

ADDENDUM

This addendum addresses the Clean Water Act 404q process, and comments provided to the USACE after both EPA and FWS declined to refer the USACE's decision for higher level review.

On 23 May 2003, the USACE issued a notice of intent to EPA and FWS advising that the USACE intended to approve Holcim's permits. The USACE provided EPA and FWS with the USACE's decision document, which included the USACE's EA, Statement of Findings, and review and compliance documentation.

On 10 June 2003, the EPA Regional Administrator advised the District Engineer, by a telephone conference call, that EPA would not refer (elevate) the USACE's decision for higher level review. On 11 June 2003, at the 15-day point under the Clean Water Act Section 404q Memorandum of Agreement (MOA), the EPA Regional Administrator sent a letter providing several comments (discussed below), but not exercising EPA's right to elevate. By e-mail dated 20 June 2003, EPA confirmed that it was not elevating the USACE's decision.

On 17 June 2003, FWS submitted a letter stating that it was not elevating the USACE's decision. The FWS letter provided a number of comments about the project (discussed below).

After its letter, EPA requested a meeting and site visit ("meeting") with the USACE, FWS, MDNR, and MDC to obtain clarification of and discuss various issues relating to the project. Although not required, the USACE agreed to the meeting, which was held on 26 June 2003 at the project site.

The agency attendees were: from the USACE: Danny McClendon, Charles Frerker, Alan Dooley, LeeAnn Summer, and Beth Pitrolo; from EPA: Larry Long and Dewayne Knott; from FWS: Rick Hansen; from MDNR: Scott Hamilton; from MDC: Janet Sternburg and Joe Bachant.

The meeting involved a roundtable discussion from approximately 9 AM to 11:30 AM, followed by field observations until approximately 5 PM.

The following issues/comments were raised by EPA, FWS, or MDC, either in the 404q letters described above or at the meeting. The USACE has considered these issues/comments and is providing this addendum to document the USACE's response. It should be noted that the USACE provided some oral responses at the meeting, and that many of the issues/comments were previously raised during the public comment process and addressed by the USACE.

Comment: In its 11 June 2003 letter, EPA stated that it considers the degree of air quality impacts to be uncertain until appropriate conclusions have been reached by air pollution control authorities. EPA did not provide further explanation of this comment at the meeting/site visit.

Response: The record contains sufficient information such as modeling reports demonstrating that Holcim's impact on air quality will not be significant. The State air permit will provide additional safeguards to ensure the project will not cause significant air impacts, and the USACE permit conditions prohibit Holcim from performing any work in jurisdictional waters before obtaining the state air permit. See also the air quality discussion in the USACE's EA.

Comment: In its June 11, 2003 letter, EPA stated that given the project's anticipated duration, there should be additional consideration of cumulative impacts. At the meeting, EPA asked questions about permit duration, but did not provide additional explanation regarding cumulative impacts.

Response: The USACE EA fully addresses cumulative impacts in the context of a 100-year quarry/project, specifically evaluating how cumulative impacts such as habitat fragmentation would occur and be mitigated through buffer preservation, reclamation, etc. during the phased quarry operation. Permit duration is further addressed in the next comment/response.

Comment: At the meeting, EPA asked for clarification about how a 100-year permit would be managed, indicating concerns about how future developments could affect the permit. Questions were asked about how violations would be handled and how impacts such as the effect of particulate matter from the harbor on the southern Lee Island wetland mitigation complex could be addressed if problems resulted.

Response: The permit duration issue is addressed in the USACE's decision document response to comments, section 10.0. In addition, the permit conditions provide that the "100-year" authorization is only for the quarry aspect of the project. All other work in jurisdictional waters must be completed within 10 years, and maintenance dredging in the harbor is limited to a 10-year authorization. Under USACE regulations, the duration of a permit is determined based on the scope and nature of the work. In the case of Holcim's phased quarry operations, which involve ongoing quarrying and reclamation rather than work on a structure that can be completed in a certain term, 100 years is the appropriate duration. The USACE Jacksonville District has issued similar permits, including one with a 75-year quarry permit authorization. USACE and EPA Region 7 counsel have also discussed the permit term issue by telephone. In addition, the USACE permit conditions establish a permit review schedule (at the end of 5 years, 10 years, and every 10-20 years thereafter) that provides a formal procedure for monitoring, re-evaluating the project, and modifying the permit as needed throughout its life. The USACE permit conditions also include the review requirements established by MDNR in the State's water quality certification. Further, apart from the permit conditions, USACE regulations provide that the permit may be suspended, revoked, or modified at any time based on violations reported by any agency or person to the USACE, or based on changes in circumstances including new regulations.

