SECTION 6:
COMMENTS RECEIVED ON THE DRAFT EIS AND RESPONSES TO COMMENTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

NOV 21 2002

Albert H. Rogalla, Chief
Regulatory Branch
U.S. Army Corps of Engineers
Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement (DEIS) on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania

Dear Mr. Rogalla:

In accordance with our responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA), Region III, has reviewed the above referenced Draft Environmental Impact Statement (DEIS). The DEIS evaluates the environmental impacts associated with granting and extending federal permits for proposed commercial dredging activities within the Allegheny and Ohio Rivers in the general vicinity of southwestern Pennsylvania. In addition, the permit applications associated with this action are being reviewed by the U.S. Army Corps of Engineers (Corps), Pittsburgh District, and are required under Section 10 of the Rivers and Harbors Act of 1899, and Section 404 of the Clean Water Act. Thus, pertinent comments have also been included in this letter to satisfy EPA's review responsibilities under these statutes as well.

In general, the document is well organized and the material presented in a straightforward and easy-to-read fashion. Topical areas are relatively easy to locate. Technical material is appropriately located in the Appendices. The discussion is focused in a concise fashion on the major issues identified during the NEPA scoping process.

The applicant's preferred alternative, presented in the DEIS as Alternative 2, calls for obtaining sand and gravel from the Allegheny and Ohio Rivers using a variety of commercial dredging techniques and processing the material for distribution to customers throughout the regional service area. The DEIS identifies significant adverse environmental effects from this Alternative to hydrology, water quality (particularly, dissolved oxygen), and rare mussels, as well as moderate cumulative adverse impacts to fish habitat.

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We do not believe that the DEIS has adequately assessed the potentially significant environmental impacts of the applicant's preferred alternative or explored the full range of alternatives available to reduce the adverse environmental impacts associated with this project. We are specifically concerned by the limited number alternatives presented (i.e., only three alternatives are discussed, and two of those alternatives are similar in that they result in cessation of river dredging activities). Also of concern is the lack of information regarding the existing conditions throughout the affected river system, as well as a lack of information regarding specific permit conditions that are being proposed to mitigate resource damage related to the applicant's preferred alternative (i.e., actual language for the proposed permit conditions is not presented in the DEIS). Therefore, we have assigned the document a rating of "EO-2", Environmental Objections, Insufficient Information, meaning that the DEIS does not contain sufficient information to fully assess the environmental impacts which should be avoided, that other alternatives should be more fully explored, and that, despite the insufficient information, there appear to be significant environmental impacts that must be avoided in order to provide adequate protection for the environment. A copy of EPA's criteria for rating EISs is enclosed as Attachment I, while more detailed technical comments supporting the above rating are included as Attachment II.

The DEIS states that the applicant's preferred alternative (Alternative 2) may have significant adverse environmental impacts to threatened and endangered species of mussels and their habitat. In the absence of a formal Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service regarding impacts to endangered mussel species, EPA has concerns that the dredging will cause irreversible impacts to the river system, adversely impacting the habitat conditions necessary to support the mussel populations. Furthermore, the DEIS indicates potential adverse impacts from Alternative 2 on not only mussels, but on fishery habitat in certain pools, as well. If areas of the rivers supporting fish and shellfish and their associated habitats are allowed to be dredged, these aquatic resources could be permanently removed from the ecosystem and opportunity for recovery severely constrained. Therefore, we suggest that more information is needed to make clearer what the direct and indirect impacts may be to the aquatic ecosystem and what measures may be needed to avoid and minimize these impacts (e.g. permit conditions, increased range of alternatives). As such, we believe that the preferred alternative, as presented, may have substantial and unacceptable adverse impacts to aquatic resources of national importance under Section 404 of the Clean Water Act.

In addition, as presented in the DEIS, Alternative 3, consisting of land based quarrying or importation of material from outside the study area, would appear to be the least environmentally damaging practicable alternative which meets the project's purpose and need. The CWA Section 404(b)(1) Guidelines at 40 CFR Part 23, Section 230.10(a) require that no discharge of dredged or fill material shall be permitted if there is a practicable alternative which would have less impact on the aquatic ecosystem, provided that the alternative does not have other significant adverse environmental impacts. A review of the DEIS leads one to conclude that Alternative 3 may be less environmentally damaging overall, though additional information would need to be presented before this could be confirmed.

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The EPA remains committed to working with the Corps and the applicants to identify and develop an environmentally acceptable project. I would encourage additional discussion between our organizations to clarify and resolve the issues raised in this letter and the attached detailed comments. Barring significant alterations, this matter is a candidate for referral under our authorities at CWA Section 404(q). If you have any questions or comments, please contact me at (215) 814-3151, or Mr. William J. Hoffman at (215) 814-2995.

Sincerely,

K. Hodgkiss

Kathy Hodgkiss, Acting Director
Environmental Services Division

Enclosures

Environmental Impact Statement (EIS) Rating System Criteria

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

LO (Lack of Objections) - The review has not identified any potential environmental impacts requiring substantive changes to the preferredalternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.

EC (Environmental Concerns) - The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.

EO (Environmental Objections) - The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideratior of some other project alternative (including the no action alternative or a new alternative). The basis for environmental Objections ca include situations:

1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;

2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdictio or expertise;

3. Where there is a violation of an EPA policy declaration;

4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or

5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.

EU (Environmentally Unsatisfactory) - The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:

1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;

2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or

3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

1 (Adequate) - The draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

2 (Insufficient Information) - The draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the final EIS.

3 (Inadequate) - The draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This ratin

Attachment II
EPA Comments on
the Draft Environmental Impact Statement (DEIS)
on Commercial Sand and Gravel
Dredging Operations in the
Allegheny and Ohio Rivers, Pennsylvania

GENERAL COMMENTS

- A clear outline should be presented in the beginning of the document listing of all the appropriate statutory authorities and permits to which these dredging operations are subject.

- The draft document relies heavily on PennDOT as the primary consumer of the dredged sand and gravel. Who are other consumers and what type of aggregate do they require? What are the other societal needs that this product supplies?

- We suggest that additional data addressing the components which guide a 404(b)(1) determination are needed in the EIS to properly evaluate the project under Section 404.

COMMENTS ON ALTERNATIVES

EPA believes that a full range of reasonable alternatives has not been explored in the DEIS. There are additional alternatives and mitigation measures which would reduce and avoid impacts to the aquatic environment, but which are not fully evaluated in the DEIS. Specifically, it is our opinion that there are several broad alternatives which could meet the underlying purpose and need for the project, and which should be further developed and evaluated. They are: (1) a river dredging alternative with appropriate conditions and mitigation measures, (2) land based quarrying, (3) importation from outside of the study area, and (4) a combination of the those alternatives (e.g., some river dredging combined with some land based quarrying). In addition, we believe that several of the permitting restrictions which were NOT adopted in conjunction with Alternative 2 (e.g., restricting dredging techniques, restricting dredging to certain pools) should be reconsidered as possible ways to avoid and minimize adverse environmental impacts to aquatic resources.

The DEIS has presented three alternatives: the cessation of river dredging (denial of the permits), granting and extending permits to continue dredging in the Allegheny and Ohio Rivers with current permit conditions along with the flexibility of adaptive management at specific sites, and using land based extraction or importation from other locations to meet the need.

The DEIS describes Alternative 2 as the management of commercial dredging activity with current permit conditions continued in place, and also requires a more comprehensive mussel sampling effort. The DEIS dismisses several additional conditions/restrictions. EPA disagrees with the elimination of these possible conditions from detailed study in the DEIS. We believe that these conditions could be better characterized as avoidance and minimization measures, and should be included in the evaluation to further reduce and avoid adverse impacts to aquatic resources. These measures include restriction of dredging to certain pools; limiting dredging to previously dredged areas; and restrieting dredging techniques. We believe that such measures should also include recycling and depth restrictions. Our rationale for retaining consideration of these measures includes the following:

- First, no data is provided to support the conclusion on page 2-6 that there is little difference in the environmental impacts among different dredging techniques. We also do not believe it is appropriate to limit the consideration of alternative dredging techniques to only those types of equipment currently used/owned by the applicants.

- Second, limiting dredging to previously dredged areas, where possible, in conjunction with employing other methods (e.g., land based quarrying) would help to reduce overall environmental effects. These areas have already been permanently impacted and the aquatic resources are unlikely to return to their pre-dredged state; therefore, additional environmental impact from dredging in these areas should be negligible. The DEIS states that only 16 percent of the mineable reserves meeting current permit conditions remain in areas that have been previously dredged. More information should be provided explaining how this calculations was made, and why more of the previously dredged areas do not meet current permit conditions, and therefore cannot be dredged further.

- Third, to adequately protect the habitat of existing and potential future populations of threatened and endangered mussels, the Corps should consider restricting dredging from certain pools. This may reduce the aggregate extracted through dredging; however, if supplemented with other methods the regional need would be adequately met.

We also believe that importation of aggregate is a feasible alternative which should be further evaluated in the DEIS. As we understand it, the barging industry rarely transports empty barges unless absolutely necessary. This would be economically inefficient for the industry. Barges transporting product from the Pittsburgh area to downstream ports in Ohio, West Virginia, Kentucky, and even Indiana must return to their home port of Pittsburgh. They could transport sand and gravel from these other areas to greater Pittsburgh area customers.

Additionally, an alternative which analyzes the different combinations of issuing permits but limiting dredging, land based quarrying, and importation should be fully evaluated. We believe that the regional demand and need for aggregate could be successfully met through such combinations while avoiding and minimizing adverse effects to the aquatic environment.

COMMENTS ON ENVIRONMENTAL CONSEQUENCES

- The DEIS does not adequately evaluate the applicant's preferred alternative and its potential effects on the aquatic environment. It is difficult to determine whether, and to what extent, environmental impacts will occur within the study area, because of a lack of information and analysis. While the document itself indicates a great variability in the dynamics, habitat, and quality between pools; the scientific investigation and analysis is very limited, and often uses outdated information and collection methodologies. Much of the data collection for this document was performed during only one season or even one day and represents a small number of pools, yet is used to make generalizations over the entire study area. This DEIS should have provided for a more thorough evaluation of impacts by acquiring current data at more locations over an extended monitoring period. With such limited and outdated information it is difficult to determine the extent, type, and significance of impacts to the resources located within the river system.

- Additional analyses must be included to properly evaluate the impacts of dredging on the aquatic ecosystem. The DEIS has indicated that dredging operations may impact up to 40% of the river bottom by reducing the bottom elevation by 15 to 35 feet, thus changing the river hydrology and morphology over the next 25-35 years. River morphology changes little over time, thus there is the potential for a permanent loss of substrate, habitat, and aquatic populations in these areas. There are likely to be significant adverse effects on dissolved oxygen levels in the dredged areas that could have significant impacts to aquatic life within these areas. This concern is heightened because Federally listed endangered mussel species have been found in Allegheny River Pools 8 and 9, and suitable habitat for several other Federally listed threatened and endangered or candidate species can be found further downstream. With additional survey and monitoring data, there is a likelihood of finding previously unidentified suitable habitat or threatened and endangered species in other pools or river segments which would be permanently eliminated through dredging. Without adequate data to assess the current conditions throughout the river system, it is impossible to evaluate the potential impacts from the dredging operations.

- Section 1.1 of the DEIS indicates that it is uncertain what portion of the area delineated as having been previously dredged has been disturbed by this dredging. This implies that the Corps is unaware of how much undisturbed area remains as habitat for aquatic species, such as threatened and endangered mussels. The true area of impact due to past dredging should be provided in the document, along with the identification and location of suitable habitat for threatened and endangered species.

- Section 2.2.1, page 2-4 states that dredging activities must avoid areas designated as productive aquatic habitat and the possibility of imposing additional site specific mitigation measures to further protect high-value aquatic habitat. Because the specific permit conditions were not included in the DEIS, it is not clear what the procedures will

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be for designating areas as "productive" aquatic habitat; the EIS should include this information in order to provide more assurance that this mitigation measure will be effective.

- Section 2.2.1, page 2-4 and 2.5. Will the resource agencies determine before dredging takes place the delineation and location of mussel populations? How will this occur? The document should be clear as to who defines and decides what is or is not a viable mussel population and discuss what the criteria are and how they would be incorporated into a permit.

- The document does not mention the use of Sediment Oxygen Demand or other techniques to assess impacts in dredged versus non dredged areas. The DEIS should provide a more comprehensive assessment of the recovery of resources in previously dredged areas.

- Although current permit conditions are presented in Chapter 2 including restrictions on dredging near public water supply wells or intakes, there is no detailed information presented in the DEIS concerning the location of municipal or private water supplies and how these may be impacted by the proposed granting of permits for continued river dredging.

Surface Water Quality - *Dissolved Oxygen (DO)*

- Conclusions about dissolved oxygen relied heavily upon STORET data which was collected primarily between 1982 and 1992. We believe this data is outdated and was not collected to address anoxic conditions. Further field studies referenced in the DEIS were limited and not adequate.

- The data provided in the document does not support the statement that anoxic conditions are localized and short term in nature. Anoxic conditions can be detrimental to aquatic life, including endangered and threatened freshwater mussels; therefore, the language "short-term and localized" should be clearly explained and defined in the document.

- The DEIS seems to indicate that the depressed DO values observed in the historically dredged areas were due to thermal pollution from power plants. However, the water temperature was apparently within the same range as other stations used in the study. There is little support in the document to indicated that the low DO is caused by the thermal pollution. Studies should be implemented to provide additional data on the DO issue.

- The Draft document does show a causal relationship between dredging and low DO as seen in Section 3.3 and 4.4. The PA DEP study in 1999 also clearly indicated that depth was a major factor in lower DO, and that it is due to dredging. The document should make more of an effort to develop reasonable mitigation options to address the DO

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impacts other than trenching parallel to rather than perpendicular to the channel. Such options might include minimizing depth to a maximum of 25 feet or 30 feet, if there is adequate flushing.

- The model in Appendix P only used one treatment with 15 feet, the rest were with 30 feet. The model should evaluate the 20 and 25 foot depths as well. Also the model should have used a varied controlling depth from 10 to 25 feet to better show the range of conditions on the river.

- The sediment quality evaluation was done based on very limited sampling and only represents two sites in the entire 109.5 mile study area. We believe that the DEIS is incomplete with regards to sediment quality analysis due to the lack of adequate data.

Aquatic Toxicity Evaluations

- The samples for the acute toxicity tests were collected only once and at just a few locations at two actively dredged areas. It appears in the DEIS that the samples were collected when active dredging was not occurring, which, if that is accurate, is a major flaw of the study. The box-and-whisker plots G-14 through G-16 are suspect in showing percent survival greater than 100%. Typically, EPA would not show results greater than 100% in the figure. The raw data should be provided to assist the reviewer in interpreting these results. Also the mean larval weights of greater than 1 are not realistic. The weights of the fathead minnows should only be between 0.25 and 0.4 based on USEPA guidance.

Freshwater Mussels

- We believe that the DEIS argument which states that host fish dispersal for mussel distribution may be restricted is not well supported by the data. Based on ORSANCO data, the mainstem of the Ohio River supports approximately 160 species of fishes. It should be noted that fish diversity has dramatically improved in the study area since the passage of the Clean Water Act.

- We disagree with the idea presented in the Executive Summary that there would be no change in the effects from dredging on threatened and endangered species relative to current baseline conditions. It is important to realize that the literature supports the view that the mussel populations would recover if dredging was halted in the rivers. It is reasonable to expect that if a stressor is removed from the aquatic ecosystem, the ecosystem would improve.

- Much of the mussel data used is based on the brailing survey technique, which the DEIS itself states on page 3-29, Line 19, is an inefficient surveying method. Nonetheless, the DEIS uses this type of survey data to draw conclusions about the distribution of mussels.

A more systematic assessment of the study area and all the possible mussel communities potentially impacted should be performed, not just for specific areas.

- The summary of environmental impacts implies that the use of the mussel sampling protocol appears to be limited to Allegheny River Pools 5-9. This would then leave the mussel populations in Allegheny Pools 2-4 and the Ohio River from river mile 40 up to the first Allegheny River dam unassessed and unprotected. The document should explicitly state where the protocol would be used.

- The freshwater mussel populations have not been identified within the DEIS study area. All the river reaches subject to dredging should be fully assessed to determine the true extent and distribution of these species, including threatened and endangered species. As stated previously, it is important to note that since the passage of the Clean Water Act, the Ohio River has improved, based on ORSANCO data, from less than 20 fish species in the 1960s to approximately 160 species today. This information suggests that the freshwater mussel populations also may have improved throughout the study area and the Ohio River basin.

  Studies used in the DEIS indicate that there is a relationship between depth, and strata with mussel density. This information could be used to develop additional mitigation strategies to protect the freshwater mussel populations.

- The document does not adequately address the impact from long term discharges of total suspended solids (TSS) on mussels.

Macroinvertebrates

We question the statement in the Summary of Environmental and Socioeconomic Effects indicating that invertebrate dispersal and recolonization is rapid and resilient. Literature cited in the document and Section 4.2 itself contradicts that assumption. In fact, studies done on dredging in the Chesapeake Bay have shown that neither the total biomass nor the number, type, and composition indicate a return to a similar healthy community.

- The document should more fully assess the impacts on the benthic communities. Dredging impacts the macroinvertabrates in four ways: the direct loss of benthic communities, change in sediments which changes community structure, siltation on communities from surface discharge , and depressed dissolved oxygen.

- The EIS should acknowledge the direct protection of 25% of all benthic communities with the cessation of commercial dredging within the river.

Mitigation

- The DEIS should have a separate section and/or appendix to address mitigation for each pool within the study areas. Such examples include the distance set back from islands, from locks, etc. The total area both to be protected and to be impacted should be mapped.

- The DEIS should provide a detailed mitigation plan proposed by the applicants. It is unclear what types of compensatory mitigation is under consideration for unavoidable adverse impacts to the aquatic environment. This needs to be provided for appropriate review and analysis of the permit applications. There should also be a detailed monitoring plan provided for review.

Cumulative Effects

EPA would like to see the study area expanded to include the entire Allegheny and Ohio River reaches within the Pittsburgh District. To the extent that a cessation of dredging operations may result in increased dredging activities in other portions of the river, that should be noted and discussed. Dredging operations are currently active in the lower section of the Ohio River, river miles 40.1 to 132 and mine the same high quality sand and gravel as is found in the DEIS study area. Limiting or eliminating sand and gravel dredging in the upper sections it could result in an increase in dredging activity within ORM 40.1 to 127.2; thus, the impacts to the natural and human environment in this area should be evaluated as well.

Response to EPA Comments and Responses

General Comments

(1) *Appropriate statutory authority and permits regarding dredging need to be incorporated.*

Appropriate statutory authorities and the current permitting process are defined and discussed in Chapters 1 and 2 of the FEIS, respectively.

(2) *Consumers and societal needs of applicants' products need further explanation.*

Consumers of the applicants' products are further discussed in Chapter 2 of the FEIS.

(3) *Additional data addressing components of a 404(b)(1) determination are needed.*

Extensive data were collected and evaluated during the EIS, in addition to data collected by other agencies prior to and during preparation of this EIS. The Corps has sufficient information with which to evaluate this project under Section 404. Also, see Response (1) below under Environmental Consequences for further clarification.

Alternatives

(1) *The range of alternatives evaluated in the draft EIS (DEIS) is not broad enough. The EIS should evaluate alternatives consisting of (1) a mixture of aggregate sources, (2) further restrictions on dredging.*

The three alternatives evaluated in the DEIS were identified based on discussions with EPA Region 3 staff in 2001, prior to preparing the DEIS. Further discussions with EPA, following comments on the DEIS, led to the following four alternatives, which are evaluated in the Final EIS:

1. Deny dredging permits within the study area (No Action).
2. Issue dredging permits using current permit conditions only.
3. Issue dredging permits using current permit conditions and additional site-specific permit conditions formulated using an adaptive management process and mitigation.
4. Obtain sand and gravel from sources other than river-based dredging within the study area, including: a) land-based sources within the region; b) importation of sand and gravel; and c) recycling.

It should be noted that Alternative 4 is not the Federal action being evaluated; it is an outcome of a decision regarding a specific permit, and it is not within the regulatory authority of the Corps to select or implement such an alternative. Rather, it is the market forces that occur as a result of denying permits under

Alternative 1 that will effectively define what Alternative 4 will be. In this vein, the need to evaluate an alternative that represents a mixture of sources of aggregate material (e.g., dredging and land-based sources together), is outside the regulatory authority of the Corps and is a market-driven phenomenon, as explained in the FEIS, Chapter 2. Restrictions on where dredging can take place, and in what manner, will necessarily reduce the life-expectancy of the industry, thereby creating a competitive advantage for other sources of the same material.

The interactions between the various aggregate markets, and how each might respond with less dredging (or no dredging) is, in our experience, very difficult to predict and probably not germane to the EIS. Aggregate will reach Pittsburgh from a variety of sources if the price is satisfactory. With less dredging, aggregate will be supplied by land-based sources and perhaps from downstream areas, if the price is worth the extraction and shipment to the Pittsburgh area. If the price is not high enough, more distant sources will ship to more local markets where their profit margin is higher. We explained the importance of shipping distance in the cost of aggregate material in Chapter 4, Section 4.1.9, and further explained factors unique to the aggregate market in terms of supply and demand. The fact that building and road aggregate will continue to be supplied to Pittsburgh, even if dredging is curtailed or eliminated (albeit at higher cost than it is today), leads us to conclude that it is not useful to analyze environmental impacts of a combination of sources (including dredging) as suggested by EPA. Instead, we estimated the tonnage of various aggregate types (Type A sand, SRL E aggregate) produced by dredging per year, given certain additional permit restrictions (e.g., dredging in certain habitats only) so that the public can see the effects on the life cycle of the industry (as we already did in the DEIS) and how much aggregate will eventually be needed from sources other than dredging. It is not possible for an EIS to address the market forces that would create an interaction of aggregate sources as suggested by EPA.

The FEIS incorporates, as part of Alternative 3, many of the issues raised by EPA including: restrict dredging from certain areas or pools, certain habitat types, shallow areas (< 9 feet deep) or where biological resources are unique or significant. In addition, this alternative includes an adaptive management component that addresses avoidance of federally-listed species and maintenance of satisfactory water quality.

Environmental Consequences

(1) *Insufficient data were collected with which to properly evaluate alternatives.*

While more data collection and analyses is desirable, we note that fairly extensive dissolved oxygen, particle size, macroinvertebrate, and mussel data were collected and analyzed in the DEIS, following the development and presentation of sampling plans to stakeholders. For D.O., for example, 49 dredged areas were examined in 1998, representing a broad range of dredged conditions, and another

14 areas in 1999. These records covered all 12 navigation pools in the study area, over four different months (July-October). Macroinvertebrates and particle size were examined from 21 dredged sites in 6 pools during 1998 and 16 dredged and undredged sites from three pools in 2000. Mussels were collected via diving at 8 dredged and undredged sites, in five pools during a 3-month period in 1998 and again in 12 dredged and undredged transects in 3 pools in 2000. The latter sampling was developed with input from USFWS, PFBC, and PADEP. The FEIS includes a new section in Chapter 2 that summarizes data collection activities for this EIS and the data reports as well as sampling plans are now included as exhibits to the FEIS. We would note that the previously collected brailing mussel data, initially relied on in the DEIS, was determined to be an unreliable sampling method during preparation of the DEIS. We supplemented our information with more recent diving data collected at over 30 locations by the applicants, DEP, and USFWS in the DEIS. The DEIS calls for mussel sampling prior to dredging because it is unrealistic, in our opinion, to expect the applicants to fund more extensive monitoring studies for a 110-mile long study area.

(2) *The true area of impact due to past dredging should be provided along with locations of suitable habitat for T&E species.*

Historic dredging records are not sufficient to address the first part of this comment because several companies are no longer in business. Many of the pools have side-scan sonar images of the bottom as part of DEP's Geographic Information System (GIS) for the study area, which was used extensively in the EIS. The GIS used this information to approximate mineable sand and gravel reserves remaining in each pool based on available depth information. Those areas are reported by pool in Chapter 2 of the EIS.

Currently, dredging is typically permitted in 0.1-mile increments by PADEP. Review of dredging records within the last 10 years indicates that dredging operations do not generally move much over a one-two month period (and often longer periods), often staying within a 0.05-mile length of river. As a result, according to previous dredging records, $\leq 0.8\%$ of the area of concern is dredged in any given year on average. Over extended time periods, the area of river dredged does not increase accordingly because in most cases, previously dredged areas are re-dredged. Furthermore, for the past several years at least, a maximum of four or five dredges are operating simultaneously in the project area. Thus, small areas of the river are actively dredged at any one time.

The most current bathymetric information was used to infer previously dredged area in the FEIS. This included recent depth data collected in Allegheny River Pools 7 and 8, made available through surveys conducted by the applicants. The FEIS also notes that the Corps is evaluating the use of new tools to obtain current bathymetric information for the entire 110-mile study area.

Critical habitat for the T&E mussel species or candidate species has not been identified by USFWS or PFBC as noted in the DEIS. However, in the workshop held by DEP on October 31, 2000 concerning mussel sampling methods, experts present suggested that preferred mussel habitat could be characterized or quantified. A mussel sampling protocol, as discussed in the EIS, could incorporate such characterizations, in addition to mussel sampling itself, to avoid direct or indirect effects of dredging in those areas of the river.

(3) *Document should state who defines and decides what is a viable mussel population.*

The FEIS discusses the importance of a scientifically appropriate mussel survey protocol to avoid impacts on significant mussel resources and T&E mussels, in particular. Chapter 4 of the FEIS also notes that the Corps is employing a FWS-approved protocol for sampling T&E species in the study area.

It is noted that the Ohio River Protocol defines a mussel concentration to be a density of 1 mussel/square meter, and the Service has further refined areas of concern to have mussel concentrations at even lower densities, based on species composition. These densities trigger the need for further surveys and/or consultation, and will continue to be evaluated through the adaptive management process.

(4) *Sediment Oxygen Demand (SOD) or other techniques are needed to assess impacts in dredged vs. non-dredged areas. More comprehensive assessment needed of recovery of resources in dredged areas.*

The DEIS did not examine SOD and instead relied on water column D.O. measurements as an indication of anoxia potential. Effects of D.O. depletion were evaluated based on benthic macroinvertebrate sampling in dredged and undredged areas. Data from many areas and several pools consistently indicated macroinvertebrate assemblages in dredged areas that were similar to those in undredged areas. Neither abundance or taxa richness were apparently impacted in dredged areas and, in fact, mayflies such as *Hexagenia*, a prime food source for fish, were often more abundant in dredged areas. Therefore, it appears that macroinvertebrates recover from D.O. depletion, if they are impacted at all. Other resources, such as mussels, yielded more equivocal results: recovery of mussels is not likely to be as strong as it is for other macroinvertebrates as pointed out in the DEIS, due to their more limited mobility.

(5) *Location of municipal or private water supplies and potential impacts of dredging on these water supplies is needed.*

Locations of municipal or private water supplies have been added to individual maps of each pool in the FEIS. The FEIS summarizes existing information and/or studies regarding potential impacts of dredging on water supplies. Current permit

conditions for dredge operations provide corrective action and restitution in the event that a cause-effect relationship is established for a particular event such as contamination of a public water supply. To date, no such contamination has ever been reported or observed. While dredging is currently restricted within the capture zone of any public water supply, the FEIS relies on results of recent hydrogeological studies to evaluate dredging effects on public water supplies, under Alternative 2 of the FEIS.

Another potential public health issue regarding dredging is resuspension of sediment contaminants that may present a risk to downstream public water supplies. Specific contaminants of concern identified in some comments included PCBs and chlordane that are known to occur in sediments in the lower portion of Pool 3 and adjacent to Pittsburgh. A fish consumption advisory has been in force by PADEP from the lower part of Pool 3 downstream to the Ohio border due to the occurrence of these contaminants in some fish. This issue is summarized in Chapter 3 of the FEIS under "Water Quality" and potential effects of dredging in this regard are discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to help mitigate these risks.

For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during preparation of the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed.

Surface Water Quality – Dissolved Oxygen

(1) *Conclusions rely on STORET data which is old; EIS field studies too limited.*

The EIS incorporated information from STORET but did not rely on these data in terms of assigning impacts on D.O. More recently collected D.O. data (DEP monitoring and other data collected during the EIS) were used to assess impacts of dredging on D.O. In this vein, the FEIS presents minimum D.O. values reported in STORET as well as in studies conducted during this EIS, as suggested by other comments received. In addition, the FEIS made use of additional modeling tools to evaluate effects of different dredge conditions on D.O. under worst case conditions recorded by PADEP (e.g., high water temperature, low flow). Results of these analyses were used to identify potential mitigation strategies or additional restrictions under Alternative 3 in the FEIS.

(2) *Data do not indicate that anoxic conditions are localized or short-term.*

Text in this regard was modified to indicate that anoxic conditions were observed under extremely dry, warm conditions but that acceptable D.O.s were observed in the same locations in other summer sampling for this EIS.

(3) *There is little data to support a connection between thermal pollution from power plants and observed anoxic conditions.*

Text in Alternative 2 regarding D.O. was modified to indicate that cumulative impacts of dredging and thermal pollution on D.O. maybe a possibility in some locations of the study area.

(4) *EIS should make more of an effort to develop mitigation options to address D.O. impacts due to dredging.*

The FEIS discusses an adaptive management process to add further permit modifications on a site-specific basis to minimize D.O. impacts as more monitoring information is compiled. Site-specific modifications would be determined through consultation with resource agencies.

Aquatic Toxicity Evaluations

(1) *Too few toxicity samples were collected; survival graphs and fish larval weights need to be corrected.*

Only a few samples were analyzed for aquatic toxicity in relation to dredging because available information and stakeholder input considered this to be a relatively minor concern. The samples analyzed in the EIS were collected during active dredging and included samples upstream and downstream of the dredge as explained under Alternative 2 (Water Quality) and in Exhibit B of the FEIS. The FEIS cautions that few samples have been tested.

Survival graphs were corrected and all raw data are now included as part of the Exhibits, which contain all previous reports prepared during development of the EIS. Fish weights reported are accurate and not uncommon given that these tests used ambient river water (with associated natural food).

Freshwater Mussels

(1) *Host fish dispersal may not be restricted.*

The FEIS also indicates that the improvement in water quality has resulted in a significant improvement in fish populations, which may include those species that serve as hosts for the larvae of mussels. Greater availability of potential fish hosts should further improve recruitment of mussels for at least some species. The

FEIS points out that fish movement through the locks and between navigation pools is common and that the locks and dams are unlikely to be an impediment to successful mussel recruitment in the project area.

(2) *Mussel populations would recover if dredging ceased.*

Under Alternative 1 (cessation of dredging or No Action), the FEIS recognizes that mussel populations could recover in certain areas if dredging ceased. However, based on available information, dredged areas are not likely to be colonized by mussels to the same level as undredged areas, whether or not dredging is halted. Those areas that offer satisfactory habitat will still be satisfactory regardless of whether dredging is halted. However, the lack of dredging could preserve areas that might be colonized by mussels sometime in the future.

The FEIS recognizes that water quality has generally improved in the project area due to a variety of pollution control activities by the Corps, DEP, and other agencies. As water quality continues to improve, mussel populations could conceivably increase in the project area. Impacts of Alternative 2 (dredging with current restrictions) on mussels are described in detail in Chapter 4 of the FEIS. Alternative 3 discusses adaptive management techniques to specifically protect and maintain native mussel species in the project area. This adaptive management process addresses federally-listed mussel species as well.

(3) *Brailing mussel survey data should not be used to evaluate alternatives.*

Mussel data based on brailing techniques were determined to be unreliable during the course of this EIS. We therefore, supplemented that information with more recent diving data collected at over 30 locations by the applicants, DEP, and USFWS. The brailing data presented in the EIS are not used for purposes of evaluating impacts or characterizing effects of dredging. More recent dive data are used for these purposes. As the study area is large, it is not reasonable or feasible to characterize mussel populations everywhere. That is why Alternative 3 requires mussel sampling prior to dredging, as is already the case in DEP permits. Dive sampling was also performed in many locations and different pools to help address impacts of dredging on mussels. Because dredging is permitted only in certain areas of the river under either Alternatives 2 or 3, the FEIS requires undertaking a FWS-approved mussel sampling protocol prior to dredging a specific area to determine if dredging should be permitted, particularly given concerns for T&E species.

(4) *Mussel sampling protocol would only be conducted in Allegheny River Pools 5-9; this would leave the rest of the study area unassessed and unprotected.*

This is incorrect. The FEIS clearly indicates that the mussel sampling protocol is required prior to issuance of a dredge permit in all parts of the study area. This process of permitting specific dredge locations is now further explained in Section 2 of the FEIS.

(5) *All river reaches should be fully assessed to determine the true extent and distribution of mussel species.*

It is beyond the scope of this EIS to sample the entire study area. More discussion of mussel (and other) sampling during preparation of the EIS is now included in Section 2 of the FEIS and results of those sampling efforts are included as Exhibits to the FEIS. Please also refer to Response (1) under "Environmental Consequences" concerning data requirements for this EIS.

(6) *There is a relationship between depth and mussel density. This relationship could be used to develop additional mitigation strategies.*

The FEIS further explains that depth appears to be inversely related to mussel abundance but may not be the ultimate factor according to several mussel experts consulted during preparation of the EIS. The implementation of additional mitigation strategies on a site-specific basis is incorporated as part of Alternative 3 in the FEIS.

Macroinvertebrates

(1) *EIS should more fully assess impacts on benthic communities.*

Macroinvertebrate sampling was performed in many dredged areas during development of the EIS. The FEIS more explicitly summarizes this sampling effort and the data reports from this sampling are included as exhibits to the FEIS. The substantial sampling performed for the EIS is sufficient to characterize the potential impacts of dredging on these fauna.

(2) *The EIS should acknowledge the direct protection of benthic communities with cessation of dredging.*

The FEIS recognizes that with Alternative 1 (No Action, cessation of commercial dredging), a portion of the benthic community will be protected over the assumed lifecycle of the dredging industry as calculated under Alternative 2. Further protection of shallow areas under Alternative 3 should reduce impacts on macroinvertebrates. The FEIS also notes that recovery of macroinvertebrates has been observed in previously dredged areas. Therefore, dredging may not have irreversible effects on this resource.

