

**EPA's Final Decisions Regarding General Electric Company's
Disputes Regarding EPA's June 23, 2006 Comments on
Phase 1 Final Design Report**

The United States Environmental Protection Agency ("EPA") has carefully considered General Electric Company's ("GE's") *Statement of Position on Specific Disputed Issues in EPA's June 23, 2006 Comments on the Phase 1 Final Design Report* ("Statement of Position"). Set forth below is EPA's Final Decision with respect to each of those disputed issues.

The first disputed issue concerns EPA's comment #17 on the Remedial Action Community Health and Safety Plan ("RA CHASP"), as clarified by a July 7, 2006 e-mail message from Douglas Fischer of EPA to Michael Elder of GE. By this Final Decision, EPA reaffirms comment #17, as clarified by the July 7, 2006 e-mail message. Thus, GE must incorporate into the RA CHASP contingencies for protection of public water supplies. In addition, this Final Decision incorporates, to the extent set forth below, several elements of GE's July 21, 2006 settlement proposal for the Water Supply Dispute, including requiring GE to submit an analysis of potential contingency measures, allowing GE to recommend one or more option(s) for protection of the water supplies, and providing an opportunity for GE to discuss with EPA the criteria ("Decision Criteria") that EPA will use to determine the circumstances under which GE must implement or fund contingency measures at the Waterford and Halfmoon public water supplies.

The second disputed issue concerns EPA's comment #25 of the Agency's June 23, 2006 comments on Final Design Report ("FDR") Contract No. 4. This Final Decision reaffirms EPA's comment #25. In addition, this Final Decision defines the near-shore areas in which GE is required, after dredging, to restore the pre-dredging bathymetry.

EPA's Final Decision with respect to the disputed issues is as follows:

I. GE Dispute 1: Water Supplies

A. EPA Final Decision

1. EPA will provide to GE draft Decision Criteria, after which EPA and GE will have 21 days (or longer, if EPA so agrees) to attempt to reach agreement on the Decision Criteria. If an agreement is reached, then EPA will issue the agreed-upon Decision Criteria. If no agreement is reached, then EPA will issue the Decision Criteria. EPA and the New York State Department of Health ("DOH") are in the process of developing draft Decision Criteria, and EPA expects to provide such draft Decision Criteria to GE shortly.
2. Within 100 days of the issuance of this Final Decision, GE shall submit to EPA, for review and approval pursuant to Consent Decree Section XI (EPA Approval of Plans and Other Submissions), an evaluation of options

(“Options Analysis”) for providing additional PCB treatment capabilities and/or alternative water source(s) as a contingency measure(s) if dredging were to result in unacceptable levels of PCBs at the Waterford and/or Halfmoon water intakes. The Options Analysis shall include the following:

- a. current water supply treatment processes and PCB removal capability for the Waterford and Halfmoon water supplies;
 - b. amount of water and the sources of the water to be treated and/or distributed on a daily basis during each of the months of concern (May-October), recognizing that demand for water is expected to be different during different months. GE shall consult with the municipalities about planned increases (if any) in municipal water consumption during Phase 1, and shall account for any such planned increases in the water amounts identified pursuant to this subparagraph;
 - c. identification of water sources other than the Hudson River that currently exist for the Waterford and Halfmoon systems, including an assessment of the amount of water that can be provided by these alternative water sources;
 - d. identification and assessment of treatment options for further removal of PCBs at the Waterford and Halfmoon water supplies;
 - e. options for contingency measures to be funded or implemented by GE to protect the Waterford and Halfmoon water supplies, including cost estimates for each of the options (treatment and/or alternative water sources); and
 - f. recommended contingency measure(s) to be funded or implemented by GE to protect the Waterford and Halfmoon water supplies.
3. EPA and GE will discuss the proposed contingency measures prior to GE's submission of the Options Analysis. As needed, EPA expects to facilitate and participate in meetings between GE and the water suppliers to assist GE in obtaining information needed for the Options Analysis, and to facilitate communication between the water suppliers and GE with respect to operational or logistical concerns that the suppliers may have with respect to potential contingency measures. EPA anticipates that DOH will also play an active role in facilitating discussions with the water suppliers and in evaluating options proposed by GE.