Comment: EPA initially raised the topic of special aquatic sites, but it was not clear what definition was being used, and this issue was not developed further.

Response: Special aquatic sites are addressed in the USACE EA, and USACE response to comments, section 6.2.2.

Comment: EPA and FWS raised issues regarding the potential for the deposition of cement dust (particulate matter) from harbor operations such as loading/unloading to negatively impact ("cement") the wetland mitigation area on southern Lee Island.

Response: Project site wetlands will not be adversely affected by dust from the project. Fugitive dust from project operations including the harbor will be controlled by various means as required by the State air permit, State air regulations, and good housekeeping practices. In addition, the harbor operations will be separated from the mitigation area by a 3.6 acre vegetated buffer. Holcim's Clarksville plant is an excellent example demonstrating that a "cementing" effect will not occur in wetland areas. At Clarksville, there is a USACE/MDC-managed conservation area containing wetlands that has been located next to the plant's harbor for many years. The Clarksville harbor and other plant operations have not adversely impacted the conservation area. See also the USACE EA, air quality section, and the USACE response to comments, section 6.11.

Comment: In its 11 June 2003 letter, EPA recommended that the permit be conditioned to require periodic evaluation of mercury deposition and control technologies that may be developed in the future. At the meeting, EPA also raised this issue, acknowledging that control technologies and rules for the control of mercury deposition do not presently exist.

Response: As stated above, the permit conditions and USACE regulations already provide that the USACE may re-evaluate the permit at any time and modify the conditions as circumstances change. The USACE pointed out that concerns regarding mercury deposition and control technologies should be addressed and conditioned under the State's pending air permit. See also discussion of mercury deposition issues in USACE EA, air and water quality sections, and USACE response to comments, sections 6.2.5 and 6.11.

Comment: EPA requested an explanation of the USACE's jurisdictional determinations, focusing on the intermittent streams and watercourse/drainages in the uplands. EPA requested an opportunity for field observation to see where the USACE drew the line between jurisdictional and non-jurisdictional areas. EPA cited as authority for considering this issue the 19 January 1989 USACE-EPA MOA Concerning the Determination of the Geographic Jurisdiction of the Section 404 Program.

Response: The cited MOA is not applicable at this stage of the permitting process. EPA received public notice of the project in November 2000, almost three years ago. The public notice, and the Companion Report, identified the jurisdictional features at the project site. EPA attended a pre-application meeting of the various agencies in 1999, a pre-application meeting at the site in 2000, and an inter-agency coordination meeting on 15 February 2001. EPA representatives visited the project site in June 2001 (Venessa Madden) and June 2002 (Jason Daniels). In addition, EPA submitted a number of comment letters during the public comment process. At no time did EPA, or any other commenter for that matter, ever question the USACE's jurisdictional determinations. The MOA requires that EPA establish a "regional list" of current designated special cases, but EPA has apparently not established or maintained such a list, or the area of the project site is not on such a list. The MOA also provides that upon receiving the public notice, if EPA has concerns about jurisdiction for a specific project, EPA must designate the project as a special case and add it to the "regional list." EPA took no such action and therefore has not complied with the MOA. Since the public notice, the applicant and all agencies, including most notably the USACE and the MDNR during the water quality certification process, have relied on the USACE jurisdictional determinations. Such reliance has included a number of studies and the development of mitigation/reclamation plans at great time and expense. Accordingly, the USACE jurisdictional determination is the binding U.S. government position.