Mitigation

(1) *EIS should address mitigation for each pool in the study area.*

Mitigation is discussed as part of adaptive management under Alternative 3, particularly in relation to mussel and fish resources in the study area. Specific set-backs by pool were not identified in the FEIS as these will be determined in the process of reviewing dredge permits. Presumed set-backs from shorelines and islands under Alternative 3 were calculated and compared with those calculated under Alternative 2 to derive the increase in protected area under Alternative 3. In addition, a GIS analysis of fish habitat information, presented in Chapter 4, illustrates the increase in protection of fish habitats under Alternative 3. GIS analysis of fish habitat information, presented in Chapter 4, illustrates the increase in protection of fish habitats under Alternative 3.

(2) *The EIS should provide a detailed mitigation plan and a detailed monitoring plan for review.*

The FEIS discusses an adaptive management strategy in terms of mitigation controls and compensatory mitigation under Alternative 3. A detailed plan is not included at this time because this will require the involvement of other resource agencies as well as the Corps and the applicants.

Cumulative Effects

(1) *Study area should be expanded to include the entire Allegheny and Ohio River reaches in the Pittsburgh District as well as downstream of the study area.*

Indirect cumulative effects outside the study area were not quantitatively addressed in the EIS because of the high uncertainties involved. However, increased potential impacts of dredging downstream on the Ohio River, as a result of Alternatives 1 or 4 is discussed in the FEIS.

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United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904

IN REPLY REFER TO:

November 4, 2002

ER 02/0683

Colonel David Ridenour, District Engineer
U.S. Army Corps of Engineers
Pittsburgh District
1000 Liberty Ave.
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement on commercial sand and gravel dredging operations in the Allegheny River (between river miles 0-69.5) and Ohio River (between river miles 0-40) in the general vicinity of southwestern Pennsylvania

Dear Colonel Ridenour:

The Department of the Interior (Department) has reviewed the referenced Draft Environmental Impact Statement (DEIS), dated June 2002. Please consider these comments carefully before proceeding to a final Environmental Impact Statement.

GENERAL COMMENTS

The DEIS does not present a full range of alternatives that would meet the project need to provide aggregate to the study area. Although three alternatives are evaluated, Alternatives 1 and 3 are essentially the same, with both involving the cessation of commercial sand and gravel dredging in the Allegheny and Ohio Rivers. Alternative 2, to continue sand and gravel dredging in the rivers, is loosely defined to include site-specific permit conditions and sampling protocols that may change from site to site or over time. Other alternatives, such as limiting aggregate types, limiting dredging areas, or avoiding certain pools were considered and dismissed as ineffective or infeasible. The alternatives analysis should be expanded to include a full range of alternatives that meet the purpose and need.

The DEIS does not address potential effects of dredging on existing public lands within the study area. There are federal, state and local public lands (county parks, state management areas, National Wildlife Refuges, etc.) within the study area which are not covered in the DEIS. For example, two of the islands in the upper Ohio River in the study area (Phillis and Georgetown Islands) are a part of the Ohio River Islands National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service (Service). According to Corps of Engineers physical scientists, historic and current sand and gravel dredging has already severely impacted many refuge islands in the Ohio River, causing significant erosion and loss of land (Mike Spoor, Huntington District Corps

Rec'd 11/5/2002

of Engineers, personal communication). In addition, national wildlife refuges are managed to conserve and protect habitat for wildlife, and the disturbance of these habitats by dredging is not discussed anywhere in the DEIS.

Furthermore, the DEIS omits resource agency recommendations concerning information needs and analysis necessary to conduct a thorough evaluation of the impacts that commercial sand and gravel dredging has had on the Allegheny and Ohio Rivers. Small data sets from several pools are used to support generalized statements about impacts from dredging in 110 miles of two major rivers in Pennsylvania. Even the limited information presented in the DEIS attests to the wide variability of physical, biological, and chemical conditions within and between pools. Without additional information it is impossible to draw many conclusions about any of the alternatives evaluated. Consequently, the DEIS fails to provide a complete and objective view of an activity that has caused, and has the potential to cause, substantial adverse effects on the physical and biological integrity of these two rivers.

SPECIFIC COMMENTS

E.4 Alternatives Examined

Alternatives 1 and 3 are essentially the same and would result in the same environmental consequences; therefore, they should be combined as the No Action Alternative to avoid confusion.

Alternative 2 is loosely defined as the continuation of commercial sand and gravel dredging in the rivers under a variety of special permit conditions that may vary from site to site. There has never been a comprehensive analysis of the effectiveness of these special permit conditions in protecting the fish and wildlife resources in the rivers. For example, the Service does not believe that the current mussel sampling protocol is thorough enough to ensure that there will be no take of threatened and endangered species. Furthermore, except for the few dives by Tetra Tech, Inc., for this DEIS, to our knowledge no one as ever made a comprehensive examination of the cut slopes in the dredged holes to determine if the 2:1 slopes are stable and the river is not cutting into areas less than 6 feet deep. This alternative should also include an analysis of the effectiveness of the special permit conditions listed in the DEIS.

Table E-2 The second bullet under hydrology regarding operation of the upper locks and dams on the Allegheny River is a socioeconomic impact and should not appear in the hydrology section of this table.

2.2.1 Permit Conditions

The permit conditions discussed on pages 2-2 through 2-5 for Alternative 2 are not agreed upon by all regulators and resource agencies, and in fact are significantly different from those applied by the Huntington and Louisville Districts of the Corps in the Ohio River. There is no discussion of

the origin of these permit conditions, how they were developed, who developed them, what testing of the conditions might have occurred and the resources they were intended to protect, etc. The discussion of permit conditions should be expanded to include this information.

The third bullet on page 2-4 states that the northern riffleshell (*Epioblasma torulosa rangiana*) is the only federally listed endangered species that occurs in Pools 8 and 9 of the Allegheny River. The endangered clubshell mussel *(Pleurobema clava)* has also been collected in the northern part of Pool 9. The DEIS should be corrected to show that two federally listed endangered species occur in the upper Allegheny River.

This section includes a discussion of why four alternatives were not carried forward for detailed analysis as part of this DEIS. The first alternative, restricting dredging/processing techniques, was dropped because there were no detectable differences in environmental impacts between techniques. That conclusion appears to have been based upon one set of samples taken above and below one type of dredge in one pool in the Allegheny River and one pool in the Ohio River. Considering all of the potential variables, this is too small a sample to form any conclusions about the effects of different dredging and processing techniques, and should not be used to justify dropping this alternative.

The second alternative, restricting the aggregate types dredged, was rejected because all of the material in the river could potentially meet the highest Pennsylvania Department of Transportation (PennDoT) standards. This argument ignores the fact that, out of 4 million tons of aggregate used annually, only 700,000 tons of SRL E and Type A quality aggregate are needed. Therefore, the demand for SRL E and Type A material could be met with substantially less dredging and associated environmental impacts. Upland sources could provide the balance of aggregate needs. This alternative should also be studied in detail.

The fourth alternative, restricting dredging to certain pools, was also not evaluated because Alternative 2 with special permit conditions could be made restrictive enough to avoid affecting significant resources in any of the pools. There are several reasons why this alternative should be evaluated in the DEIS. First, based upon the diverse aquatic resources, limited past dredging in Pools 5 through 9, and the presence northern riffleshell and clubshell in Allegheny River Pools 8 and 9, as well as suitable habitat for several other federally listed, threatened and endangered or candidate species found further downstream, the Service considers these pools potential aquatic resources of national importance. With improved water quality, even the lower Allegheny River and upper Ohio River may once again support federally-listed freshwater mussels provided that not all of the suitable habitat is eliminated through dredging. Based upon past experience, there is no guarantee that more restrictive permit conditions would protect habitat for these mussel species. Furthermore, up to 98 percent of the barge traffic through the locks and dams on these pools is due to commercial sand and gravel dredging. By eliminating dredging in these pools, there would be less potential for barges to carry zebra mussels into these pools and jeopardize the freshwater mussel fauna. Therefore, this alternative, with possible multiple pool closures, should be evaluated in the DEIS.

3.3.3 Dissolved Oxygen

The document relies heavily on STORET data to demonstrate that dredging has had no adverse effects on dissolved oxygen (DO). Even though the data cover 22 years, most of the data were collected in a ten-year period between 1982 and 1992. STORET data are often clumped either in time or location or both because of the particular reason for the study. Even though the data were selected from late summer, without river flow information before and during the sampling events, it is impossible to determine what the "ambient conditions" were that may have directly influenced the results. Even small storm events before the samples were taken could alter DO stratification in the dredged holes. Furthermore, the data were taken from only 54 stations (some of which overlap with other stations) on 110 miles of river and not all pools are represented. In addition, most of the samples were off bridges and piers where dredging is not permitted and water depth was probably a result of scour around these structures and not dredging. Therefore, to make general comments about averages and trends in dredged and undredged areas using STORET data without further analysis could give erroneous results.

Nevertheless, the STORET data presented, as well as data collected by the applicants' consultants, the Pennsylvania Department of Environmental Protection, and the U.S. Army Corps of Engineers, have documented DO depletion in at least some dredged holes on both the Allegheny and Ohio Rivers. Therefore, the dredging activities are resulting in a violation of state water quality standards.

3.3.5 Metals

The copper standard for chronic exposure aquatic life protection is incorrect. Using the DEP equation (*Pennsylvania Bulletin*, Vol. 30, No. 47, Nov. 18, 2000) and a median hardness value of 107 mg/L $CaCO_3$, the filtered standard is 9.88 μg/L and the unfiltered adjusted value is 10.27 μg/L. Reevaluation of the water data with this value demonstrates that average copper concentrations were above the standard in most of the study area. The zinc standard was also calculated incorrectly, but it does not change the conclusion regarding water data averages in the study area.

3.3.6 Sediment Quality

Table G-6 contains inappropriate sediment toxicity benchmarks that need to be replaced with the following current fresh water values, and should include DDT and its metabolites:

	NOAA TEL [1]	CCME ISQG[2]
Pb	35 mg/kg	35 mg/kg
Zn	123.1 mg/kg	123 mg/kg
Cu	35.7 mg/kg	35.7 mg
PCB	0.034 mg/kg	0.034 mg/kg
PAHs total		0.468 mg/kg (13 compounds)
DDT total	0.00698 mg/kg	0.00615 mg/kg

The U.S. Geological Survey (USGS) (Anderson et al., 2000) analyzed sediments from New Kensington, Pennsylvania on the Allegheny River in 1996. These data indicate that this site has surface sediment contamination at threshold toxicity levels for lead, zinc, copper, DDT compounds, and PAHs. Even though concentrations are still toxic, USGS concludes that surface sediment concentrations have declined over time. A primary factor contributing to this reduction is the deposition of clean sediments from upper reaches of the basins that effectively buries contamination. Thus, the potential for dredging to re-contaminate surface sediments by exposing and mixing buried sediments should be considered in the evaluation of ecological risk. This evaluation would require sampling at multiple locations in the reaches proposed for dredging, at both surface and depth of dredging, to determine if the risk to ecological communities will be increased to unacceptable levels if sediments are mixed and redeposited.

Sediment toxicity testing results (Figures G-12 and G-13) are difficult to interpret as they are not accompanied by sediment analytical data. The *Chironomus* assays are invalid because they fail the quality control parameter for >70 percent survival in control replicates. Without valid toxicity and chemistry data, one cannot conclude that the upstream location is the less contaminated site. In addition, acute toxicity bioassays, which are by definition short-term in nature, cannot prove that the contamination would not result in toxic impacts in the months and years post-dredging. Chronic toxicity bioassays with growth and reproduction endpoints, such as the 48-day *Hyalella azteca* and 60-day *Chironomus tentans* tests (Environmental Protection Agency, 2000), are more appropriate for assessing ecological risk in this case.

3.3.7 Aquatic Toxicity Evaluations

As with the sediment bioassay data, the water toxicity test results are inconclusive without the upstream and downstream water chemistry data. In addition, some of the control replicates (*i.e.*, "extremes") fail the quality control standard of >80 percent survival of control replicates. The assessors should also verify that the numbers of offspring data are correct as they reflect reproduction values common for day 2 or day 3, but not the end, of a 7-day exposure bioassay.

[1]The TEL, or Threshold Effects Levels for freshwater sediment, is a concentration above which adverse effects are observed in populations of aquatic organisms (National Oceanic and Atmospheric Administration, 1999).

[2]An ISQG, or Interim freshwater Sediment Quality Guideline, is a concentration above which the incidence of adverse effects on aquatic life is generally 20 to 30 percent (Canadian Council of Ministers of the Environment, 2001).

Furthermore, one set of samples above and below a dredge at one location on the Allegheny River and one location of the Ohio River is not conclusive evidence that dredging is having no toxic effects on aquatic organisms. Multiple samples at several locations, under different operating and river conditions, and with all types of equipment covered by permits, would be needed before any conclusions could be made about toxicity or bioaccumulation.

3.4.2.3 Freshwater Mussels

At the top of page 3-28, the analysis of mussel brailing data in the Allegheny and Ohio Rivers is not sufficient to draw conclusions with respect to depth, substrate type, or distance from shore. Most of the brailing data were collected as part of pre-dredging surveys or other permitted activities on the river and, therefore, were biased by location in the river. Furthermore, the Service compared brailing to diving in 1999 and clearly demonstrated that brailing is an inadequate technique for sampling mussels in areas where gravel, cobble, and boulder habitat may be present.

The Service dive team also collected other data in 1999 and 2000 which are not represented in this report, although the data were previously provided to the Corps and the applicants' consultants. In addition, USGS (Leetown Science Center) conducted mussel surveys in Pool 9 at the East Brady Bridge in 2000, and found both northern riffleshell and clubshell. This information should be included in the DEIS.

3.4.3 Federally and State-listed Threatened and Endangered Aquatic Species and Critical Habitat

The second paragraph on page 3-35 indicates that clubshell mussels do not exist in the Allegheny River pools. Although the clubshell, as well as several other federally-listed threatened and endangered species, have not been recently documented in the study area (except for the northernmost end of Pool 9), no comprehensive surveys have been conducted that are likely to locate them. Spot surveys conducted to date could easily overlook uncommon or locally abundant species. Some mussel species have been assumed to be extirpated based upon a lack of survey information, rather than on negative survey results; therefore, the conclusions regarding extirpation are unsupported. As an example, each year between 1999 and 2002, one or more mussel species have been documented in sections of the upper Ohio River basin where these species were assumed to have been extirpated. These species include mussels that are listed as endangered or are of special concern, as well as species that remain common elsewhere in the Mississippi River basin. Therefore, the absence of clubshell from the majority of the study area should be put in context with the limited survey effort that has been conducted to find them.

4.1.4 Impacts to Aquatic Life

The document states that there will be no noticeable difference in water quality in the absence of dredging because background levels caused by other sources will not be affected. This conclusion is based upon a limited data set from a few locations and may not be indicative of the

entire study area. At least localized improvements would be recognized where the dredges operated in the past. The permanent burial of contaminated sediments and continued improvement in water quality will also have a positive effect on recolonization of areas downstream of past dredging sites.

Furthermore, a few mussels found in some dredged holes cannot be construed as evidence that the holes provide suitable habitat for recolonization. The mussels found in the dredged holes were probably carried there during storm events or they slid in as the sides of the holes collapsed over time. Since mussels can survive adverse conditions for long periods of time, some other measure of mussel health, such as glycogen content, would be needed to determine their actual condition and, therefore, the habitat suitability in these dredged holes. In addition, sampling of these holes should be thorough enough to determine whether or not reproduction and recruitment are occurring in these areas.

4.1.9.3 Impacts to Socioeconomic Conditions

It is unclear from the document whether the job losses and decline in economic indicators predicted to result from cessation of dredging takes into account the jobs and economic benefits that would be created by the increased truck drivers, trucks, trucking companies, fuel and services, etc., needed to support the movement of aggregate from land-based quarries to customers. In addition, it is unclear whether the calculations of economic loss take into consideration the possible shift of suppliers. On page 1-3 there is mention that 25 percent of the aggregate is shipped outside of the Pittsburgh area. Based upon cost and availability, some customers may shift to more locally available sources that would cut down on the major cost of transportation and result in fewer traffic problems, accidents, fuel consumption, etc. The DEIS should clearly state what assumptions were made in the calculations of these projections.

The document does not factor the cost of operation and maintenance of the upper Allegheny River locks and dams into the costs associated with continued dredging. Up to 98 percent of the traffic through the upper locks and dams is due to the sand and gravel industry. The document considers the environmental and economic costs of producing aggregate from land-based sources; however, the fiscal and environmental costs of maintaining the lock and dam system are not added into the cost of producing gravel from river-based sources. If gravel dredge operators are the primary users of some of the navigation pools, this federal subsidy, which may have ongoing negative environmental consequences, including limiting recovery of federally listed species, should also be addressed.

4.2.1 Impacts to Hydrology

On page 4-25, the DEIS implies that there may only be a few previously dredged holes that have any significant accumulation of silt or debris. This is not supported by observations and sampling by Service divers during surveys of the Allegheny River and elsewhere in the Ohio River watershed. Service divers often observe material actively rolling into the dredged holes as

they dive down into the deeper sections. At the bottom of these dredged holes they frequently encounter near-zero visibility and thick layers of soft silt and debris. They usually cannot feel any solid substrate within the reach of their arms. Apparently not all dredged holes exhibit similar characteristics as those observed by the applicants' divers. Tetra Tech's small data set should be put in context with all sediment sampling and observations that have been made on the two rivers.

4.2.3 Impacts of Alternative 2 on Water Quality

Turbidity effects below active dredging operations are neither minor nor consistent with background levels. Although turbidity levels below dredges may be within the normal ranges observed under high flow/high turbidity times of year, high turbidity during the summer and fall, when background levels are extremely low, has significant deleterious effects on the ability of freshwater mussels to reproduce successfully. Dispersal of mussel glochidia is highly dependent on the ability of host fish to see the mussel and approach close enough for glochidia release to occur and result in attachment to the fish's gills and fins. Timing and duration of the turbidity effect is critical. Service personnel have observed turbidity extending up to one mile downstream of active dredges during late summer, with a resulting visibility of near zero when "background" visibility away from the dredge operation was five to six feet.

The document does not address the cumulative effects of dredging operations. At least some of these dredges operate 9 to 10 months of the year, sometimes 24 hours a day, seven days a week, with frequent moves to new locations. Fish, macroinvertebrates, and aquatic plants are affected in a much larger portion of the river over time than in just the turbidity plume downstream of the dredge at any given time. In addition, dredging brings buried, potentially contaminated sediments into contact with the water column where pollutants may enter the aquatic ecosystem in two rivers where there are already fish consumption advisories because of such contaminants. Therefore, we do not agree that the only impact on water quality is "minor short-term adverse effects on turbidity."

4.2.4 Impacts to Aquatic Life

Freshwater Mussels. Terms such as "mussel beds," "viable mussel populations," "productive mussel habitat," and "significant mussel resources" are not defined. Any terms unfamiliar to the reader should be defined to maintain consistency and better understanding of the discussion.

The second paragraph on page 4-37 concludes that dredging would cause only minor adverse effects on freshwater mussels, based upon a small data set collected during the Phase 2 studies. One small data set from locations chosen where few mussels were found, either in undredged areas or in the dredged holes, is not sufficient evidence. Whenever Service divers examine dredged and undredged areas, they find just the opposite situation. Dredged areas have consistently fewer mussels than undredged areas. This inconsistency is further emphasized by the differences in the number of mussels found by the applicants' dive teams and Service divers.

For example, in the New Cumberland Pool, where Tetra Tech divers found no mussels, Service divers found eight species. In Pool 8, where Tetra Tech divers found only one mussel along two 300-foot transects, Service divers found 106 live mussels and five species along one 200-foot transect, and 276 mussels and ten species along a 100-foot transect of bottom. The document should present a fair and impartial evaluation of all data concerning freshwater mussels. A small sampling effort during the Phase 2 studies is not sufficient to draw any conclusions about the potential adverse impacts to freshwater mussels from dredging.

The document states that impacts to significant mussel resources can be avoided by the mussel surveys and buffers around mussel beds. However, the effectiveness of the proposed buffers around sensitive mussel resources is not substantiated in the DEIS, and we doubt they would be adequate to protect mussel resources or other aquatic life. The negative physical effects of gravel dredging include changed hydrology and flow patterns, redistribution of contaminants, destabilization of the substrate, bed and bank erosion, and increased turbidity. These negative environmental effects are either inadequately examined in the DEIS or not included at all. However, all affect the size of buffers needed to protect aquatic resources from the effects of gravel dredging. Therefore, the DEIS does not support the conclusion that significant impacts to freshwater mussels can be avoided through permit conditions such as surveys and buffers.

Zebra Mussels. An additional threat to freshwater mussels directly related to continued dredging but not discussed in the document is the zebra mussel (*Dreissena polymorpha*), an exotic species inadvertently introduced to North America in the mid-1980's. This invasive mollusk can reach very high densities and has been documented to eliminate native mussels, alter ecosystem function, and negatively affect water users through bio-fouling drinking water and commercial water supply pipelines, navigation structures, and watercraft. The life history of the zebra mussel, unlike native mussels, includes a planktonic stage known as a veliger.

Gravel dredging may enhance the spread of zebra mussels in at least two ways. First, creation of deep, slow pools may provide sites where adult zebra mussels are protected from turbulent high flows, permitting them to maintain populations in otherwise unavailable areas. These dredge pits may also locally increase water retention time, allowing veligers to transform in the project area when they might otherwise have been carried downstream or killed in turbulent flows. Second, zebra mussels are often transported upstream on water craft. The DEIS states that the upper pools of the Allegheny River are principally used by gravel dredge operators. The barges and associated equipment provide stable surfaces suitable for zebra mussel attachment and may be significant vectors in the spread and eventual establishment of this species in the upper Allegheny River.

Establishment of zebra mussels in the navigation pools would negatively affect virtually all existing aquatic life in the Allegheny and upper Ohio Rivers, would probably result in increased economic costs to water users if removal becomes necessary, and may diminish recreational opportunities including swimming and fishing. Treatment of zebra mussel-infested structures with molluscacides may negatively affect native mollusks including federally listed species.

The role gravel dredging may play in the spread of zebra mussels, and other exotic species should be investigated in this DEIS.

The document considers long-term adverse impacts to freshwater mussels in the navigation pools to be avoidable using the mussel sampling protocol developed by the Pennsylvania Department of Environmental Protection. While this is better than nothing at all, the methodology is limited in its ability to detect small populations of mussels or rare species. Furthermore, this piecemeal approach is not effective in managing a unique environmental resource such as freshwater mussels. The end result of such management will be river sections with isolated pockets of occupied mussel habitat, which are not likely to persist given the extensive concomitant hydrologic alterations anticipated from dredging.

Fishes. The data and discussion in this section do not support the conclusion that continued dredging will have only minor impacts to fishery resources. First the methods and number of samples may have biased the data set used by the applicants. The fish species and their abundance for the Allegheny River were based upon one to three samples per pool with the exception of Pool 3, which had ten samples. There is no indication how these samples were collected or how accurately they represent what is in the various pools. For example, if the collections were made only with seines along the shoreline or by electrofishing during the day or night, the results would favor one set of species over another. Furthermore, with the variability within each pool, the small sample size would also make statistical analysis difficult.

Seventy-five percent of all the fish data sets came from the four pools on the Ohio River. Moreover, the Emsworth Pool only had four samples, which might explain why the species diversity was much lower in the Emsworth Pool than in the other pools. Many of the data sets from the Ohio River and lower Allegheny River were taken from within lock chambers which may not be representative of the overall species diversity or abundance of these two rivers. The document should include the sources of the data and the methods used to collect the fish.

The document uses studies by Normandeau Associates to evaluate the impacts of dredging on the fisheries resources. The evaluation compares Pools 5 and 6 on the Allegheny River for suitable habitat within permitted and protected areas. It is impossible from the discussion to know how much the historical dredging activities may have already influenced the model developed by Normandeau Associates or the evaluation by the applicants. To say that Pools 5 and 6 are representative of all other pools on the two rivers that have had less dredging activities in the permitted areas and may still have more suitable fishery habitat remaining may not be accurate. Besides the questionable application to all of the pools, the predictive models in the Normandeau Associates' studies have never been field-verified. Furthermore, the bibliography does not give the reference for these studies that would allow us to further research and understand the discussion in the text. While this may eventually prove to be a worthwhile evaluation, it should not be the sole basis for the conclusion of minor effects to the fisheries from dredging. There should be a better presentation and discussion of these studies in the document as well as other

information such as the Pennsylvania Fish and Boat Commission's 1992 study of Pools 5 and 6, which demonstrated a potential adverse impact to the fisheries in those two pools from dredging.

4.3.3 Impacts to Water Quality

The last paragraph is this section discusses in general terms the potential impacts of increased turbidity from a variety of sources, including surface mining. There is no way to determine how much of this siltation problem is due to land-based sand and gravel mining and, therefore, the discussion is somewhat meaningless relative to the analysis of impacts. This paragraph should be deleted from the document.

Appendix I Flora and Fauna Information for the Study Area

The asterisk footnote in Table I-7 does not appear anywhere in the table. The table should be changed to show where the four mussel species occur in the ranked abundance data. In addition, the table should not mix scientific names and common names together.

The specimens listed as *Epioblasma triquetra* in Table I-9G were actually *Epioblasma torulosa rangiana*. This should be corrected in the table.

ENDANGERED SPECIES ACT

The following additional comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

Consultation Requirements

Under provisions of section 7(a)(2) of the Endangered Species Act, a federal agency that permits, licenses, funds, or otherwise authorizes activities must consult with the Fish and Wildlife Service to ensure that its actions will not jeopardize the continued existence of any listed species. A federal agency is required to consult if an action "may affect" listed species or designated critical habitat, even if the effects are expected to be beneficial. A "may affect" determination includes those actions that are not likely to adversely affect, as well as likely to adversely affect listed species. If the action is not likely to adversely affect listed species (*e.g.*, the effects are beneficial, insignificant, or discountable), and the Service agrees with that determination, the Service provides concurrence in writing and no further consultation is required. If the action is likely to adversely affect listed species, then the federal action agency must request initiation of formal consultation. This request is made in writing to the Service, and must include a complete initiation package.

Biological assessments may be completed prior to the release of the Draft Environmental Impact Statement (DEIS) or the Environmental Assessment (EA). Formal consultation should be initiated prior to or at the time of release of the DEIS or EA. At the time the Final EIS is issued,

section 7 consultation should be completed. The Record of Decision for an EIS should address the results of the section 7 consultation.

Species in the Action Area

The proposed sand and gravel dredging permit area is within the range of seven freshwater mussel species that are federally listed as endangered: clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), northern riffleshell (*Epioblasma torulosa rangiana*), orange-foot pimpleback (*Plethobasis cooperianus*), pink mucket (*Lampsilis abrupta*), ring-pink (*Obovaria retusa*), and rough pigtoe (*Pleurobema plenum*). Two of these species, the northern riffleshell and clubshell, are known to occur in Allegheny River Pools 8 and 9. The pink mucket, fanshell, rough pigtoe, and orange-foot pimpleback occur in Ohio River navigation pools downstream of the proposed project area, as well as in free-flowing and impounded navigation portions of tributaries within the navigation system.

Two additional mussels species are of concern and are being considered for addition to the federal candidate species list: the rayed bean (*Villosa fabalis*) and sheepnose (*Plethobasus cyphyus*). Candidate species are species for which the Service currently has substantial information on file to support the appropriateness of proposing to list as threatened or endangered. Species of concern are species that may be elevated to candidate status pending further review by the Service. Both candidate species and species of concern are known to be facing various threats, and have usually suffered substantial population declines and/or habitat loss. Although these species receive no regulatory protection under the Endangered Species Act, the Service strongly encourages federal agencies and other planners to consider these species when planning and implementing their projects. The rayed bean is known to occur in Pools 8 and 9. The sheepnose was documented to be maintaining a reproducing population in the upper Allegheny River in 2002, and may be extant in study area.

Although several of these endangered species have not been documented in the proposed project area in recent years, no comprehensive surveys have been conducted that are likely to locate them. Spot surveys conducted to date are likely to overlook uncommon or locally abundant species. Although some mussel species have been assumed to be extirpated, the basis for this conclusion is a lack of survey information rather than negative survey results; therefore, the conclusion is unsupported. As an example, each year between1999 and 2002, one or more mussel species have been documented in sections of the upper Ohio River basin where these species had been assumed to have been extirpated. These species include mussels that are listed as endangered or are of special concern, as well as species that remain common elsewhere in the Mississippi River basin.

The DEIS correctly states that the federally listed bald eagle (*Haliaeetus leucocephalus*) and Indiana bat (*Myotis sodalis*) are likely to occur in the project action area, as well as the eastern massasauga rattlesnake (*Sistrurus c. catenatus*), a federal candidate species.

DEIS Alternatives

The DEIS indicates that Alternative 1, *No dredging*, may adversely affect listed species because of increased dependence on land-based gravel sources (which is Alternative 3). Alternative 1, therefore, should include 1) a mandatory screening procedure (to be used by DEP and/or the Corps) for individual projects to identify whether or not federally listed species may be present; and 2) details regarding the process whereby impacts to federally listed species will be considered (*e.g.*, Endangered Species Act section 7 for projects with a federal nexus, and section 10 for projects lacking a federal nexus). Mussel fauna in those portions of Ohio and Allegheny Rivers currently subject to sand and gravel dredging would face substantially fewer threats, even if land-based quarries are used (provided appropriate measures are put in place to avoid impacts). Closure of the lock and dam system noted on Table 4-8, page 4-85, and noted as a possible result of elimination of commercial traffic, may also affect listed species and require additional consultation. In addition, further consultation with the Service will be necessary prior to selection of Alternative 1. If Alternative 1 is the preferred alternative, it may be possible to put appropriate avoidance measures in place (see above) to conclude this via "informal consultation."

Although Alternative 2 (River dredging) calls for a "rigorous sampling protocol" to locate and avoid listed species, this protocol is not included in the DEIS, and therefore cannot be evaluated. If the protocol to be used is the same as the one submitted to the Service for comment (*i.e.*, "A protocol to evaluate mussel resources in selected reaches of the Ohio and Allegheny Rivers," dated July 19, 2001), it is inadequate to reliably detect the presence of rare species, including federally listed mussels (see the Service's October 18, 2002, comment letter on that protocol). As the Service has stated to the Corps and the Pennsylvania Department of Environmental Protection in the past, mussel surveys should be done using a protocol that has received written approval from the Service and Pennsylvania Fish and Boat Commission.

Effective mussel sampling in big rivers such as the study area is problematic. Until a sampling methodology is developed and its effectiveness documented, it cannot be considered adequate. Gravel dredging will significantly and permanently affect very rare, big-river mussel habitat and the recommended buffers in the DEIS are not protective of listed species. A significant negative effect not considered in this DEIS is the potential for increasing habitat availability for zebra mussels and the upstream transport of adult zebra mussels. Other physical and biological changes anticipated from continued commercial gravel dredging include hydrologic alteration and changes in fish distribution. These effects are likely to negatively affect irretrievable mussel resources, including listed species. Use by sand and gravel dredging companies is cited as justification for the operation of the upper lock and dam navigation system in the Allegheny River. Continued operation of these structures for exclusive benefit of sand and gravel dredge operators may affect listed species.

The DEIS concludes that selection of Alternative 2 is likely to adversely affect listed species; therefore, before a final determination regarding selection of Alternative 2 takes place, the Corps

must formally consult with the Service on this action. Your effects analysis for Alternative 2 should include a detailed assessment of direct, indirect and cumulative effects within the project action area. As discussed above, some of the indirect effects to mussels include sedimentation downstream of dredging operations, maintenance of the lock and dam system for the primary benefit of allowing access to sand and gravel dredgers, changes in river hydrology and river substrate due to dredging, interruption and changes in fish host distribution, population fragmentation, reduction of recovery potential in substantial portions of the rivers, and introduction of zebra mussels via sand and gravel dredging equipment.

As with Alternative 1, Alternative 3 (*Land-based quarries*) may affect listed species; however, the analysis regarding the extent of Corps jurisdiction over this option is inadequate. Our comments on Alternative 1 are also relevant to Alternative 3.

FISH AND WILDLIFE COORDINATION ACT

This DEIS was prepared to provide information regarding the cumulative effects of continued issuance of multiple Clean Water Act section 404 permits for commercial sand and gravel dredging in the Allegheny and Ohio Rivers. The Section 404(b)(1) Guidelines only allow the Pittsburgh District to issue permits for the least environmentally damaging alternative. All three of the alternatives evaluated in the DEIS are practicable and feasible, and all three will meet the purpose and need to supply the demands for aggregate in the region. Almost without exception, the document states that for every category of resources, no dredging or using land-based quarries would cause only minor adverse effects, while continued river dredging would have significant adverse effects on freshwater mussels (including two federally-listed endangered species), dissolved oxygen, potential resuspension of pollutants, and selected fishes. The Department believes further that continued dredging of the two rivers will have adverse effects on other resources beyond those described in the document. Moreover, continued dredging would permanently degrade sections of big river aquatic habitat -- habitat that is relatively scarce on a national basis. State and federal environmental regulations protect stream resources that would be affected by land-based quarries, and would likely reduce the anticipated negative effects (as described for Alternative 3).

Based upon the existence of less damaging, practicable alternatives, and on the physical, chemical, and biological information currently available, including that presented in this DEIS, other sources, and our own observations, the Service would probably recommend that the Corps deny future permits for commercial sand and gravel dredging in the Allegheny and Ohio Rivers.

The Service is available to provide limited technical assistance to the Pittsburgh District regarding further evaluations and assessments. For matters pertaining to fish and wildlife, contact the Supervisor (Attn: Richard McCoy), Fish and Wildlife Service, 315 South Allen Street, Suite 322, State College, PA 16801-4850 (phone: 814-234-4090).

Thank you for the opportunity to review and comment on the DEIS.

Sincerely,

Robert M. Burr, for

Michael T. Chezik
Regional Environmental Officer

Attachment

References

Anderson, R. M., and others. 2000. Water quality in the Allegheny and Monongahela River basins, Pennsylvania, West Virginia, New York, and Maryland, 1996-98. U.S. Geological Survey Circular 1202. 32 pp.

Canadian Council of Ministers of the Environment. 2001. Sediment quality guidelines for the protection of aquatic life. http://www2.ec.gc.ca/ceqg-rcqe/English/Ceqg/Sediment/default.cfm.