4. Within 21 days after EPA's approval or modification of the Options Analysis, GE shall submit to EPA, for review and approval pursuant to Consent Decree Section XI, an update to the RA CHASP in accordance with Paragraph 2.3.2.2.6 of the Statement of Work ("SOW") (Appendix B of the Consent Decree) that will identify (i) the EPA-approved contingency measures that would be implemented or funded by GE to ensure protection of the Waterford and Halfmoon public water supplies in the event that the dredging-related conditions require the implementation of such measures, and (ii) the EPA-approved Decision Criteria.¹

B. Summary of Basis for EPA Final Decision, and Response to GE's Statement of Position

EPA needs to assure the public that the water supplies will be protected from conditions, however unlikely, that are caused by the dredging, and it is therefore important for the RA CHASP to provide for such contingencies. Requiring the RA CHASP to include such contingencies is consistent with the RA CHASP Scope that is part of Appendix B of the Consent Decree, and with the Government's *Response to Other Technical Issues Comment No. 7* that was included in the United States' *Submission Requesting Entry of Consent Decree in United States v. General Electric Company*, Civ. No. 05-01270 (N.D.N.Y.).

On August 4, 2006, GE disputed EPA's comment #17 on GE's RA CHASP because the company believes that (1) EPA's direction to GE to fund alternate water supplies or additional treatment is beyond the scope of the Record of Decision ("ROD"), the Engineering Performance Standards, the Consent Decree and the Phase 1 Intermediate Design Report ("IDR") and is inconsistent with the rationale supporting the Engineering Performance Standard for Dredging Resuspension; (2) EPA's comment imposes liability on GE for monetary obligations that were never negotiated by the parties, and imposes an obligation to pay money to third parties; (3) the obligation that EPA is directing GE to assume is overly vague and speculative; and (4) EPA's comment is premature. GE's arguments are addressed below:

¹ Please note that it is possible that the specific water supply contingency measures that are required by EPA for Phase 2 will differ from those required by EPA for Phase 1. In addition, during Phase 2, contingencies for other water supplies (e.g., Stillwater) may be warranted, depending upon specific information that becomes available during, e.g., the Phase 2 design. Such contingencies would need to be addressed in the Phase 2 RA CHASP.

1. EPA's comment requiring GE to provide contingencies at the water supplies is not beyond the scope of the ROD, the Engineering Performance Standards, the Consent Decree or the Intermediate Design Report, and is not inconsistent with EPA's rationale supporting the Resuspension Standard.

EPA disagrees with GE that the Agency's comment #17 on GE's RA CHASP, as clarified by Douglas Fischer's July 7, 2006 e-mail, is beyond the scope of the ROD, the Consent Decree, the Engineering Performance Standards or the IDR. Comment #17 was designed to help ensure protection of the community during remedy implementation, and is consistent with the ROD's requirements regarding the contents of the RA CHASP. The ROD provides as follows:

The Community Health and Safety Plan will provide for community notification of ongoing health and safety issues, monitoring of contaminants and protection of the community from physical and other hazards. The plan will include a section that outlines the actions to be followed should monitoring of contaminants show contaminant levels above action levels.

[ROD at p. 83.]

Provision of alternate water sources and/or treatment at the water supplies are designed to protect the community from the potential hazard of consuming water that contains elevated levels of PCB as a result of the dredging. The requirement for GE to provide contingency measures at the water supplies therefore is within the scope of the remedy set forth in the ROD.

In addition, planning for such contingencies is within the scope of the Administrative Order on Consent for Remedial Design and Cost Recovery ("RD AOC") and the Consent Decree. The RD Work Plan (Appendix 1 of the RD AOC) requires the RA CHASP to describe "how each public hazard will be managed" and to include a "discussion of protection of public water supplies..." RD Work Plan at 4-12.

EPA's comment #17 is also in keeping with the RA CHASP Scope, which "provides a description of the elements to be included in the Phase 1 [RA CHASP] that will be submitted with the *Phase 1 Final Design Report* for the Remedial Action (RA) for the Upper Hudson River." RA CHASP Scope at 1-1. The RA CHASP Scope provides additional details on the information to be included with each element of the RA CHASP, including the following:

4. Description of potential hazards to the surrounding community associated with RA activities, including:
- For each activity, description of associated hazards (both physical and chemical), potential impacts and measures to be taken to manage the hazards. Hazards will be prioritized based on potential seriousness and relevance to the local community. Information on how these hazards may impact the community will be discussed.

.....

7. Description of how each public hazard will be managed, including actions to be taken if the environmental monitoring indicates the need for corrective action, including:
- Description of each activity, associated hazards assessed, potential impacts to the community identified, and measures to be taken to manage the hazards, primarily through prevention;
 - Discussion of the relevance and severity of the potential hazard to the community; and
 - Discussion of best management practices for hazard prevention.