Nevertheless, EPA representatives were provided an opportunity to evaluate the USACE stream jurisdictional "calls" in the field. The EPA representatives walked the stream/drainage areas in the southern and northern branches of Old Quarry Hollow, the upper end of Raddy Hollow (in the vicinity of the jurisdictional line), and the upper end of Longs Hollow (shown as a dotted blue line watercourse on the site map). With the exception of the southern branch of Old Quarry Hollow; the EPA representatives indicated concurrence with the USACE's jurisdictional determinations. Of particular note, the portion of the Longs Hollow watercourse that was traversed was relatively dry and packed with leaf litter that had not been dislodged by any rainfall for years.

As the EPA representatives acknowledged, there is no standard guidance or methodology for jurisdictional stream determinations. With regard to the southern branch of Old Quarry Hollow; USACE and EPA representatives discussed various parameters (presence of water, ordinary high water mark, bed and bank, vegetation, vegetation line, litter line, flowstone, etc.) for where the jurisdictional line could be drawn. It should be noted that on 26 June 2003, the site was in an above normal saturated condition, having received 10 inches of rain over the preceding several weeks and 2.25 inches of rain the night before. As a result, the southern branch of Old Quarry Hollow contained intermittent flowing water that would not be present most of the rest of the year. Considering all factors, including the physical features present at the time of the USACE jurisdictional assessment (nearly 3 years prior), and the absence of

water in this area for most of the year, the USACE maintains its original jurisdictional determination for the southern branch of Old Quarry Hollow, and the other intermittent streams at the project site, was appropriate.

Comment: EPA stated that the plan for mitigating forest impacts is not clear and/or that forest loss is not being adequately mitigated. FWS stated that, in accordance with its 404q letter, the upland mitigation is not sufficient to compensate for impacts. MDC also stated that it was not satisfied with the upland mitigation due to impacts on habitat.

Response: The USACE disagrees with the agencies regarding the sufficiency of upland forest mitigation. To begin with, it should be noted that the USACE does not have direct regulatory jurisdiction over uplands except for the jurisdictional intermittent streams and their riparian corridors. Nevertheless, the USACE carefully evaluated upland forest impacts as part of the NEPA review process. The USACE has considered all relevant factors, including the substantial buffer area, the phased nature of the quarry operations occurring over a 100-year period followed by ongoing reclamation/mitigation, and all the information from the various studies such as the World Bird Sanctuary reports indicating that the site can be beneficially reclaimed to provide habitat for birds. The USACE has considered additional recent information from the MDNR land reclamation process including the testimony of the Missouri Land Reclamation Commission Staff Director and other experts that Holcim's reclamation plan is technically feasible and environmentally beneficial. The USACE has also considered the stream mitigation biocriteria performance standards imposed by the MDNR as part of the water quality certification that will require re-establishment of aquatic habitat and similar biological communities in the uplands.

The USACE would further note that for NEPA evaluation purposes, a component of Holcim's reclamation/mitigation would result in increased aquatic ecosystem values in the uplands (although not specifically credited as wetland or stream mitigation). The lake and upland ponds would provide additional aquatic habitat on the site that is not presently available. For example, the lake will have a shallow vegetated shoreline that should benefit fish, birds, and other wildlife. The numerous upland ponds will enhance the area as habitat for amphibians and other species. Although the lake will reduce the land area available for re-establishment of terrestrial ecosystems, those ecosystems will be preserved in the buffer and re-established in the land area of the reclaimed quarry, where Holcim will reconstruct the existing rugged forested topography, at a lower elevation, and replace the jurisdictional intermittent stream systems, to the extent feasible. Additional headwater drainage sources, while not required or considered of the magnitude to meet future jurisdictional features, would be incorporated into Holcim's quarry reclamation plan to further benefit aquatic resources and provide the mitigated streams with similar upland runoff that carries beneficial nutrients and organic matter.

Further, there is no requirement for 100 percent in-kind mitigation, especially when not feasible. Lakes are an accepted and best use mitigation feature in numerous mining reclamation projects, and it is clear that the proposed lake, as well as the upland ponds, will provide important environmental benefits that must be considered as part of the total project mitigation in evaluating the significance of impacts under NEPA. See also USACE EA, habitat, cumulative impacts, and other relevant sections; USACE response to comments, sections 6.5 – 6.10.