Environmental Protection Agency. 2000. Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates - Second Edition (http://www.epa.gov/ost/cs/freshfact.html)

National Oceanic and Atmospheric Administration. 1999. Screening reference tables. Http://response.restoration.noaa.gov/cpr/sediment/squirt/squirt.html

Response to USFWS

General Comments

(1) *The DEIS does not present a full range of alternatives*

The alternatives evaluated in the FEIS were formulated in consultation with EPA as well as input from stakeholder agencies. See EPA Response (1) under Alternatives.

(2) *The DEIS does not address potential effects of dredging on public lands*

Alternative 3 in the FEIS discusses several additional controls that can be used to minimize potential impacts in unique habitats or biologically productive areas, such as the Ohio River Islands National Wildlife Refuge. Controls are particularly targeted around islands and other shallow riverine areas in the study area that are in some cases public lands.

(3) *The DEIS omits agency recommendations concerning information needs and analyses.*

While more data collection and analyses are always desirable, the EIS relies on extensive and representative dissolved oxygen, particle size, macroinvertebrate, and mussel data that were collected and analyzed during the EIS process. Sampling was performed over a range of dredged areas and pool conditions and should be sufficient to characterize potential impacts from dredging. The objective of data collection for any EIS is not to characterize every aspect of the study area, but rather to provide representative data sufficient for making a decision. Furthermore, a large-scale spatial analysis of the various resources is unlikely to provide substantially more new information or new conclusions in terms of significant impacts. Targeted data collection activities for this EIS already determined potentially significant impacts of dredging activities on hydrology, dissolved oxygen, native mussels, and potential cumulative impacts on certain fish species. These targeted analyses also indicated the physical characteristics that should be protected from dredging, or ways to determine which areas should be avoided. Please refer to EPA Response (1) under Environmental Consequence for further clarification.

Executive Summary

(1) *Alternatives 1 and 3 are the same; there has never been a comprehensive analysis of the effectiveness of special permit conditions currently used*

As noted above, a new alternative was added (further restrictions with adaptive management) and the last alternative was expanded to include importation of aggregate and recycled material. Both a "No Action" alternative and an

alternative evaluating sources other than dredging within the study area, are maintained in the Final EIS. Consideration of the "No Action" alternative (i.e., deny permits for dredging) is a requirement under NEPA law and therefore must be included in the EIS.

Alternative 3, selected by the Corps, establishes that particular current permit conditions may not adequately protect specific resources under certain site-specific situations. This Alternative uses adaptive management to modify permit requirements or controls as warranted. This includes modifications of mussel survey protocols to improve assessment of potential impacts on federally-listed species.

(2) *Impact regarding upper locks and dams under Hydrology in Table E-2 is socioeconomic and not hydrological in nature*

Impacts listed under Hydrology for Alternative 1 in Table E-2 address navigational effects and not socioeconomic effects.

Section 2

(1) *Permit conditions discussed in Section 2 of the DEIS are not agreed upon by all regulators.*

The permit conditions discussed in Section 2 of the FEIS are those currently required of the applicants by PADEP and the Corps of Engineers. As discussed under Alternative 3 of this FEIS, additional or different permit requirements from those listed in Section 2 may be necessary to avoid or mitigate potential significant impacts under specified environmental conditions.

Permit requirements for river sand and gravel dredging vary among states and among Army Corps districts. Much of these differences can be related to differences in the river environment and the types of species potentially at risk. Both the Huntington and Louisville districts require mussel surveys if dredging is proposed within 500 feet from shore. Otherwise no prior mussel surveys are currently required there. Mussel surveys are routinely required in all locations in the Pittsburgh District. Section 2.0 of the FEIS provides a more comprehensive discussion of the current permitting process, including how restrictions are placed in dredging permits.

(2) *The endangered clubshell mussel should be added as a second listed species collected in the study area.*

The FEIS was amended to include all endangered mussel species that could be in the study area.

(3) *The impacts of different dredging techniques should be evaluated as separate alternatives.*

Available information does not distinguish one type of dredging or processing technique as having less potential impacts on aquatic resources than another. Therefore, all types are treated similarly in the FEIS.

(4) *Restricting the aggregate types dredged should be studied as an alternative.*

The infeasibility of dredging certain aggregate types is discussed under Alternative 3 in Section 4 of the FEIS.

(5) *Restricting dredging to certain pools should be evaluated as a separate alternative.*

Restricting dredging from certain areas of pools or certain pools is included as part of Alternative 3.

Section 3

(1) *The DEIS relies heavily on STORET data regarding dissolved oxygen effects.*

The EIS incorporated information from STORET but did not rely on these data in terms of assigning impacts on D.O. More recently collected D.O. data (DEP monitoring and other data collected during the EIS) were used to assess impacts of dredging on D.O. In this vein, the FEIS presents minimum D.O. values reported in STORET as well as in studies conducted during this EIS, as suggested by other comments received. In addition, the FEIS made use of additional modeling tools to evaluate effects of different dredge conditions on D.O. under worst case conditions recorded by PADEP (e.g., high water temperature, low flow). Results of these analyses were used to identify potential mitigation strategies or additional restrictions under Alternative 3 in the FEIS.

(2) *The copper and zinc water quality standards were calculated incorrectly.*

Water quality criteria for copper and zinc were corrected.

(3) *Sediment benchmarks listed in Table G-6 are inappropriate; sediment and aquatic toxicity testing results are insufficient.*

Sediment toxicity benchmarks in Table G-6 were amended. Information collected by USGS on the Allegheny River in 1996 has also been incorporated in Section 3 under Water Quality. Sediment toxicity testing did meet EPA acceptability criteria for laboratory controls. This part of Section 3 of the FEIS recognizes that toxicity data are limited. However, creation of toxic conditions due to resuspension of sediment contaminants via dredging, is considered

unlikely in most of the study area. Alternative 3 in the FEIS would include controls to mitigate toxicity effects of dredging if a particular site is suspected of having toxic levels of contaminants. Please see EPA Response (1) under Aquatic Toxicity Evaluations and DEP Response (5) under Specific Comments for further clarification.

(4) *Analysis of mussel brailing data is insufficient and inadequate.*

Mussel information in the study area has been updated in Section 3 of the FEIS. This includes recent dive data collected by the Service and USGS data collected at the East Brady Bridge. The FEIS discusses the limitations of brailing data and does not use these data to infer impacts of dredging. See EPA Responses under Freshwater Mussels for further clarification.

(5) The FEIS recognizes that federally-listed mussel species could inhabit other parts of the study area and have been collected at the East Brady Bridge upstream of the study area. The FEIS also notes that critical habitat is not yet known for the endangered mussels. Section 3 of the FEIS also indicates that improved mussel sampling protocols over the past 2-3 years have collected several mussel species previously thought to be very rare or extirpated from the study area.

Section 4

(1) *Cessation of dredging would result in at least localized improvements of water quality; mussel recolonization of dredged holes is unlikely.*

The FEIS indicates that mussels are unlikely to recolonize deep dredged areas to the same extent as in undredged areas. Implementing Alternative 1 (No Action) is also associated with potentially positive effects on mussels and other aquatic life to the extent that currently viable habitats are dredged in the future.

(2) *It is unclear whether job losses and declines in socioeconomic indicators predicted in the DEIS take into account benefits of increased land-based production.*

Economic analyses did take into account increased land-based production. Please see DEP Response (3) under Specific Comments.

(3) *Service divers often observe silt and debris in dredged holes, contrary to what is reported in the DEIS.*

Observations by Service divers regarding silt and debris accumulation in dredged holes have been added to the FEIS, Section 4 under Alternative 2.

(4) *Turbidity effects of dredging, particularly over time, are neither minor nor consistent with background levels.*

Cumulative effects of increased turbidity near dredging operations are addressed in Section 4.5 of the FEIS. Several controls are incorporated in Alternative 3 to address this issue on a site-specific basis.

(5) *Dredged areas consistently have fewer mussels than undredged areas. Dredging does not have minor effects on mussels as stated in the DEIS.*

The FEIS indicates the potential for significant impacts to mussels under Alternative 2 (applicants' preferred alternative). Alternative 3 includes additional controls to mitigate impacts on mussels. Furthermore, the adaptive management process inherent in Alternative 3 provides a mechanism for modifying controls as more information is collected.

(6) *The Service does not agree that impacts to mussel resources can be avoided by the mussel surveys and buffers, as stated in the DEIS.*

The permit conditions discussed in Section 2 of the FEIS are those currently required of the applicants by PADEP and the Corps of Engineers. As discussed under Alternative 3 of this FEIS, additional or different permit requirements from those listed in Section 2 may be necessary to avoid or mitigate potential significant impacts on mussels, under specified environmental conditions.

Permit requirements for river sand and gravel dredging vary among states and among Army Corps districts. Much of these differences can be related to differences in the river environment and the types of species potentially at risk. Both the Huntington and Louisville districts require mussel surveys if dredging is proposed within 500 feet from shore. Otherwise no prior mussel surveys are currently required there. Mussel surveys are routinely required in all locations in the Pittsburgh District. Furthermore, under Alternative 3, the FWS-recommended mussel survey protocol will be used at all proposed dredging sites.

(7) *The DEIS does not discuss the potential threat of zebra mussels on native mussel species, which would be exacerbated by barge traffic related to dredging.*

A summary of zebra mussel impacts in the Ohio River system has been added to Chapter 3 of the FEIS, under the discussion of native mussels. Potential dispersal of mussels due to dredging activities is mentioned in Chapter 4 of the document. There are many activities, independent of dredging, that can further disperse zebra mussels including recreational boating and barge traffic supporting other industries in the study area (e.g., oil, coal). For much of the study area, zebra mussels could disperse via several means with or without commercial dredging.

(8) *The data and discussion related to fish impacts in the DEIS do not support the conclusion that dredging will have only minor impacts on fishery resources.*

The FEIS concludes that Alternative 2 may result in impacts to certain types of fish, notably certain channel species. Alternative 3 includes additional controls to minimize impacts on these and other fish species. Further analyses are presented in Section 4 regarding the amount of suitable habitat area potentially affected by dredging under Alternatives 2 and 3. The DEIS referred to spatial analyses on 11 fish species, each at two different life stages (adults and spawning) for restricted and permitted areas in Pools 5 and 6, which are presented in the tables in Appendix Q. The Habitat Association Models in the Allegheny River Aquatic Resource GIS has fish species categorized by habitat groups. In the DEIS, one species from each of the 9 species/habitat groups in the model was randomly selected to run the spatial analyses. Two sport fish species were also added to the analyses to ensure that these analyses considered a representative group of fishes in the project area, considering both ecological and recreational importance.

(9) *Surface mining effects on turbidity discussed in the DEIS should be deleted as there is no way to determine whether such impacts are from sand and gravel mining.*

Impacts from land-based aggregate mining are well documented as pointed out in Section 4 of the FEIS. These impacts should not be ignored.

Endangered Species Act

The Corps is required to consult with the FWS to ensure that its actions will not jeopardize the continued existence of any listed species in the study area.

The Corps entered into informal consultation with the Service regarding potential impacts to endangered species. A Programmatic Biological Assessment dated February 15, 2005 was submitted to the Service. The Service responded by letter dated December 16, 2005 concurring with a "not likely to adversely affect" determination with the inclusion of several conditions. See Appendices S and T for consultation findings.

Fish and Wildlife Coordination Act

Section 404(b)(1) Guidelines only allow the Corps to issue permits for the least environmentally damaging alternative. Based on available information presented in the DEIS and other observations, the Service recommends denying future dredging permits.

Alternative 3 and the adaptive management process will continue to evaluate impacts to fish and wildlife resources and adjust permit conditions accordingly.

Pennsylvania Department of Environmental Protection

400 Waterfront Drive
Pittsburgh, PA 15222-4745
November 27, 2002

Southwest Regional Office

412-442-4000
Fax 412-442-4328

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District, Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: June 2002, Draft Environmental Impact Statement
Commercial Sand and Gravel Dredging
Allegheny and Ohio Rivers

Dear Mr. Rogalla:

This letter represents the Department's comments on the June 2002 "Draft Environmental Impact Statement (DEIS) on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania." Should you wish to discuss these comments, we will be glad to meet with you at your convenience.

GENERAL COMMENTS

(1) The DEIS evaluates a number of existing studies and prior data collection that are applicable to free flowing streams. More data should be provided from river systems having the same network of locks and dams with their associated river pools as exhibited by the Allegheny and Ohio Rivers in the areas being dredged. In addition, where actual river data is presented in the DEIS, it is sometimes incomplete. For example, while data is provided on a pool by pool basis with respect to the existence of submerged aquatic vegetation, no data is provided for Pool 9 which is both within the study area and has not been dredged for decades. Pool 9 also harbors several rare submergent aquatic plants that are sensitive to turbidity changes. The Pennsylvania DCNR lists these as Potamogeton illinoensis and Potamogeton richardsonii. The DEIS should provide a more extensive discussion of these species and other flora and fauna of special concern.

(2) Allegheny River Pool 9 provides an opportunity for comparison with more heavily dredged river pools like Pool 7. Conducting a detailed evaluation of Pool 7 and 9 can

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allow comparisons to be drawn between dredged and non-dredged pools. Both Pool 7 and Pool 9 are located in a rural area free of the impact from heavy urbanization and industrialization making the dredged to non-dredged comparison less subject to other influences.

(3) The DEIS evaluates the alternatives of (1) continued river dredging subject to permit conditions and (2) the cessation of river dredging. An immediate cessation is described as having severe consequences. The DEIS should evaluate the gradual phase out or reduction in river dredging to (a) determine if these consequences can be mitigated over time and (b) to determine if this unique Skid Resistance Level (SRL) E material can be conserved for a longer period of time to provide the needed material for heavily traveled highways within the market area. River dredging was gradually phased out on the Upper Allegheny River years ago with a switch of aggregate production to land based facilities in that area.

(4) Table 4-8 "Summary of Environmental and Socio Economic Effects" identifies Alternative 2, continued dredging, as the alternative with the more adverse environmental impacts particularly the cumulative impacts to hydrology (Page 4-77), dissolved oxygen (Page 4-78), aquatic life (Page 4-80) and threatened and endangered species (Page 4-81). The DEIS should develop alternative approaches for lessening these impacts through compensating mitigation activities, that describe what types of mitigation could be provided, on what frequency and under what conditions.

(5) The DEIS indicates site-specific permit conditions may be necessary to prevent down cutting when the 6.0 foot contour is near shore (Page 4-25) to protect high quality mussel habitat (Page 4-38) and to protect impacts to fish (Page 4-42). The DEIS should attempt to identify these areas of the river and should provide alternative permitting strategies or possible restrictions that may be used to assure the necessary protections are provided.

SPECIFIC COMMENTS

(1) Long held assumptions about the fate of the sediment-laden wash water discharged from dredges with onboard processing merit further evaluation. The DEIS, Page 2-6, compares onboard aggregate processing, which involves aggregate washing and the discharge of untreated, sediment laden wash water to the river, with existing land based processing which provides treatment for suspended solids removal. It concludes there is little difference in the environmental effects of the two operations. The DEIS provides little actual data relative to the fate of the solids returned to the river by the onboard processing. By comparison, Page 2-12 indicates Glacial Sand and Gravel's Bridgeburg land based processing plant has filled at least one 10-acre pond with the sediment produced from treating wash water. In addition, Page 2-10 indicates onboard processors discharge their sediment laden wastewater "into the deeper dredged area to reduce

downstream turbidity". Subsequent portions of the DEIS, however, recommend creating elongated trenches that will flush accumulated sediment. Therefore, the sediment from onboard washing will be resuspended and carried downstream rather than remain in the dredged area. By comparison, adequate treatment is provided to the wash water used at land based processing plants. The sediment is removed and relatively clean water (meeting established discharge limits) is returned to the river. Onboard processing with its related discharge of untreated wash water needs to be more fully evaluated by the DEIS.

(2) Page 2-7 indicates that there is no need for a dredging moratorium on Allegheny River Pools 6 and 9. However, according to the report, these pools in combination contain less than 10 percent of the total mineable sand and gravel reserves identified by Table 2-1 while exhibiting significant environmental features. We note that Table 3-6 indicates Pool 6 harbors 235 acres of submerged aquatic vegetation which is more than the remaining river system harbors downstream of Pool 6 all the way to the Ohio state line. The DEIS provides no submerged vegetation data for Pool 9. With respect to wetlands, Pool 6 has the preponderance of remaining river wetlands within the study area. The wetlands and submerged aquatic vegetation of Pool 6 provide ideal habitat for fish species of concern like the red fin shiner and bow fin. Pool 9 is the only dammed river segment of the Allegheny or Ohio Rivers within Pennsylvania that has not been extensively dredged, and it has not been dredged at all for decades. Two federally listed endangered mussel species have been found in Pool 9. The DEIS should carefully consider these facts.

(3) Pages 4-14 to 4-20 evaluate the economic impact of a cessation of the present dredging. The DEIS indicates that over time, land based facilities will need to increase employment by as many individuals that would lose employment in a reduction or cessation of river dredging. Although we claim no expertise in economic analysis, the DEIS needs to provide support for its conclusions. With respect to a cessation of dredging, the major impact identified by the DEIS would be an increase in aggregate cost estimated at up to 200 percent. The DEIS provides no data to support this estimated increase. No data is provided from other areas of the state, where river dredging is not practiced, as evidence that those areas have significantly higher construction costs attributable to higher cost aggregate. Additional data should be provided so that river based aggregate prices can be properly compared to land based aggregate prices. For example, the DEIS should compare the current average price paid by PennDOT and other contractors for the various aggregates in the Region of Influence (ROI) to other parts of Pennsylvania. In addition, while Page 4-16 explains that aggregate costs account for less than 2% of new highway construction costs, no data is provided on the effect of doubling aggregate costs on these construction costs. Comparable figures are not provided for repaving projects. The cost of aggregate per ton of pavement is given, but not the effect on overall project costs. Recognizing SRL-E aggregate is a valuable resource needed for paving roads with

>20,000 vehicles per day, the annual need based on the miles of roadways in this category located within the ROI should be provided.

(4) Page 4-31 discusses the documented lack of dissolved oxygen (D.O.) in areas of the Allegheny River previously dredged in excess of 30 ft. deep. The DEIS characterizes this as an occasional occurrence during seasonal low flow and high water temperature. It is at precisely that time that the river's aquatic life is stressed to its maximum, so it is important that dissolved oxygen levels be capable of supporting aquatic life. On that basis, the Department's Chapter 93 Water Quality Standards are based upon the 7 consecutive day, 10-year low flow ($Q_{7\text{-}10}$). The Allegheny River dissolved oxygen deficits were identified when flows were actually above $Q_{7\text{-}10}$. The DEIS suggests that to prevent D.O. deficits, dredging be accomplished in long, easily flushed trenches. The area dredged is often determined by the extent and quantity of the material being dredged and other required setbacks from pipeline crossings, bridge piers, dams, etc. These limitations can interfere with the configuration of the intended self-flushing dredge trench. It appears that this issue needs to be studied further but, in the interim, the DEIS should evaluate the need to place a maximum depth restriction of 30 feet, (i.e., overall river depth). Such a limitation would also eliminate future problems like those that developed at Allegheny Energy Supply's Power Station intake in Pool 8 (see comment 4 under the clarification section). In addition, it is documented that the deeper the water, the less diverse and abundant the aquatic species. Therefore limiting depth to 30 feet will also prove beneficial to aquatic life. This is particularly important due to the potential to dredge in excess of 50 feet.

In addition, the occurrence of low dissolved oxygen conditions has not been adequately explored. Most efforts to collect D.O. data have not focused on locating areas with low D.O., so it is not surprising that relatively few examples have been found. Although it is true that not all deep areas have low D.O. all the time, little more is known with certainty.

To the extent that barge traffic mixes the water column and minimizes low D.O. conditions, as the DEIS suggests, future reduction or cessation of barge traffic in some pools could correspond to an increase in areas experiencing depressed D.O. The DEIS needs to more thoroughly address the growing impact of this problem including the additional impacts when dredging-related barge traffic declines or ceases. This impact would be critical in Pools 7 and 8, where the preponderance of barge traffic is sand and gravel related.

(5) The DEIS should more fully explore the impacts of disturbing sediment that may be contaminated with PCBs and chlordane, known sediment contaminants in these rivers. Suggesting (Page 4-33) that dredging be vacated when it produces an oil sheen may work to some degree when oil is the contaminant being encountered but certainly provides no protection when PCBs and chlordane are involved, since they produce no visual oil

sheen. The DEIS should provide the results of sediment sampling to better identify areas of existing contamination and concern.

(6) The DEIS should address the nuisances associated with the industrial illumination of the night time dredging operations. This light has been the source of many complaints from those living close to areas where sand and gravel has been dredged. Like the noise problem addressed on Page 4-47, the nuisance light condition can be mitigated.

(7) The DEIS documents that dredging irreversibly deepens the river bottoms (Sections 4.4, 4.5, 4.6, 4.7, 4.8). One result is a steady loss of habitat for fish and invertebrates. Even many species at home in deeper water need shallow water for spawning. Now that water quality has dramatically improved in the study area, lack of suitable habitat is the largest remaining limiting factor for many species.

The report briefly touches on corrective measures, such as the protection of high quality habitat and the creation or restoration of reefs on a "site specific basis" (Section 4.4.4). It needs to go further, however, toward outlining a mechanism to accomplish this.

One possible solution is to establish a conservation plan for each pool, recognizing the great variation in existing habitat in different river reaches. Allegheny Pools 5 and 7, for example, have much less shallow habitat than some other areas. A conservation plan would identify habitat deficiencies and recommend site-specific solutions which might include the creation of reefs, shoals and off current backwaters. Such a plan could be overseen by resource protection agencies, with input from the dredging industry and the public.

ITEMS OF CLARIFICATION

(1) Section 2.2.1 of the DEIS discusses the environmental protection provisions of existing DEP permits. We offer clarification of the following points:

a) Islands and Shores, Page 2-2: The shallows 6.0 feet and less are protected by a 150 foot set back. However, the DEIS infers the 150 foot buffer area is also subject to protection. While dredging is not permitted within 150 feet of the 6-foot depth contour, this 150 foot buffer area is disturbed by dredging. As dredging takes place at the 150 foot limit, additional sand and gravel spills into the excavation from the 150 foot buffer area. The result is a bottom which slopes from the excavation towards the shore at an approximate 2:1 slope. As an example, if dredging is to a depth of 50 feet, adjacent sand and gravel is disturbed as it spills into the excavation. The final configuration is a slope back which will extend 100 feet towards the 6 foot contour within the 150 foot buffer zone. This

leaves only 50 feet undisturbed. While this protects areas 6.0 feet and less in depth, there is a significant loss of shallow water habitat near the shorelines.

b. Tributaries. Page 2-4: Page 2-4 of the DEIS states "No dredging within the mouth of a major stream entering the river is allowed." There is no specific requirement aside from the general requirement to stay the 150-foot minimum distance from the 6-foot depth contour. DEP permits contain no specific language regarding dredging near stream mouths. Further examination of the effect of dredging at stream mouths, especially as that relates to protection of shallow areas, is recommended.

c. It is understood that dredging has continued under existing permits during the development of the EIS. The DEIS however, should clarify that no DEP permits presently exist to dredge either Pools 6 or 9.

(2) A clarification about hoist boats on Page 2-11 is needed. In the act of bringing sand and gravel onto a barge, hoist boats stir up silt and also bring up a quantity of water which discharges back to the river. This water contains fine solids which remain suspended for a considerable distance downstream and are visible from aerial photographs. The Water Quality Management permits issued by DEP for these hoist boats require periodic monitoring of suspended solids concentrations in the river, however, this activity is not covered by NPDES permits as the DEIS indicates.

(3) Pages 3-10 and 3-11 explain the importance of Skid Resistant Level E material as defined by PennDOT with respect to highly traveled road surfaces. Page 2-6 indicates that to preserve this limited high quality aggregate, notices are provided to customers to encourage conservation for the intended use. Such notices are not a requirement of DEP permits. They were required at one time, but were assumed ineffective and therefore discontinued. The DEIS should evaluate whether the use of notices are effective in conserving the use of the high quality aggregate for its intended purpose.

(4) Page 4-28 should be clarified relative to problems associated with a deep dredge hole in Allegheny River Pool 8 which impacts the adjacent Allegheny Energy Supply Power Station. Although the DEIS indicates it was not clear that dredging has interfered with the water intake at the power plant, Allegheny Energy's own engineering studies show that the deep dredge hole has altered the river current which deposits debris in and along the intake, necessitating routine and costly maintenance dredging to keep the intake clear. This problem did not exist prior to the dredging. The problem is so significant that Allegheny Energy Supply has contemplated spending in excess of $1 million to fill the dredge hole with quarried limestone. While the problem was brought to light because of the location of the power station intake, the broader significance is that deep dredge holes can alter river currents, which can then convey sediment and debris into the shallow

water shorelines and adversely affect aquatic life, recreation and industry. The shallow water shorelines are among the most productive aquatic habitats.

(5) The DEIS and Public Notice suggest permits and 401 Certification have previously been provided for the entire study area. Pool 9, however, is not included in DEP's existing permit which provides the 401 Certification.

Should you have any questions feel free to contact me at 412-442-4028.

Sincerely,

Charles A. Duritsa
Regional Director
Southwest Regional Office

cc: Pa. Fish and Boat Commission
U.S. Fish and Wildlife Service

Response to DEP

General Comments

(1) *More data are needed. River data that are presented are incomplete. A more extensive discussion of SAVs and other flora and fauna of special concern is needed.*

See EPA Response (1) under Environmental Consequences regarding data relied on in this EIS. The FEIS acknowledges that existing data on biological resources throughout the study area are incomplete. Alternative 3 specifically includes protection of unique habitats and rare species through a combination of further restrictions and adaptive management. Regarding submerged aquatic species in Pool 9, the FEIS discusses potential impacts of dredging on this flora in general under Alternative 2. The growth of macrophytes is typically associated with shore zone, tributary confluence, and island margin areas. These areas are restricted from dredging under Alternatives 2 and 3. However, the FEIS acknowledges that potential impacts to macrophytes are possible with continuation of dredging under Alternative 2. Alternative 3 presents specific adaptive management controls to minimize such impacts.

(2) *A detailed evaluation of Pools 7 and 9 in the Allegheny River would allow comparisons between dredged and non-dredged pools.*

While further data collection in the study area (e.g., Pools 7 and 9 as suggested) is always desirable, the information already collected during the EIS process is believed to be sufficient for characterizing effects of commercial dredging and for evaluating alternatives. Please see EPA Response (1) under Environmental Consequences for further clarification.

(3) *EIS should evaluate the gradual phase out or reduction in river dredging.*

The alternatives evaluated in the FEIS were formulated in consultation with EPA as well as input from stakeholder agencies. Alternative 3 effectively reduces the remaining lifecycle of the commercial dredging industry to approximately 10-15 years, given current production rates. Please see EPA Response (1) under Alternatives for further rationale as to why the EIS does not directly evaluate reductions in river dredging.

(4) *EIS should develop alternative approaches for reducing impacts through mitigation activities.*

The FEIS includes a new Alternative 3 that incorporates many additional restrictions as well as adaptive management to mitigate potential significant impacts on aquatic resources. Both avoidance measures as well as compensatory

mitigation efforts (e.g., submerged habitat construction), are included in Alternative 3.

(5) *EIS should attempt to identify river areas where potential downcutting may occur.*

The FEIS discusses the potential need to increase the set-back distance from shore when the 6.0-foot depth contour is close to or at the shoreline. The need for increased set-backs is best determined on a site-specific basis as specific dredge areas are being evaluated for permitting. Such additional set-backs are included as potential site-specific restrictions under Alternative 3.

Specific Comments

(1) *On-board processing effects on water quality need to be more fully evaluated in the EIS.*

Dredging contributes TSS to the water column within a certain area downstream of the dredge, as indicated in Corps, DEP, and industry monitoring data presented in the FEIS. Available data presented in the EIS suggests that effects on downstream turbidity and TSS are similar between on-board processing and other dredging techniques, both in terms of the concentrations and the distance downstream at which effects are observed. Alternative 2 recognizes that higher TSS levels observed immediately downstream of dredging might impact aquatic life (particularly mussels and macroinvertebrates) if prolonged over enough time. However, the FEIS also indicates that there are other sources of TSS in the project area, many of which are independent of dredging activity. Data from fixed monitoring stations indicate that TSS is often as high or higher than that contributed by dredging due to other boat/barge traffic and stormwater runoff. Alternative 3 in the FEIS discusses possible adaptive management conditions to mitigate potential turbidity impacts on desirable habitats and aquatic resources, regardless of the type of dredge operation.

(2) *The EIS should consider restricting Pools 6 and 9 due to the presence of unique habitats and/or rare species.*

Alternative 3 in the FEIS includes potentially restricting areas, part of pools, or entire pools, pending consultation with the USFWS regarding the protection of federally-listed species.

(3) *The EIS needs to support the conclusions reached in the economic analysis of Alternative 1 (cessation of dredging), specifically the projected loss of jobs and higher aggregate cost. Additional data should be presented comparing dredge-based versus land-based aggregate prices around the state.*

The FEIS further distinguishes geological differences between western Pennsylvania in the Pittsburgh vicinity and other parts of Pennsylvania, notably

northeastern and central Pennsylvania, where high quality land-based aggregate is abundant. The FEIS explains that similar high quality material for roads and construction is not as readily available in land-based sources near Pittsburgh. Therefore, the aggregate market in the Pittsburgh area and other regions of Pennsylvania are not strictly comparable.

Market prices for aggregate material vary from market to market depending on a number of factors including availability of supply, distance from sources to market area, labor and transportation costs, and overall demand for material. The EIS used current price levels for aggregate materials in the Pittsburgh area and estimated price increases based primarily on increased transportation costs of importing materials from outside the ROI.

The increase in employment at land-based facilities is projected using productivity estimates for the sand and gravel sector as a whole. Detailed data on labor requirements per dollar output of aggregate material are not readily available so as to differentiate between productivity at land-based operations and dredging operations. An intense data collection effort would be required to distinguish between the two subsectors, a task well beyond the scope of this analysis. As such, the employment increase estimate is reasonable considering the data constraints.

The projected increase in aggregate material cost is based primarily on estimated increases in transportation costs from alternative land-based sources to the Pittsburgh market area. Differences in costs between barge and trucking transportation are described in both the socioeconomics section and the associated appendix. The analysis also assumes some small additional costs associated with expansion of existing quarries. The analysis is conservative and does not take into account potential price increases arising from market forces (decreased supply).

(4) *The EIS should evaluate the need for a maximum overall dredging depth restriction of 30 feet to reduce low dissolved oxygen (D.O.) occurrences. The EIS needs to address the impact of reduced barge traffic on D.O. levels as dredging activities decline or cease over time.*

The FEIS discusses potentially significant impacts of dredging on dissolved oxygen under extremely stressful river conditions, and Alternative 3 includes several additional controls to mitigate these effects. We note that in DEP's 1999 D.O. survey, discussed in several places in the FEIS, even some undredged areas 20 feet deep did not meet the state D.O. standard of 5 mg/l under those conditions. The D.O. monitoring performed in 1998 and 1999 at many dredged locations in the study area provides considerable statistical certainty that, under normal summer conditions, D.O. is rarely impacted. While more studies would help resolve the relationship between depth and other factors on D.O. impacts, it is not clear that any such studies will completely address the issue because much may

depend on site-specific factors (e.g., number of towboats passing through per day). Depth is clearly one factor but as DEP's data show, depth is not the only factor. Therefore, a blanket maximum depth restriction throughout the entire study area is not warranted. Adaptive management under Alternative 3 includes the possibility of site-specific restrictions to reduce potential oxygen impacts.

As DEP points out, the factors contributing to low D.O. in a particular dredged area are complex and not entirely known at this time. The possible effect of barge traffic on D.O. levels is discussed in the FEIS and is presented as one hypothesis. Using the adaptive management process inherent within Alternative 3, further examination of site-specific factors contributing to low D.O. is a potential option.

(5) *The EIS should further explore impacts of sediment contaminants resuspended in the water column by dredging.*

The potential issue of sediment contamination and resuspension of contaminants via dredging is further discussed in Sections 3 and 4 of the FEIS. For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during preparation of the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed. Specific adaptive management options are presented under Alternative 3 to mitigate such impacts on a site-specific basis if warranted.

(6) *The EIS should address nuisances associated with industrial illumination from night time dredging operations.*

Potential nuisances due to noise or other factors related to dredging are discussed in the FEIS and Alternative 3 includes adaptive management controls to mitigate such effects.

(7) *A conservation plan should be identified to accomplish the protection or restoration of high quality habitats.*

It is not possible to identify specific habitat conservation measures at this time because the study area is large and has many competing beneficial uses. Alternative 3 includes several additional controls to mitigate effects on aquatic resources, including greater protection of shallow, unique, or productive habitats. For example, nearly all of the current shallow riverine habitat in the study area (5,600 acres) will be restricted under Alternative 3. Alternative 3 also includes the possibility of specific habitat enhancement measures in a given pool as well as more locally-based use of royalties paid by the applicants to the Pennsylvania Fish and Boat Commission for habitat enhancement.

Clarifications

(1a) *Protection of near-shore areas*

As noted under Response (5) under General Comments, Alternative 3 potentially includes increased set-backs from shorelines on a site-specific basis to protect shorelines and preserve existing shallow areas.

(1b) *Dredging near tributaries is not excluded in current permits.*

Current dredge permit conditions (Alternative 2) presented in Chapter 2 of the FEIS have been corrected.

(1c) *Clarify that no DEP permits presently exist in Pools 6 and 9.*

Section 2 of the FEIS discusses the current moratorium on dredging in Pools 6 and 9.

(2) *Hoist boat TSS effects and NPDES permits*

The FEIS presents data suggesting that hoist boats have similar effects on downstream suspended solids (TSS) as on-board processing. Therefore, the FEIS indicates one set of mitigation controls regarding TSS for all types of dredging under Alternative 3. The FEIS states that TSS monitoring has been required by PADEP as part of the applicant's permit conditions.

(3) *EIS should evaluate whether notices to customers regarding use of SRL-E aggregate is effective for conserving the use of this material.*

The FEIS updated the current permit conditions as noted in Response (1b) above. As explained in Chapter 2 of the FEIS, the applicants have little or no control on how or where the material is used by customers.

(4) *Impacts of deep dredged holes on debris accumulation and water intakes*

The issue described at the Allegheny Energy Supply Power Station in Pool 8 is noted in the FEIS under Alternative 2. The possibility of sediment and debris accumulations in deep dredged holes under certain conditions is also discussed under Alternative 2. Alternative 3 includes adaptive management to modify dredging to mitigate such impacts.