.....

9. Discussion of protection of water supplies and references to the attendant monitoring program, including:
- Description of the program for addressing all river water uses (e.g., house water intakes, agricultural intakes, public drinking water intakes); and
 - A listing of all known water intakes.

[RA CHASP Scope, 1-1 to 1-3]

The RD Work Plan and the RA CHASP Scope thus require the RA CHASP to discuss protection of public water supplies and to include a description of the measures to be taken to protect the community against public hazards. EPA therefore is not unilaterally changing the terms of either the RD AOC or the Consent Decree, as suggested by GE. Rather, EPA's comment #17 requires GE to revise the RA CHASP so that it addresses the aforementioned requirements of the RD Work Plan and the RA CHASP Scope and provides for management of public hazards at the water supplies in the event that contingency measures at the water supplies become necessary as a result of the dredging.

EPA's requirement for GE to provide for contingencies at the water supplies does not contradict EPA's statements in the ROD and in the Engineering Performance Standards that it is unlikely that the dredging will trigger the need for implementation of contingencies at the water supplies. While the Agency does not expect the dredging to cause adverse impacts to drinking water, it is nevertheless important and prudent for EPA to ensure that such contingencies are available in the unlikely event that they become necessary. GE notes that it must temporarily shut down dredging operations if there is a confirmed exceedance of the Resuspension Standard. However, a cessation of dredging will not affect PCBs that are already in the water column, and notwithstanding the operational shutdown it may still be necessary to implement contingency measures in order to ensure protection of the water supplies. Such contingency measures are not "inconsistent with EPA's rationale supporting the...Resuspension Standard" because while the Resuspension Standard was designed to prevent the resuspension of high PCB levels into the river, the standard was not intended to protect municipal water supplies from high levels of dredging-related PCBs after they unexpectedly enter the water column. Such protection is beyond the scope of the Resuspension Standard and is properly within the scope of the RA CHASP. GE is therefore wrong when it says that it is "arbitrary and capricious" to require GE to provide for such contingencies in the RA CHASP.

GE also is incorrect when it argues that EPA should have raised the issue of water supply contingencies during its review of the IDR if the Agency believes that such contingencies are a design issue, but that EPA "did not do so."

First, EPA did raise the issue of contingencies in its comments on the IDR. Comment #180 of EPA's November 1, 2005 IDR comments stated:

...The RA CHASP must include a sampling program for routine monitoring at the public water supplies, non-routine monitoring requirements to address an exceedance of an action level, *and mitigation/contingency actions for protecting public water supplies*. The RA CHASP is the appropriate document to address these issues since protection of the public water supply directly relates to public health and the ROD requires that the public have the opportunity to provide input on the water supply monitoring and contingency plans. [emphasis added]

Provisions for protection of public water supplies, including monitoring and contingencies for ensuring potable water to the public in the event of problems with resuspension, will have to be described in the draft CHASP.

Comment #181 of EPA's November 1, 2005 IDR comments stated:

Contingency actions for responding to an exceedance of an action level must be addressed in the RA CHASP in addition to the Performance Standards Compliance Plan so the public has the opportunity to provide input on the plan. Contingency actions for protecting the public water supply should be addressed in a separate section consistent with the contingency actions described for the [Quality of Life Performance Standards]. Potential contingency measures to be considered may include increased monitoring in the river and at the water supplies, in-river mitigation activities to reduce resuspension, and modifications to source water or processing at the Water Treatment Plants (WTPs). As contingency measures are considered for the WTPs, representatives from the water suppliers must be included in discussions.

In GE's November 14, 2005 response to comment #180 of EPA's November 1 IDR comments, the company stated as follows:

As requested by this comment, the draft CHASP will include a description of monitoring and contingencies for the water supplies. These contingencies will be consistent with those for the resuspension standard, as stated in the [Performance Standards Compliance Plan ("PSCP")] Scope.

However, EPA disagreed with GE's attempt to limit the water supply contingencies to the measures provided in the PSCP Scope. In its November 16, 2005 reply to GE's November 14 response, EPA stated that

The last sentence of the GE response [to comment #180, quoted above] appears to be limiting in a manner that was not intended. The first sentence of the response indicates that “the draft CHASP will include a description of the monitoring and contingencies for the water supplies”; this language appears to be more in line with objectives identified on Pages 1-2 and 1-3 of the CHASP Scope items 4, 6, 7 and 9. GE should affirm the intent of the first sentence of the response and eliminate the second sentence.

