

Addendum to the Final Independent External Peer Review Report Mamaroneck and Sheldrake River Basin, Village of Mamaroneck Westchester County, NY Flood Risk Management General Reevaluation Report

Prepared by
Battelle Memorial Institute

Prepared for
Department of the Army
U.S. Army Corps of Engineers
Flood Risk Management Planning Center of Expertise
Baltimore District

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Mamaroneck and Sheldrake River Basin,
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Flood Risk Management General Reevaluation Report

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LIST OF ACRONYMS

DEIS	Draft Environmental Impact Statement
DrChecks	Design Review and Checking System
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
NED	National Economic Development
NEPA	National Environmental Policy Act
USACE	United States Army Corps of Engineers

1. INTRODUCTION

This addendum is a supplement to the Final Independent External Peer Review Report for the Mamaroneck and Sheldrake River Basin, Village of Mamaroneck Westchester County, NY, Flood Risk Management General Reevaluation Report (GRR) (hereinafter: Mamaroneck-Sheldrake IEPR) submitted on August 6, 2015, by Battelle. It was prepared to document activities associated with the IEPR Panel's review of the public comments on the Mamaroneck-Sheldrake GRR and appendices, which included the Draft Environmental Impact Statement (DEIS).

This addendum contains three additional Final Panel Comments (presented in Section 3) and briefly details the IEPR process that determined the need for, and led to the generation of, these comments. The Final Panel Comments in this addendum are numbered 27, 28, and 29, continuing the Final Panel Comment numbering presented in the Mamaroneck-Sheldrake Final IEPR Report, which stopped at Final Panel Comment 26.

2. METHODS

This section summarizes the activities associated with the review of the public and agency comments conducted for this project.

Battelle received electronic versions of the public comments from the U.S. Army Corps of Engineers (USACE) on April 15, 2016 and April 20, 2016. Prior to sending the public comments to Battelle, USACE organized them by topic and source (agency or resident) and provided a summary of the public comments in an Excel sheet. In addition to this summary, USACE provided all complete public comments as references, in the event the Panel wanted to review the complete version of any particular comment.

Each panel member was asked to independently determine whether the public comments contained any additional scientific or technical concerns regarding the project which were not previously identified and which should be addressed by USACE in the GRR and/or appendices. The Panel was charged with focusing on discipline-specific scientific and technical issues and not policy-related comments.

Comments provided by state and Federal agencies were provided to the Panel as "For Information Only." Battelle understands that under the National Environmental Policy Act (NEPA), USACE must address state and Federal agency comments as part of the consultation process; therefore, issues brought up by these agencies and USACE's subsequent responses were considered policy related. However, if issues noted in the public letters were also discussed in the agency letters, the Panel noted the agency letters as well.

The five Mamaroneck-Sheldrake IEPR panel members received the public and agency comments from Battelle on April 25, 2016. The panel members reviewed comment letters from state and Federal agencies as well as emails, letters, and comment cards from a variety of companies, non-profit organizations, and members of the general public. The Mamaroneck-Sheldrake IEPR panel members were required to answer one charge question with regard to the public comments:

1. Does information or do concerns raised in the public comments raise any additional discipline-specific technical concerns with regard to the overall report?

The panel members submitted responses to this charge question, and Battelle reviewed those responses to identify any issues, areas of potential conflict, and other overall impressions. Each panel member's

individual comments were shared with the full Panel in a merged individual comments table. Battelle then facilitated a brief teleconference discussion with the panel members to discuss the identified issues.

Based on the Panel's review, most of the public comments fell into the category of policy-related issues or were issues discussed in previous Final Panel Comments submitted in the Mamaroneck-Sheldrake IEPR Final Report. Issues noted in the public comments, but were already covered in previous Final Panel Comments included issues related to downstream impacts of the project, tidal assumptions used in the hydraulic modeling, and the project design, specifically with regard to whether the design resembles "natural" conditions. The Panel did not repeat these concerns in this addendum. The panel members identified three issues within the public comments that needed additional clarifying information in order to strengthen the GRR and/or appendices; these three issues are presented in the Final Panel Comments in Section 3.

All panel members reviewed and provided input on the issues discussed in Final Panel Comments 27, 28, and 29 (presented in Section 3 of this addendum). Battelle prepared this addendum and conducted a final review and edit of the Final Panel Comments for clarity and consistency. There was no direct communication between the Panel and USACE during the review and preparation of these Final Panel Comments.

Battelle will enter Final Panel Comments 27, 28, and 29 into USACE's Design Review and Checking System (DrChecks), a Web-based software system for documenting and sharing comments on reports and design documents, so that USACE can review and respond to them. USACE will provide Evaluator Responses to the three Final Panel Comments, and the Panel will respond via BackCheck Responses to the Evaluator Responses. The USACE and Panel responses will be documented in DrChecks. Battelle will provide USACE and the Panel with a pdf printout of all DrChecks entries, through comment closeout, as a final deliverable and record of the results of the IEPR and the public and agency comment review.

3. FINAL PANEL COMMENTS

This section presents the full text of Final Panel Comments 27, 28, and 29 prepared by the Mamaroneck-Sheldrake IEPR panel members.

Final Panel Comment 27

Although the project can affect and be affected by local groundwater conditions, only limited information on local groundwater conditions and impacts was available in the project documents.