(5) *Pool 9 is not included in DEP's existing permit which provides 401 Certification.*

Comment noted.

Executive Offices
717-705-7801
www.fish.state.pa.us

COMMONWEALTH OF PENNSYLVANIA
FISH & BOAT COMMISSION
P.O. BOX 67000
HARRISBURG, PA 17106-7000

November 4, 2002

Albert H. Rogalla, Chief
Regulatory Branch U.S. Department of the Army
Pittsburgh District Corps of Engineers
Federal Building, 1000 Liberty Avenue
Pittsburgh, PA 15222

Re: June 2002 Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania

Dear ~~Mr. Rogalla~~ al:

The staff of the Pennsylvania Fish and Boat Commission (PFBC) are submitting these comments concerning the June 2002 draft commercial dredging Environmental Impact Statement (EIS). In general, our staff review found the draft EIS is inadequate as a document upon which to base resource protection permit decisions for the foreseeable future. It is noted that although the "purpose" and "need" statements now seem appropriate as written, the EIS essentially evaluates only two alternatives and fails to consider any other reasonably protective compromise alternatives to meet the region's commercial aggregate needs. My staff also noted that there is a lack of good recent survey data to substantiate many of the document's broad-based conclusions.

Staff have expressed concerns about the document's abstract and preface mention of the interagency scoping and review effort. Although they agree that the stakeholder process was extensive, there was consistent and unanimous resource agency dissatisfaction with it. This discontent was expressed in numerous meetings and letters, which should be acknowledged in the draft EIS. Unless the final EIS contains an appended complete correspondence record, the public record should be expanded to recognize and address those expressions of concern. It should be noted, for example, that in at least seven letters over the last four years, the PFBC staff repeatedly questioned issues like insufficient resource characterization, the stalled stakeholder process and the narrowed range of alternatives. Many of these issues are unresolved in the June 2002 Draft.

Rec'd 11/8/2002

On February 7, 2002, PFBC staff suggested the draft EIS should not be released without further stakeholder coordination. This suggestion was based on the failure of the process to reach consensus or concurrence over alternatives to be considered. The present document still only evaluates:

1) Complete cessation of dredging,
2) Continued conditional dredging and
3) Shifting to land-based aggregate production.

It seems clear that alternatives 1 and 3 are the same in terms of environmental impact on the rivers' biological and physical habitats and the natural resources they support. Alternative 2 defers to future regulatory agency action to specifically condition permits for resource protection. In our opinion, to be a more effective tool for decision-making, the EIS should include a more extensive "adaptive management" approach by evaluating the relative consequences of intermediate combinations of more restrictive river dredging with increased land-based production. Furthermore, other ideas -- such as limiting the extraction for specific demands such as PennDOT-based transportation projects -- need to be discussed.

The PFBC staff found some information gaps throughout the document. For instance, Section 3.3.7 acknowledges that ambient water toxicity testing at two locations should be regarded as only preliminary, but the corresponding Section 4.2.3 Alternative 2 impact assessment glosses over potential water quality and sediment contamination concerns. Likewise, "little difference in the mussel assemblage between dredged and adjacent undredged locations" is reported in Section 4.2.4, while Section 3.4.2.3 states that available data "are not necessarily indicative of river-wide conditions in the study area as a whole". Similarly, the Alternative 3 land-based analysis seems to dwell excessively on a controversy over a central-Pennsylvania limestone quarry. Staff found the conclusions of this analysis to be somewhat unconvincing inasmuch as they are based on very little resource data.

The PFBC staff recommend that additional work is needed to thoroughly revise the draft EIS to address natural resource concerns and produce a more meaningful product.

Thank you for the opportunity to comment.

Sincerely,

Pete

Peter A. Colangelo
Executive Director

Response to PFBC

Alternative

(1) *Only two alternatives are really analyzed in the DEIS.*

Alternatives have been expanded in the FEIS. Please refer to EPA Response (1) and (2) under Alternatives.

(2) *There is a lack of recent survey data with which to substantiate DEIS conclusions.*

The FEIS relied on extensive data collected during preparation of the EIS, including surveys designed with input from PFBC. Please refer to EPA Response (1) under Environmental Consequences and USFWS Response (3) under General Comments for further clarification.

(3) *The EIS should acknowledge resource agency discontent with the stakeholder process. The EIS should append a complete correspondence record or should be expanded to recognize and address PFBC expressions of concern.*

As noted above, the FEIS presents and discusses an additional alternative that addresses many of the concerns raised by PFBC. In addition, the FEIS includes a new Section 6 that presents all of the comments received by the Corps on the DEIS and the Corps' responses. This compilation of comments and responses provides an adequate record of the concerns raised by stakeholders.

(4) *A more extensive adaptive management approach should be evaluated as an alternative.*

Alternative 3 includes a more extensive adaptive management approach as suggested including several additional types of controls that could be applied on a site-specific basis as warranted. As noted in EPA Response (1) under Alternatives, the Corps has no control over the aggregate market in the Pittsburgh region. The blend of land-based and river-based aggregate supplies are dictated by market forces. Under Alternative 3, the life-cycle of the dredging industry is projected to be shortened.

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Pennsylvania Environmental Council

STATEWIDE OFFICES

CENTRAL
30 Locust Street
Suite 200
Harrisburg, PA 17101
Phone: 717-230-8044
Fax: 717-230-8045

FRENCH CREEK PROJECT
Box 172, Allegheny College
Meadville, PA 16335
Phone: 814-332-2946
Fax: 814-333-8149

NORTHEAST
75 Main Street
Luzerne, PA 18709
Phone: 570-718-6507
Fax: 570-718-6508

NORTHERN ALLEGHENY PROJECT
University of Pittsburgh
Titusville
206 McKinney Hall
204 East Main Street
Titusville, PA 16354
Phone: 814-827-4428

SOUTHEAST
117 South 17th Street
Suite 2300
Philadelphia, PA 19103
Phone: 215-563-0250
Fax: 215-563-0528

WEST
2 Terminal Way
Pittsburgh, PA 15219
Phone: 412-481-9400
Fax: 412-481-9401

www.pecpa.org

November 7, 2002

Albert H. Rogalla
United States Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

On behalf of the Pennsylvania Environmental Council, I am writing at this time to comment on the Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging in the Allegheny and Ohio Rivers, Pennsylvania. Specifically, we are concerned about the insufficient consideration of alternatives and the inadequate sampling and analysis of the impacts of the alternatives that were considered.

The Pennsylvania Environmental Council is a statewide non-profit organization with offices in Harrisburg, Meadville, Philadelphia, Pittsburgh, and Wilkes-Barre. The Council improves quality of life for all Pennsylvanians by enhancing the Commonwealth's natural and built environments by integrating advocacy, education, and implementation. The Council values reasoned and long-term approaches that include the interests of all stakeholders to accomplish its goals.

The range of alternatives considered in the DEIS is inadequate. Three alternatives are considered, but alternatives one and three are essentially the same. The alternative analysis should be expanded to consider a wider range of alternatives to meet the need for aggregate. For example, the analysis should consider the demand for the aggregate, limiting aggregate types, limiting dredging areas, avoiding certain pools, and the degree to which upland sources could meet the balance of aggregate needs.

The samples considered in the analysis are too small and are not representative enough to draw conclusions about the impacts of the alternatives on water quality (including toxicity and dissolved oxygen) and aquatic and riparian species. Multiple samples at several locations under different operating and river conditions are necessary to draw conclusions about the alternatives. The document should include the sources of data and methods used in the data collection and analysis.

The analysis of the economic, social, and environmental impact of the cessation of dredging is incomplete with regard to the lock and dam system. Since up to 98% of the lock and dam barge traffic on the upper Allegheny is for commercial sand and gravel dredging, it is unlikely that the current system of locks and dams would be maintained in the absence of the dredging industry. The analysis should consider the cost to taxpayers and the environmental impacts of supporting a lock and dam

(over)

structure almost exclusively for the sand and gravel industry. In addition to tax savings, a free-flowing river would yield ecological, water quality, and recreational benefits that should be considered in the analysis. The analysis should also consider the reduced threat of the spread of damaging zebra mussels that would come with the elimination of dredging and associated barge traffic.

The impact on job loss and creation as a result of the cessation of dredging and an increased reliance on land-based quarries and their associated economic impacts (e.g., trucks, drivers, fuel and services) is unclear because the assumptions used in the analysis are not clearly stated. In addition to new jobs for land-based activities, it is likely that recreation-based jobs related to canoeing and kayaking could increase along the river if dredging ceased. These jobs and their accompanying impacts should be considered in the analysis.

In conclusion, we feel that the DEIS provides an incomplete assessment of alternatives and suffers from insufficient data upon which to draw informed conclusions about the proposed dredging operations.

Thank you for the opportunity to comment and for considering the concerns outlined above.

Sincerely,

Timothy D. Schaeffer, Ph.D.
Director, Central Pennsylvania

Response to PA Environmental Council

Alternatives

(1) *Range of Alternatives in the DEIS in inadequate.*

The range of alternatives was expanded in the FEIS. Please refer to EPA Response (1) under Alternatives.

(2) *Too few samples were collected and analyzed with which to evaluate alternatives.*

The Corps believes that sufficient information was collected during the EIS process with which to properly evaluate alternatives. Please see USFWS Response (3) under General Comments.

(3) *Analysis of the economic, social, and environmental impact of cessation of dredging is incomplete with respect to the lock and dam systems.*

Please refer to DEP Response (3) under Specific Comments for further clarification regarding the evaluation of socio-economic impacts of the different alternatives. The FEIS discusses the likely reduction in boat traffic in the upper Allegheny River pools if dredging ceased. Future impacts of this scenario on the lock and dam system are speculative, as discussed in the FEIS.

(4) *Impact on jobs with cessation of dredging is unclear.*

Socioeconomic analyses were updated in the FEIS. The analysis concerning job losses does take into account that some of the projected shortfall in aggregate material would be made up by land-based producers within the ROI. Thus, section 4.1.9.3 describes both the gross loss in jobs (dredging only) and the net loss in jobs (dredging job loss minus employment gains from expanding land-based operations). The projected increase in employment at these non-dredging operations is relatively modest because >50% of the replacement aggregate material would be imported from outside the ROI. Please refer to DEP Response (3) under Specific Comments for further clarification regarding evaluation of job loss and creation under Alternative 1.

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
HARRISBURG, PENNSYLVANIA 17101-1900

OFFICE OF
SECRETARY OF TRANSPORTATION

October 3, 2002

Mr. Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

The Pennsylvania Department of Transportation has reviewed the Draft Environmental Impact Statement (DEIS) on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers as requested in your July 26, 2002 letter.

Based on our review of the DEIS we offer the following:

PENNDOT has several bridges spanning the Ohio and Allegheny Rivers within the proposed dredging area. A horizontal dredging limitation of 500 feet upstream and downstream from existing bridge piers may be insufficient to prevent negative impacts on the pier foundations. The document should include supportive information as to how the limitation of 500 feet was determined. Substantial substrate removal from the riverbed may cause substrate loss at the bridge sites due to sediment transport driven by river hydraulics. If the riverbed is lowered in the vicinity of the bridge piers, this could be detrimental to the foundation stability of some of these bridges.

The effects of the dredging, the horizontal limits, and the vertical limits of the dredging relative to bridge locations need to be determined by a detailed hydraulic/geomorphologic analysis using an appropriate sediment transport model. This additional study should be completed to analyze the effects of the proposed dredging on the riverbed and to confirm the proposed dredging limitations. Horizontal limits of as little as 500 feet from bridges may be inappropriate. Establishing minimum river bottom elevations may be necessary to prevent unacceptable erosion at the bridges.

Rec'd
10/10/2002

PENNDOT, through several bridge replacement projects over the Allegheny River, has been involved in Endangered Species Act Consultations with the United States Fish and Wildlife Service (USFWS). "Take" of endangered mussels, loss of habitat, or a reduction in the geographical extent of these species in the Allegheny River, as a result of the proposed project and permit issuance, is of concern. Reductions in endangered mussel populations may adversely impact our ability to obtain "No Jeopardy" Opinions and Incidental Take Statements for future bridge projects. Inability to replace bridges over the Allegheny River may result in significant safety and socioeconomic concerns in the Middle Allegheny Region. In conducting reviews on future PENNDOT projects, USFWS considers the status of the resource and impact of other projects on the resource in a manner that is somewhat similar to a cumulative effects analysis. Therefore, this proposed action may impact future PENNDOT actions.

Alternatives included in the DEIS address only "all" or "nothing" with respect to dredging in the Allegheny River. Based upon our knowledge of federally endangered mussels occurring in the upper sections of Pools 8 and 9, a modified alternative allowing for dredging in all other pools and restricting dredging to the lower portions of Pools 8 and 9 should be considered. This may eliminate the possibility of a potential loss of mussel habitat and related "take" in Pools 8 and 9, and the potential for a cumulative effect from this proposed project on future PENNDOT bridge replacement projects in the Allegheny River.

Much of the most recent mussel survey and mussel relocation monitoring data available for the Allegheny River has been collected through PENNDOT projects. Some of these data sets are available and could enhance the data provided in the Draft Environmental Impact Statement (DEIS). One of the surveys conducted is for a bridge replacement project at the upper limit of the DEIS study area at East Brady. PENNDOT, in partnership with the United States Geologic Survey, developed a quantitative mussel survey protocol for use in that transportation project, as well as for future transportation projects. Portions of this protocol and accompanying data analysis tools are available at http://aegis.er.usgs.gov/groups/stats/mussel. This information may be of use to the Corps for this proposed dredging. PENNDOT is also interested in new approaches under development and survey data being collected by others. PENNDOT would appreciate receiving copies of the mussel survey protocol developed for this project and species lists/density estimates for those surveys noted in Section 3 of the DEIS.

PENNDOT is currently exploring the benefits of filling a deep scour hole in the Allegheny River to enhance endangered mussel habitat. It is mentioned in the DEIS that there are plans to fill deeply dredged areas of Pools 3 and 4 with fine sediments. We would like to coordinate with the Corps to exchange concepts and plans on the filling of scour holes and the types of materials to use, so that a Plan, which could serve as a basis for filling additional scour holes by both agencies and which could enhance endangered mussel habitat, might be developed. Enhancing the mussel habitat can benefit both agencies for future projects.

It should be noted that the river gravels dredged out of both rivers are a valuable source of PENNDOT's highest rated skid resistant level aggregate (SRL-E). This material is required in asphalt wearing courses where the average daily traffic is 20,000 vehicles or greater. They are also a significant source of Type A fine aggregate. If these sources were not available, the greatest impact would be to our Engineering Districts 10-0 and 11-0, which includes Armstrong, Butler, Clarion, Indiana, Jefferson, Allegheny, Beaver, and Lawrence Counties. Other Engineering Districts within the State could also be affected. The affected Engineering Districts would have to import SRL-E aggregate and Type A fine aggregate from other sources. This would result in reducing the number of bidders, increasing haul distances, and thereby increase the cost of the aggregate to the Department.

If you have any questions regarding this response, please contact Dean A. Schreiber, P.E., at (717)-787-3310.

Sincerely,

Bradley L. Mallory
Secretary of Transportation

Response to PennDOT

(1) *The EIS should include information supporting the 500-foot minimum set-back from bridge piers. Substantial substrate removal may alter river hydraulics and cause loss of substrate at the bridge sites.*

The Corps is unaware of any problems reported at bridge sites due to dredging effects and current set-backs. However, if PennDOT believes that the 500-foot set-back from a particular bridge pier is insufficient to protect bridge stability, Alternative 3 includes an adaptive management process to evaluate such issues on a site-specific basis and require a larger set-back, if warranted.

(2) *Effects of dredging relative to bridge locations need to be determined by a detailed hydraulic/geomorphological analysis.*

As noted in Response (1) above, the Corps was not previously informed that the current bridge set-back is in question or has had any detrimental effects on bridges. Therefore, it was not deemed necessary to conduct a detailed hydraulic/geomorphological analysis during development of the EIS. Under Alternative 3, this issue could be further pursued between the Corps and PennDOT.

(3) *The proposed action in the DEIS may impact future PennDOT incidental take permits with USFWS, and consequently, PennDOT bridge replacements in the future.*

Alternative 3 in the FEIS relies on additional restrictions as well as adaptive management to avoid federally-listed mussel species and minimize unintended take of these species. Part of this adaptive management process is a FWS-approved survey protocol for sampling listed mussel species. Implementation of Alternative 3 should not negatively impact PennDOT operations in the study area.

(4) *Alternatives in the DEIS are too limited. Restricting dredging to the lower portions of Pools 8 and 9 should be considered to reduce potential impacts on federally-listed species and cumulative effects on future PennDOT projects.*

The Alternatives have been expanded in the FEIS. Alternative 3 includes the possibility of restricting areas or portions of pools in consultation with USFWS. Please refer to EPA Response (1) under "Alternatives" for further clarification.

(5) *PennDOT, in partnership with USGS, developed a mussel survey protocol for sampling listed species. PennDOT is interested in receiving copies of the protocol developed by the Corps for this project.*

Section 3 of the FEIS references the mussel sampling protocol developed for the East Brady Bridge project, and mussel data collected using that protocol. As

noted under Response (3) above, the Corps is employing a FWS-approved survey approach. A copy is contained in Appendix U.

(6) *PennDOT would like to coordinate with the Corps any plans and concepts regarding filling of scour holes in the study area.*

The potential project referenced in the DEIS, involving filling of dredged holes in Pools 3 and 4, is no longer under consideration. The Corps currently has no plans to fill any holes in the study area. Such measures may be considered as mitigation throughout the adaptive management process, and may be coordinated with PennDOT.

(7) Comments noted.

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BRINGING RIVERS TO LIFE

American Rivers

FOUNDED 1973

October 30, 2002

Albert H. Rogalla
U.S. Army Corps of Engineers. Morrhead Federal building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla,

We have reviewed the Draft Environmental Impact Statement (DEIS) concerning an extension of permits for proposed commercial dredging activities within the Allegheny River and the Ohio River in southwestern Pennsylvania, and would like to offer the following comments and observations for the record.

American Rivers, a nationally based nonprofit organization dedicated to the protection and enhancement of our nation's rivers and river resources, has 26 years of experience evaluating projects with respect to their impact on aquatic resources, particularly public-trust resources such as rivers and riverbeds. We find the analysis of potential environmental impacts and economic impacts from the proposed project to be inadequate in several respects.

First, the numbers of samples taken at each site, and the number of sites sampled overall, appear to be inadequate to definitively predict the short-term or the long-term impacts on aquatic resources. With known endangered and threatened mussel species present, we are surprised that the contractor, Tetratech, was not held to a higher standard when sampling for these species in particular. The DEIS makes very little or no mention of a host of other riverine species and river-dependant species that are likely to suffer impacts from sustained, long-term dredging operations. There was an inadequate number of samples taken to determine impacts to fish species, and no effort to determine what the cessation of dredging operations would do to fish and other aquatic species under assessments of options 1 and 3. The DEIS includes very little information on potential impacts of continued river dredging on other groups of riverine and river-dependent wildlife, including avifauna, herpetofauna, fur-bearing mammals like river otter (which the state of Pennsylvania has spent many years and many tax dollars reintroducing) and keystone species like pine marten that are extremely sensitive to human disturbances. The Allegheny and Ohio are the only "big river" systems in western Pennsylvania, and this habitat cannot be replaced in-kind by smaller creeks and streams. The cumulative impact

of continued dredging operations on aquatic and riparian biodiversity in these two rivers could be enormous, and on many levels; loss of an adequate aquatic food-chain base, loss of secure and undisturbed habitat, reproductive failure, and so on. Unfortunately, the DEIS doesn't address this concern under option 2. Interestingly, the EIS does suggest that the noise from increased quarry operations, whose impacts are limited to a small section of a river, could have harmful impacts on endangered Indiana bats and endangered-candidate Massasauga rattlesnakes. Surely these species would suffer much greater impacts from the noise generated by near-continuous river dredging operations on 40 miles of the Ohio River and 69 miles of the Allegheny River.

Secondly, the DEIS characterizes potential impacts of dredging to water quality as "short term" and "temporary," but again doesn't assess the cumulative impacts of near-continuous dredging operations, some of which operate 9 to 10 months out of 12, some 24-hours a day, and 7 days a week. Most permitted operations in rivers, such as stream encroachments, instream restoration work, construction projects, or dam removal, measure "short-term" impacts to water quality in terms of hours or days, not years.

Thirdly, the economic analysis that led to the DEIS recommending option #2 is flawed. The DEIS notes that the cessation of dredging and mining activities within the river could lead to the regional loss of up to 400 jobs. If the demand for river aggregates remains high, a conclusion the DEIS's own analysis strongly supports, then new jobs will be created to offset the demand not met by river dredging. New jobs will be created at land-based mining operations to address this strong demand for aggregates. Whether this new job creation would completely offset jobs lost to river dredging cessation, would exceed those job losses, or would not compensate for all river mining jobs lost is not known because the DEIS didn't adequately explain its assumptions. In addition, there are potential recreational jobs that could be created, and could increase in the absence of river dredging operations, that were not factored in to this analysis. There are dozens of small, commercial canoe and kayak outfitters along the Allegheny River that also support jobs and associated local economic spending. Through any objective analysis, these small industries would be likely to benefit directly from cessation of river dredging, as would their small local economies.

Finally, the DEIS did not adequately assess the overall long-term environmental and economic benefits to the affected segments of the Allegheny and Ohio rivers if the mining were stopped. With 98 percent of traffic on the upper Allegheny coming from the commercial sand and gravel industry, it is hard to imagine that the Corps would continue to maintain the current locks and dams on the upper Allegheny to service the remaining 2 percent of system users. The costs to tax payers of maintaining the current lock and dam operations on the upper Allegheny River for the almost exclusive benefit of the sand and gravel industry is not adequately factored in to the DEIS's economic cost-benefit analysis. Cessation of sand and gravel mining, and cessation of operation of the upper lock and dam system on the Allegheny River, would not only yield enormous public tax dollar savings, but would go along way to restoring the natural hydrology, ecology, sediment transport, fish populations, and other biota of this system, as well as improve

water quality within the river's upper impoundments. These considerations should be a basic part of any DEIS analysis for such an important decision.

In October, American Rivers received nominations from several groups in Pennsylvania to name the Allegheny River one of the nation's top Most Endangered Rivers of 2003. Given the threat that continued sand and gravel mining poses to the water quality and aquatic life of the river, the nomination will be given serious consideration for this designation. Many groups around the country will be watching the Allegheny River and the outcome of the Corps' permit decision. We hope you will take our comments into consideration when making this very important decision.

Sincerely,

Sara Nicholas
Mid-Atlantic Office
American Rivers

Response to American Rivers

(1) Please refer to EPA Response (1) under Environmental Consequences regarding data relied on in this EIS. Potential impacts of dredging on aquatic life are discussed under Alternative 2 in the FEIS. Records of riverine mammals are sparse in the study area. However, impacts discussed with respect to other biota in the FEIS, such as fish, mussels, and birds, should capture likely effects on other aquatic-dependent terrestrial species. Impacts on terrestrial endangered species are discussed under Alternative 2.

(2) Cumulative impacts are discussed in Section 4.5 of the FEIS. The FEIS notes that dredging operations are localized and that they can extend for months in a given pool area. Many of the adaptive management controls incorporated in Alternative 3 are designed to mitigate significant cumulative impacts.

(3) Please refer to PADEP Response (3) under "Specific Comments" regarding the socioeconomic analyses in general. The FEIS discusses the likely creation of jobs as well as loss of jobs resulting from the No Action Alternative. There is no evidence demonstrating that dredging currently interferes with other businesses in the area.

(4) The cumulative impacts section of the FEIS discusses the consequences of continued dredging over the next 10 years. Under Alternative 3, dredging operations are likely to be much reduced by that time. The FEIS discusses the possibility of closure of the upper locks should dredging cease due to lack of traffic. Closure of the locks also could have effects on mussel populations as this could reduce host fish movement among pools. However, Alternative 3 does provide for restrictions of portions or entire pools pending consultation with USFWS.

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The Allegheny River is a valuable natural resource, which belongs to all of the people of Pennsylvania. Its inherent value is primarily derived from the following:

A. The mineral resources (sand and gravel) it provides
B. Its aesthetic value for people who enjoy the beauty of nature
C. Its recreational value for fisherman and boaters
D. For trade and commerce purposes
E. The quality of the water it provides to the people who directly or indirectly obtain their drinking water from the river.
F. The quality of the river's habitat and the water it provides to all those organisms, which live in or on the river.
G. The value of property along the river and the potential for its development
H. The quality of life for those land owners living along the river

Since the Allegheny River is such a valuable resource to so many different interests, it is the obligation of the government, as well as state and federal agencies such as yours, to protect this natural resource for everyone, just not for a small number of special interest groups or businesses. When the government or its agencies no longer wisely and fairly represent all those parties who have an interest in the Allegheny River and its future, it is time to raise our voices in protest.

It has come to our attention by way of the public announcement entitled CELRP-OR-F: "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania" that the U. S. Army Corps of Engineers is asking for public comment concerning the issuance of permits to a few businesses who wish to continue and expand the dredging of sand and gravel from the Allegheny River. Therefore, I and the more than 100 members of Tri County Trout Club whom I represent as their president and the more than 400 concerned citizens who previously signed a petition requesting that a moratorium be placed on the expansion and continuation of dredging of sand and gravel on the Allegheny River protest the issuance of these permits for the following reasons:

1. According to a study and report that had been previously done by the Pennsylvania Fish and Boat Commission and U. S. Fish and Wildlife Service and released on November 20, 1996 it indicated that dredging has had a definite negative impact on the invertebrate life and the number and types of fish species found in the dredged pools of the Allegheny River as compared to the undredged pools. In addition to this there are indications that the increased levels of silt deposition caused by dredging on the protected shallow sand and gravel deposits where fish and other invertebrates reproduce has had a negative impact on their reproduction. Therefore, it is highly likely that dredging on the pools where the two endangered species of freshwater mussels (Northern Riffleshell and Clubshell) mentioned in your public notice were found will be adequately protected from extinction even if a protected zone is established for them.

Rec'd
11/4/2002

2. According to the study and report that had been previously done by the U. S. Fish and Wildlife Service it was mentioned that with continued and increased dredging of sand and gravel from the Allegheny River harmful chemicals, that had been buried in the sediment of the river bottom for decades, could be reintroduced into the water if the river bottom is disturbed by dredging. This would have a negative impact on the vertebrate and invertebrate life living in the river and it would adversely affect the quality of the water that the public drinks if their water is taken from the river or the water aquifer found beneath the river. Treatment and removal of chemical contaminants that would be reintroduced into the water as a result of dredging could possibly result in a substantial cost increase to the consumer.
3. Another concern we have deals with the 50 –65 foot or greater depths that some dredge operators have dug and will dig in the future and its affect on the vertebrate and invertebrate life living in those areas. According to John Arway, chief of the Fish and Boat Commission's Division of Environmental Services, the U.S. Fish and Wildlife Service Report released by Ms. Nancy Rackham on November 20,1996, and the Army Corps of Engineers proposal to fill deep holes that had been dug by dredgers on the Allegheny River with sediment from the Monongahela River, very little oxygen exists on the bottom of the river at these depths and it very unlikely that life can exist in areas that have been dredged to these depths.

4. In addition to this some dredge companies are using powerful hydraulic backhoes which can apply enormous downward pressure to dig into hardened sand and gravel (hard pack) that has been compressed and compacted over millions of years. If this layer of compressed and hardened sand and gravel is disturbed the natural filtration system for the water aquifer, that people living along the river depend upon for their drinking water, could possibly fail and result in the contamination of their drinking water. The contamination of their drinking water with unfiltered river water could result in a substantial increase in the cost of treating their water in order to make it potable. This recently occurred when a dredging company operating near Springdale, Pa. damaged the hard pack of the water aquifer resulting in the contamination of this community's drinking water.

5. We also are aware of the fact that a dredge operator is permitted to dredge sand and gravel from the river up to within 150 feet of the shoreline or a protected zone set aside for vertebrate (fish) or invertebrate (fresh water mussels) reproduction or habitation. However, if a dredge operator does dredge sand and gravel to within 150 feet of the shoreline or the edge of a protected zone set aside for vertebrate (fish) or invertebrate (fresh water mussels) reproduction and habitation, a substantial amount of the sand and gravel found in these protected zones eventually would slide into the pit that was created by the dredger due to gravity or during high water flow on the river. This could possibly result in a reduction of the habitat that is important for the reproduction and survival of the vertebrates and invertebrates living in these areas eventually resulting in a reduction in the number and types of fish species and the extinction of endangered fresh water mussels living in these areas. Also with the reduction of the buffer zone between the areas dredged and the shoreline this could result in the destabilization and possible future collapse of the riverbank.

6. With the explosion of land development that has occurred along the Allegheny River over the past 10 years we and landowners living along the river are concerned about the disruption that may occur in the quality of their life and a reduction in their property value if dredging continues or increases in the future.

As you are probably aware quality river front property is very scarce and expensive. Some land owners living along the Allegheny River have saved for an entire lifetime to buy river front property on which they could build their dream home so that they and their children could have privacy and peace and yet still enjoy the beauty of nature. However, with increased noise levels and river traffic that would occur with increased dredging the peace, tranquility and privacy for these landowners would be substantially reduced possibly resulting in a decrease in their property value. This occurred for the residents living in the River Forest housing development near the city of Freeport, Pa.

7. Another thing that we have seen and heard numerous fisherman and naturalists complain about is that the dredgers have been removing sand and gravel from shallow sand and gravel bars and islands that were supposed to be left untouched so that fish and other organisms living in the river can reproduce. The disturbance of the spawning beds for fish and other organisms, the reduction of their habitat and the increased levels of silt we feel will have a profound negative impact on their ability to live and reproduce. This was verified by the study and report done by the Pa. Fish and Boat Commission and the U. S. Fish and Wildlife Service and released on November 20, 1996 in which they saw a significant reduction in the number of species of fish and other organisms in the dredged pools as compared to the undredged pools of the Allegheny River.

In additions to this millions of dollars in federal and state monies obtained through the sale of fishing licenses or obtained through grants is being used to establish and increase paddlefish, muskies, stripers, and walleyes. If dredging continues or is increased on the Allegheny River the spawning beds and habitat for these fish will be disturbed and destroyed and millions of dollars that have been spent to establish and increase the number of these fish in the Allegheny River will have been wasted.

8. According to the study and report released by the Pa. Fish and Boat Commission and the U.S. Fish and Wildlife Service on November 20, 1996 dredging has caused a reduction in the number and types of fish and other organisms living in the dredged pools as compared to the undredged pools of the Allegheny River. Therefore, we believe that with continued or increased dredging on the Allegheny River and the possible reduction in the number and types of fish species living in the river less fishermen will spend time fishing on the river resulting in a loss of millions of dollars that are spent each year by fisherman at local businesses along the river.

9. The number of recreational boaters using the Allegheny River has increased substantially over the past 10 years so that this area of Pennsylvania has one of the largest numbers of registered boaters in the nation. Increased dredging and barge traffic on the Allegheny River may result in less recreational boaters using the river resulting in the loss of millions of dollars that are spent each year by these recreational boaters at local businesses along the river.

10. For years the dredge operators have argued that the sand and gravel obtained from the river is important in the construction industry and cannot be replaced without a substantial price increase in the cost of construction. However, there are many areas in Pennsylvania where sand and gravel dredged from a river are not available for construction so the construction industry has found alternate sources for these materials in order to remain competitive. In this area of Pennsylvania large sandstone and limestone deposits could be mined and crushed and used as an alternate source for sand and gravel dredged from the river. In addition to this large glacial sand and gravel deposits found in Butler County could be mined. The mining of sandstone and limestone in this area and the mining of glacial sand and gravel deposits found in Butler County would add a substantial number of jobs to the area and millions of dollars in revenue to local communities and businesses.

For the reasons listed above we ask that the U.S. Army Corps of Engineers deny the issuance any new permits to continue and increase dredging on the Allegheny River. We also ask that current dredging on the Allegheny River eventually be phased out and removed over a period of 10 years.

Sincerely,

Donald L. Orlowski 11/1/02

Donald L. Orlowski
Executive Director and Board Member of Tri County Trout Club

Response to Tri-County Trout Club

(1) The FEIS discusses potential impacts of dredging on certain aquatic resources such as federally-listed and candidate mussels, and state species of concern. Alternative 3 includes several additional adaptive management controls to mitigate these impacts and preserve unique or high quality habitats in the study area.

(2) Please refer to PADEP Response (5) under Specific Comments regarding the issue of resuspension of sediment toxics.

(3) Potential effects of dredging on dissolved oxygen and benthic biota are discussed under Alternative 2 in the FEIS. Alternative 3 includes additional adaptive management controls to mitigate impacts on dissolved oxygen.

(4) The hydrogeological study conducted near Springdale, PA, as well as similar studies conducted elsewhere in the study area, are discussed under Alternative 2 of the FEIS. These studies have not indicated an impact of dredging on public water supply quality. Adaptive management processes under Alternative 3 will further evaluate this issue as the need arises.

(5) Additional restrictions and adaptive management controls identified under Alternative 3 are designed to further mitigate potential impacts in near shore areas.

(6) Potential noise impacts of dredging operations on river property owners are discussed in the FEIS under Alternative 2. Alternative 3 includes adaptive management controls to mitigate these impacts.

(7) The FEIS discusses potential impacts of dredging on fish and the importance of shallow spawning areas for a number of game and state-listed species. Additional analyses presented in the FEIS indicate that implementation of Alternative 3 will protect most if not all of these habitats.

(8) Several factors besides dredging activity were involved in explaining biological effects in the Pool 5 and 6 study conducted prior to preparation of this EIS, including differences in pool area, tributary flow, and pool morphology. The FEIS discusses potential effects of dredging and identifies several controls to mitigate such effects.

(9) Potential impacts of dredging and related barge traffic on recreational uses are discussed under Alternative 2 in the FEIS. As this comment noted, recreational uses have increased in the study area along with dredging activity. There is no information to date indicating that dredging has interfered with recreational uses in the study area. Also note that much of the barge traffic in the Ohio and lower Allegheny Rivers is unrelated to dredging operations.

(10) Section 2 of the FEIS includes an expanded discussion of the geological qualities of river-extracted aggregate as compared to crushed limestone and other alternative products, in terms of highway and construction uses. The FEIS recognizes that land-based sources of comparable quality aggregate may exist in the region but that the river offers a far greater and more certain source of this material currently.