In its December 26, 2005 response to EPA’s IDR comments, GE did in fact modify the above-quoted statement from its November 14 response. GE’s December 26 response to comment #180 states that “Contingency actions to be taken in the event of a standard exceedance are defined in the PSCP Scope” and that “As requested by this comment, the draft CHASP will include a description of monitoring and contingencies for the water supplies.”² GE’s response to Comment 180 separately refers to contingency actions needed to address an exceedance of the Resuspension Standard and those contingencies needed to protect public water supplies, and therefore indicates that GE’s draft RA CHASP would provide for water supply contingencies that are in addition to the contingency measures defined in the PSCP Scope. The meaning of GE’s December 26 response to Comment 180 seems especially clear in light of EPA’s November 16 statement regarding Comment 180, which GE never challenged. In sum, Comment 17 of EPA’s June 23, 2006 comments is consistent with the IDR, as modified by the comment process which followed the submittal of the IDR.

Second, and as explained above, the RD Work Plan and the RA CHASP Scope provide that protection of the community during remedy implementation, including protection of water supplies, shall be addressed as part of the RA CHASP submitted with the FDR. GE is therefore incorrect when it argues that contingency measures at the water supplies were not contemplated as being part of the design.³

² GE’s response to comment #181 simply refers back to its response to comment #180, with a note that representatives of the WTPs will be consulted as the RA CHASP is developed.

³ We also note that the requirement for GE to implement or fund contingencies at the water supplies was included in EPA’s draft comments on the RA CHASP (comment #26), which EPA provided to GE on June 12, 2006, and that GE did not raise any concerns about that draft comment. EPA’s June 12 comment #26 is the same comment as EPA’s June 23, 2006 comment #17.

EPA also disagrees with GE's statement that

EPA's failure to raise this issue [i.e., implementation of contingencies at the water supplies] during the Consent Decree negotiations demonstrates that the settlement never contemplated that such a requirement would be necessary to supplement existing measures intended to provide safe drinking water.

GE's Statement of Position, p. 7.

GE is incorrect when it argues that EPA never raised the issue of water supply contingencies during the Consent Decree negotiations. To the contrary, as discussed above, the RA CHASP Scope which the parties negotiated and which is part of the Consent Decree requires the RA CHASP to discuss measures for protecting the water supplies.

Neither the RD Work Plan nor the RA CHASP Scope was intended to specify the details of the measures that GE would undertake in order to protect communities from project-related hazards. The specific community protection measures to be undertaken by GE were to be identified in the RA CHASP and were to take into account the public's comments on the RA CHASP Scope. In order for the RA CHASP to be adequate, it must, among other things, include measures that will be taken to treat the drinking water supplies, or provide an alternative supply of water, in the unlikely event that the dredging makes such steps necessary.

Finally, in a November 6, 2003 letter to the Supervisor of the Town of Halfmoon (Exhibit B to GE's Statement of Position), EPA wrote that

EPA will ensure protection of the public water supplies through a Community Health and Safety Plan (CHASP) that will be developed during the Remedial Design. The CHASP will include monitoring requirements designed to protect water supplies during dredging, and will also identify triggers for contingency plans that would be implemented if information or events indicate that dredging is creating a risk to the water supplies. Such contingency plans would include the use of alternate water supplies (such as Troy) under certain circumstances. We expect EPA or General Electric Company to cover the incremental costs incurred by public water suppliers for using an alternate water supply under the CHASP.

EPA's letter to the Town of Halfmoon, EPA's similar October 20, 2003 letter to the Town of Waterford (attached hereto as Attachment 1) and EPA's letter to the Village of Stillwater (Exhibit C of GE's Statement of Position) clearly state EPA's intent that the RA CHASP would provide for water supply contingencies. EPA's commitments that either GE or EPA would cover the costs of water supply contingencies also were discussed in numerous public forums, such as EPA sponsored meetings (e.g., Community Advisory Group meetings, sediment processing facility siting meetings) and meetings of the Saratoga County Board of Supervisors PCB Committee. In addition, EPA's commitment to the Town of Halfmoon that either EPA or GE would cover the costs of providing alternate water was reported in the November 6, 2003 Troy Record (attached hereto as Attachment 2).

2. EPA has the authority under the RD AOC and Consent Decree to require GE to provide for contingencies at the public water supplies.