Comment: In its 404q letter, and in the course of discussion at the meeting, FWS indicated that 18+ miles of intermittent and ephemeral streams, which it refers to as vital "headwater" streams, would be impacted by the project without sufficient mitigation.

Response: FWS originally raised this comment during the public comment process. Other commenters, including EPA, later began to reference FWS "18+ miles" figure during some of their comments. At the meeting, Mr. Hansen stated that he could not remember exactly how he made the "18+ miles"

determination, but there was nothing scientific about it. Essentially, he used a piece of string to perform a rough measurement of the streams within the Isle du Bois Creek watershed that he believed could be directly or indirectly impacted by the project. Mr. Hansen first said he included part or maybe all of Isle du Bois Creek upstream of the project site, but then indicated he was not sure. He also indicated that he included the area north of Isle du Bois Creek and the watercourse/drainage areas represented by the dotted blue lines on the site map. He was not sure if he included Morrison Hollow.

From Mr. Hansen's remarks, it is clear that FWS "18+ miles" figure is not a correct or useful approximation of stream impacts and is misleading. The Isle du Bois Creek watershed upstream of the project site and Morrison Hollow will not be affected by the project and cannot be included in any total of "stream impacts." The intermittent streams in the area north of Isle du Bois Creek are no longer included in the project based on modifications, and the watercourses/drainages shown as dotted blue lines on the site map are not intermittent streams, nor are they jurisdictional. In addition, Holcim's Water Resources and Hydrology Study demonstrates that the conversion of the jurisdictional intermittent streams and watercourses/drainages in the uplands will not adversely affect the water quality of Isle du Bois Creek or the Mississippi River. Also, several of the stream/drainages to Isle du Bois Creek were blocked by the previous landowner's access road. Nevertheless, Holcim's reclamation/mitigation, including re-creation of jurisdictional streams, and creation of additional upland aquatic habitat (lake, ponds and headwater drainage sources) will compensate for the loss of the aquatic and habitat value provided by the existing streams and watercourse/drainages. See also the USACE response to comments, section 6.2.3.

Comment: Mr. Hansen stated that the mitigation would not return the site to identical or pre-project conditions and the lake was not sufficient mitigation.

Response: It would be difficult, if not impossible, to return identical, pre-project conditions at this site or any other evaluated project area. There is no requirement to return the site to exact pre-project conditions, only to provide adequate mitigation for impacts. During the discussion, Mr. Hansen acknowledged this. The lake is only part of the total project mitigation. Although not credited as wetland or stream mitigation, the lake is part of a comprehensive mitigation/reclamation plan that must be considered in evaluating the significance of impacts under NEPA. The USACE pointed out that Holcim's project differs from most other evaluated actions with the major difference being Holcim's plans to incorporate reclamation and mitigation actions as a measure to return similar upland site features. The USACE further advised that evaluated actions typically result in upland landscape changes that are commonly irreversible. The USACE questioned why the agencies were not consistent in evaluating and providing similar comments on other project's irreversible upland impacts which far exceed Holcim's phased quarry and reclamation actions.

Comment: EPA asked what issues Holcim needed guidance on.

Response: Holcim has not requested guidance from EPA with regard to this permit action, but several issues were addressed. The USACE clarified that the low water crossing is not an issue for this permit action. In summer 2001, Holcim asked whether the USACE wanted Holcim to repair the low water crossing, which was constructed by a previous landowner but was in danger of washing out. The USACE solicited the views of the other agencies, but EPA did not provide a response. The USACE is still requesting EPA provide its view on this issue separately from this permit action. With regard to buffer management, Holcim will comply with the conservation measures that it proposed as adopted by FWS in its BO and by the USACE in the permit conditions. With regard to amphibian and reptile relocation, EPA originally requested a feasibility study, which Holcim performed at USACE direction. The results indicated that a pilot study was appropriate. The USACE has included a permit condition requiring the

pilot study and selection of the best option if relocation is determined feasible. The USACE clarified at the meeting that Holcim would be required to perform relocation in accordance with the results of the pilot study.