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SIERRA CLUB Pennsylvania Chapter

Reply to:

P.O. Box 606
Harrisburg, PA 17108

November 7, 2002

Mr. Albert H. Rogalla
United States Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186 (Via FAX at 412-644-4211)

SUBJECT: CELRP-OR-F
(Draft Environmental Impact Statement [DEIS] on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania)

Dear Mr. Rogalla:

I am writing on behalf of the Water Issues Committee of the Pennsylvania Chapter of the Sierra Club to urge the Army Corps of Engineers not to proceed with authorizing continued commercial sand and gravel dredging operations in the Allegheny and Ohio Rivers on the basis of Draft Environmental Impact Statement prepared by Tetra Tech, Inc. The DEIS is biased, and lacks the comprehensive scope of analysis of environmental and economic considerations that should inform the Corps' decision-making, given the significant environmental impacts known to be associated with river dredging activities.

The DEIS analysis is inadequate because it fails to adequately consider and weigh the full environmental impacts of dredging the rivers. Despite urgings from federal and state resource agencies for more comprehensive environmental analysis, the DEIS lacks adequate recent sampling of water quality, sediment contamination, fish tissue, dissolved oxygen, turbidity, and suspended solids in dredged and non-dredged areas of the river. The DEIS fails to give adequate consideration of the effects of river dredging on habitat for fish, fresh water mussels, and many other aquatic organisms, several of which are threatened or endangered. The DEIS also fails to adequately address the effects of continued river mining on the stability of the river systems. Channel incision, bed coarsening, lowered alluvial water tables and channel instability typically result from interrupting the natural sediment transport in the river. The destabilizing effects of removing large volumes of sediment in the mainstem can travel up into the tributaries, as well. The DEIS fails to adequately consider the pollution created by the operation of

mining equipment, including noise pollution and fuel potentially leaking from the equipment directly into the water. The above impacts are all cited in the extensive literature evaluating river mining around the country. [See for example, G.M. Kondolf, "Hungry Water: Effects of Dams and Gravel Mining on River Channels," Environmental Management, v. 21, no 4, pp. 533-551, in which the author argues that the effects of aggregate mining should be evaluated on a river basin scale to consider cumulative effects on aquatic and riparian resources, and a sediment budget should be prepared that considers historic and present conditions.]

The economic analysis in the DEIS is heavily weighted in favor of continued river mining. The valuation of the environmental damage, the effects on recreational uses and health and safety, and other societal costs are underweighted. The potential for the undermining of infrastructure, including bridges and other structures located along stream and river banks, due to the channel instability, is ignored. The range of alternatives is unacceptably narrow. The analysis fails to adequately consider restricting mining to areas where impacts to fresh water mussels and other aquatic life would be low. The analysis also fails to adequately consider alternative sources of material, including the potential for recycling of aggregate material to substitute for some or all of the mining of new material from the rivers. Newly mined sand and gravel is not required in all applications of aggregate material, and the benefits of recycling concrete rubble and other waste aggregate material should also be factored into the comparative analysis of costs. In addition, given the potential for land-based aggregate mining, the DEIS inappropriately represents continued river mining as essential for the economic viability of the mining companies.

We urge the Army Corps to undertake a new, more objective and comprehensive environmental impact analysis of continued sand and gravel mining in the Allegheny and Ohio Rivers before authorizing these operations to continue removing and destroying the resources that belong to the citizens of the Commonwealth.

Yours truly,

Robin Mann
Chair, Water Issues Committee
Pennsylvania Chapter of the Sierra Club
266 Beechwood Drive
Rosemont, PA 19010

WILLIAM J.KEANE

1903 Hampstead Drive Pittsburgh, PA 15236 (412) 241-1366

tober 28, 2002

. Albert H. Rogalla
ited States Army Corps of Engineers
tsburgh District
oorhead Federal Building
00 Liberty Avenue
tsburgh, PA 15222-4186 (Via FAX at 412-644-4211)

IBJECT: CELRP-OR-F
(Draft Environmental Impact Statement [DEIS] on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania)

ase consider these comments on the subject matter:

Pennsylvania must stop sand and gravel mining in the Allegheny and Ohio rivers for these reasons:

Such mining destroys habitat for fish, fresh water mussels, and many other aquatic and terrestrial organisms, including some endangered and threatened species. The Army Corps admitted that river mining is environmentally destructive in their application to dump Monongahela River dredge sediments in Allegheny dredge holes.

There is contaminated sediment at the bottom of the Ohio and Allegheny Rivers. Mining could release toxins into the water. These include heavy metals, PCBs, and chlordane (a now banned pesticide). This threatens river life and drinking water.

River mining damages the immediate area of mining and forces slumping of the river bed toward the shoreline, causing property loss and natural habitat destruction.

River mining operations are very noisy. This harms all life in and along the river, including those who live near the operations.

The DEIS is incomplete and lacks adequate recent sampling of water quality, sediment contamination, fish tissue, dissolved oxygen, turbidity, and suspended solids in dredged and non-dredged areas of the river.

It is inaccurate to assume that companies engaged in river mining would go out of business if the mining were banned, as land mining is economically feasible. River mining is not economically necessary in Pennsylvania, proven by the fact that mining only occurs in the Allegheny and Ohio Rivers.

ours truly,

William Keane

ater and Wetlands Chair
legheny Group
nnsylvana Chapter
erra Club

Response to Sierra Club

(1) *DEIS fails to adequately consider environmental impacts of dredging.*

Potential impacts of dredging on aquatic resources including hydrology, water quality, and aquatic life, are discussed in detail under Alternative 2 of the FEIS. Alternative 3 was developed to mitigate these impacts.

(2) *DEIS lacks adequate recent sampling of water quality and sediment contamination.*

The issue of contaminated sediments and possible resuspension of toxics with dredging is discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to mitigate such risks if believed to be present.

(3) *DEIS fails to adequately address effects of dredging on channel and shoreline stability.*

Potential impacts of dredging on shorelines, where current set-backs may not be sufficient, are discussed under Alternative 2. Site-specific controls to minimize such impacts are incorporated in Alternative 3.

(4) *DEIS fails to address noise impacts of dredging.*

Noise impacts of dredging are discussed under Alternative 2 and are addressed under the adaptive management process in Alternative 3.

(5) *DEIS is based on few data.*

Extensive data were relied on in developing this EIS. Please refer to EPA Response (1) under Environmental Consequences for further clarification.

(6) *The DEIS fails to adequately consider all the alternatives.*

The range of alternatives was increased in the FEIS. Please refer to EPA Response (1) under Alternatives.

(7) *DEIS inappropriately represents dredging as economically essential.*

The socioeconomic analysis used in the FEIS demonstrates that aggregate can be supplied by other sources in the long-term but that much of it is likely to come from outside the Region of Influence because of geological reasons. Market prices for aggregate material vary from market to market depending on a number of factors including availability of supply, distance from sources to market area, labor and transportation costs, and overall demand for material. The EIS used current price levels for aggregate materials in the Pittsburgh area and estimated

price increases based primarily on increased transportation costs of importing materials from outside the ROI.

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CLEAN WATER ACTION

Thursday, November 7, 2002

Mr. Albert H. Rogalla
United States Army Corp of Engineers, Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

We are writing in response to CELRP-OR-F: "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania," issued in June 2002. The DEIS concludes that full-scale, continued sand and gravel dredging is the most preferable alternative, both environmentally and socio-economically. However, more than a dozen times throughout the document, Tetra Tech (the consultant for the DEIS) admits to the limited sampling done in such important areas as water quality, sediment, fish tissue, and dissolved oxygen, to name a few. Clean Water Action is concerned about the harmful consequences associated with mining 50 to 60 feet into the riverbed, and we feel that the DEIS does not fully explore the consequences.

In general, the DEIS grossly underestimates the environmental impacts of river dredging and exaggerates the economic implications associated with cessation of river dredging. The United States Army Corps of Engineers (COE) should not renew permits for sand and gravel dredging operations in the Allegheny and Ohio Rivers. Clean Water Action has identified below six of the major problems in the DEIS.

1. **The longevity of a project does not imply that it is the correct action.**

   In the "Introduction to the Executive Summary" of the DEIS, Tetra Tech claims "[d]redging activities have taken place in the Allegheny River and Ohio River for over a century" to provide sand and gravel for various infrastructure projects in the region (p. ES-1). However, the longevity of a project or an activity does not necessarily mean it is correct or environmentally sound, as evidenced by the use of DDT and other pesticides. DDT was widely used for over thirty years. It was banned in 1972 due to its probable human carcinogenic properties and harmful effects to other terrestrial and aquatic life. As one can see from this example, an activity that has been practiced for a number of years is not automatically environmentally sound. Many harms have already been inflicted on aquatic and terrestrial life and habitat. The DEIS *should* evaluate the rivers based on current, rather than virginal, conditions, however, evidence of past damage is not an excuse for future activities to damage the rivers.

1933-A Tilghman Street, Allentown, PA 18104 ■ (610) 434-9223 ■ FAX (610) 434-5790
1201 Chestnut Street, Suite 602, Philadelphia, PA 19107 ■ (215) 640-8800 ■ FAX (215) 640-0930
100 Fifth Avenue, Suite 1108, Pittsburgh, PA 15222 ■ (412) 765-3053 ■ FAX (412) 765-1737
4455 Connecticut Avenue NW, Suite A300, Washington, DC 20008-2328 ■ (202) 895-0420 ■ FAX (202) 895-0438

RECYCLED PAPER

2. Alternative 2 trivializes the impacts to the water quality and to the river environment.

a. Alternative 2 claims minor effects to "turbidity, dissolved oxygen, and resuspended sediment contaminants," yet the DEIS also states that between 20% and 40% of the river will be disturbed (p. E-9 and E-10). Clean Water Action feels that this is a major significant adverse impact because of the great portion of the river it will disturb. At several points, the DEIS admits that dredging for sand and gravel causes *irreparable* damage to the river bottom. On page 4-76, Tetra Tech, Inc. states "Alternative 2 [sand and gravel dredging in the Ohio and Allegheny Rivers] would result in a relatively permanent significant alteration in the morphology of the river bottom…Furthermore, the loss of glacially-derived sand and gravel resources…is irreversible."

b. Another aspect that is not discussed is the effect that this 20-40% disturbance will have on the food chain in the ecosystems adjacent to the Allegheny and Ohio Rivers. Commercial dredging for sand and gravel not only disrupts aquatic life directly; it also works its way up the food chain. Lowered populations of certain aquatic life, such as various species of mussels and fish, due to turbidity and low dissolved oxygen levels, result in less food for larger animals, both in the water and on land. Lack of available food sources can contribute to lowered populations of other species not accounted for by Alternative 2.

c. In the "Summary of Environmental and Socioeconomic Effects" resource area impacts to water quality, it is clear in Alternative 2 that there are <u>many</u> significant adverse impacts to species living in and around the rivers. On the other hand, Alternative 1 has <u>no</u> adverse impacts, and Alternative 3 has only two <u>minor</u> impacts (p. E-10 and E-11).

d. Another concern is the adverse impact associated with Alternative 2 of resuspension of contaminated sediment. The National Sediment Inventory (NSI) classifies several segments of the Allegheny and Ohio Rivers as Tier 1 and Tier 2 as being Areas of Probable Concern (APCs) for levels of PCBs and chlordane in the sediment. The DEIS also admits to sediment contamination on pages 3-21 to 3-23.

According to the United States Environmental Protection Agency's (EPA) website for contaminated sediment, "[c]ontaminated sediments should not be removed from a site if doing so would cause more harm than simply leaving them in place." The DEIS should use EPA's "Contaminated Sediment Management Strategy" as guidance. DEP's "Total Maximum Daily Load for PCB and Chlordane for the Ohio River," as well as a similar report for the Allegheny River, state that "[n]atural attenuation may be the best implementation method because it involves less habitat disturbance/destruction then active removal of contaminated sediments." These reports also found that dredging in areas with contaminated sediment could remove the needed habitat of some benthic macroinvertebrates and kill some organisms in the process. Resuspension of sediments as a result of the dredging would also damage the gills and sensory organisms of benthic macroinvertebrates and fish, not to mention make PCBs and chlordane available for

additional uptake. It is clear from these reports by the DEP and the EPA, as well as from the DEIS, that the sediment is contaminated and should not be disturbed.

e. There are several water quality problems that the DEIS does not properly analyze. The dissolved oxygen water quality standard is not calculated using a low flow of Q7-10 (lowest 7 day flow in last 10 years), as DEP requires. The data in the DEIS clearly shows problems DO levels in one sampling site in six, with most of it depth related. In addition, the metals data also shows that standards are being violated. It is not proper to average all data over seven years in order to demonstrate that standards are not being violated. The DEIS in addition indicates that resuspension of sediments is a cause of this problem.

f. One major problem with the DEIS is that the companies will do sampling protocols to track threatened and endangered species. This creates a conflict of interest for them: if they find that their dredging in the rivers is harming the environment, since their livelihood depends on this dredging, it is difficult to truly trust that they will be honest and cease dredging. In addition, as the COE is aware, U.S. Fish and Wildlife Service has had a long standing issue with current sampling protocols.

3. **Alternative 2 trivializes the impact of river dredging to the quality of human life, while Alternatives 1 and 3 exaggerates the impact of cessation of river dredging to the quality of human life.**

a. Area residents have written to the DEP and to the COE and have attended public hearings to express hardships they have endured from dredging—loss of riverbank property, excess noise and light from dredging operations, employees intruding in residential neighborhoods, decreasing property values. Other concerns are the safety of recreational boaters, the availability for *public* use of the rivers, and safe drinking water standards, an issue that the DEIS fails to assess. The DEIS admits to past noise pollution problems, however, the new permits will still not set limits for noise pollution. Proactive measures must be taken to prevent problems before they occur. The range of noise that the dredging equipment is reported at currently is 50 to 70 decibels (dB). Levels of 75 dB or above are considered harmful and may contribute to hearing loss (http://www.nonoise.org). The City of Pittsburgh sets noise levels to a maximum of 68 dB at a distance of 50 feet from the source (http://livepublish.municode.com). The only way to abate noise nuisances is to mandate noise limitations and distance limitations from residences.

b. Regarding accidental falls into quarries, Alternatives 1 and 3 overstate the impact that increased land quarrying would have on children (p. ES-8). According to the National Safety Council's website, in 1998, falls accounted for 16,274 of a total of 97,835 accidental deaths in the United States. Of these falls, 95 deaths occurred from falls into a hole or another opening in a surface, including falls into land quarries, making the odds of falling into something like a quarry 1 in 2,844,716 across the nation in any given year. The odds would actually be even lower since this figure includes all falls, not just those into quarries. No statistics were available at the time that isolated this type of fall from the others. According to an annual playground safety report released June 20, 2002, by

the Mercer County Community Action Agency and Pennsylvania Citizens Consumer Council, 190,000 children were injured on playgrounds in 2001. On average, 17 children die each year after being injured on a playground. If we follow Tetra Tech's reasoning, we should find building new playgrounds a ludicrous notion. Tetra Tech is obviously grabbing at straws in order to justify river dredging rather than land quarrying.

4. **Economic impacts are exaggerated in Alternatives 1 and 3.**

   a. One greatly exaggerated impact, cited in both Alternatives 1 and 3, is to employment. It is logical to state that jobs lost in the river-dredging industry would be displaced to land-based quarrying. Table 3-15 (p. 3-61) shows that mining jobs comprise 0.4% of the workforce in the Pittsburgh area. If any jobs were in fact lost during the shift to land-based mining, this would only be a small fraction of 0.4% of the workforce, which is already an extremely small part of the economy. Trucking the aggregate to the river and transporting it via barge down-river would enable people to retain their jobs and also create new ones. Even the DEIS admits the economic impact of this transition is small.

   b. Tetra Tech claims that land-based quarries would contribute to an additional 1,400 large trucks on the road per day, a huge overestimation, to haul the sand and gravel from the mines to the processing plants, increasing air pollution, traffic, and risk of automobile accidents. Trucking, however, is not the only available option. The DEIS fails to examine barge traffic as a still-viable alternative to trucking. Land-based sand and gravel quarries may be located close to the Allegheny and Ohio Rivers, so the aggregate could be easily trucked only a short distance and then loaded onto barges. This would also mitigate lock and dam closure. Rail traffic would be another effective and less polluting option.

   c. Another claim is that elimination of river dredging would also eliminate the fees that are paid to the PFBC (p. E-16). These fees help fund river-improvement projects. If river-based dredging is eliminated or even reduced, the amount of funds needed for river-improvement would greatly decrease as well, making fees from the dredgers unneeded. This is similar to saying that companies should be allowed to violate the Clean Water Act so that they will have to pay fines that go toward improving waterways. This idea is contradictory to the goals of the PFBC and of the Clean Water Act of protecting and preserving our waterways.

5. **The DEIS is not comprehensive.**

   a. The DEIS provides three alternatives, however, both Alternative 1 and 3 are basically the same—cessation of dredging—making the DEIS, in effect, incomplete. The "Summary of Environmental and Socioeconomic Effects" (Table E-2), has the reader refer to Alternative 3's impacts for additional impacts of Alternative 1 *fifteen* times, showing that Alternative 1 and 3 are one in the same. During the last DEIS process, PFBC labeled the alternatives "inappropriately limited," and the EPA requested a more "exhaustive discussion of alternative sources of materials and alternative materials." For the DEIS to be truly comprehensive and complete, it should examine scenarios that would entail the

reduction of river-based dredging. For example, in a comment letter from the United States Fish and Wildlife Service (USFWS) dated June 24, 1996, Mr. David J. Putnam, Acting Supervisor, requested that the COE broaden their investigation of viable alternatives to supply aggregate. USFWS suggested seven alternatives to be evaluated:

i. Continuation of unlimited dredging.
ii. No commercial dredging in the Ohio River.
iii. No commercial dredging in the Allegheny River.
iv. No commercial dredging in any rivers in Pennsylvania.
v. Dredge only to meet annual demand for aggregate.
vi. Allow dredging, but at shallower depths.
vii. Use only best available technology and have land-based processing of aggregate.

b. The DEIS recognizes the limited and non-renewable supply of glacial aggregate that is available and admits the need to switch to land-based extraction soon anyway. "The results of detailed market analysis indicate that there is enough production capacity form land-based quarries within the region to meet the demand for sand and gravel products in the region (i.e., in the absence of river-based sources)" (p. ES-7). "In the long-term, market forces will favor the establishment of new land-based quarries within western Pennsylvania…(p. 4-75). Phasing-out river-based mining over the next few years is a foreseeable alternative, and this would especially ease any economic impacts.

c. Agencies (PFBC, EPA, DEP, and USFWS) have long complained, and the DEIS admits multiple times throughout the document, that more studies need to be done and that limited sampling of water quality and sediment quality, as well as dissolved oxygen levels, occurred in preparation for writing the DEIS. For example, Tetra Tech states that their sediment sampling is "very limited" (p. 3-22). A study needs to be completed that compares water quality, turbidity, sediment, dissolved oxygen, and fish tissue in dredged areas to the same criteria in non-dredged areas. The DEIS needs to be more comprehensive and explore a greater variety of alternative locations to extract the material and a greater variety of alternatives to this material. The DEIS does not fully discuss any possibilities for future testing of water quality, sediment, fish tissue and other aquatic life, turbidity, temperature, suspended solids, habitat subsidence, and additional chemicals. Clean Water Action recommends that the DEIS will be complete when the appropriate tests are done. Any tests that are carried out prior to the dredging and in the future should be completed by independent companies, rather than by the dredging companies themselves or by other firms linked to the dredging companies.

6. The integrity of Tetra Tech, Inc. is questionable in this matter.

a. Tetra Tech, Inc. has consistently failed to respond to past agency comments and requests during the both the previous Draft NEPA Technical Document and this DEIS. Tetra Tech clearly ignored USFWS's recommendations on the Draft NEPA Technical Document, as well as in this DEIS, in regards to analyzing a more comprehensive list of alternatives. Several other recommendations by the DEP, EPA, and PFBC regarding alternatives and broader, more comprehensive sampling protocols were also ignored.

b. Tetra Tech's integrity and the accuracy of the DEIS is further compromised because of the consultants' economic dependence on the dredging companies that this DEIS is evaluating.

These six reasons, not to mention countless others that have been and will be addressed by other organizations and individuals, are very substantial reasons that prove the DEIS is not nearly as comprehensive or accurate as it could be. A more in-depth review of river dredging for sand and gravel still needs to be completed, and the COE should not even consider issuing permits to the dredging companies based on this DEIS. Even though the DEIS is not comprehensive, much of the information in the DEIS supports Clean Water Action's conclusion that there are significant adverse effects to the environment and to the economy with full-scale, continued sand and gravel dredging. "Overall, significant adverse effects to hydrology, water quality and mussels, particularly Federally-listed species, were identified for Alternative 2," (full-scale, continued sand and gravel dredging from the Ohio and Allegheny Rivers, p. 4-76). The only significant adverse effects of Alternatives 1 and 3, the cessation of river dredging, were on public safety and child protection, which as Clean Water Action has commented in Section 3 (b) of this comment letter to be of little concern. "Negligible, minor, or moderate effects were identified for the remaining resource areas for each of the alternatives" (referring to Alternatives 1 and 3, cessation of river dredging) (p. 4-76). The conclusion of the DEIS clearly recognizes the detrimental effects of river dredging but chooses to ignore them.

We appreciate this chance to comment on the DEIS and we look forward to your response. Please direct any correspondence to the address below.

Sincerely,

Myron Arnowitt
Western PA Director
Clean Water Action
100 Fifth Ave., #1108
Pittsburgh, PA 15222

Response to Clean Water Action

(1) *Dredging is not environmentally sound. The longevity of dredging operations does not imply that it is the correct option.*

The FEIS discusses environmental impacts of dredging under Alternative 2. Alternative 3 was formulated to mitigate these impacts.

(2a) *Dredging causes major significant adverse impacts on water quality.*

Several potential significant impacts were associated with Alternative 2 in the FEIS. Alternative 3 was developed to minimize and mitigate these impacts.

(2b) *Dredging disrupts aquatic life and impacts the food chain.*

See response above in 2a.

(2c) *Alternatives 1 and 3 have minor impacts while the dredging alternative has many adverse impacts.*

See response above in 2a.

(2d) *Dredging is associated with resuspension of contaminated sediment.*

The FEIS discusses the possibility of water column toxicity due to resuspension of sediment contaminants following dredging. For most of the study area resource agencies indicated that this was not likely to be an issue. This issue is summarized in Chapter 3 of the FEIS under "Water Quality" and potential effects of dredging in this regard are discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to help mitigate these risks.

For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during preparation of the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed.

(2e) *It is not proper to average oxygen data over several years to evaluate effects of dredging.*

The FEIS discusses the potential for significant impacts on dissolved oxygen under Alternative 2. Summer minimum concentrations were used in analyses, not

averages. Additional water quality modeling was incorporated in the FEIS to help formulate mitigation controls as part of Alternative 3.

(2f) *Current mussel sampling protocols are not adequate.*

The Corps, under Alternative 3, will require that a FWS-approved protocol be used at all sites proposed for dredging.

(3a) *Dredging results in significant noise impacts.*

Potential noise impacts of dredging are discussed under Alternative 2. Alternative 3 incorporates adaptive management controls to mitigate such impacts on property owners.

(3b) *Impacts of Alternatives 1 and 3 on safety are overstated.*

The FEIS concludes that there is minor potential for impacts regarding accidents and injuries from either dredging or quarry activities.

(4a) *Alternatives 1 and 3 greatly exaggerate impacts on jobs.*

The analysis concerning job losses does take into account that some of the projected shortfall in aggregate material would be made up by land-based producers within the ROI. Thus, section 4.1.9.3 describes both the gross loss in jobs (dredging only) and the net loss in jobs (dredging job loss minus employment gains from expanding land-based operations). The projected increase in employment at these non-dredging operations is relatively modest because >50% of the replacement aggregate material would be imported from outside the ROI.

(4b) *DEIS fails to examine barge traffic as a viable alternative to trucking.*

The FEIS determined that nearly all quarries capable of producing similar aggregate as dredging are not located near the river, and most are not in the Region of Influence. Trucking is the major mode likely to be used for transporting aggregate from these quarries.

(4c) *Fees paid to PFBC should not be an issue in evaluating alternatives.*

The FEIS discusses the possibility of using fees paid by the applicants to PFBC for enhancement projects in the study area. Currently, fees paid to PFBC may or may not be used for projects in the study area. Enhancement projects are viewed as one important aspect of mitigation in Alternative 3 that can be beneficial to aquatic resources in the long-term.

(5a) *Alternatives 1 and 3 are the same. More alternatives need to be evaluated.*

Alternatives in the FEIS have been modified. Please refer to EPA Response (1) under Alternatives.

(5b) *Phasing-out of dredging should be considered as an alternative.*

See response 5(a) above.

(5c) *DEIS needs more comprehensive sampling.*

Sufficient data were collected prior to and during the EIS to evaluate the alternatives under NEPA. Please refer to EPA Response (1) under Environmental Consequences.

(6) *Tetra Tech's integrity is questionable because they are paid by the applicants.*

The list of alternatives analyzed by Tetra Tech in the DEIS was approved by the Corps and EPA. The FEIS incorporated the results of further discussions with EPA, which Tetra Tech then implemented. The FEIS addresses concerns raised by stakeholder agencies during the EIS process, and has been reviewed, updated, and finalized by the Corps.

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Freshwater Mollusk Conservation Society

November 4, 2002

Albert Rogalla
Chief, Regulatory Branch
US Army Corps of Engineers
Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Sir:

As President of the Freshwater Mollusk Conservation Society, I would like to express our concerns with the Draft Environmental Impact Statement (DEIS) for Commercial Sand and Gravel Dredging in the Allegheny and Ohio rivers. Although some effort has been made to address the effects of these dredging operations on freshwater mussels, there is much that remains unacceptable. Let me briefly identify some bullet items that should be addressed in the revision of this document.

1. This project extends downriver into the Ohio River Islands National Wildlife Refuge, managed to conserve all wildlife such as mussels. I see no commentary on the potential effects of dredging within the refuge.
2. Society members tell me that the endangered clubshell (Pleurobema clava) occurs in the Allegheny River, at least in Pool 9. This species should be included in the DEIS.
3. Most of the barge traffic through the lock and dam series is from commercial sand and gravel dredging. It is these barges that have been implicated in the spread of zebra mussels into this river. I see no considerations of further dispersal of zebra mussels by this proposed project.
4. Common side effects of dredging are the re-suspension of contaminants in buried sediments. This potentially negative effect should be considered an ecological risk.
5. Some of the bioassay tests exhibit unacceptable mortality for control trials. Results therefore are inconclusive.
6. FMCS does not consider the sampling of mussels by brailing to be an effective method either qualitatively or quantitatively. Sufficient studies in other rivers have confirmed this conclusion. The more heterogeneous the substrate, the poorer the sampling results.
7. Evaluation of dredging effects in rivers such as the Tennessee River has concluded that mussel beds experience significant adverse impacts from operations. Comments stating or implying that the mussels would suffer only minor disturbance are simply not supported by other studies. Attempting to minimize disturbance by permit restrictions or buffer zones will not provide sufficient protection from destabilization of river bottoms.

Rec'd 11/7/2002

These are just some of the issues that need to be addressed in the DEIS. It would behoove the U.S. Army Corps of Engineers to obtain input from freshwater malacologists during the draft stage, so that unacceptable environmental impacts can be avoided.

Respectfully,

Dr. Richard Neves
President- FMCS

Response to Mollusk Conservation Society

(1) *Project extends to the Ohio River Islands National Wildlife Refuge. Potential effects of dredging should include this Refuge.*

The Ohio River Islands National Wildlife Refuge is mentioned in the FEIS with respect to potential mussel impacts from dredging and in the Cumulative Impacts section.

(2) *The Clubshell mussel should be added as a federally-listed species in the study area.*

The Clubshell mussel has been added to discussions in the FEIS under Aquatic Threatened and Endangered species.

(3) *Barge traffic related to dredging may spread zebra mussels. This issue should be addressed in the EIS.*

Barge traffic in conjunction with dredging is discussed in Section 4 of the FEIS. The potential increase in zebra mussels in the study area and potential impacts on native species are discussed in Section 3. Note that much of the barge traffic in the Ohio and lower Allegheny pools is unrelated to dredging.

(4) *Dredging commonly results in resuspension of contaminated sediments. This presents an ecological risk.*

Potential resuspension of sediment contaminants is discussed in the FEIS. This issue is summarized in Chapter 3 of the FEIS under "Water Quality" and potential effects of dredging in this regard are discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to help mitigate these risks.

For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed.

(5) *Some of the bioassay tests exhibit unacceptable mortality and are therefore inconclusive.*

Limitations of the toxicity data are indicated in the FEIS.

(6) *Brailing is not an effective sampling method for mussels.*

The discussion of previously collected mussel data, and brailing data in particular, was revised in the FEIS. More recent dive sampling information was relied on to evaluate alternatives in this EIS.

(7) *Mussels would suffer more than "minor" impacts from dredging.*

The FEIS concludes that there may be significant potential impacts on mussels under Alternative 2, particularly for rare species. Alternative 3 was formulated in part to mitigate effects identified under Alternative 2.

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COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE, HARRISBURG, PA 17110-9797

October 25, 2002

Mr. Albert H. Rogalla
U.S. Army Corp of Engineers
Moorehead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement
Commercial Sand and Gravel Dredging
Operations in the Allegheny and
Ohio Rivers, Pennsylvania

Dear Mr. Rogalla:

This is in response to your letter dated July 26, 2002, requesting our review of the Draft Environmental Impact Statement (DEIS) for the proposed "Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania."

We do not anticipate direct impacts from Alternate 2 to any endangered or threatened species of bird or mammal recognized by the Pennsylvania Game Commission, or to critical and unique habitats that support these species. However, should plans change or if additional information becomes available concerning endangered or threatened birds or mammals or potential impacts to critical and unique habitat, this determination may be reconsidered.

Please note that on page 4-45, section 4.2.6, under 'Terrestrial Species,' it states that seven terrestrial state-listed species may utilize areas within the study area, as presented in Table J-2, Appendix J. Table J-2 lists aquatic species not terrestrial species. Table J-3 in Appendix J lists Terrestrial T and E Species: i.e. four species of reptiles and amphibians, four species of birds, two species of mammals, and one species of plants. It is unclear as to which seven species of terrestrial state-listed species are being referred to on page 4-45, and on page 4-82. Table 4-8, Threatened and Endangered Species: Terrestrial Life-Alternate 2 River Dredging.

rec'd 10/28/2002

ADMINISTRATIVE BUREAUS:
PERSONNEL: 717-787-7836 ADMINISTRATION: 717-787-5670 AUTOMOTIVE AND PROCUREMENT DIVISION: 717-787-6594
LICENSE DIVISION: 717-787-2084 WILDLIFE MANAGEMENT: 717-787-5529 INFORMATION & EDUCATION: 717-787-6286 LAW ENFORCEMENT: 717-787-5740
LAND MANAGEMENT: 717-787-6818 REAL ESTATE DIVISION: 717-787-6568 AUTOMATED TECHNOLOGY SYSTEMS: 717-787-4076 FAX: 717-772-2411
WWW.PGC.STATE.PA.US
AN EQUAL OPPORTUNITY EMPLOYER

Linda

If you have any questions, please contact me at (717) 783-5957.

Sincerely,

James R. Leigey
Wildlife Impact Review Coordinator
Section Oil/Gas and Mineral Development
Bureau of Land Management

JRL/pfb

Cc: Richards, SW Reg., Dir., Atten: Smith
Kepler, PFBC
File
Leigey
Kovalchuk, DEP

Response to PA Game Commission

Text referring to Table J-3 and has been corrected.

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Fax Cover Sheet

Ohio River Valley Water Sanitation Commission
5735 Kellogg Avenue
Cincinnati, Ohio 45228

Voice: (513) 231-7719
Fax: (513) 231-7761
Internet: www.orsanco.org

Date: NOVEMBER 7, 2002.

Fax to: ALBERT ROGALLA

Company/Agency: U.S. ARMY CORPS OF ENGINEERS

Fax Number: (412) 644-4211

From: EBEN HOBBINS

Re: DRAFT EIS: SAND + GRAVEL DREDGING

Comments:

THESE COMMENTS HAVE ALSO BEEN SENT IN ORIGINAL SIGNED COPY TO:

ALBERT H. ROGALLA
CHIEF, REGULATORY BRANCH
U.S. ARMY CORPS OF ENGINEERS
MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

IF YOU HAVE ANY QUESTIONS OR COMMENTS PLEASE CONTACT ME AT THE NUMBER ABOVE.

THANK YOU,
Eben Hobbins

Pages to follow: 2

OHIO RIVER VALLEY
WATER SANITATION COMMISSION
5735 KELLOGG AVENUE, CINCINNATI, OHIO 45228-1112 (513) 231-7719 FAX: (513) 231-7761

AMY H. WRIGHT
CHAIRMAN
ALAN H. VICORY, JR., P.E., DEE
EXECUTIVE DIRECTOR
AND CHIEF ENGINEER

November 7, 2002

Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222-4186

Re: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging in the Allegheny and Ohio Rivers, Pennsylvania

Dear Mr. Rogalla:

The Ohio River Valley Water Sanitation Commission (ORSANCO) Ad Hoc Committee on Dredged Materials has produced comments on the Draft EIS for Commercial Sand and Gravel Dredging on the Allegheny and Ohio Rivers. These comments were developed by the Ad Hoc committee in teleconference. The committee is composed of staff from Illinois, Indiana, Kentucky, Ohio, West Virginia, and Pennsylvania. The comments of the committee on the DEIS are as follows:

1. The Ohio River has four designated uses: Drinking Water, Contact Recreation, Aquatic Life, and Fish Consumption. The EIS appears to address the aquatic life designated use only.
2. A mechanism should be made available for ORSANCO's review of monitoring plans for Ohio River commercial dredging operations.
3. The EIS effectively examines only two alternatives: continued dredging or cessation of dredging. The required range of alternatives has not been completed as required by 40 CFR 1502.14.
4. Due to the extent of mineable reserves dredging can continue for only 25-35 years. A shorter-term phase-out should be considered before the inevitable shift to land-based resources.
5. We question the comparability of tributary monitoring data (Sec 4.2.3, ln. 37-38) to the impact of dredging operations.