EPA's comment #17 on the RA CHASP, as clarified by Douglas Fischer's July 7, 2006 e-mail message, does not necessarily compel GE to pay money to third parties (*i.e.*, the municipalities), nor does it require GE to assume liability for costs or actions for which the company is not responsible under the Consent Decree and the RD AOC. As explained in subsection I.B.1., above, the RD Work Plan and the RA CHASP Scope require GE to address in the RA CHASP measures to protect the public from hazards, including impacts on water supplies, that arise from implementation of the remedy. GE consented to those provisions, which do not preclude the payment of money to the municipalities as a possible means of providing such contingencies. In any event, until EPA receives the Options Analysis in accordance with this Final Decision, EPA is not making a decision about which specific contingency measures should be provided for in the final RA CHASP. Payment of money to the municipalities is not the only possible contingency measure.

3. EPA's comment is not overly vague and speculative.

EPA's comment requires the RA CHASP to include a commitment from GE to provide contingency measures at the water supplies. The comment is neither overly vague nor speculative. As indicated in EPA's comment, the details regarding the measures to be implemented, and the conditions that will trigger such measures, are to be developed. The fact that the specifics of such contingencies and triggers have not been finalized does not make the comment vague or speculative. To the contrary, it exhibits a willingness of EPA to work with the company, with DOH and with the relevant municipalities to develop an appropriate contingency program.

To the extent that GE disagrees with EPA's decision on the details of that contingency program following GE's submittal of the Options Analysis, the company may seek dispute resolution regarding those details, under the Consent Decree.

4. EPA's comment is not premature.

As explained in subsection I.B.1., above, the RD Work Plan and the RA CHASP Scope require GE to address, in the RA CHASP submitted with the FDR, management of public hazards that may be associated with the remedy. EPA's comment was not premature because it was intended to ensure that the RA CHASP was consistent with the RD Work Plan and the RA CHASP Scope on the issue of protection of water supplies.

II. GE Dispute 2: Restoration of Bathymetry in Near-shore Areas

A. EPA Final Decision

Step 9.d of the Dredge Prism Development (Section 2.4 of the Critical Phase 1 Design Elements ("CDE"), which is Attachment A to the Statement of Work appended to the Consent Decree) requires GE to backfill or backfill/cap in a manner that maintains pre-existing shoreline configuration and river bathymetry in the backfilled or backfilled/capped area. This step applies regardless of whether the final removal depth of the dredge prism is based on a) the elevation that was established during design using the 2 feet/3:1 slope approach, b) the elevation that was established during design using the estimated depth of contamination ("DoC"), or c) an elevation that is lower than the design elevation due to additional dredging (i.e., a deeper cut) that is performed during remedial action. The requirements to restore shoreline configuration and pre-existing bathymetry also apply regardless of whether, after dredging, the residuals sampling indicates that the dredged area should be covered by backfill only, or should be covered with backfill/cap.

In areas where dredging occurs between the shoreline elevation at a flow rate of 5,000 cubic feet per second (cfs) (i.e., 119.0 ft North American Vertical Datum ("NAVD") 1988) and a flow rate that represents the lowest one-day (daily average) low flow event occurring once every three years (1Q3) (calculated as approximately 117.5 ft NAVD 1988 for Phase 1), after dredging GE shall place backfill (and or backfill/cap material, if capping is implemented) in those areas in a manner that restores the pre-dredging shoreline configuration and river bathymetry. Backfill or backfill/cap materials placed between the 119.0 ft and 117.5 ft elevation shall be selected in light of both stability and habitat considerations. Backfill (or backfill/cap material) placed to restore bathymetry between the 5000-cfs shoreline elevation (119 ft) and the 117.5-ft elevation shall be stabilized by additional backfill at a 3:1 slope to be placed from the 117.5-ft elevation

towards the river channel until the elevation of any otherwise required backfill or cap is reached, or until the 3:1 slope intersects the river bottom in areas where EPA has determined that no backfill is required (such as in the river channel).

GE's revised documents for the Phase 1 Final Design Report shall present an analysis of the materials proposed to be used to maintain the pre-existing shoreline configuration and to restore the pre-dredging bathymetry in the backfilled or backfilled/capped areas. The analysis should demonstrate that the material(s) selected will not unduly harden the shoreline or the river bottom in the areas between 119.0 and 117.5 ft NAVD 1988, as compared to pre-dredging conditions.

B. Summary of Basis for EPA's Final Decision, and Response to GE's Statement of Position

EPA's Final Decision on this dispute will result in restoration of shoreline and river bathymetry consistent with step 9.d of the CDE.