Basis for Comment

Several public comments raised the issue of the project leading to high local groundwater levels in the vicinity of the project. The GRR states, “The Selected Plan will have no significant adverse cumulative impacts on regional hydrogeology, groundwater resources, or tidal influences, and is expected to produce long-term benefits to water quality by decreasing storm-related erosion and sedimentation” (p. 32-3). However, the DEIS does not present information on local groundwater conditions to support this statement because “No [U.S. Geological Survey] or Westchester County groundwater monitoring wells or data were identified for the study area” (p. 41).

While the Panel agrees that the GRR statement regarding impacts to regional hydrogeology and groundwater resources is likely to be accurate, it is not clear that more localized groundwater conditions were assessed, particularly in light of the absence of information from groundwater monitoring wells. Therefore, it appears that there may be a data gap in the understanding of local groundwater conditions. High local groundwater could have potential implications for construction-phase water control, temporary support-of-excavation design, permanent retaining wall design, and slope stability. A lack of information on local groundwater conditions can be addressed by adopting conservative assumptions for the purposes of design, but this approach could lead to increased costs. The project itself could potentially provide a benefit through improved drainage resulting in the lowering of the local groundwater table which may mitigate or reduce local nuisance flooding.

Significance – Medium/Low

Because data on local groundwater conditions are not provided nor analyzed in the project documents, the description of project conditions and potential benefits is incomplete.

Recommendation for Resolution

1. Review currently available geotechnical data and other publicly available information, if any, and provide additional discussion in the GRR and DEIS of local groundwater conditions.
2. Describe in the GRR what assumptions have been used to facilitate project design in light of the lack of local groundwater data.
3. Describe in the GRR what methods may be used in future project phases to obtain additional local groundwater data.
4. Describe in the GRR and DEIS the potential benefits, if any, the project could have in mitigating nuisance flooding caused by locally high groundwater tables.

Final Panel Comment 28

Based on the public comments, it is unclear why the footbridges need to be removed and why mitigation measures for these impacts are not provided.

Basis for Comment

Several public comments mention that residents use the footbridges that USACE proposes to remove from the area as part of the proposed alternative. The DEIS states, “The Proposed Action will produce short-term minor adverse impacts to recreation from construction activities and the use of Columbus Park as a staging area, as well as long-term moderate adverse impacts to recreation resulting from the permanent removal of three pedestrian footbridges.” (p. iv). However, no discussion of mitigation measures is provided. Table 1 (p. 23) describes Alternative 1 as removing and replacing two footbridges, but no discussion is provided as to why the footbridges will not be replaced under the National Economic Development (NED) Plan (Alternative 1F) as described in Section 2.3.1 (p. 26). The DEIS describes the impacts of Alternative 1 in detail: “Long-term moderate adverse impacts are expected to result from the removal of two footbridges in Columbus Park. The park is bisected by the Sheldrake River; thus the two footbridges enable pedestrians and park visitors to easily access and move between the two park areas. Both footbridges also are frequently used by commuters who park in the lot at the northwest corner of the park (at Jefferson Avenue and Van Ranst Place) and then walk through Columbus Park and across the footbridges to Station Plaza. With the footbridges permanently removed, pedestrians will have to walk on sidewalks around the park perimeter in order to cross Sheldrake River.” (p. 100). However, no mitigation is offered for this impact.

Significance – Medium/Low

Additional information in the project documentation about why the removal of the footbridges is necessary would strengthen the analysis of recreational impacts.

Recommendation for Resolution

1. In the project documentation regarding the NED plan, clarify why the footbridges need to be removed relative to Alternative 1, and whether there are any mitigation options for recreational and public access impacts, such as leaving a footbridge or constructing a new one.

Final Panel Comment 29

Although the size of the Halstead Avenue bridge appears to be one cause of flooding, it is not clearly described in the DEIS why that and other bridges will not be removed and replaced under the NED plan.

Basis for Comment

Several public comments questioned how the NED plan can be effective in controlling flooding, without the removal of the Halstead Avenue bridge. Residents remain convinced that this and other bridges act as constriction points causing localized flooding within the village. Their viewpoint appears to be reinforced by the DEIS: “Downstream of the confluence with the Sheldrake River small flow capacity, channel bends through bridges, *and the small size of the Halstead Avenue Bridge* are the primary causes of flooding in Mamaroneck Village.” (p. 6). In addition, based on review of the proposed conditions flood profiles (Appendix C), there is significant headloss across the Halstead Avenue bridge. However, the description of the NED plan (DEIS, pp. 26-27) does not explain why the removal of the Halstead Avenue bridge is not included in Alternative 1F, even though the removal and replacement of the bridge is included as part of Alternative 1 (p. 19) and is listed in Table 1 (p. 23). The DEIS did not describe the justification behind why that element of Alternative 1 did not make it all the way to Alternative 1F.

Public concern was also expressed about the Tompkins Avenue and the Valley Place/Anita Lane bridges not being removed because Appendix C indicates that there is also significant headloss across these bridges. While the Tompkins Avenue and Valley Place/Anita Lane bridges were not slated for removal in Alternative 1 (as Halstead Avenue was), the removal or enlargement of these structures could potentially reduce peak flood elevations through the project reach.

Significance – Medium/Low

The DEIS lacks information on why the Halstead Avenue bridge removal and replacement was not carried forward as part of Alternative 1F, and why the removal and replacement of the other bridges were not included, despite the bridges being considered a cause of downstream flooding.

Recommendation for Resolution

1. Clarify in the DEIS the level of overall contribution (if any) of the Halstead Avenue Bridge to localized flooding within the community and why the NED plan does not include removal and replacement of the bridge.
2. Clarify why the bridges at Tompkins Avenue and Valley Place/Anita Lane are not being considered for removal/replacement.