6. PADEP data (referenced in section 4.2.3) appears to disagree with monitoring data from the dredge Thaddus Carr showing no significant impact on downstream turbidity from dredging operations. We therefore question the conclusion drawn by the DEIS based on monitoring data from the dredge Thaddus Carr. Actual TSS monitoring data from the dredge operations should be included in the appendices.
7. The Effects Range – Low (ER-L) for PCBs in sediment is incorrectly identified in Appendix G as 22.7 parts per million (ppm). The correct units are parts per billion (ppb) or 0.0227 ppm.
8. The morphology of the dredged holes that create anoxic conditions will not change unless dredging companies are required to reshape them. This condition is not listed as a requirement in alternative 2 of the EIS despite use of the argument (Sec. 4.1.3 ln. 31) that the holes will not change unless dredging continues. This alternative requirement should be considered.
9. Dredging reduces the area of the river having less than fifteen feet in depth (current restrictions protect six-foot depths). This is an irreversible loss of mussel habitat. The alternative of protecting all depths less than fifteen feet should be considered.
10. Alternative 1 lists a loss of jobs and tax revenue from cessation of dredging as a negative impact with no corresponding increase in jobs and taxes from the shift to land-based operations as a positive impact.

Thank you for the opportunity to comment on the Draft EIS produced by your agency. Please contact Jason Heath or myself at (513) 231-7719 if you have any questions regarding these comments.

Sincerely,

Eben Hobbins

Eben Hobbins
Staff Contact, Ad Hoc Committee on
Dredged Materials

Response to ORSANCO

(1) A new section was added to Section 3.1.5 of the FEIS describing the many beneficial uses of the waterways in the study area. More information was added to Section 3 of the FEIS regarding public water supplies and human health. Recreational uses are considered in Sections 3 and 4 of the FEIS.

(2) Comment noted.

(3) Alternatives have been expanded in the FEIS. Please refer to EPA Response (1) under Alternatives.

(4) The result of implementing Alternative 3 is likely to be a reduced life cycle of the dredging industry as discussed in the FEIS.

(5) Examination of long-term TSS data from EPA's STORET database indicates that tributaries are a major and consistent source of TSS to the rivers. Furthermore, relatively high TSS loads occur at any time of year according to historical records and each event can last many days. Therefore, it was deemed appropriate to compare TSS from dredging with that from natural sources.

(6) The discussion of potential TSS effects resulting from Alternative 2 has been expanded in the FEIS, using PADEP's recent data as well. TSS and turbidity are addressed under Alternative 3 through several potential mitigation controls.

(7) The PCB ER-L has been corrected.

(8) Under Alternative 3, the applicants would modify the shape of the dredged area to maximize flushing and oxygen concentration.

(9) Alternative 3 restricts dredging in < 9 feet of water. Combined with the shoreline set-backs already in place, < 2% of all available shallow habitat in the study area would be potentially available for dredging. Other adaptive management processes as part of Alternative 3 could restrict this even further depending on the site.

(10) Please refer to PADEP Response (3) under Specific Comments.

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Ohio Department of Natural Resources

BOB TAFT, GOVERNOR SAMUEL W. SPECK, DIRECTOR

Division of Real Estate and Land Management
Paul R. Baldridge, Chief
1952 Belcher Drive – Bldg. C-4
Columbus, OH 43224-1386
Phone: (614) 265-6395

Division Of Real Estate and Land Management

TELECOPIER COVER LETTER

Date: 11/5/2002

Please deliver the following pages to:

Name: Albert H. Rogalla Fax Number (412) 644/4211

Agency: U.S. Army Corps of Engineers, Pittsburgh District

Total number of pages (including this cover letter): 6

Sent by: Erin Pekar, ODNR

Comments:

comments for PN 199660730

Hanson Aggregates PMA, Inc., Tri-State River Products, Inc., and Glacial Sand and Gravel Company

Ohio Department of Natural Resources

BOB TAFT, GOVERNOR SAMUEL W. SPECK, DIRECTOR

Division of Real Estate and Land Management
Paul R. Baldridge, Chief
1952 Belcher Drive – Bldg. C-4
Columbus, OH 43224-1386
Phone: (614) 265-6395

November 5, 2002

US Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Attention: Mr. Albert H. Rogalla
Project no. 199660730 Hanson Aggregates PMA, Inc. and others

Dear Mr. Rogalla:

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review in consultation with the Division of Wildlife (DOW) and other divisions within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Environmental Policy Act and other applicable laws and regulations. These concerns/comments are based on our experience as a resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

This Public Notice involves the Allegheny River and Ohio River in Pennsylvania. However, the projects will impact the quality of the Ohio River and the aquatic habitat it provides in Ohio, downstream from the project area. There is much interest in the genetically unique, native walleye population found in the portion of the Ohio River downstream from the project area.

The locks on the Ohio River have eliminated all the riffles removing the shallow habitat. This leaves only pools for fish to inhabit, which limits the diversity of fish species. Dredging will only make these pools deeper. In general, habitat diversity accompanies biological complexity. As the habitat becomes more simplified so does the biological diversity (Darnell, 1976).

Sand and gravel mining can change the geomorphic structure of streams (Sandecki, 1989; Kondolf, 1994). This often results in channel degradation such as localized scouring due to increased velocity, decreased sediment load, headcutting, increased temperatures downstream from the dredging activity, bank stability/erosion, available cover, increased siltation and sedimentation, increased turbidity, decreased light penetration due to increased depth and/or turbidity, declines in property value, and declines in recreational value. It can also result in altered channel geometry such as localized gradient changes, altered width-to-depth ratios, and thalweg relocation. Past research shows that simplification of bottom habitat leads to a reduction in fish and mollusk diversity and is further complicated by allowing species of less desirable types to

overpopulate (Tarzwell, 1937, Harman, 1972, Laglois, 1941, Trautman, 1957). This is due to the disruption and/or loss of food source, spawning, nursery, and breeding areas (Cooper 1953, Gangmark and Bakkala, 1960).

Instream mining can also have a negative impact on the chemical features of a stream such as decreases in dissolved oxygen downstream from the dredging activity (Martin and Hess, 1986), increases in temperature (Webb and Casey, 1961) downstream, suspended sediment concentrations that are detrimental to fish, and turbidities that are detrimental to fish. Based on information in Newport and Moyer (1974) and the EPA (1976), Nelson (1993) suggested that suspended sediment concentrations greater than 50 ppm and/or turbidities above 50 NTU would likely harm fisheries (Meador and Layher, 1998).

In addition, biological impacts from instream mining include negative affects to fish habitat such as reducing abundance of coarse woody debris, loss of spawning and nursery habitat, altered food web declines in fish abundance, declines in nutrition, declines in health, declines in growth rates as well as declines in benthic macroinvertebrates, altered benthic and fish species assemblages, and extirpation and extinction of stream fauna.

Therefore, the Ohio Department of Natural Resources, Division of Wildlife (DOW) is opposed to instream mining operations as scarce habitat is lost, water quality degradation occurs, and mussel populations can be decimated from the direct removal of habitat and the live animals themselves. The DOW is pleased to see permit restrictions and mitigation strategies required for proposed Alternative 2. However, regardless of these measures, the DOW believes significant short- and long-term degradation could result to the aquatic system. The degradation is not limited to the boundaries of the proposed mining area but will have effects extending both up and downstream of the site. Additional negative environmental impacts that can occur from instream mining include the disruption, alteration, and degradation of fish and wildlife habitat through direct and repeated disturbance of bottom substrates and benthic organisms, the use of greasy equipment in and near surface water, and localized riparian vegetation removal.

Instream mining takes undue advantage of the natural process of bedload transport to trap sand and gravel material which would normally be in transit across the property. Understanding the natural processes that occur in waterways with sand and gravel deposits is important. At present, sand and gravel operations routinely mine a given area and allow the natural transport of bedload material to continuously replenish the site. This type of activity results in an operation that removes material far in excess of the natural deposits of the site. Downstream degradation of the aquatic system results from the proposed instream mining activity because the proposed excavation acts to trap sand and gravel material which is transported downstream during high flow periods. Downstream movement of sand and gravel material acts to naturally replenish sites that experience erosion and scour. Loss of this bedload material to these sites acts to compound problems in these areas.

Despite the existence of lock and dam structures, the DOW believes instream mining still produces the risk of increased sedimentation downstream. The increased sedimentation degrades water quality and acts to embed the substrate. Sedimentation also directly affects fish, mussels, and other aquatic species during various phases of their life cycles. Siltation destroys some of the most productive habitat types, especially the riffle, gravel and rubble types where ecological niches for benthic invertebrates are found as deep as 20 inches below the rock/gravel surface (Hynes, 1974). Serving as a prime source of food for fish, the existence of these benthic organisms depends upon water circulation through the interstices between rocks and gravel, bringing adequate oxygen for respiration and removing carbon dioxide and metabolic wastes that may accumulate in poisonous concentrations. Covering sand/grave/rubble bottom with fine silt and clay will destroy the existing attached organisms and preclude reestablishment of the community. Independent scientific studies have found that production of bottom organisms, within areas of severe siltation, decreased from 50% to 100% (Sumner and Smith 1939, Casey, 1959). Siltation effects on some mussel beds have caused them to be completely destroyed in the Illinois River, and of what remains, 25 of the original 46 species have disappeared (Starrett, 1971).

Turbidity from suspended solids and bottom siltation are general and immediate effects of dredging. Turbidity reduces light penetration and interferes with photosynthetic production of oxygen, and it tends to elevate water temperatures. Eventually, the suspended material settles to the bottom either near the dredging site or farther downstream. Thus, there is a redistribution of sediments and this may result in modified bottom topography and altered patterns of water circulation (Darnell, et al., 1976).

Potential headcutting can occur as a result of proposed in-stream mining. Headcutting is the process where the upstream portion of an excavation in a stream channel will become destabilized and collapse into the mining pit. Destabilization of the riverbed involves a number of factors including the nature of the bed material, water flow dynamics in the channel, and dimensions of the excavation. Headcutting is similar to gully erosion and has the potential of continuing upstream for significant distances until either the stream channel is able to reestablish equilibrium in the gradient of the channel or is stopped by a resistant feature in the surface geology. Due to the depth of some mining, volume of material being removed, and length of time for mining being requested for authorization, the upstream effects from headcutting could be quite substantial. Headcuts can cause dramatic changes in a streambank and channel that may affect instream flow, water chemistry and temperature, bank stability, available cover, and siltation. Channel erosion from headcuts can cause loss of upstream property values, reduce recreational, fishing, and wildlife values, and contribute to the loss of stream species. The mining itself and subsequent headcutting result in changes to the aquatic invertebrate populations through direct removal, disruption of the habitat, and increased sedimentation. The ripple effect of this change in the invertebrate population negatively effects the entire food web of the river.

Instream mining also causes a chain reaction of events as the river responds to the new riverbed level created by the mining. The depression in the riverbed represents a steep slope

compared to the bed level upstream. The bed material responds by flowing towards and into this depression during flood events. This action replenishes the mined area with new gravel material but it can have catastrophic effects on the river immediately upstream. As material from the bed flows into the depression from upstream, the upstream bed level is also lowered. As the bed level is lowered, the existing floodplain becomes less accessible to flood events. The river system in the area is set into motion to adjust to the change in the bed level. Because rivers develop floodplains at an optimum level above the bed, lowering the bed, or raising the floodplain, causes near-bank shear stresses of floodwaters to increase. This often results in severe streambank erosion as the river then must build an entirely new floodplain at this lower level and again establish an equilibrium among sediment conveyance, flood flow, and valley slope. The long-term effects of this are often made worse by human encroachment onto the former floodplain as this floodplain is often flooded less and appears safer to build on.

Instream mining has been found to be detrimental to fish and fish habitat by increasing substrate instability, decreasing the variability of the physical habitat, and removing substrates for aquatic invertebrates. Dredging results in changes to stream channel shape, the size and amount of material in the streambed, stream bank stability, and the amount of woody debris in the stream. These effects have been found to directly influence stream habitat for fish. Instream mining results in deeper, wider channels and slower water velocities. Deep, quiet pools are often dominated by undesirable fish species. Reductions in water velocities also reduce invertebrate densities. Optimum substrate size for most benthic invertebrates has been found to be about 3 cm in diameter. Thus, the removal of gravel is detrimental to invertebrate populations. The current, however, very largely controls substrate, and where current speeds are slow the riverbed is likely to be sand.

In addition, instream mining decreases invertebrate production directly through the actual removal of invertebrates from the areas dredged and indirectly through the removal of suitable substrates, such as woody debris, snags, and fallen trees.

Instream mining damages and jeopardizes a unique public resource for the short-term profits of a few. The cumulative negative environmental impacts from this type of activity far outweigh the economic benefits derived by the mining entity. Without remediation, stream recovery from sand and gravel mining can take decades (Meador and Layher 1998). Considering alternatives to instream mining reveal that it is not a water-dependent activity. Significant sand and gravel deposits exist throughout the state. The excavation of the land-based deposits of this material does not pose such significant detrimental effects on the environment of a public resource. The Division of Wildlife, therefore, recommends upland mineral sources be used to avoid instream mining.

ODNR appreciates the opportunity to provide these comments. If you need additional information or have any questions please contact me at 614-265-6411.

Sincerely,

Kim Baker

Kim Baker, Environmental Administrator
Division of Real Estate and Land Management

cc: Randy Sanders, DOW
Debbie Woischke, DNAP
Russ Gibson, Mineral Resource Management
Randy Bournique, Ohio EPA
Mary Knapp, US Fish & Wildlife Service

Response to ODNR

(1) Effects of dredging on aquatic resources are discussed in detail in Section 4 under Alternative 2 of the FEIS. Some of the potential hydrological effects cited in the comments are unlikely to occur in the study area (e.g., headcutting, decreased sediment load, scouring) due to the existence of the lock and dam system. This is further discussed under Alternative 2 in Section 4 of the FEIS.

(2) The FEIS concluded that Alternative 2 (applicant's preferred alternative) could result in significant impacts on mussels, fish, and certain water quality parameters (oxygen, turbidity). Alternative 3 of the FEIS incorporates several controls to minimize these effects.

(3) Cumulative effects of the alternatives are discussed in Section 4.5 of the FEIS. Mitigation, as well as avoidance and adaptive management, are incorporated in Alternative 3 to reduce undesirable effects and to protect and maintain existing resources. Land-based sources close to Pittsburgh do not supply similar quality material as that extracted from the river. Please refer to PADEP Response (3) under Specific Comments and Section 2 of the FEIS regarding potential sources of aggregate material in the Pittsburgh region.

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November 5, 2002

Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Mr. Rogalla:

Below you will find comments pertaining to the Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania (EIS). These comments are being submitted by Ohio River Advocacy ("ORA"). We believe there will be negative impacts not included in the EIS, and have found fault with many statements in the EIS. The following are comments that should be considered by the Corps prior to consideration of the permit application.

The Supreme Court has made clear that the word "shall" imposes a mandatory duty. The environmental protection mission of the Corps requires that projects "be developed, implemented, and maintained with environmental protection principles as important as providing benefits for traditional uses, such as navigation and flood control." See Benjamin H. Grumbles & Kenneth J. Kopocis, Water Resources Acts: Developing an Environmental Corps, 21 Envtl. L. Rep. 10308 (June 1991). With this in mind, the following items should be considered prior to approval of this application.

The EIS states that pockets troughs and deep areas from dredging in the past cover approx. 13% of river bottom. Bathymetry data determining this for all dredged areas is not available, so this statement is highly suspect. Assuming that it is true, 28% of the river bottom will be disturbed by aggregate dredging under this permit. This is more than twice the area disturbed over the entire history of dredging operations in the river, spanning more than a century. This level of disturbance is expected to have serious significant negative impacts.

The underlying need for this action, as stated by the applicants, is to provide materials supporting diverse infrastructure and construction requirements to a wide variety of customers in the region. The EIS then states that the vast majority of this material is used by Pennsylvania Department of

Rec'd 11/8/2002

4480 Classic Drive Cincinnati, OH 45241 (513) 460-3365 www.ohioriveradvocacy.org

Transportation. PennDOT (or its contractors) is the primary customer. Market data presented in the EIS shows that there is not a wide variety of customers, rather one large customer and a number of incidental sales.

The introduction claims there are certain specific societal needs for this project. In reviewing the EIS, there are no specific societal needs listed that cannot be obtained from alternative one or three with significantly less impact.

Suggested alternatives one and three are not distinct or different alternatives. Each is expected to have the same direct, indirect, and secondary effects, and in many instances, the EIS treats them as the same alternative. In section 2.1, alternative two directly states that each industry that uses the material will obtain it from another source. It then states that the impacts of this will be detailed in Alternative three. These alternatives are not only identical, they are written up as a single section. To have any utility, an alternative that discusses the impacts of extremely limited dredging—spatially and temporally—would provide the Corps with the information needed to make an intelligent decision that fulfills its mandates under section 404 of the Clean Water Act.

The permit does not effectively address hazards to navigation posed by the dredging activity. Under the current EIS, no timeframe for removal of navigational obstructions is included in the permit. Under this, obstructions could be removed at the owner's expense after the dredging in the area is complete. This poses the potential for significant navigational obstructions to be in place for considerable timeframes, and has the potential to have serious impacts on navigation.

The EIS states that the "Licensee shall restore or replace any private or public water supply diminished or polluted by any dredging activity." This implies that there is a possibility for this to occur. If this is a concern, increase the setback to provide greater safety to sourcewater. There are no provisions for loss or damages to the public water supply, or businesses and residents dependent upon its use, caused by the licensee. The secondary impacts of an industry not being able to utilize water resources can be catastrophic. Secondary impacts to municipal water supplies include risks to human health and safety. These factors were not included in the section detailing hazards to human health or the sections dealing with economic impacts of the dredging activity.

Likewise, capture zones for the public wells must be identified. Public and private well capture zones need to be included. Groundwater infiltration from the river recharges the aquifers. Under the specific permit restrictions listed, the entire river is in the aquifer recharge zone, and should be excluded from dredging to protect human health and safety.

There have already been surveys that have found populations of endangered mussels and critical habitat for endangered species in the study area. One permit restriction states: "All dredging must cease and regulatory authorities notified, if fauna or flora on the Federal or State registers of listed species, or habitat critical to their survival are encountered." Endangered species have been found in the project area, and the specific species utilize habitat expressly targeted by the dredging activity. There is considerable concern about this provision being self-reported. There exists no economic incentive to self-report and permanently close an area for dredging when there is no realistic expectation of being caught in violation.

Also, the EIS calls for a mussel sampling protocol from an interagency source. USACE lacks authority to determine an effective mussel sampling strategy under the Endangered Species Act. Also, the Corps is considering approval of this permit while there are still reviews occurring by other agencies. A permit cannot be issued if any legally required Federal, State, or local authorization or certification is denied. Authorization from the Fish and Wildlife Service must be determined prior to the approval of this permit.

The EIS reports that noise levels at the shoreline may reach 70dB. This is similar to the noise level when standing 50 feet from an interstate highway. Noise levels in this range are characterized as "annoyingly loud" by the Federal Interagency Committee on Noise. This level of noise has the potential to make conversation on the shoreline difficult or impossible. This is not a minor effect. This is a major impact, especially in residential areas, and is a potential hazard to human health. Individual residences, not just residential communities, must be included under the noise provisions. 65dB 15 feet from a dwelling could still be a significant impediment to full use and enjoyment of the residence, especially for the extended duration these operations will function in a single location.

In section 2.2.1, information is provided pertaining to potential losses incurred by the applicants if this permit is not approved. Information regarding the expense incurred for equipment purchase prior to the approval of this permit is not relevant or valid for this permit. In fact, consideration of this cost is expressly forbidden by law.

The logic used to invalidate restricting dredging in certain pools is badly flawed. The goal is to limit environmental impacts. All valuable areas should be restricted from this activity. There should never be a situation where one area that should be protected under the restrictions is sacrificed because another restricted area is protected. One area should not be preserved at the expense of another area. Both areas should be protected. In situations where entire pools warrant protection, dredging activity in these pools should not be allowed. Also, this document determines some significant impacts will occur during dredging.

Impacts of spuds and towboats are anticipated to be part of the aggregate dredging activity, but the impacts of these activities are not documented in the EIS. Barge fleeting and traffic are also a part of the impact of this project. They are an integral part of the dredging operations. Creating separate EIS and permits for these operations is similar to large-scale animal agriculture operations separating their herds to come in below the statutory requirements. The impact of the entire aggregate dredging process must be reviewed in this EIS. These activities must be considered a part of the overall aggregate dredging activity, and their impacts must be disclosed as part of this permit process. Only then will the full impact of this activity be known, and only then can an informed decision be made by the Corps of Engineers.

Based on information provided in the EIS, different dredging and processing technologies are anticipated to have very different impacts. Each of these technologies should be given separate treatments and be listed as alternatives to allowing aggregate dredging with all available technologies.

Along these same lines, the Allegheny River aggregates are igneometamorphic rock, but after confluence, the Ohio River contains more fine sediments, clay, and silt alluvium. Different technologies and practices for sediment transport would be necessary for these different areas, with greater permit restrictions on the Ohio River.

Turbidity statistics as reported in the EIS imply that the TSS levels above and below the Thaddeus Carr between 1996 and 1998 were not statistically similar. In fact, the p-value given is for anything but a strong correlation. The EIS makes incorrect conclusions based on this data.

The elongated trenches parallel to the river will flush more, preventing deep anoxic areas, but they will also fail to trap sediments effectively. The Environmental Fluid Dynamics Model is used for downstream sediment transport calculations. This information must be included in the EIS. The current dredging technique relies on deep areas and limited flushing to trap sediments from the dredge operation. The proposed dredging technique significantly changes the turbidity results—as much as thirty times more flushing will occur compared to the small, deep pockets. Proposed changes to the morphology of the dredged areas will increase flushing in these areas. This will increase downstream sediment transport, and increase significant impacts downstream. These impacts have not been examined in the EIS. The use of a deep water diffuser in the dredge trench is a requirement of PADEP, this technology will now be far less effective.

PADEP data shows that the turbidity effects from dredging are localized but significant. Tributaries also contribute to turbidity. TSS downstream of dredging is equivalent to high flows from tributaries: $p>.05$. These suspended sediments are the primary source of pollution for the waters of the Mississippi river basin, and while some natural input is expected as part of the allochthanous input to the river's productivity, human activities in the watershed have increased the amount of suspended solids being delivered to the river. There is cause to cease dredging operations downstream of tributaries to prevent additional impacts from compounded turbidity inputs. Turbidity to the river overall may not significantly change, but spatial and temporal effects are such that impacts could damage local mussel populations and fish spawning sites.

Barge traffic is another source turbidity (prop wash), but 98% of barge traffic in one area is related to dredging. Prop wash increases turbidity enough to impact mussels. Stopping dredging would have the additional benefit of stopping this source of pollution and protecting the wildlife resources. Increased barge activity associated with dredging has not been included in turbidity impact assessments. This is not a complete disclosure of the impacts of the permit activity.

Depletion of geologic resources by extraction is categorized as a "minor adverse effect" in the EIS. The categorization, unfortunately, is subjective. This strongly indicates that in other areas where "minor" effects are anticipated, very serious negative impacts should be anticipated.

Data used for the determination of particle size distribution were summary. Selective removal of aggregates of certain particle sizes is unlikely to result in no change in particle size distribution. Peer reviewed literature based on more thorough studies found increased accumulation of silt and reduced substrate heterogeneity. A small-scale, restricted study (as represented in the EIS) does little to challenge the validity of these results. Silt depositions in dredged areas near the thalweg are expected to be high, according to other information in the EIS. This flatly contradicts

the claim that particle size distribution will not change. Leaving gravel in place is important to wildlife and geological resources, but leaving it in extremely deep areas does not provide valuable habitat. The EIS also claimed that lower water velocities were found in deeper pools, observed by divers in pool 8. This also directly conflicts with the limited study above. The research used in this EIS is not sound, and the conclusions drawn from it are also suspect. The validity of the predictions made from this document is highly suspect.

There is a large degree of public opposition to river-based aggregate operations, yet this same argument is made to show the infeasibility of creating other aggregate sources under alternative three. This implies that river-based aggregate operations are infeasible, and alternative two should be rejected.

Distribution of users of lower value aggregates seems to be larger than distribution of users of higher-value products. This is in conflict with the economic analysis and statements implying that limited transport is a significant issue to consider when approving this project. This also calls into question the economic analysis and subsequent dismissal of alternative three.

The unexplained discrepancy from standard river mile designations used in this EIS causes confusion when comparing information from other sources. The document should be revised to provide standard river mile designations used in peer reviewed literature to provide the opportunity to compare the statements in the EIS with other, more scientifically credible sources.

There is an incomplete inventory of land-based aggregate producers in the EIS, and incomplete data on production. Other sources for the aggregate material exist, and many have lower environmental impacts. PennDOT makes it clear that SRL E aggregates will be reserved for use only when required. It is unrealistic to believe that the quarries do not know what amount of SRL E aggregate they produce. The same argument can be made for type A sand production.

Section 3.3.6 of the EIS strongly criticizes USEPA data for being 20 years old. The Pennsylvania Department of Transportation Pavement Policy Manual uses data over 25 years old. This calls into question the validity of the assertion that SRL E aggregates or Type A sand are necessary. The National Cooperative Highway Research Program issued the following in a research statement in 2002:

> The "Guidelines for Skid Resistant Pavement Design," published by AASHTO in 1976, recognized the importance of providing skid- resistant pavements. However, these guidelines have not been updated to reflect recent changes in vehicle characteristics, methods of collecting data, construction techniques, use of materials, and other factors that affect pavement surface frictional characteristics. Other issues (e.g., noise pollution, legal concerns, and economic impacts) associated with improving friction characteristics have not been addressed. Thus, there is a need to develop a Guide for Pavement Friction that identifies technologies, processes, and practices suited for designing and constructing pavements with good frictional characteristics while recognizing the effects on noise generation and other relevant issues. Such a Guide will help engineers to identify effectively appropriate options for pavement surfaces.

The necessity of these SRL E aggregates is predicated on research that government engineers are calling into question. Since the production and availability of these products is the primary argument for the approval of this permit, it would be presumptive to approve this permit, realizing that the need for the material may not exist in the near future. The economic justification for this project does not exist.

The northeast corner of the state is an excellent model that shows the viability of land-based quarry operations. Northwest Pennsylvania has the potential to develop these markets. Section 3.2.6 states that there is a reasonable expectation that land-based quarries can produce the needed aggregates. The argument that this dredging activity is necessary is negated by the apparent success of land-based quarry operations and markets in other areas. Aggregate consumers report no specific preference for material dredged from the river over aggregates from other sources.

Fluid dynamic models indicate that compositing samples taken from different depths does not provide an accurate profile of water quality, especially in an impounded river system where stratification due to temperature and other factors is likely to occur. Stratification caused by concentrations of fine silt is also likely, so the dredging activity itself could cause stratification. In any case, dredging would have anticipated effects on certain depths, compositing these points would falsely minimize the impacts of dredging.

Dissolved oxygen sampling occurring in mid morning and mid-afternoon would not show diel minima, which are expected to occur near sunrise. DO concentrations can rise rapidly (within a few hours) from undersaturation to supersaturation in productive systems similar to the Ohio River pools. Daily dissolved oxygen minima must be presented in the EIS, as the impact of deoxygenation, even for short durations, can be catastrophic to sessile benthic organisms, especially mussels.

In section 3.3.6, it is reported that sediments from New Cumberland pool had PAH and lead above ERL values. The EIS attempts to qualify this data by comparing it to the standards set by Canada. It is wholly and entirely irrelevant that these values are below the standards set by another country.

Data on the biochemical oxygen demand of the sediments is not present in the EIS. sediment processes are much slower, with a boundary layer at the water/sediment interface. Disturbing these sediments could release significant organic material and other pollutants that could negatively impact water quality. This data must be included in the EIS.

Section 3.3.6 Includes information that sediment pollution levels are Tier 1 for an area near New Kensington, pesticides, PCBs, Chlordane, are present, and there is one Tier 2 area that is contaminated with zinc. This material will be released into the water column when dredging takes place, and is anticipated to have significant negative impacts on the biota and human health and safety. This information was not included in sections on hazards to human health.

Periodic exceedences of copper and zinc water quality standards (PADEP) were found in the water column. Zinc and PAHs in the sediments were above NOAA ER-L values in some areas.

The EIS claims that the zinc "did not appear to be bioavailable." Zinc is not effectively buffered by the river water, in fact, according to the tests described, it is more toxic than the standards would indicate (WER<0.86) The argument made for copper is that the WER is >1.0, so the national and state criteria are too strict. The same reasoning would lead to the conclusion that the federal and state zinc criteria are too weak. The EIS draws incorrect conclusions based on available data. Also, these are chronic values, not acute, yet testing was based on acute toxicity. The effects of the dredging activity on reproductive success of fish and other species is not known. This is potentially significant, and must be explored before alternative two can be accepted.

For section 3.3.5, The tributary 0.5 miles from the project terminus would not coincide with the dredged areas, but the combined effects of downstream sediment transport and zinc concentrations would impact the water quality of the river in Ohio and West Virginia. This project has impacts that extend beyond the project boundary. These must also be considered.

In section 3.4.1.2, *Oscillatoria, pediastrum*, and *scenedesmus* are planktonic or found in the psammon, they are not periphytic. There is no information about the impacts of this project on peryphites. This oversight shows significant failings in interpretation and presentation of information, and calls into question the validity of the conclusions presented in the EIS .

Section 3.4.1.3 reports that macrophytes constitute small amounts of habitat. If macrophyte habitat is so rare, it is critical to preserve these areas. Submerged vegetated areas should be part of the restricted area. They will be completely destroyed by dredging activity, the resulting dredged areas will be deeper and will most likely not be capable of supporting submerged macrophytes.

Substrate type, availability, and silt load are important to fish, especially with respect to reproductive success. Suitable fish breeding habitat is limited. The EIS states that "stressors that affect any of these factors will influence the integrity of the fish assemblage" It is apparent that disturbing a significant portion of the bottom will negatively impact fish assemblage, and be especially damaging to populations of lithophils and broadcast spawning species.

Critical habitat for endangered terrestrial species has not been identified for this permit application. Approval of this permit application should be suspended pending the identification of this habitat and identification of how the dredging activity will impact terrestrial wildlife resources.

Air quality in the study area is not in attainment for National Ambient Air Quality Standards. The dredging activities contribute to this non-attainment. National representation of marine vessel emissions was 20% of those produced by diesel trucks. This is a tremendous amount of emissions per marine vessel. The impact of the dredge operations would be greater still, as each dredge will have one or more large diesel engines operating for long periods of time. This section also discounts the cascading impacts of point source emissions increases for processing the aggregate, barge traffic, and transport of the material. The impacts are anticipated to be more significant than the EIS claims.

Depth data for Allegheny pools 5 and 6 used in this document were not collected for bathymetric use, sample site selection was biased, the data are not valid. Proper, valid bathymetric data must be used to make any valid conclusion.

Barges are a hazard to recreational boating. These small craft can be capsized by the strong undertows near the upstream ends of anchored barges. The environmental impacts to the fishery will have economic impacts to tourism. Neither of these impacts have been listed in the EIS.

In section 4, Baseline conditions are not to assume dredging continues. Immediately after putting forth this assumption, the "no action" alternative is described as leaving the rivers generally unchanged. If this is the case, why is there a great body of data indicating the severe negative impacts of dredging? "Natural recovery processes" that would occur will be greatly aided by no further impacts from dredging activity. This cannot be discounted. The river is under a constant set of stressors from dredging activity, the ability of this system to recover has not been seriously addressed in this EIS. The fundamental purpose of this document is to determine environmental impact. The stressors are impacting the river now. If the first alternative is going to be given consideration, it must be explored. What are the anticipated impacts of removing the set of environmental stressors? Certainly more than "some natural recovery processes will continue to occur." This makes the false assumption that the environmental conditions in the river are not impacted by dredging activities. The following sections use two different justifications: 1) assuming "no action," dredging won't be occurring, so the current state of the river, which is defined as "baseline" and "presupposes" no dredging, would remain constant. and 2) Assuming dredging, the river has already been dredged, so continuing dredging would not change the river. These two notions are contradictory. Using the definition of "baseline" given in this section, alternative two would have no impacts whatsoever, as this is the status-quo, except where expansion of the activity was taking place. This EIS fails in the stated attempt to establish baseline conditions "without presupposing the continuation of future river dredging."

In section 4.2.9, Impacts to Socioeconomic Conditions, The EIS states: "No short-term or long-term economic effects would be expected from implementing alternative two relative to baseline conditions." According to section 4, "baseline conditions would not include continuation of river dredging." Thus, there are no benefits to alternative two that are not present for alternatives one or three.

The impacts to hydrology listed in section 4.1.1 attempt to divert focus to economic issues. Reduction in barge traffic (as much as 98%) would have significant positive effects on environment which would have positive effects on tourism industry. Possible removal of dams would restore a portion of the river to a free-flowing state. this has considerable positive impacts for the environment. removal of these dams would still allow for recreational boat navigation. If the river and roads are so crowded, as implied in the EIS, moving production of aggregates elsewhere would alleviate some congestion on the roads and on the river.

Barge traffic would be reduced by 98% in some locations according to the EIS. The continued existence of barge traffic is now used as an explanation of causes for constantly high turbidity. Turbidity to the river overall may not significantly change, but spatial and temporal effects are such that their existence could damage local mussel populations and fish spawning sites.

Acceptance of alternative one or three would virtually eliminate barge traffic impacts on sections of the river. The removal of these impacts is positive and significant.

According to the EIS, "Implementation of Alternative 2 may have a significant adverse impact on clubshell and Northern riffleshell mussels lying in close proximity to and downstream (within 300 yards) of the dredging activity. The area immediately surrounding the proposed dredging site would be exposed to levels of suspended solids and sedimentation that are higher than ambient levels under low flow conditions." This constitutes harm under the Endangered Species Act. Seven federally listed mussel species are historically present. The U.S. Fish and Wildlife Service anticipates these species may still be in the project area. The fragile papershell is state species of concern, and is present in the project area. To protect these species, alternative two must be rejected.

No impacts to aquatic life are listed under alternative one. This ignores the massive recovery anticipated as environmental stressors are removed and damage to habitat ceases. Re-colonization of mussels is occurring, but at the same time, mussel habitat and populations are being destroyed. The net rate of increase in mussel populations would be significantly higher under alternatives one or three.