Comment: EPA (Mr. Long) requested to look at boring logs to evaluate hydrology issues. Mr. Long had questions about the depth and location of the Joachim Dolomite formation.

Response: Mr. Long was informed about the very extensive hydrogeological investigation of the project site performed by Holcim's consultants. Mr. Long reviewed a diagram from the land reclamation hearing illustrating the depth and location of the various underground formations including the Joachim Dolomite. Based on this discussion, Mr. Long indicated that he was satisfied.

Comment: Mr. Hansen reiterated the comments in the FWS letter and stated that he believes a FONSI is not appropriate. The FWS letter recommends the permit not be issued until an adequate mitigation plan has been completed.

Response: The FWS letter indicates approval of or agreement with certain aspects of the project, including project modifications to reduce impacts, the alternatives analysis, and wetland mitigation. The only issue of disagreement in the FWS letter is upland stream and habitat impacts, which have been addressed above. The FWS letter does not state that a FONSI is not appropriate. Because upland stream and habitat impacts have been considered and mitigation will be sufficient, a FONSI is appropriate and the USACE will issue the permits.

Comment: Mr. Bachant stated that MDC had been excluded from the 404q process, that MDC was not sure it was in their best interests to concur with the FWS 404q letter, that MDC was "tied to FWS" under the Fish and Wildlife Coordination Act (FWCA) and should have an opportunity to comment under the FWCA, that MDC had not been able to review the Corps' EA, that Mr. Bachant, on his own, had performed a "habitat evaluation procedure" indicating that the mitigation was not sufficient, and that, in general, MDC was not satisfied with the mitigation.

Response: MDC has had a full opportunity to comment on the project, and MDC's comments have been seriously considered by the USACE. The USACE has complied with NEPA with regard to consultation with MDC, which satisfies the requirements of the FWCA.. MDC is not a party to the USACE-EPA and USACE-FWS 404q MOAs, and therefore was not asked whether it concurred with FWS 404q letter.

From the outset, MDC has been fully involved with review of the project. For example, MDC attended numerous meetings and/or site visits, as shown by the following list (not necessarily exhaustive). On 20 July 1999, MDC (Gary Christoff, Mark Boone, and Scott Miller) attended a pre-application meeting involving various resource agencies such as the USACE, EPA, FWS, and MDNR. On 20 April 2000, MDC (Gary Christoff) attended a second pre-application meeting with the various agencies and Holcim's consultant held at the project site. On 24 January 2001 (after the public notice), MDC (Joe Bachant) attended the public workshop held by the USACE for the project. On 9 February 2001, MDC (Joe Bachant) attended a meeting on the Holcim project with other resource agencies that was hosted by environmental organizations opposing the project. On 15 February 2001, MDC (Joe Bachant) attended the inter-agency coordination meeting for the project that was held at the USACE's offices. During 14-16 November 2001, MDC (Joe Bachant) attended various parts of the MDNR 401 water quality certification appeal hearing for the Holcim project. On 19 November 2001, MDC (Joe Bachant) attended a meeting with the USACE, FWS, and Holcim at FWS offices in Columbia, Missouri to review Holcim's Biological Assessment including the bat survey. On 24 June 2002, MDC (Joe Bachant) attended the MDNR 401

water quality certification public hearing for the Holcim project in Ste. Genevieve, Missouri. And on 26 June 2003, MDC (Janet Sternburg and Joe Bachant) attended the final meeting/site visit at the Holcim project site.

During the course of the project, MDC submitted numerous written comments. On 25 July 1999 (before the public notice), MDC submitted a letter to Holcim's consultant, Kris Erickson, offering comments on the project (see Biological Assessment, Appendix E). After the public notice, MDC submitted seven comment letters dated 8 December 2000, 12 December 2000, 5 January 2001 (2 letters), 23 February 2001, 16 March 2001, and 19 March 2001. The USACE addressed MDC's comments in the USACE's response to comments, section 12.4.