EPA selected the 117.5-ft elevation as the "in-river" boundary for restoration of bathymetry for several important reasons. First, if GE were to place less backfill than is needed to restore the original bathymetry in the shoreline area defined above, then the post-backfilling shoreline configuration and areas of shoreline that are frequently exposed for use by property owners and other members of the public would be significantly changed, and that would be contrary to step 9.d of the CDE. Such a change in shoreline configuration would affect the use of property along the shoreline during periods of low flow. EPA's Final Decision on this dispute will limit such impacts.

In addition, EPA's requirement for GE to restore shoreline configuration and bathymetry using appropriate backfill or backfill/cap materials down to the 117.5 ft level will reduce the need for creation of a hardened "transitional zone" (i.e., the transition between the reconstructed bathymetric surface and the locations where GE is required to place 1 foot of backfill) that would be comprised of backfill material that is much more coarse than the surrounding sediments. *See* November 8, 2006 Malcolm Pirnie, Inc. Technical Memorandum re: Maintenance of Pre-existing Shoreline Configuration and River Bathymetry, attached hereto as Attachment 3. In addition, restoring the shoreline configuration is expected to have a beneficial effect towards the replacement of habitat, and will also likely allow finer materials to be used along the shoreline, and thereby ensure that property owners utilizing their shorelines are able to transverse along shoreline materials that more closely approximate those that existed prior to dredging.

Moreover, the 117.5-ft elevation provides a boundary for placement of backfill (or backfill/cap) that is consistent for all Phase 1 shoreline dredge areas (i.e., areas where the dredge cut is based on the DoC as well as areas where the dredge cut is based on slope stability). Having such a consistent elevation is important to facilitate the design of the backfill and reconstruction requirements and to ensure that such requirements can effectively be implemented in the field from an engineering perspective.

GE's interpretation of step 9.d, in which only the bathymetry immediately adjacent to the shoreline at a river flow of 5,000 cfs would be restored, would result in potentially significant changes to the pre-existing shoreline configuration, particularly at times when the river flows are less than 5,000 cfs, and is not consistent with the plain language of step 9.d.

In GE's Statement of Position, the company disputed EPA's comment #25 because it believes that EPA's interpretation of CDE step 9.d: (1) is taken out of context and is erroneous; (2) does not reflect the intent of the parties who negotiated that provision; (3) is inconsistent with EPA's February 2002 Record of Decision; (4) is inconsistent with other provisions of the CDE; (5) is inconsistent with the Phase 1 IDR; and (6) is overly vague. Each of GE's points is addressed as follows:

1. GE incorrectly argues that EPA's current interpretation of step 9.d is taken out of context and is erroneous.

GE argues that

Read as a whole, Steps 9.b through 9.d of Section 2.4 [of the CDE] are directed to assuring the stabilization of the shoreline. When read in context, it is clear that the last sentence of Step 9.d applies only to the area immediately adjacent to the shoreline (e.g., within a few feet of the shore) and not to any broader area. It is also apparent that this sentence refers only to 3:1 slope areas, not to other "shoreline areas."

It is not correct that the sole purpose of steps 9.b through 9.d is to assure the stabilization of the shoreline. Steps 9.b and 9.c provide as follows:

- b. In areas where dredging extends to the shoreline and the extrapolated DoC is greater than 2 feet at the shoreline, a sediment removal cut of 2 feet will be used at the shoreline and extended along a stable slope until it intersects the dredge prism developed using steps 1 through 8 above.
- c. For purposes of developing dredge prisms, a stable slope is currently set at a maximum steepness of 3 horizontal to 1 vertical, based on a review of existing geotechnical data for targeted sediments. If existing bathymetry is steeper than 3 horizontal to 1 vertical in areas affected by steps 9a and 9b, the objective will be to utilize the existing slope, if stable. The ability to achieve a steeper slope will need to be assessed on a case-by-case basis.

The 2-foot cut at the shoreline was designed to reduce the likelihood of the dredge cut becoming unstable after dredging, and it is clear that the slope stability