For the economic sections, The Monte Carlo simulation is the least favorable forecasting tool available, and inappropriate for these questions. The predictive model is based on no correlation between factors in the model. In this scenario, there are clearly factors that are dependent and correlative. The use of this model should be reserved for situations where the data is not available, the system is too complex, the analytical solution is difficult to obtain, and validation is impossible or impractical. The aggregate industry has been operating continuously for many years and this past activity is predictive of behavior in the future. The number of entities involved in aggregate production and use in any volume are relatively small and known, and the economic data requisite to answer the question is readily available. Using this method under these circumstances is inappropriate, and would indicate the statistician is "going fishing" or running models until one delivers a random result that can be used to "prove" the statistician's position. The Monte Carlo methodology has been widely discredited in peer-reviewed literature, mostly because of its misapplication to problems like these.

The magnitude of the economic impact of no further action is not as great as indicated. The fee per ton acts as a price support for producers of land-based aggregates. Cost of infrastructure projects would not increase as much as shown. Also, production would increase at land-based quarries, these facilities would expand to meet demand, creating jobs in the state, and some in the region of influence (ROI). The EIS states that the magnitude of impact is small in relation to the size of the economy.

Estimates of production cost increases in section 4.1.9 are unrealistically high and baseless. This fundamental error is carried throughout the analysis, rendering this section's conclusions invalid. Interestingly, even these extreme exaggerations have no significance when compared to the state and regional economy.

Any job loss in the ROI would be offset by additional jobs created in other areas. The impact is

local, and non-existent on other spatial scales. Shifting production from one location to another, using technology that is more labor intensive, and increasing dependence on transportation services could not possibly lead to a reduction in the workforce as predicted in the EIS. There is no economic justification for accepting alternative two.

The EIS discussion of public safety risks fails to enumerate risks associated with dredging, only those of quarries. The impacts to human health and safety must be considered for alternative two.

Sufficient land-based quarry production capacity was found within the region to supply the needs of the Pittsburgh metropolitan area in the short-term. In the long-term, it appears that the significant glacial sand and gravel resources of northwestern Pennsylvania could be developed to supply the needs of western Pennsylvania, so long as environmental permits and local land use approvals are issued for the expansion and/or creation of new quarries in this region. There is no justification for claims in the EIS that alternative two is the only economical way to produce this resource.

The two cases identified in the EIS where impacts to benthic macroinvertebrates were minor were in systems far different from the proposed dredge area. Impacts to the benthic macroinvertebrates are expected to be severe, caused by removal of habitat (28% over life of dredging activity). Recolonization is rapid, but the species that recolonize are often less-desirable, such as zebra mussels and other exotics. Physical removal and differences in recolonization rates skew the Hilsenhoff Biotic Index. The claim that dredged areas are better habitat is unsupported. This habitat modification is permanent. The bottom is changed, and these holes do not recover. no head cutting was evidenced at sites examined in the EIS. In ten years, 8% of the river bottom (1,100 acres.) will be destroyed There is no realistic expectation that this habitat will ever recover. Dredging will effectively remove existing mussel habitat in the river, precluding colonization and severely restricting recovery efforts even if water quality goals are met in the future. This is a severe impact.

In section 4.2.3, barge traffic is said to have water-oxygen mixing benefits. Assuming this to be true and significant, (which is an unrealistic and unsupported position taken by the EIS) mixing at depth, especially in dredged holes, would require currents from prop wash strong enough to break up thermal stratification. this is unlikely in a sheltered dredge area (born out by the Environmental Fluid Dynamics Model). The claim that barge traffic reduces impacts of anoxic deep water zones is not valid.

PCBs and chlordane were found in the sediments. These pollutants will be resuspended and may pose hazards to human health. This information is not included in the EIS.

Localized effects in any discussion of alternative two are "local" to 28% of the river bottom. Considering the spatial scale considered in this project, these "localized" effects are significant to overall river function.

The EIS draws invalid conclusions from results of Lee (1973). Lee was examining the conversion of riffles to pools, and the differences between these pools and other natural pools. His results when comparing dredged and non-dredged pools found 50% fewer species in dredged

pool than natural pool, and more rough fish. The data is directly applicable to the entire project area. Habitat disturbance often results in reduced fish species diversity and more rough fish. Dredging is a significant habitat disturbance that will impact the fish assemblage and the sport fishery.

Fish eggs are the life stage most impacted by sediments and turbidity. The Aquatic Resource Geographic Information System model should have focused on spawning type, not just adult habitat type. Broadcast and substrate spawners will be heavily impacted by dredging activities on and near spawning substrates.

The EIS clearly shows that emergent wetlands will not be adequately protected under current permit conditions. Pennsylvania code title 25 chapter 105 requires avoidance of significant impacts to wetlands. Proposed conditions on the permits are not enough to protect the environment under alternative two.

All of the impacts under section 4.3.1 for quarry operations assume that these operations are not following best practices and permit guidelines. To be equitable, the EIS should treat the aggregate dredging operations with the same suspicion that best practices and permit guidelines will not be followed. The possible impacts to the environment resulting from aggregate dredging operations not using best practices and not following permit guidelines is very significant and detrimental to the environment, public health, safety, and the economy.

For the reasons listed above, the issuance of this permit is contrary to the public interest. Ohio River Advocacy urges the Corps to consider this information and deny issuance of the permit. Thank you for your consideration of this information, we hope it is useful in your determination.

Sincerely,

Mike Wiggins, for
Ohio River Advocacy

cc:
U.S. Fish and Wildlife Service
Pennsylvania Fish and Boat Commission
Pennsylvania Department of Environmental Protection
Clean Water Action, Pittsburgh
Three Rivers Riverkeeper
Allegheny Watershed Network
University of Pittsburgh Environmental Law Clinic
Tom Watters, Ohio State University

Response to Ohio River Advocacy

(1) Bathymetric information has been updated in the FEIS and it is noted that current information can be improved. The Corps is evaluating the use of other technologies to obtain current estimates of previously dredged areas and those areas undredged within the study area.

(2) PennDOT is a major end customer of the applicant's products as discussed in the FEIS.

(3) Other sources of aggregate exist in the region as discussed in the FEIS, however, few have the aggregate quality required by PennDOT or the construction industry. Implementation of Alternative 3 will necessitate the eventual development of other sources.

(4) The alternatives have been modified in the FEIS. Please refer to EPA Response (1) under Alternatives.

(5) Navigation obstructions are not allowed under Corps and DEP permits. No issues related to obstructions from dredging were identified during the EIS process.

(6) Setbacks for public water supplies are specified in PADEP permits. This issue is discussed more extensively in the FEIS along with recent hydrogeological studies conducted in conjunction with potential dredging effects on capture wells and water supplies.

(7) The Corps in consultation with the USFWS may determine that dredging should be restricted in portions and/or entire pools of the study area under Alternative 3.

(8) The Corps has adopted a USFWS-approved mussel sampling protocol for T&E species.

(9) Noise impacts due to dredging are discussed in the FEIS and adaptive management controls are incorporated in Alternative 3 to address these impacts.

(10) NEPA requires that any and all effects of the No Action alternative (Alternative 1) be evaluated. However, economic impacts on the applicants are not used as a reason for disqualifying this alternative in the FEIS. Aggregate quantity, quality, and availability are the major considerations.

(11) As noted in Response (7) above, the Corps will use consultations with resource agencies to determine what specific areas are restricted.

(12) The impact of towboats on TSS and other water quality parameters is discussed in Chapter 3 and under the different alternatives. Potential impacts of dredge equipment are discussed under Alternative 2.

(13) Information gathered in the EIS indicates that all dredging technologies are likely to have similar significant impacts on aquatic resources and were therefore evaluated together as one type of activity. This issue is further addressed in Section 4 under Alternative 3 of the FEIS.

(14) The FEIS notes that impacts on TSS downstream of dredging are likely. This issue is further addressed under Alternative 3 and in the Cumulative Impacts section.

(15) Information related to the Environmental Fluid Dynamics Model is included in Appendix P of the FEIS. Alternative 3 incorporates Adaptive Management controls to further evaluate effects of alternative dredge trench scenarios on water quality (including turbidity and TSS) and to refine the controls necessary to minimize such impacts.

(16) Relationships between barge traffic and the dredging industry are discussed in several places in the FEIS. The potential reduction in barge traffic with cessation of dredging is discussed under Alternative 1.

(17) Geologic extraction of sediment is treated as a minor but irretrievable effect for both land-based quarries and dredging activities in the FEIS.

(18) The FEIS discusses sediment particle size data collected during preparation of the EIS as well as related studies conducted by other agencies in the study area. Repeatedly, these studies show a preponderance of gravel and sand in dredged as well as undredged areas. The FEIS discusses the fact that certain dredged locations may accumulate fine sediments originating from tributaries, and that our understanding of these processes is not complete. Several factors are probably important, including distance outward from the thalweg, distance downstream from a lock and dam, and proximity to major tributaries. Alternative 3 incorporates an adaptive management process with which to further refine this issue.

(19) The FEIS explains in detail the fact that high quality aggregate material is not readily available from land-based sources in the Pittsburgh region due to the natural geology. Higher value products are used closer to Pittsburgh because that is where the major customer base is (PennDOT and construction).

(20) River mile designations used in the FEIS are consistent with those used by the Corps and other entities in the region.

(21) The land-based aggregate information presented in the FEIS is based on numerous discussions with quarries as well as information published by PennDOT. The inventory of SRLE aggregate presented is believed to be complete.

(22) PennDOT has specifications regarding aggregate quality in road surfaces that ultimately stem from Federal Highway Administration recommendations and regulations. Recent discussions within both agencies indicate increased demand for skid-resistant road surfaces in the near future, not less demand.

(23) As discussed in the FEIS, cost of transporting aggregate to the area where it is needed is a major part of the total aggregate cost and will determine how competitive a given aggregate source is. The FEIS discusses the fact that as dredging supplies are diminished (through restrictions and other factors), sources further away may become competitive in the market place.

(24) Additional modeling is presented in the FEIS that relies on analyses of different depth strata and does not composite depths.

(25) Minimal dissolved oxygen values are reported in the FEIS where such data were available.

(26) The sediment quality thresholds used in the FEIS are nationally accepted values for freshwater systems and are routinely used by USGS.

(27) Please refer to EPA Response (1) under Surface Water Quality.

(28) This issue is discussed in the FEIS under "Submerged and Emergent Aquatic Plants" under Alternative 2. The growth of macrophytes is typically associated with shorezone, tributary confluence, and island margin areas. These areas are restricted from dredging under Alternatives 2 and 3; however, the FEIS acknowledges that potential impacts to macrophytes are possible with continuation of dredging under Alternative 2. Alternative 3 presents specific adaptive management controls to minimize such impacts.

(29) The FEIS states that zinc is bioavailable to aquatic organisms and may reach supposed chronically toxic levels due to a number of sources. Yet, despite exceedences of chronic zinc and copper criteria in the study area over time, resource agencies concur that water quality and aquatic life has improved.

(30) Impacts beyond the project boundary are discussed under Cumulative Impacts in the FEIS.

(31) The FEIS used biological data that was available from many sources. Please see EPA Response (1) under Environmental Consequences regarding data requirements in an EIS.

(32) Preservation of macrophytes and wetlands is explicitly incorporated in Alternative 3 of the FEIS.

(33) Impacts of dredging on fish are discussed under Alternative 2 of the FEIS. Alternative 3 was formulated in part, to address potential impacts on fish.

(34) Critical habitat for threatened and endangered mussel species has not been defined by USFWS; therefore, it is not currently possible to map locations of suitable habitat. Certain locations in the project area, however, are considered relatively productive areas and/or areas of high quality habitat according to resource agencies. The FEIS discusses information provided by several experts and resource managers regarding characteristics of high quality habitats in the project area and presents adaptive management approaches for identifying and protecting such areas.

(35) Air quality is addressed in Chapter 3 under Section 3.6 of the FEIS and potential impacts of dredging on air quality are evaluated under Alternative 2.

(36) Bias in the bathymetric data of the Allegheny River Pool 5 and 6 study conducted prior to this EIS is noted. The Corps is evaluating use of newer technologies to obtain current bathymetric data for the entire study area.

(37) Impacts of dredging on recreation are discussed under Alternative 2 of the FEIS. Please note that all barges may have similar effects on recreation and tourism, many of which are unrelated to dredging activity.

(38) Alternatives have been modified in the FEIS as noted previously. The No Action alternative discusses the possibility of "natural recovery processes" and positive effects on certain resources to the extent that future dredging diminishes those resources or their habitats.

(39) As explained in the FEIS, in socio-economic terms, the baseline is the current economic status quo. In this sense, Alternative 2 (continued dredging as currently practiced) has no effect socioeconomically because it represents the status quo.

(40) The FEIS weighs all "benefits" and "costs" of each alternative and does not single out any one benefit or cost as being *a priori* more important than another. The potential reduction of certain effects in the upper Allegheny River under the No Action alternative, due to decreased barge traffic, is noted.

(41) Potential impacts of dredging on mussels, including federal and state listed species, are discussed under Alternative 2. Alternative 3 was formulated in part to mitigate such impacts.

(42) Further information is presented in the FEIS regarding the socioeconomic modeling approach used. The methods used are accepted for use in many other EIS projects and are particularly useful in this EIS due to the complex scenarios being modeled.

(43) The analysis does take into account that some of the projected shortfall would be made up by land-based producers within the ROI. Thus, section 4.1.9.3 describes both the gross loss in jobs (dredging only) and the net loss in jobs (dredging job loss minus employment gains from expanding land-based operations). The projected gain in employment from other sources is relatively modest because >50% of the replacement aggregate materials would be imported from outside the ROI.

Please also refer to PADEP Response (3) under Specific Comments.

(44) Impacts of dredging on human health and safety are discussed under Alternative 2 in the FEIS.

(45) The FEIS does not claim that dredging is the only economical way to produce aggregate resources for the region. Market forces and their effects on feasible sources of aggregate are explained in Section 2 of the FEIS.

(46) The FEIS does not claim that dredged areas are better habitat for macroinvertebrates. Significant impacts of dredging on mussels are discussed in the FEIS.

(47) The FEIS discusses the fact that dissolved oxygen patterns in the study area are complex and not simply related to depth of dredging.

(48) Potential impacts of dredging on human health are discussed under Alternative 2 of the FEIS. Please see Response (28) above as well.

(49) Cumulative impacts of dredging over time are discussed in Section 4.5 of the FEIS.

(50) Effects of dredging on fish habitat are discussed under Alternative 2. The DEIS referred to spatial analyses on 11 fish species, each at two different life stages (adults and spawning) for restricted and permitted areas in Pools 5 and 6, which are presented in the tables in Appendix Q. Some of these species include the types of spawners indicated in this comment. The Habitat Association Models in the Allegheny River Aquatic Resource GIS have fish species categorized by habitat groups. In the DEIS, one species from each of the 9 species/habitat groups in the model was randomly selected to run the spatial analyses. Two sport fish species were also added to the analyses to ensure that these analyses considered a representative group of fishes in the project area, considering both ecological and recreational importance.

WESTERN PENNSYLVANIA CONSERVANCY
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November 7, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers, Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement (DEIS) DEIS on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania

Dear Mr. Rogalla,

The release of the DEIS on commercial sand and gravel dredging operations in the Allegheny and Ohio Rivers is inadequate. Scientifically defensible data using demonstrated scientifically valid protocol must be collected and analyzed before a final determination can be made about what impacts dredging is has on the Allegheny and Ohio rivers and the biodiversity of the rivers. Further, without all the data being made available to the public, the DEIS cannot be adequately reviewed.

Western Pennsylvania Conservancy recommends that the Army Corps require the applicants to collect adequate data using scientifically accepted methodology in consultation with the National Fish and Wildlife Service and the Pennsylvania Fish and Boat Commission. Once the data have been collected and accessed, another DEIS should be released to the public for review.

Further, the Army Corps should work with relevant federal and state agencies to ensure that the applicant's preferred alternative listed in the DEIS do not violate the Endangered Species Act and the Clean Water Act. It is our belief that violations of both acts will be precipitated by the issuance of dredging permits without further research and safeguards.

Western Pennsylvania Conservancy's detailed comments are included below.

Clarify the Current and Future Protocol for Data Collection

WPC cannot adequately review the DEIS at this time since it does not include the current and future protocol for data collection. The DEIS does not include the mussel survey protocols that was used to collect the data and to base conclusions. If the protocol used by Tetra Tech Inc. is the July 19, 2001 version WPC staff reviewed, the protocol is not adequate to assess mussel resources or discover endangered species. The protocol is not "rigorous" as stated in the DEIS. For instance, the July 19, 2001 protocol does not adequately detect endangered or juvenile mussels. Therefore, the DEIS must be revised so that it is more thorough.

Rec'd 11/8/2002

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Furthermore, the DEIS refers to the use of a mussel survey that will be put in place in the future. WPC is unable to review this protocol since it is not yet developed. Without reviewing the current and future protocol for data collection, WPC is unable to analyze the conclusions reached in the DEIS.

The protocol under development should be developed with the United States Fish and Wildlife Service and the Pennsylvania Fish and Boat Commission, and other relevant expert agencies such as U.S. Geological Survey's Biological Resources Division. These agencies have an expertise that would benefit the development of a protocol for the Allegheny and Ohio rivers.

The protocols relied on in the DEIS must be subject to adequate peer review. WPC is unaware of any involvement in the development and review by the scientific community of the protocol used to collect data for the DEIS.

Methodology

The DEIS does not have adequate data to conclude that dredging has no impact on riverbeds, banks, islands, shoals, wildlife habitats and endangered species. Several conclusions stated throughout the document are not scientifically defensible, as the methods of collecting the data are questionable.

This concern is compounded by the fact that the study design and methods of studies conducted by Tetra Tech Inc. are not included in the DEIS. Therefore, the results cannot be adequately evaluated.

In section 3.4.2.3, the DEIS states that a systematic survey of mussels over the entire study area has never been performed. Therefore, it is not possible to statistically compare species diversity, density, or mussel habitat among pools or even different parts of the same pool. For instance, the amount of data colleted in Appendix Q is inadequate. The conclusion that mussel assemblages in dredged and undredged locations do not significantly differ is inaccurate. This underscores the gross need for adequate spatial sampling to evaluate the mussels' populations.

Section 4.2.4. should provide a more thorough sampling of mussel habitats as well. Spot checks for mussel colonies is not adequate if it allows dredging to occur adjacent to unknown colonies of mussels and endangered species.

The sampling of benthic macroinverebrates is also inadequate. Different methods were used and two of the control sites in Pool 8 in the Allegheny River were combined. Thus, the calculation of community metrics that the DEIS conclusions are based on are inaccurate.

Conclusions based on comparisons of the USFWS brailing and diving survey data is also inaccurate. Since the techniques are different and study designs are different, the results cannot be compared.

The DEIS must incorporate data specifically assessing the hydrology of the rivers. WPC agrees that the rivers in question are not free flowing and therefore cannot be directly compared

to studies of such streams. Similarly, the Army Corps does not have enough information on hand to make decisions relative to dredging and potential resulting fluvial geomorphological impacts in the subject rivers. The DEIS does not adequately assess the morphology of dredge areas, especially over the long-term. Ponar grab samples are a poor substitute for geomorphologic profile models that can at least predict long-term trends and study particle movement. Given the knowledge of areas that do have a long dredging history, a comparative study looking at short-term and long-term geomorphologic effects of pools should be required to draw conclusions about the affects of dredging.

Assess the Creation of Artificial Anoxic Zones

The conclusion that dredging has no adverse effect on dissolved oxygen in a stream is probably invalid. Dredging may cause artificial anoxic areas in the dredge holes that will adversely affect fish, macroinvertebrates and freshwater mussels.

The data collected to support the conclusion that no violations occurred in pools 5 and 6 is inadequate. River flow information must be collected before and during the sampling to determine the "ambient conditions" that may influence the results of the sample. To obtain valid dissolved oxygen samples, base flow, high flow and seasonal monitoring must be conducted to determine the natural fluctuation. In addition, flow pattern changes created from dam releases can temporally affect the data.

If anoxic conditions exist, a dredging operation will violate the Clean Water Act. Before the conclusion can be reached that dredging does not violate the Clean Water Act, the DIES must have samples from all the pools (dredged and undredged) for dissolved oxygen and incorporate the suggestions listed in the previous paragraph.

Consult with USFWS about Threatened and Endangered Species

The Army Corps must consult with the USFWS about the protection of threatened or endangered species in the Allegheny and Ohio rivers. The final EIS should incorporate data that results from the consultation with USFWS.

Section 7(a)(2) of the Endangered Species Act requires an agency that "permits, licenses, funds, or otherwise authorizes activities" to informally consult with the USFWS if an activity "may affect" a listed threatened or endangered species. This is required even if the agency anticipates the effects will be beneficial to the listed species. The Army Corps is required to consult with the USFWS until it receives written notification that no further consultation is required or if formal consultation will be required. This consultation should be completed before the final EIS is released.

Seven threatened or endangered mussel species that populate, or once populated the rivers in the past, are within range of the proposed dredging permit area: clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), northern riffleshell (*Epioblasma torulosa rangiana*), orange-foot pimpleback (*Plethobasis cooperianus*), pink mucket (*Lampsilis abrupta*), ring-pink (*Obovaria retusa*) and rough pigtoe (*Pleurobema plenum.*) The DEIS must consult with the USFWS about all of these species.

The DEIS will benefit from data collected from the USFWS staff that was not included in the DEIS analysis. The diving surveys collected by the USFWS contradicts the data in the DEIS. Both agencies should put forth every effort to determine the cause for these contradictions.

The DEIS should not use the phrase "viable populations of significant mussel resources." The term is subjective and causes confusion. If this concept is to be used, it should be accepted by the scientific and conservation communities, and it should be developed in concert with the other wildlife agencies.

The DEIS has inaccurate and incorrect information about threatened and endangered species. The Army Corps should refer to the Pennsylvania Natural Diversity Inventory. In Volume II, Appendices, Table I-6 and I-7 contain numerous mistakes in the list of mussel species and their related abundances. Species names are incorrect, names are repeated and some taxa are inaccurately listed as "mussels." Table I-6 is incorrect, as there are not 34 different unionid mussels. Tables I-7 and I-8 are also incorrect. Appendix J simply has a "?" in place of accurate data. This table is both confusing and incorrect. The correct state status designations for Table J-2 are also available through the Pennsylvania Natural Diversity Inventory. The Army Corps should add the salamander mussel (*Simpsonaias ambigua*) to the last paragraph on page 3-35. Further, Clarion County should be added to the list of counties in the range of the clubshell mussel (*Pleurobema clava*).

Assess the Impact on Pennsylvania Listed as Threatened and Endangered Fish and Aquatic Plants in Affected Areas

State listed fish are known to occur in the Allegheny and Ohio rivers. The DEIS does not set out a process to detect the species before dredging occurs. Thus, the statement that dredging must cease if state threatened and endangered species are found has no affect in reality. The DEIS should assess the impact dredging will have on state listed threatened and endangered fish and their habitats. This is especially important for benthic species, such as the bluebreast darter (*Etheostoma camurum*) and the channel darter (*Percina copelandi*).

The DEIS did not include state listed aquatic plants. State listed submerged and emergent plants could exist in the proposed permit area. However, an assessment of the effects dredging will have on the plants was not included in the DEIS. The DEIS should protect state listed plants species cataloged in the Pennsylvania Natural Diversity Inventory. Plants of special concern potentially present in the areas should also be taken into consideration and such a list could be obtained by consulting the appropriate experts.

Protect Habitat by Designation and by Buffers

Overall, the DEIS should provide greater protection of the threatened or endangered species habitat. Since mussels are dependant on their habitat for survival, a buffer should protect the habitat of threatened or endangered species. This requirement would enable the Army Corps to comply with the Endangered Species Act. If the habitat is not protected, a threatened or endangered species may be "taken," in direct violation of the act. Additionally, this habitat will not be available for colonization by endangered species as river water quality continues to improve.

The DEIS fails to acknowledge the full range of habitat for the federally listed northern riffleshell mussel (*Epioblasma torulosa rangiana*) and clubshell mussel (*Pleurobema clava*) in section 4.2.6. The DEIS should protect the habitats in their entirety.

According to PFBC, non-random sampling of mid-depth areas in pools 5 and 6 revealed clean gravel and no silts and clays. This substrate description is consistent with the substrate preferred by many species of freshwater mussels. If the gravel is clean, this would suggest that adequate flushing exists. Depending on the hydraulic stability of the areas, these areas be potential habitat for several fish species and federally listed mussels such as the northern riffleshell (*Epioblasma torulosa rangiana*) and six others. Until adequate data is collected under a new protocol to determine if "significant mussel resources" exist, or their habitat, these areas should be protected from dredging.

Further, the habitat for channel-riverine fish should be protected in pool 6 in Alternative 2. Some of the fish, such as the bluebreast darter, are known fish hosts for northern riffleshell (Waters 1996). The DEIS should also recognize that fish habitat includes the river bottom, not simply the water column. Some state listed species remain on the bottom of the river in sand, gravel and cobble habitats, which are directly impacted by dredging.

Once data has been collected using the new protocol approved by the USFWS and PFBC, Table 2-1 should be reassessed. The table is currently incomplete from lack of known data.

Assess the Ecological Value of the Allegheny and Ohio Rivers

The DEIS should assess the ecological benefits of the Allegheny and Ohio Rivers and address the beneficial impact that the cessation of dredging would have on the rivers.

Freshwater mussels are recovering in the lower Allegheny and Ohio River systems. Various species are recolonizing suitable habitats. Species such as *Leptodea fragilis* are now found for this very reason – not because diving surveys are now used. If these habitats are removed through dredging, this trend of improvement will reverse.

Forty percent of Pennsylvania's shellfish and fish are endangered or eligible for listing. River habitats are critical to the potential recovery of endangered species populations in the future, including sand and gravel substrates. Pennsylvania's waters and aquatic species are at risk and dredging will permanently affect these resources. Many states and several countries have banned in-stream mining due to the irretrievable costs and long-term problems associated with dredging. The DEIS should at a minimum address the creation of more protective buffers as an alternative option and should investigate the attitude of other states towards dredging.

The DEIS also has to address cumulative affects of dredging. A mussel habitat inventory and analysis has not been undertaken in the study area. Therefore, the statement that dredging will only have minor cumulative affect on mussels because most of the habitat is sub-optimal is not a valid conclusion. To adequately address the cumulative affects of dredging, the DEIS should collect and analyze habitat data in the proposed permit area.

Protect Riverbanks and Islands

In Alternative 2, the DEIS must rely on empirical evidence to support the finding that erosion of the riverbank will be prevented. The DEIS' management guidelines are not based on the rivers' fluvial geomorphology.

The calculation of the slope for the bank of the dredged area should be based on the depth of the dredge. If the contour of the dredged area is not based on a ratio supported by scientific evidence, the river depth contours in the dredged area will likely migrate out towards the riverbank. Specifically, the 2:1 ratio listed in section 2.2.1 for a 6-foot contour for the riverbed is scientifically invalid. If applied, the contours of the dredge would erode and cause the 6'foot river depth contour to move closer to the shores. This problem is compounded by the fact that the management guidelines would ultimately allow dredging to occur closer to shores. As the riverbed erodes inland, the 150-foot buffer would move closer to shore as well.

Further, the buffers are not based on the rivers' fluvial geomorphology. The buffers set for dams, bridges, pipelines, islands and special habitats are inconsistent. The DEIS must determine the buffer distance based on empirical evidence. WPC recommends that the Army Corps collects more data to determine the appropriate buffer distances based on the rivers' fluvial geomorphology and habitat protection needs.

Thank you for taking our comments into consideration. If the Army Corps releases another DEIS, Western Pennsylvania Conservancy would be happy to review the alternatives.

Sincerely,

Larry J. Schweiger
President

cc: The Honorable Dave Hess
The Honorable Pete Colangelo
Mr. Mark A. Snyder
Ms. Cindy Tibbott
Mr. Dave Densmore

Response to Western PA Conservancy

General Comments

(1) Please refer to EPA Response (1) under Environmental Consequences concerning data quality and quantity used to evaluate alternatives in the FEIS.

(2) One aspect of Alternative 3 of the FEIS is formal consultation with USFWS regarding potential restrictions of portions and/or entire pools in the study area for the protection of federally listed aquatic species.

Mussel Sampling Protocol

(1) The original mussel sampling (diving) protocol used to derive data in the EIS was based on the input of many national mussel experts and PADEP staff. The FEIS discusses the fact that brailing is an ineffective sampling method. It is understood that the protocol is a living document and will be modified as more information is collected. The Corps has now adopted a USFWS-approved protocol explicitly for federally listed species. This new protocol has become a part of Alternative 3. Note that any area requested for dredging must be surveyed for the presence of mussels (including juveniles) prior to obtaining a permit. Refer to EPA Response (1) under Freshwater Mussels for further clarification.

Methodology

(1) Please see Response (1) above regarding available data. A more detailed description of data collection activities conducted during preparation of this EIS, methodologies used to collect data and their rationale, and the findings of those efforts are now included in the FEIS.

(2) It is infeasible and unnecessary to rigorously sample mussels in the entire 110-mile study area for this EIS. For this reason, the applicants are required to conduct mussel surveys in the specific locations which they are requesting for dredging, prior to any permit issuance.

(3) Pool data compiled for macroinvertebrates and other groups of aquatic species are used strictly to illustrate baseline biological characteristics of the study area (Section 3 of the FEIS). These data were not used to evaluate effects of dredging. Impacts of Alternative 2 (dredging as currently practiced) on mussels, particularly rare species, are discussed in the FEIS.

(4) Effects of dredging on hydrology are discussed under Alternative 2 in the FEIS. Long-term effects of dredging on hydrology can be addressed as part of Alternative 3 under the adaptive management process discussed in the FEIS. Current information, including hundreds of side-scan sonar images collected prior

to, and during preparation of the EIS, do not indicate substantial geomorphological changes in dredged areas over time.

Artificial Anoxic Zones

(1) The FEIS concludes that under Alternative 2, significant impacts on oxygen can occur under very hot, dry conditions. Additional modeling was used to evaluate and identify potential mitigation controls under Alternative 3 to limit such impacts in the future.

(2) River flow information was added to Section 3 under Water Quality where appropriate. The FEIS recognizes that dissolved oxygen patterns in the study area are complex due to a number of factors including dams, barge traffic, and temperature.

(3) Sufficient data were collected in the EIS to identify potentially significant impacts of dredging on dissolved oxygen under certain conditions. Under Alternative 3, adaptive management can be used to further refine relationships between dredging configuration and other factors on dissolved oxygen impacts, thereby minimizing the adverse impacts.

Consult with USFWS

(1) Comment noted.

(2) Consultation (informal) with USFWS has been completed.

(3) Comment noted.

(4) The FEIS includes data supplied by the USFWS. Section 3 of the FEIS also reports the diving data they collected in Pool 8 in the same area in which the EIS sampling located the northern riffleshell mussel.

(5) Criteria for determining whether mussel sampling data do or do not indicate dredging restrictions in a given area have been developed by PADEP. Also, criteria are being revisited by the Corps in consultation with the USFWS.

(6) Common names of mussel species in Table I-6 have been updated. Relative abundances given in I-7 were based on information provided at the time by the PA Natural Diversity Inventory and available records provided by the PADEP, the applicants, and USFWS. These abundances are not used in any of the analyses of the EIS and are meant to provide a baseline characterization of the diverse mussel fauna in the study area. Clarion County has been added as another location harboring the clubshell mussel.

PA Listed Fish and Aquatic Plants

(1) The FEIS discusses state-listed fish species along with federally-listed species in Section 3. Potential impacts of dredging on state-listed species and aquatic plants are discussed under Alternative 2. Adaptive management controls discussed under Alternative 3 were designed in part for the further protection of state-listed species and aquatic plants.

(2) Information concerning state-listed aquatic plants was unavailable.

Habitat Protection

(1) Please see responses under Mussel Sampling Protocol regarding sampling comments.

(2) The DEIS referred to spatial analyses on 11 fish species, each at two different life stages (adults and spawning) for restricted and permitted areas in Pools 5 and 6, which are presented in the tables in Appendix Q. The Habitat Association Models in the Allegheny River Aquatic Resource GIS have fish species categorized by habitat groups. In the DEIS, one species from each of the 9 species/habitat groups in the model was randomly selected to run the spatial analyses. Two sport fish species were also added to the analyses to ensure that these analyses considered a representative group of fishes in the project area, considering both ecological and recreational importance.

The PADEP, in consultation with the PFBC, is further refining fish sampling requirements to better evaluate the impacts and provide appropriate protection of the resources.

Ecological Value

(1) The FEIS discusses at length the ecological resources present in the study area and the importance of conserving these resources.

(2) The recent collection of several freshwater mussel species thought to be rare or extinct is noted in the FEIS. The general improvement in water quality is also noted.

(3) Additional mitigation controls, including increased offsets from islands and shorelines on a site-specific basis, are incorporated in Alternative 3.

(4) Cumulative impacts of dredging are noted in Section 4.5 of the FEIS. Alternative 3 is formulated to reduce the likelihood of cumulative impacts.

Riverbanks and Islands

(1) Under existing permits (Alternative 2), the applicants are granted site-specific permits to dredge within specified river miles and at specified set-backs from shorelines or islands (150 feet from the 6-foot depth contour). Up until the early 1980s, set-backs from shore were not routinely required in permits. The Final EIS recognizes the importance of these set-backs and, under Alternative 3, identifies situations where larger set-backs may be necessary such as when the bank is unstable and/or the 6-foot depth contour is at or close to the shoreline. Enforcement of required permit conditions is an important aspect of permit implementation as mentioned in the FEIS.

(2) Please refer to PADEP Response (5) under General Comments and (1) under Clarifications.

(3) Buffer distances will be reevaluated as part of the adaptive management process under Alternative 3.

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University of Pittsburgh

School of Law
Environmental Law Clinic

(Use This Address for U.S. Mail)
P.O. Box 7226
Pittsburgh, PA 15213-0221

210 South Bouquet Street
Sennott Square - Room 5207
Pittsburgh, Pennsylvania 15260
412-648-1300
Fax: 412-648-1992

November 7, 2002

Sent Certified Mail

Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army corps of Engineers, Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222-4186

Dear Mr. Rogalla:

Clean Water Action (CWA), through the Environmental Law Clinic, submits the following comments on the Draft Environmental Impact Statement on Commercial Sand and Gravel Operations in the Allegheny and Ohio Rivers, Pennsylvania (June 2002) (DEIS).

