churchill, Peggy" <Peggy.Churchill@tetratech.com>

Subject

RE: MCRD Outfall Assessment

Hi, Team,

I don't recall if I ever saw the results of the stormwater study at the Charleston Naval Base. I checked my files, and can't find any record of having reviewed or commented on those results.

In any case, I would agree that sediments certainly can move around in a

tidal environment, and the sediments immediately adjacent to a stormwater outfall may not reflect contaminants in the stormwater itself, particularly if large volumes of stormwater causing local scouring are discharged into large coastal rivers (where one would expect tidal currents to be strongest). In those cases, sampling the "first-flush" of undiluted stormwater (if it can be sampled before it discharges into the receiving water body) would at least provide some indication of ongoing contaminant releases that could be related to up-gradient sources.

Nevertheless, I think there is still some value in sampling sediments in depositional areas (characterized by fine-grained sediments) located near, but not necessarily immediately adjacent to, the outfalls. This approach would be most useful where stormwater outfalls discharge into relatively low-energy environments, such as small tidal creeks, tidal flats, or vegetated saltmarsh. If contaminant levels in both the stormwater itself and the sediments near the outfall don't exceed any ecological benchmarks, then I would say that a determination of "no further action" with respect to the stormwater would be warranted.

If contaminant levels in the stormwater exceed chronic effects values (but not acute effects values), or contaminant levels in the nearby sediments exceed threshold effects levels (but not probable effects levels), you could compare contaminant levels in sediments and stormwater among the three categories of "marsh" outfalls, as identified in the "OUTFALL ASSESSMENT FOR MARINE CORPS RECRUIT DEPOT – PARRIS ISLAND -PRELIMINARY DATA SUMMARY – REVISION 1": 1) those draining "open"
areas
(presumably, stormwater basins that are mostly vegetated and contain relatively little impervious surface area); 2) those draining driveways, sidewalks, parking areas, roadways, and airfields; and 3) those draining "process units" or "Areas of Concern". If you don't detect any significant difference in contaminant levels in the stormwater or sediments among these three categories of drainage basins, then I would say that a determination of "no further action" with respect to the stormwater would still be warranted.

If contaminant levels in stormwater exceed acute effects values, or contaminant levels in nearby sediments from depositional areas exceed probable effects values, then I would say that a full-scale investigation with more intensive sampling of both media, as well as source determination, would be warranted.

That's my two cents!

Priscilla

-----Original Message-----
From: Sladic, Mark [mailto:Mark.Sladic@tetratech.com]
Sent: Friday, July 24, 2009 7:40 AM
To: Meredith Amick; Annie Gerry; Priscilla Wendt; llamas.lila@epa.gov; Pat Franklin; Charles Cook; Tom.Dillon@noaa.gov; Mac McRae; Heber Pittman; Timothy Harrington
Cc: Susan Byrd; Churchill, Peggy
Subject: RE: MCRD Outfall Assessment

Thanks for the note Meredith. Susan Byrd and I also talked about this study for a while the other day. I think Susan thought that Tom Dillon

and Priscilla might already have some familiarity with the CNC study. If that's the case, we certainly need to look into any commentary that Priscilla and Tom can provide on the applicability of the CNC study for the work at Parris Island. (I left Susan's note attached to this reply).

While inviting Susan to correct any mis-statements I'm about to make, I will say that Susan and I did discuss that what was driving the need to evaluate Site 14 was the anecdotal reporting (and possible unreported occurrences) of miscellaneous historic releases to the storm sewer network, as discussed in the IAS/RFA or other documents. Susan said that even so, because of the transient nature of the sediments, there is not necessarily going to be adequate correlation between any sediment detections and what might/might not have been released up-pipe, and that the CNC study provides significant support of this opinion. For tidally influenced storm water systems (as we know is the case at MCRD), the study even addresses the inability to associate sediment in the network to process releases since it could have been deposited tidally. Once in acceptance of the CNC data, the study concludes that the only meaningful data collection would be that resulting from the storm water discharge. Susan and I discussed that while the actual goal for Parris, based on the IAS/RFI, would be to identify non-continuing, historic releases, Susan feels the CNC study indicates that this doesn't change the CNC conclusions that sampling sediment outside an outfall discharge will not meet that goal.

However we proceed, we probably also need to consider the Depot's ongoing participation in the existing general storm water permit program, and its associated conditions.

Thanks.

Mark Sladic, P.E.
Project Manager
TETRA TECH NUS, Inc.
Telephone: (412) 921-8216
mark.sladic@tetratech.com

-----Original Message-----
From: Meredith Amick [mailto:amickms@dhec.sc.gov]
Sent: Thursday, July 23, 2009 11:31 AM
To: Annie Gerry; Priscilla Wendt; llamas.lila@epa.gov; Pat Franklin; Charles Cook; Tom.Dillon@noaa.gov; Mac McRae; Sladic, Mark; Heber Pittman; Timothy Harrington
Subject: Fwd: MCRD Outfall Assessment

Hi team,

I've been out of town at Myrtle Beach for another team meeting and am just getting back into the office. [Another trip to "the beach," what a glamourous job...how did I get so lucky?] I'm finally digging out from my email avalanche and found this. I'm forwarding a message from Susan that she wrote me after reviewing the Site 14 Preliminary Data Summary. This is just a heads up and a fulfillment of part of an action item that I had about talking with other PMs about outfall sampling at other

bases. Susan, although not the PM at CNC at the time, was the lead on the outfalls project at CNC b/c of the Eco issues.

I hope to have my comments to the Preliminary Data Summary out to the team by Monday and this will be a main part of those comments.

Let me know if you have questions.
Meredith