requirements of step 9 apply to an area that extends beyond “a few feet of the shore.” For example, step 9.b addresses the removal of sediments along a stable slope (i.e., generally speaking, a 3:1 slope) “until it intersects the dredge prism developed” in accordance with CDE Section 2.4, steps 1 through 8. Based on GE’s Phase 1 FDR, the intersection of the 3:1 shoreline cut with the dredge prism discussed in step 9.b occurs, in a few instances, more than 14 feet from the 5,000 cfs mark and well beyond the “few feet” suggested by GE. In addition, step 9.c addresses slope steepness in areas affected by steps 9.a *and* 9.b. Because step 9.a addresses the stability of the slope of the dredge cut in areas where the edge of the dredge area does not extend to the shoreline, step 9.c cannot be directed only at “assuring stability of the shoreline,” as GE argues. Steps 9.b and 9.c therefore apply to areas that extend further into the river than “within a few feet of the shore”, and there is nothing in step 9.d which suggests that step 9.d is limited to a significantly narrower band of river bottom than are steps 9.b and 9.c. Moreover, we do not believe that a requirement to “maintain pre-existing bathymetry” can reasonably be interpreted to apply only to the minute area that GE circled at the inland limit of dredging on Figures 1 and 2 of its August 4 Statement of Position. It is *GE’s* reading of step 9.d that is out of context and erroneous because steps 9.a through 9.d are not limited to an area within a few feet of the shore.

GE also incorrectly argues that the last sentence of step 9.d applies only to areas subject to the 3:1 slope requirements. To the contrary, that sentence applies to shoreline areas that are not subject to the 3:1 slope requirements as well as to areas that are subject to those requirements. The last sentence of step 9.d says that “[t]he 2 feet (or greater if additional dredging is performed, or less if the removal depth is set according to the DoC) cut will be replaced with backfill...” The 2 foot or greater cut applies in areas where the extrapolated DoC is greater than or equal to 2 feet at the shoreline (*see* step 9.b). In those areas, the dredge cut must follow a stable slope until it intersects with another dredge prism. However, as indicated in the first parenthetical phrase in the last sentence of step 9.d, that sentence also applies to areas where the dredge cut follows the DoC instead of a 3:1 slope. Indeed, and as indicated in the company’s Statement of Reasons, during negotiation of the CDE GE believed that the last sentence of step 9.d applied to areas where the dredge cut follows a 3:1 slope *and* to areas where the dredge cut follows the DoC. *See* GE’s Statement of Position at page 15 (GE states that “...the language that EPA quoted in the comment was added to the CDE to address the shoreline where less than 2 feet of sediment would be removed...”). Although we disagree with GE over the company’s interpretation of the extent of bathymetry restoration required by the last sentence of step 9.d, it is clear that even before the CDE was finalized, GE understood that the last sentence of step 9.d was not limited to areas that are subject to the 3:1 slope requirements.

2. GE incorrectly argues that EPA's interpretation of Step 9.d fails to reflect the intent of the parties who negotiated the Consent Decree.

GE incorrectly argues that step 9.d was intended to restrict restoration of bathymetry to the area immediately adjacent to the shoreline (*i.e.*, the area within just a few feet of the inland limit of the dredging). GE's reading of the CDE is not consistent with the plain language of step 9.d, and is not supported by the record.

Any analysis of the intent of the parties needs to begin with the language to which the parties agreed. As explained above, EPA's decision is consistent with the actual wording of the CDE, while GE's is not. Contrary to what is suggested by GE's Statement of Position at p. 15, EPA's decision on this issue does not "massively expand GE's obligations under the CDE relative to backfill."

GE endeavors to support its argument with (i) materials from a GE presentation to EPA on near-shore dredging from June 8, 2005, and (ii) a series of e-mails between EPA and GE from the negotiation of CDE step 9. GE's June 8 presentation materials cannot be relied on to explain the meaning of step 9.d's reference to bathymetry because the reference to bathymetry was not added to step 9.d until over two months after GE gave its June 8 presentation.

Alison Hess indicated as follows in her August 11, 2005 e-mail to John Haggard, in which she provided GE with the language regarding restoration of bathymetry that appears in step 9.d:

The language covers removal 2 feet or greater, but does not cover removal of less than 2 feet (see earlier in step 9.b., sentence in square brackets). Suggest "The 2 feet (or greater if additional dredging is performed, or less if the removal depth is set according to DoC) cut will be replaced with backfill (or backfill/cap if capping is implemented) to maintain pre-existing shoreline configuration and river bathymetry in the backfilled or backfilled/capped area. (emphasis in original)

The clause that EPA added to the first parenthetical ("or less, if the removal depth is set according to DoC") applies to situations where the removal depth is set according to the DoC, consistent with the first sentence of Ms. Hess' e-mail quoted above. However, we disagree that the second new underlined clause above ("to maintain pre-existing shoreline configuration [etc.]") was intended, as GE says it assumed, simply to ensure that the last sentence applied to situations where the shoreline cut is less than 2 feet. GE's interpretation of Ms. Hess' explanation is not persuasive - and indeed does not make sense - because the second underlined clause clearly applies to dredge cuts that are greater than, less than, or equivalent to 2 feet. Nothing in the bathymetry clause suggests that that

clause is limited to situations where the initial cut was less than two feet. In any event, we do not believe it is reasonable for GE to have assumed that the added bathymetry language did not make any substantive change to the wording of the provision. Again, GE's interpretation of the last sentence of step 9.d is simply not supported by the text.