In this Addendum, the USACE has addressed the 26 June 2003 comments of MDC and FWS regarding the sufficiency of mitigation (see above). It should also be noted that the results of Mr. Bachant's "habitat evaluation procedure" were not provided to the USACE for review. The USACE has fully considered all of the issues that were raised by MDC and all of the information that was provided by MDC during the course of project review.

Comment: In addition to expressing concerns about impacts to habitat, Mr. Bachant stated that the groundwater issues are complex, especially due to the hogback ridge (the river bluffs) and there are concerns about whether solution voids will be encountered during mining.

Response: Hydrogeologic and groundwater issues have been thoroughly addressed in the USACE EA and response to comments. Investigation of the project site has shown that the site is not a true karst terrain and significant underground caves or voids are not present.

Comment: In its 11 June 2003 letter, EPA stated the NEPA documentation should be afforded ample opportunity for public review before a permit decision is made.

Response: The USACE has complied with applicable regulations for an environmental assessment. There was a lengthy public comment process resulting in numerous comments. As a result of that process, all relevant issues have been identified and considered by the USACE. Project opponents have submitted numerous letters, visited the site, have met with EPA and state agencies, and with the DE, to express their concerns. The 26 June 2003 meeting provided a final opportunity for agency comment before the Corps permit decision, and all comments have been taken into consideration.

Comment: EPA stated that it had not received any figures with the USACE EA.

Response: The figures referenced in the USACE EA are from Holcim's EA. These figures are mostly site maps and the quarry plan that have been previously provided to EPA. During the 404q process or before the meeting, EPA did not request any figures from the USACE.

Comment: EPA, FWS, and MDC asked how the USACE would handle their issues/comments from the meeting and the 404q letters.

Response: The USACE explained that it would consider the agencies' issues/comments and address them in an addendum to the decision document. The USACE stated that based on the 404q process and the meeting, it expected to issue the permits the following week. The agencies did not object at the meeting to the USACE going forward, but did request their issues/comments be noted for the record. After the meeting, the USACE further considered the agencies' 404q letter issues/comments and the issues/comments raised/discussed at the meeting, and prepared this addendum to address those issues/comments. The USACE has determined that all issues/comments have been adequately considered

and do not change the USACE's decision that a FONSI is appropriate and the permits should be issued. The USACE considered whether any additional issues/comments required any modifications to the proposed permit conditions, but does not believe such action is necessary. The permit conditions are a comprehensive set of requirements that will ensure successful mitigation and provide the USACE with full authority to suspend, revoke, or modify the permit if necessary.

SUPPLEMENTAL

Comment: EPA requested a conference call to address wrap-up issues after the meeting.

Response: A conference call was held with EPA's Jason Daniels, Dewayne Knott, Tony Petruska, and Joe Cothorn on 1 July 2003. The issues/comments that were raised by EPA during the call are discussed below.

Comment: EPA asked whether the USACE EA would be sent out for public comment and suggested it would be beneficial to provide the EA to the public via some type of informational meeting.

Response: Until the permits are issued, the EA is not final. The final EA will be available to the public through Freedom of Information Act procedures, but will not be sent for public comment. There has been a lengthy and extensive public comment process in this case. The environmental impacts have been reduced through the avoidance, minimization, and mitigation process. See also comment above regarding public review.

Comment: EPA asked whether the reference materials and figures would be included in the EA.

Response: The EA that was provided to EPA and FWS contained a list of references (p. 88) and a list of studies (p. 92). Those materials are available as part of the administrative record. EPA acknowledged having received most of the referenced materials. See also comment above regarding figures.

Comment: EPA asked whether the easements (deed restrictions) will be published.

Response: Deed restrictions will be recorded as required by the permit conditions.

Comment: EPA questioned whether the buffer will be deed-restricted in perpetuity. EPA advocated such a restriction.

Response: The permit conditions will require that Holcim maintain the buffer in its undisturbed state, except for beneficial management as described in the conservation measures, for the duration of the permit, or until plant and quarry operations cease. The USACE believes that in view of the extensive reclamation/mitigation that will be required for the project, a FONSI is appropriate without a deed restriction on the buffer. In actuality, the buffer will be even larger than 2,200 acres for the earlier years of the project, considering that the undisturbed area of the quarry will also function as buffer. All wetland and stream mitigation areas will be deed-restricted in accordance with the permit conditions (which include the MDNR water quality certification conditions that also require deed restrictions). In addition, the USACE does not have jurisdiction or legal authority to impose a deed restriction on the buffer.

