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Delivered Date: 07/02/2012 05:44 PM EDT

Subject: FW: South Terminal Project in New Bedford, MA - FEMA's review of potential floodplain fillings impacts (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mike, Scott, and Mike:

Enclosed for your records is a copy of David Knowles of FEMA's comments regarding potential floodplain impacts associated with the South Terminal Project in New Bedford, Massachusetts. Please let me know if you have any outstanding concerns with potential floodplain impacts associated with this project. Thanks.

Paul Sneeringer
(978) 505-9216

-----Original Message-----

From: Knowles, David [mailto:David.Knowles@fema.dhs.gov]

Sent: Thursday, June 21, 2012 3:54 PM

To: William Walshrogalski

Cc: Sneeringer, Paul J NAE; Richard (e-mail) Zingarelli; Grace, John; Bogdan, Kerry; Mendelsohn, David; Goetz, Mike

Subject: RE: New Bedford Harbor Superfund Site

Bill

After reading through your email, I am sticking with what I said during our discussion earlier this week. As far as I am aware, there would have been no updated analyses for the interior flooding behind the hurricane barrier. In general, whatever analyses were performed in the past were likely performed to a level of accuracy well below the scrutiny of the filling that is evident from your write-up. Unless map revisions (or even just submittals of data to FEMA) were performed through the years for the interior flooding aspects behind the barrier, there has been

nothing taken into account (no changes) by FEMA as far as filling and material removal goes behind the barrier (levee) for the effective flood insurance study for Bristol County. If anyone that is copied on this knows better, please let me know.

In any case, based on the policy developed with the CORPS in working with the MA DOT, it is unlikely that any FEMA actions would take place due to the quantity of fill involved. Given today's standards, if FEMA were analyzing interior flood elevations behind the "levee", there is a possibility that FEMA may show the area as essentially a floodway in order to limit actions that could raise the elevation of the base flood behind the barrier (due to runoff flooding while the barrier is closed) more than one foot. But therein lies the key to whether it is important to be looking at a 0.164 foot rise due to filling. Even if some kind of "floodway" computation had taken place in the past, rerunning the computation right now with all of the changes that have likely occurred since FEMA analyzed the flooding currently shown on the Flood Insurance Rate Map, would likely indicate not even close to a one foot rise in the base flood elevation within the harbor.

In summary, I see no reason to think that submittal of data to FEMA for the filling that is proposed would result in any change to the mapping. That's not to say that the information is not important. In fact, any revisions to the floodplain that result in changes to the base flood elevation are supposed to be provided to FEMA. It's just that, in this particular situation, it is not likely that all of the changes, as a cumulative effect to date, would result in any mapping effort on FEMA's part.

It would appear, like I indicated during our conversation, that it is likely going to be up to the state, itself, to determine if the action is allowable under the state regulations, based on prior actions (or proposed mitigation) and how they were handled in the past.

Thank you for contacting FEMA.

Dave

David R. Knowles, P.E.

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From: William Walshrogalski
[mailto:Walshrogalski.William@epamail.epa.gov]
Sent: Friday, June 15, 2012 2:12 PM
To: david.knowles@dhs.gov
Cc: Ann Williams; Cynthia Catri; Mike Marsh
Subject: New Bedford Harbor Superfund Site

David:

I am an attorney with EPA Region 1 and working on the State Enhanced Remedy, so-called, at the New Bedford Harbor Superfund site. I have been consulting with Paul Sneeringer of the Corp of Engineers, who suggested you would be a helpful contact for issues related to floodplains.

The State Enhanced Remedy calls for dredging of a navigational channel and disposal of the spoils in a contained disposal facility just north of the harbor's hurricane barrier. The State is also proposing several other components to their enhanced remedy, such as reconstruction of a drainage swale, that may have floodplain impacts, though of lesser magnitude than the contained disposal facility.

The State's application to EPA provides the following commentary:

The analysis indicates that 44,100 cubic yards of fill equates to approximately 27.33 acre feet of fill material that will be placed between elevation +2.0 and elevation +6.0 NGVD due to the South Terminal CDF project. Therefore, 27.33 acre-feet of flood storage loss equates to a rise in project design flood level of approximately 0.01367 feet, or 0.164 inches.

In order to illustrate the impact that a 0.164 inch change in flood elevation would have upon the City of New Bedford, a location was chosen within New Bedford upon which to assess the impact of the vertical change in flood storage elevation (a location at North Terminal along the 114 New Bedford waterfront). A plan of the location and a cross-section of the area is attached as Appendix 48. The FEMA flood map shows that the 100-year flood elevation within New Bedford Harbor is at the elevation of +5 NAVD 88. The location in question was chosen because the area is relatively flat and is near in elevation to the FEMA 100-year flood elevation (between +4 and +6 NAVD 88); therefore, a change in flood elevation is most likely to have the greatest horizontal change in flood waterencroachment in this location, and other locations are likely to be impacted less than this location. As can be seen on the cross-section, a vertical change in flood elevation of +0.164 inches, results, in one instance, in a corresponding horizontal flood encroachment of

11.28 inches. Please note that this represents the horizontal encroachment during a worst-case flooding event, and is analyzed at a representative worst-case location, where the flood elevation occurs within a flat area; other areas within New Bedford Harbor typically display a steeper grade at this flood elevation (and in most cases a much steeper grade). Thus, other areas within New Bedford Harbor should see significantly less encroachment (if any), either because the 100 year flood elevation is below existing land elevation, or because existing land elevation is steeper than the relatively flat study location.

Therefore, the anticipated rise in flood elevation due to filling due to construction of the South Terminal CDF is unlikely to have an adverse impact to the surrounding floodplain[emphasis added]

Do you accept the State's conclusion that the anticipated rise in flood elevation is unlikely to have an adverse impact to the surrounding floodplain?

In your recently devised FEMA maps, did you take into account reduced flood storage capacity that would result from the State's enhanced remedy or increased flood storage capacity from the recent work at Marsh Island and the Steamship Authority properties involving the excavation of material and/or the removal of obstructions.

Do you know whether the work at Marsh Island and Steamship Authority was counted as mitigation against any other projects such as federal, state, municipal or private actions affecting flood storage capacity?

I would very much appreciate any help you could provide on these questions. If you would prefer to discuss this by phone, please let me know your number and a good time to call. Or you can call me at 617-918-1035.

Thanks,
Bill Walsh-Rogalski

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Caveats: NONE