3. GE incorrectly argues that EPA's interpretation of Step 9.d is inconsistent with the ROD.

GE incorrectly argues that EPA's requirement for GE to restore the bathymetry as stated in EPA's comment #25 is inconsistent with the ROD. The ROD, however, does not preclude placement of more than one foot of backfill in a given area or areas. The ROD states that "Backfill of dredged areas with *approximately* one foot of clean material to isolate residual PCB contamination and to expedite habitat recovery, where appropriate" (ROD pp. iii, 96) (emphasis added). *See also* Responsiveness Summary, response to Master Comment 513 ("Details regarding backfill type and thickness in specific locations will be determined during remedial design.") The ROD therefore included some flexibility in the amount of backfill that could be required in particular areas, and accordingly the backfill requirements of step 9.d are not inconsistent with the ROD.

4. GE incorrectly argues that EPA's comment is inconsistent with other provisions of the CDE

GE argues that EPA's interpretation of step 9.d contradicts Section 2.7 of the CDE because Section 2.7 "says nothing about placing extra backfill to restore the original bathymetry in shoreline areas." However, the fact that Section 2.7 does not mention restoration of bathymetry in shoreline areas does not mean that such restoration cannot be required elsewhere in the Consent Decree. Step 9.d addresses restoration of shoreline areas, while Section 2.7 addresses replacement of subaquatic vegetation (SAV) (*see* second sentence of Section 2.7, which states that "[w]ith respect to replacement of [SAV], the following approach shall be employed."). Section 2.7 and step 9.d address different aspects of the remediation and are not inconsistent. The areas addressed by the last sentence of step 9.d - which, pursuant to this Final Decision, are the areas located between 119 feet NAVD and 117.5 feet NAVD - are a special and very small subset of the total dredging areas. Additionally, efforts to replace and reconstruct SAV will primarily focus on areas that are outside of the band of river bottom that is between the 119-ft and 117.5-ft elevations. GE's argument would have EPA, in effect, ignore the last clause of step 9.d ("to maintain pre-existing shoreline configuration and river bathymetry...(etc.)"), whereas EPA is giving effect to that wording.

5. GE incorrectly argues that EPA’s interpretation of Step 9.d is inconsistent with the EPA-approved Phase 1 IDR

GE argues that EPA’s comment requiring the company to restore the bathymetry in shoreline areas is inconsistent with Section 3.9.2.1 (Backfill Types) of the approved IDR, which provides

Backfill will consist of a 12-inch layer of granular material [GE later agreed to make this a two-foot layer on the near-shore 3:1 slopes] placed on top of the residual sediment in dredged areas, as defined in the ROD (EPA, 2002a). An exception will be made if less than 12 inches are removed in a particular dredge area, in which case, sufficient backfill will be added to restore it to the original (pre-dredging) river bed elevation. Details of the shoreline stabilization and slopes between backfill and capped areas will be developed for inclusion in the Phase 1 FDR.

The requirement for GE to restore pre-existing shoreline configuration and river bathymetry pursuant to this Final Decision is not inconsistent with the IDR. The quoted provision of the IDR does not address restoration of bathymetry and stabilization of shoreline areas. Rather, it indicates that details regarding shoreline stabilization will be presented in the FDR. IDR Section 3.9.2.3 (Shoreline Stabilization) also notes that “shoreline stabilization design details will be completed during Phase 1 Final Design.” Moreover, GE noted in IDR Section 3.9.3.2 (Material Quantities), in which the company also estimated that it would place approximately 1 foot of backfill in the Phase 1 dredge areas (with the exception of the navigation channel), that the backfill “volume estimates should be considered preliminary, and are subject to further revision during the Phase 1 Final Design.” The provision of the IDR quoted by GE does not contradict and is not inconsistent with EPA’s comment #25 on Final Design Report Contract No. 4.

6. EPA’s comment is not overly vague.

GE argues that EPA has directed GE to restore bathymetry in shoreline areas, but that EPA has not defined the term “shoreline areas” and it is unclear from EPA’s comment how far from the shoreline EPA believes the bathymetry should be restored. EPA disagrees that its comment is overly vague. In any event, this Final Decision clearly defines the extent of the required bathymetry restoration required by step 9.d.