Comment: The EA says that the streams will be restored using state-of-the-art technology. EPA questioned what that meant and how future advances in stream restoration technology or requirements such as the mitigation action plan would be incorporated.

Response: The most important fact is that Holcim must meet performance standards for stream mitigation established in the MDNR 401 water quality certification conditions, and incorporated in the USACE permit conditions. These performance standards are more strict than any that have been imposed for other recent projects in the St. Louis District and will require Holcim to use state-of-the-art engineering techniques and materials, and the latest guidance on stream mitigation that is available at the time work begins. What is state-of-the-art will be specified in more detail during development of the final mitigation plan. New information and regulations affecting stream restoration can be addressed through future permit reviews or by re-opening the permit as required by changed circumstances.

Comment: EPA's Jason Daniels requested to participate on the team developing the amphibian pilot study, as that is in his area of expertise.

Response: Noted.

Comment: EPA's Dewayne Knott stated that based on his site visit, he is comfortable with the USACE stream jurisdictional determinations except for one segment in Old Quarry Hollow. Mr. Knott requested that the USACE revisit its jurisdictional determination for the southern branch of Old Quarry Hollow.

Response: See comment and response regarding this issue, above. The USACE will not change its jurisdictional determination for the southern branch of Old Quarry Hollow because EPA's request is untimely, the applicant and other agencies have relied on the USACE's jurisdictional determination, and the USACE believes its jurisdictional determination for Old Quarry Hollow, as well as the rest of the site, was appropriate. If anything, the USACE was conservative in extending jurisdiction farther up some of the other streams than required.

Comment: EPA stated that some of the agency and public comments had questioned the Corps' jurisdictional determinations for the streams.

Response: This is not correct. No agency or public comment ever disputed the Corps' jurisdictional determinations for the streams on the project site. There were some comments about the functional value of 18+ miles of non-jurisdictional streams (derived from the FWS 18+ miles comment), but these comments only stated that impacts from the loss of those areas should be evaluated, not that those areas should be considered jurisdictional. For example, EPA's last comment letter dated 19 December 2002 stated: "There is a discrepancy between agencies' determination of stream lengths to be impacted. Intermittent and ephemeral streams that may not be considered jurisdictional by the Corps, still possess important ecological functions and values. The effects of the loss of 18 miles of intermittent streams and hundreds of acres of upland habitat on water quality and food web trophic dynamics of the Mississippi River have not been adequately discussed." This comment does not constitute raising an issue regarding any of the Corps' jurisdictional determinations for the streams. Rather, it argues that regardless of where the jurisdiction line is drawn, the environmental impacts of the loss of "18 miles of intermittent streams" must be considered. As explained in several of the comments and responses above, the USACE has considered this issue.

Comment: EPA questioned where there will be headwaters areas for reclaimed streams and whether the EA would discuss this issue.

Response: Good engineering of reconstructed jurisdictional streams will require establishment of valleys, slopes, and side channels that functionally constitute headwaters areas that make contributions such as flow and leaf material to the new streams. In addition, although the reclaimed streams have not been fully

designed, to the extent possible they will be tied in to existing drainages in the buffer area that also serve as headwater areas. See also the comments and responses addressing the alleged 18+ miles of headwater streams, above.

Comment: EPA questioned whether the seeps or springs are special aquatic sites.

Response: Only the areas listed in 40 CFR 230 Subpart E are special aquatic sites.

Comment: EPA questioned whether an EIS should be performed.

Response: The USACE has determined that an EA/FONSI is appropriate considering all factors, including project modifications, the extent of remaining environmental impacts, the applicant's avoidance, minimization, and mitigation, state permit and water quality certification requirements, and the permit conditions that will be imposed.

Recommended by:

Date

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Reviewed by:

Date

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