1. By permitting river mining operations in river segments where federally endangered mussels are present, or may be present, the U.S. Army Corps of Engineers (USACE or Corps) is in violation of the Endangered Species Act of 1973 (ESA). Specifically, the USACE's action of permitting river mining constitutes a violation of Section 7(d) of that Act. 16 U.S.C.A. § 1536(d). That section bars an irreversible or irretrievable commitment of resources, and it is CWA's contention that permitting dredging operations without the use of a mussel survey protocol approved through consultation with the U.S. Fish and Wildlife Service (USFWS or Service) is an irreversible or irretrievable commitment of resources. Similarly, permitting dredging operations without an USFWS approved mussel survey protocol violates the requirement for an incidental take permit under ESA § 10(a)(2)(A) and (B). 16 U.S.C.A. § 1539(a)(2)(A)-(B). Furthermore, CWA believes that permitting dredging in the absence of a Service approved protocol may result in a violation of ESA § 9 by causing a direct taking of a federally endangered mussel species. 16 U.S.C.A. § 1538(a). CWA bases its conclusions on several sections of the DEIS that state that significant adverse impacts to federally endangered freshwater mussels can be mitigated through a rigorous mussel survey protocol developed through consultation with the USFWS. See, for example, DEIS, E-13, E-14, 4-43, 4-44, 4-72, and 4-73. Despite this statement, USACE continues to permit dredging operations without the use of a mussel survey protocol developed

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through consultation with the USFWS, despite claims to the contrary. In a letter to the Pittsburgh District Office, dated October 18, 2002, the Pennsylvania Field Office of the USFWS stated that the currently used mussel survey protocol is deficient for multiple reasons and that recommendations of that office's staff were ignored. Because USACE has permitted dredging in areas where federally endangered mussel species occur without the protection of a USFWS approved mussel survey protocol, endangered mussels may be taken without an incidental take permit. Also, for the same reasons, the Corps is committing an irreversible and irretrievable commitment of resources. These actions, as mentioned above, are in direct violation of the Endangered Species Act.

2. CWA asserts that the DEIS is a biased document. CWA makes this assertion based on several inconsistencies found within the DEIS itself and on documents obtained from the applicant dredging companies and the Pennsylvania Department of Environmental Protection.

One of the major inconsistencies found within the DEIS is the different treatment of permit violations between Alternative 2 and Alternative 3. Under Alternative 2, the analysis of environmental consequences begins with several assumptions. One of these assumptions is that current permit conditions will be implemented and enforced by the applicable resource agencies. DEIS, 4-1. Implied in this assumption is complete compliance wit permit conditions. Throughout the discussion of the environmental consequences of continuing dredging under Alternative 2, adverse impacts are dismissed because of mitigation through the permit conditions. However, under Alternative 3, which discusses land-based alternatives for sand and gravel, this assumption is apparently not applied. Permit violations for land-based sand and gravel quarries are discussed repeatedly, and it is implied that mitigation efforts through permit conditions will fail because of these permit violations. There is no mention of the repeated permit violations committed by the dredging companies. Most of these permit violations are on file with the Pennsylvania Department of Environmental Protection (PADEP). CWA asserts that the failure to discuss the dredging companies history of permit violations is one of many clear indications of bias found within the DEIS.

Another illustration of bias found within the DEIS is the uncertainty assigned to permitting for land-based operations. Throughout the discussion of Alternative 3 there are statements indicating that permitting for land-based operations is very uncertain and that because of this any analysis of land-based operations meeting the demand for sand and gravel is highly speculative. See, for example, DEIS, 4-50 and 4-51. Again, this same reasoning is not applied to in-river extraction. At no point in the DEIS is there any uncertainty expressed about the issuance of permits for dredging operations. It appears tat it is taken for granted that the permits will be issued. While CWA acknowledges that permitting for land-based operations is more difficult to attain for a variety of reasons, it asserts that this is merely an illustration of the more stringent mitigation efforts applied to land-based operations. Because of these more stringent regulations, it is CWA's position that land-based sources for sand and gravel are less detrimental to the human environment than the lightly regulated in-river extraction proposed by the applicants. The presumed certainty with regards to issuance of permits for dredging is a further indication of the

biased character of this document.

The preparer of the DEIS now has a conflict of interest that should bar them from any further work on this document. They are the retained testifying experts for the dredging companies in adversary proceedings before the Pennsylvania Environmental Hearing Board. These proceedings involve the legality of the dredging permits issued by the PA DEP. Tetra Tech cannot prepare an unbiased analysis regarding the impacts of dredging at the same time that it is being paid to be an expert in an adversarial proceeding. In any case this certainly creates an appearance of impropriety.

CWA has seen documents which indicate that the dredging companies were allowed to edit the text of this DEIS before it was made available to the public or to other resource agencies. This is wholly improper and calls into question the unbiased, good faith basis for the analysis in this document. The dredgers are paying for this study, but they should not be allowed to determine and edit its conclusions.

3. The economic analysis found in the discussion of Alternatives 1 and 3 is flawed in several ways.

First, there is a serious confusion in the analysis of potential increased costs of production from land-based quarries. DEIS, M-5. The study notes that "Expansion costs for coarse aggregates would increase total costs by a factor of 1.2..." Id. However, the study goes on to assume that unit costs would increase by a factor of 1.2. Id. In fact, economies of scale in mining activity would be expected, so that an expansion of 30% would result in less than a 30% increase in total costs, implying decreasing unit costs as facilities expand operations. This would make a significant difference to the economic impact analysis.

Second, there is a serious omission of transport costs and distances under the proposed dredging when analyzing the increase in land-based quarry transport costs. DEIS, M-4 through M-6. Suppose that transport distances under proposed dredging are, on average, 15 miles. And suppose average transport distances under land-based quarry supply (Alternative 1) are 75 miles. Then the increase in transport distances is only 60. It is this increased distance that should be used in the calculation of increased delivered prices DEIS, Table M-4. Again, this could make a considerable difference in economic impact estimates.

Third, the DEIS assumes that land-based quarry material is delivered to Central Pittsburgh and this distance (minus an ad hoc 5-25 miles) is used to estimate increased transport costs. There is a much more accurate way to estimate this based on the distribution of existing demands for material and identifying the most likely quarries to supply that material. One could assume only regional use, and divide the region into 4 or so areas, and assume those areas would be supplied by land-based quarry material. It is quite possible that this could reduce delivered material costs compared to the proposed dredging supply.

Forth, the Region of Influence (ROI) is oddly defined. Presumably, it is defined as an area of substantial economic impact. The study defines this based on the location of customers. However, it is more reasonable to define this based on the location of suppliers. If so, a larger area of land-based quarry suppliers would define the ROI. This would result in any increases in jobs and incomes from shifting supply to land-based quarries be counted in the ROI analysis. As it stands, the ROI is narrowly defined geographically, and job losses from shutting down dredging operations make the ROI impact look very negative.

Fifth, CWA questions why the number of jobs directly associated with supplying 4 million tons of dredge material be more than the number of jobs directly associated with supplying this same volume from land-based quarries. CWA believes that land-based quarry production is probably more labor intensive per unit of product than dredge operations. The study estimates that 214 jobs will be directly loss from shutting down dredging, and that 24 jobs in land-based quarries in the ROI will be created. DEIS, 4-14. The document also indicates that 165 land-based quarry jobs outside the ROI would be created. DEIS, 4-17. Thus, the analysis indicates that there would be only 189 jobs to replace the 214 lost jobs. Yet, Appendix M has told us that land-based quarry mining will be 20% more expensive. This does not make sense. If anything, CWA would expect more land-based quarry jobs gained than dredging jobs lost for the same volume of material.

Sixth, the DEIS estimates a significant increase in truck transport necessary to haul land-based material. In fact 4 million tons per year in 20 ton trucks, traveling an additional 50 miles, is 10 million truck miles per year. Suppose each trucker works 300 days a year, and drives 100 miles each day. Hypothetically, this is an additional 333 jobs in trucking. This should be counted as a direct and immediate impact, and not left for the IMPLAN model to calculate, if it even does this. Of course, the comment above about the error in estimated additional miles suggests less miles and, therefore, fewer additional jobs than this calculation.

Finally, it is not clear how the analysis of the indirect impacts of cost increases (production + travel) to the state were done. The study estimates an increase in material costs to the region of $34.7 million per year. (Comments above imply this is a considerable overestimate.) If true, this is an adverse impact on the welfare of the region. It appears that this value was used in the IMPLAN model to estimate the implied impacts on jobs and income of a tax increase of that magnitude. But this is not clear from the text on DEIS page 4-16 or in Appendix M. If so, the study should have added the direct incomes from the land-based quarry jobs and other related incomes. In fact, if some people are having to pay $34.7 million more in taxes, but others are receiving $34.7 million more in incomes, CWA does not see how there is a net adverse effect of essentially what is an income transfer. Thus, CWA is deeply suspicious of Table 4-2 and how it was estimated.

4. The format of the DEIS violates provisions of the Council on Environmental Quality's (CEQ) regulations covering implementation of the National Environmental Policy Act. Specifically, the DEIS is in violation of 40 C.F.R. § 1502.24, which requires, inter alia, that

explicit reference by footnote be made to the scientific and other sources relied upon for conclusions in the statement. The purpose of this requirement is to maintain the professional and scientific integrity of the discussions and analyses in environmental impact statements. 40 C.F.R. § 1502.24. While the DEIS does make citations to certain sources relied upon for conclusions, there are portions of the environmental analysis that are completely devoid of references. For example, on DEIS page 4-51and 4-52, it is stated that there are growing demands for sand and gravel in the region; there is no reference to where this conclusion was drawn. In fact in other sections of the DEIS, the population of the area is said to be in decline, would this not work to reduce the demand in the area? Another example occurs on DEIS page 3-28, where freshwater mussel habitat is discussed. There are multiple studies research reports referred to on that page without any citation. Furthermore, on DEIS page 3-30, further discussion of mussel habitat concludes that "habitat preferences for mussel species inhabiting the study area, have not been defined for the most part." There is not citation following this conclusion. CWA would also like to note that this conclusion is troubling in other ways; dredging without a clear indication of habitat preferences for endangered mussels could, as mentioned above, result in a violation of the Endangered Species Act. Also on that page, it is stated that "recent sampling, thus far, supports the generally held notion that mussels may be more abundant near islands and other shallow, undisturbed areas within the study area." Id. Again, there is no citation to what sampling supports the conclusion, nor is there a cite to material upon which the "generally held notion" is based. In Section 4.1.4, Impact to Aquatic Life, there are several conclusions regarding mussel recolonization and the composition of substrate in dredged areas. DEIS, 4-5. Again, these conclusions are not supported by proper references. Furthermore, in Section 4.1.9.1, Overview of Socioeconomic Impacts, there are many conclusions and assumptions lacking proper citation. DEIS 4-7. The number of conclusions found in the DEIS that are made without the support proper scientific references is simply staggering, and it is simply not practical to point out every occurrence of an unsupported conclusion. Therefore, CWA urges, and the CEQ regulations mandate, that in the final version of the environmental impact statement all conclusions, sampling efforts, and studies be properly cited.

In addition to the lack of proper citation in the document, CWA would like to reiterate that the document is biased in favor of granting the dredging permits. This bias violates the CEQ regulation requiring that "*agencies shall insure the professional integrity*, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 C.F.R. § 1502.24 (Emphasis added). A biased document such as this lacks professional integrity.

5. The commercial sand and gravel operations contemplated by the DEIS, and currently permitted by the USACE and the PADEP, violates the Pennsylvania Constitution. The specific constitutional provision reads as follows:

> § 27. Natural resources and the public estate.
>
> The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the

people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

Pa. Const. Art 1, § 27. The river beds of the Commonwealth have been traditionally regarded as "public trust resources" or common property. The DEIS acknowledges at one point that "the nonrenewable glacial deposits of the Allegheny and Ohio Rivers are being *permanently* removed." DEIS, 4-27 (Emphasis added). At another point the DEIS again states that there are permanent modifications to the river bottom. DEIS, 4-70. In Section 4.6, Irreversible or Irretrievable Commitments of Resources, Alternative 2 (continued dredging) is described as resulting in an "irreversible and irretrievable commitment of resources." DEIS, 4-76. That section goes on to state that "dredging activities will result in a relatively permanent significant alteration in te morphology of the river bottom." Id. It also concludes that "the loss of glacially-derived sand and gravel resources of the river systems is irreversible." Id. These statements are clear admissions that the corpus of the public trust is being irrevocably damaged in contravention of the Pennsylvania Constitution. While the resources drawn from the rivers occasionally go to public works projects, the main parties profiting from the transactions are the dredging companies. These entities while part of the public are not the public as a whole. Furthermore, since it is admitted in the DEIS that the cost of land-based gravel is essentially equal to the cost of material extracted from the river, no public benefit can be claimed through reduced project costs. DEIS, 4-49. While it is claimed that if river mining were discontinued there would be a vast increase in sand and gravel costs, CWA has taken issue with that conclusion in the comments found above. Also found in Section 4.6 is a discussion of the irreversible commitment of resources associated with land-based alternatives. DEIS, 4-76. CWA acknowledges that quarries permanently remove resources form the land, however, those areas are not traditionally acknowledged by the common law as public trust lands. Thus, only Alternative 2 contemplates a violation of the Pennsylvania Constitution.

6. The DEIS only contains two alternative rather than the three alternative listed. Alternative 1 and Alternative 3 are functionally equivalent. In fact the DEIS implicitly and explicitly acknowledges this fact at several points. Alternative 1 contemplates the complete cessation of river mining and Alternative 3 contemplates land-based alternative in the event that sand and gravel dredging were discontinued. These alternatives are identical. Again, the DEIS acknowledges this, for example, in the introduction to Section 2.3, it is stated that Alternative 3 is implied by Alternative 1. DEIS, 2-14. CWA firmly asserts that more than two alternatives need to be discussed in depth in order to have a meaningful discussion of the issues and to comply with NEPA. For instance, another alternative could be a timed phase-out of sand and gravel dredging operations with a gradual increase in land-based sources. This alternative would satisfy the properly stated need of satisfying the regions demand for sand and gravel.

7. The DEIS purpose and need section continues to ignore the comments of resource agencies regarding the prior draft and is narrowly drawn in order to restrict the analysis and to restrict the range of reasonable alternatives. This is a violation of NEPA under existing case law.

8. A number of deficiencies exist in the Draft Environmental Impact Statement (DEIS) that prevent an adequate evaluation of the likely effects of commercial sand and gravel dredging on the river habitat and biota. One of the principal deficiencies is that the current habitat conditions in the river have not been well documented, thereby making it difficult to evaluate the suitability of the river in its present state for supporting aquatic organisms. Moreover, the current distribution of aquatic organisms (particularly fish) across habitats available is not provided. Without a description of the current habitat use, the DEIS does not provide a baseline for predicting and understanding the likely changes in habitat use following the proposed dredging operations. Where data are presented on habitat conditions (e.g., Table 4-3), these data have not been adequately summarized or subjected to statistical analysis.

Another shortcoming related to aquatic habitats is the fact that little information has been provided on the likely response of the river channel to dredging operations. For example, in section 4.2.1 on page 4-22 of the DEIS, it is claimed that side-scan sonar images taken two years apart (illustrated in Figure 4-1) provide evidence of little change in bottom morphology following dredging. This qualitative judgement, based on the short-term response of a single site, provides little if any insight into the likely consequences of large-scale dredging operations.

The current level of description of the fish community is woefully inadequate. Although the investigators made a strong effort to include data from a wide variety of sources, the summary of fish relative abundance provided in table I-11 simply combines all these data without regard to sampling method or sampling location. Because of this, the information that this table attempts to convey is likely to be seriously biased. Another limitation, evident on page 4-39, is that the fishery data presented lack any measure of effort. Thus, evaluations of measures such as species richness also are potentially biased. The evaluation of the likely response of benthic macroinvertebrates to dredging suffers from similar problems of pooling data from disparate sources, leading to potential for biased results.

The modeling used to predict the response of fish to altered habitat conditions due to dredging appears to be a reasonable attempt, but the description of the models used themselves is inadequate, particularly as these models have not been published in the peer-reviewed literature. Moreover, the predictions of these models have not been validated by field data, but should minimally be tested by comparing areas that have and have not been dredged.

While the DEIS presents a reasonably in-depth analysis of likely effects of dredging on dissolved oxygen levels, it does not provide an adequate analysis of the ramifications of anoxic conditions that may occur. Many organisms are harmed by low or anoxic conditions, even when these conditions occur sporadically. Similarly, the consequences of build-up of fine material in dredged areas (as may occur as indicated on page 4-28 of the DEIS) has not been adequately evaluated, including the potential effects this may have on oxygen levels in the sediments and near the sediment-water interface. The extent of impact of dredging on water quality and suspended sediments (which may have further effects on the build-up of fine material in dredged

areas) has not been well characterized in the DEIS. Although data from a number of sampling events are presented, the statistical methods used to analyze these data are not presented. Further, the results that are presented imply that the analysis performed was not very synthetic in nature, and therefore is likely to be lacking in power to detect actual differences (e.g., Table 4-2).

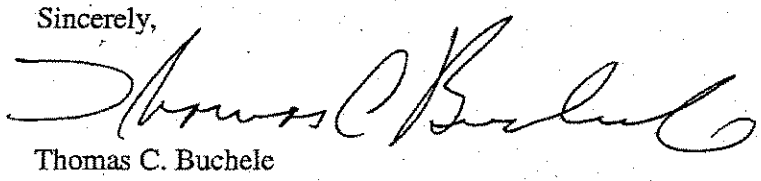
9. This DIES should directly address recent and long term proposals to use dredged material from the Monongahela River to fill in dredge holes in the Allegheny. The DEIS briefly mentions this as ongoing, 3-5, but it is CWA's understanding that this proposal is on hold. More importantly, the ongoing discussion of these actions is in fact an admission that dredging has significant adverse impacts that need to be mitigated. Moreover, the costs of such mitigation, which CWA understands to be millions of dollars must be included as a significant cost for river-based gravel extraction.

10. There should be no discussion of dredging in Pool 6. In fact CWA contends that there should be a discussion of eliminating dredging in other Pools in the Upper Allegheny River, such as Pools 8 and 9, where the federally endangered mussels were found. This option could be discussed as a possible element of the phase-out of dredging alternative that CWA proposed above in Comment No. 6. By removing potentially prime habitat from the areas of permanent disturbance caused by dredging, te USACE would be fulfilling its duty to conserve endangered species found in Section 7 of the Endangered Species Act. 16 U.S.C.A. § 1536.

11. Although the cumulative impacts section acknowledges significant adverse cumulative impacts on river depth and water quality (DO) there is little attempt to analyze the cumulative impacts from this on aquatic organisms. In fact there will be a significant loss of the best habitat for most of these organisms and that impact will be exacerbated by the adverse DO problems. These adverse impacts need to be acknowledged and quantified.

This DEIS should be completely reworked and issued as another draft . While that is being done all dredging should cease until and unless the areas being dredged have been cleared using a mussel protocol that is approved by the USFWS and is the result of an actual consultation with the USFWS.

Sincerely,



Thomas C. Buchele
Counsel for Clean Water Action

TCB/nmh

Response to University of Pittsburgh

(1) The FEIS discusses potential impacts of dredging on federally-listed species. The Corps has adopted a USFWS-approved mussel survey protocol for sampling these rare species. This protocol is now part of Alternative 3.

(2) Comment regarding enforcement of dredging permit conditions is noted. Violations of land-based permits is considered a minor issue in the FEIS, just as it is for dredging operations.

Issuance of permits for land-based quarries is different from issuance of permits for dredging in both scope and magnitude of the activity. Local land ordinances as well as state and federal regulations govern whether a quarry can be sited in a particular location. Furthermore, the size of the area being permitted for quarries is generally much larger than that being permitted for dredging in any given year. The relative lack of quarries in the Pittsburgh area, noted in the FEIS, is due in part to difficulties obtaining appropriate permits.

The potential litigation mentioned has been settled and is not an issue. Tetra Tech prepared the FEIS in accordance with Corps directions.

(3) The increase in employment at land-based facilities is projected using productivity estimates for the sand and gravel sector as a whole. Detailed data on labor requirements per dollar output of aggregate material are not readily available so as to differentiate between productivity at land-based operations and dredging operations. An intense data collection effort would be required to distinguish between the two subsectors, a task well beyond the scope of this analysis. As such, the employment increase estimate is reasonable considering the data constraints.

The projected increase in aggregate material cost is based primarily on estimated increases in transportation costs from alternative land-based sources to the Pittsburgh market area. Differences in costs between barge and trucking transportation are described in both the socioeconomics section and the associated appendix. The analysis also assumes some small additional costs associated with expansion of existing quarries. The analysis is conservative and does not take into account potential price increases arising from market forces (decreased supply).

Market prices for aggregate material vary from market to market depending on a number of factors including availability of supply, distance from sources to market area, labor and transportation costs, and overall demand for material. The EIS used current price levels for aggregate materials in the Pittsburgh area and estimated price increases based primarily on increased transportation costs of importing materials from outside the ROI.

(4) Information and data with which alternatives were evaluated in the FEIS are referenced or presented in accordance with requirements of NEPA. The FEIS now includes all previous data reports produced during the EIS process as Exhibits.

(5) Comments noted.

(6) Please refer to EPA Response (1) regarding modifications to alternatives analyzed in the FEIS.

(7) The Purpose and Need statements were developed with the approval of NEPA experts in EPA Region 3.

(8) Sufficient environmental data were collected prior to and during the EIS process with which to evaluate alternatives. Please refer to EPA Response (1) under Environmental Consequences. Limitations concerning historical ecological data summarized in the FEIS are discussed in Section 3. This information is used to help characterize the ecological baseline for the study area only, and is not used to infer cause-effect or to evaluate specific alternatives.

Potential impacts of dredging on dissolved oxygen are discussed under Alternative 2 of the FEIS. Many of the additional controls included in Alternative 3 are designed to mitigate such effects.

(9) Previous proposals to fill certain dredged areas in the Allegheny River with material from the Monongahela River have been withdrawn. Therefore, this issue is not discussed in the EIS.

(10) Alternative 3 of the FEIS specifically includes the possibility of restricting portions or entire pools from dredging, pending consultation with USFWS and PADEP, under the adaptive management process.

(11) Alternative 3 discusses several additional adaptive management controls to protect ecologically productive, unique, or high quality habitats in the study area.

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THE PITTSBURGH WATER AND SEWER AUTHORITY

Gregory F. Tutsock
Executive Director

441 Smithfield Street
Pittsburgh, PA 15222
(412) 255-8949
(412) 255-2304 FAX

November 19, 2002

Mr. Al Rogalla
Army Corp of Engineers
1000 Liberty Ave
Pittsburgh PA 15222

Dear Mr. Rogalla:

It has come to our attention that the Army Corps of Engineers is considering granting a permit for commercial dredging of the Allegheny River, Pool #2 (Application #199660730 Notice #02-M3). Although the formal comment period for this matter ended on November 7, 2002, we request that you add our comments to the record for this application.

The PWSA opposes any dredging in the Allegheny River Pool #2. The intake for the water treatment plant serving the City of Pittsburgh is located in this pool. Given the industrial history of the area, any disturbance of the sediments on the river bottom could result in elevated levels of substances deleterious to the quality and safety of the City's drinking water.

Sincerely

David J Walker for
Gregory F. Tutsock
Executive Director

GFT/JEK/tlb

cc: John Kasper
Dave Walker
Stanley States

AR Reid
11/25/2002

Response to Pitt Water & Sewer

The FEIS recognizes that certain locations in the study area may have known sediment contaminants which could present risks to human health if disturbed by dredging. Alternative 3 incorporates restrictions to certain pools and potential further restrictions of portions or entire pools, pending consultation with resource agencies.

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steel city rowing club

157 james street verona pa 15147 412-828-5565 phone 412-826-1167 fax
steelcityrowing@juno.com - www.steelcityrowing.org

Abigail Loughrey - Shaler Area
Junior World Championships, Trakai, Lithuania
August 2002

Albert H. Rogalla
US Army Corp of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222

Dear Mr. Rogalla,

First of all, I wanted to thank you for your time on the phone the other day. We are very excited about our expansion of the Verona site and also the possibility of an additional site on the South Side.

Regarding the 15year Allegheny River dredging contract, we at Steel City Rowing Club have the following concerns:

> Being located on the 11-mile mark on the Allegheny River in Verona, we depend on the shallow water in our site to be able to teach children and seniors in a safe environment. Our membership ranges from 7 years old to 78 years. We would hope that the 150' from the 6' depth water line would be enforced to keep our shoreline from falling.
>
> From our property to 11.5 mile, Sandy Creek, there is quite a bit of wetland area where heron and many other birds, beaver, skunks, muskrat, etc live and make their home. If too much dredging occurs too closely to shore, I am afraid that this expanse of wetland would also sink.

If you have any questions, please feel free to call me. Thank you for your time.

Sincerely,

Dori Martin

Dori Martin

BOARD OF DIRECTORS
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Anita Lancaster - Dana M. Phillips - Representative Joe Preston, Jr.

Ladislau Tompa, Head Coach, Boatman and Co-Founder - Dori Martin, Executive Director, Coach and Co-Founder

Response to Steel City Rowing Club

(1) Shallow habitats are further protected under Alternative 3 with the addition of several mitigation controls.

(2) Wetlands and other unique habitats in the study area are further protected under Alternative 3 through adaptive management controls.

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Sylvan Canoe Club
134 Arch Street
Verona, PA 15147
October 31, 2002

Albert H. Rogalla
U. S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Subject: Gravel Dredging of the Allegheny River
in the Verona area.

All of the members of The Sylvan Canoe Club are deeply concerned about the threatening effects of the proposed gravel dredging in the Allegheny River adjacent to the club's property. The Sylvan Canoe Club was formed in 1904 and shortly after that date the club house was built. Although this building is not registered with The National Register of Historic Places, it is considered by our membership to be a treasure. The club house remains free of any significant alteration and is certainly of historical significance.

Along the river's edge, in front of our property, there is a concrete wall that was constructed in the 1930's. It is approximately 10 feet high and is supported with a footer that is estimated to be 3' feet wide. (A photograph of the club house and this wall is enclosed.) We are very concerned that this wall and the club house are both threatened from the slumping that is the likely result of gravel dredging in front of the club property.

A major source of our slumping concern stems from our observations of the effects of gravel dredging on Nine Mile Island. In the early 1960's, gravel was dredged from the head of the island and in previous years, gravel had been taken from the channel adjacent to this gravel laden island. This island, that used to involve approximately 20 acres, now is less than 3 acres. The slumping is obvious based on the attached photographs.

The first picture, taken of the island, in the summer of 1973, shows a concrete block building that housed equipment necessary to support the navigation beacon shown in the photo. The second picture, taken this October at the same location, shows scattered concrete blocks as the only rement of the building. The island slumped, over the years and fell away from the building, causing its collapse.

Sylvan members have made three surface bottom surveys. The depth range is up to 22 feet in the mid channel areas. The river bed drops toward the center of the channel, dipping at approximately 4°. The river is also narrow at this point. It is our belief that a deep trench dug in the mid channel area, in front of the club, is very likely to cause sediment slumping that threatens our wall and our clubhouse.

It is our recommendation that no gravel dredging be permitted in this pool. If dredging is permitted, we urgently recommend that the set back not be established at 150 feet from the 6 foot water level, but that the set back be established at 275 feet. If this step is not taken, slumping is the likely result.

This recommendation is made as a direct result of a discussion we had with a member of the Corps staff at the hearing on September 4, 2002. Based on our circumstance and concern, he suggested that we request a set back variance. Unless it is granted, we are at risk.

Very truly yours,

Robert Y. Ball

Robert Y. Ball Commodore, Sylvan Canoe Club

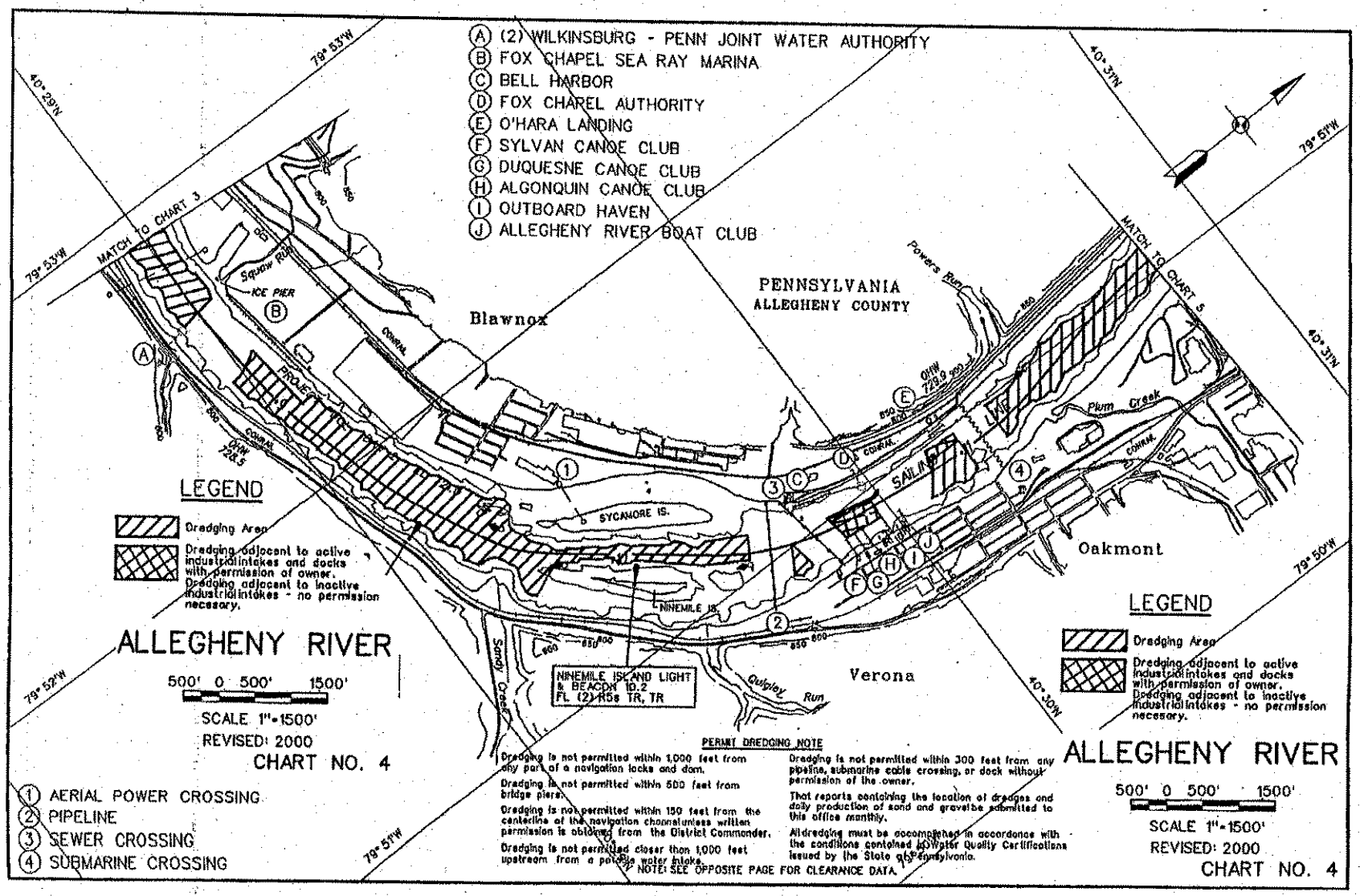
Rec'd 11/4/2002

Three exhibits are enclosed.

1. Copy of USCE Chart number 4, the Verona area.
2. Photos if the Sylvan Canoe Club and the wall, taken 9/02.
3. Photos taken of Nine Mile Island.

PS. Should there be any question that requires clarification or comment, please reach me at 412 9638577 or at the following address.

Robert Y. Ball
251 Fairview Road
Pittsburgh, PA
15238



LEGEND
Dredging Area
Dredging adjacent to active industrial intakes and docks with permission of owner. Dredging adjacent to inactive industrial intakes - no permission necessary.
ALLEGHENY RIVER
500' 0 500' 1500'
SCALE 1"=1500'
REVISED: 2000
CHART NO. 4

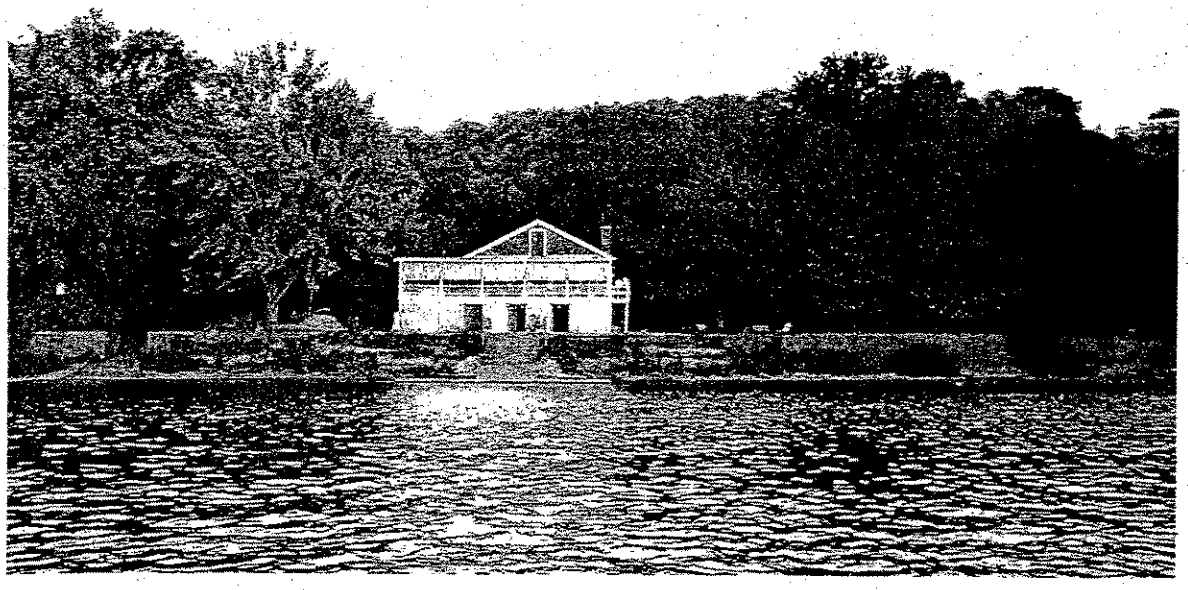


Figure 1 Sylvan Canoe Club, 132 Arch Street, Verona, PA. Concrete seawall protects full length of property line.

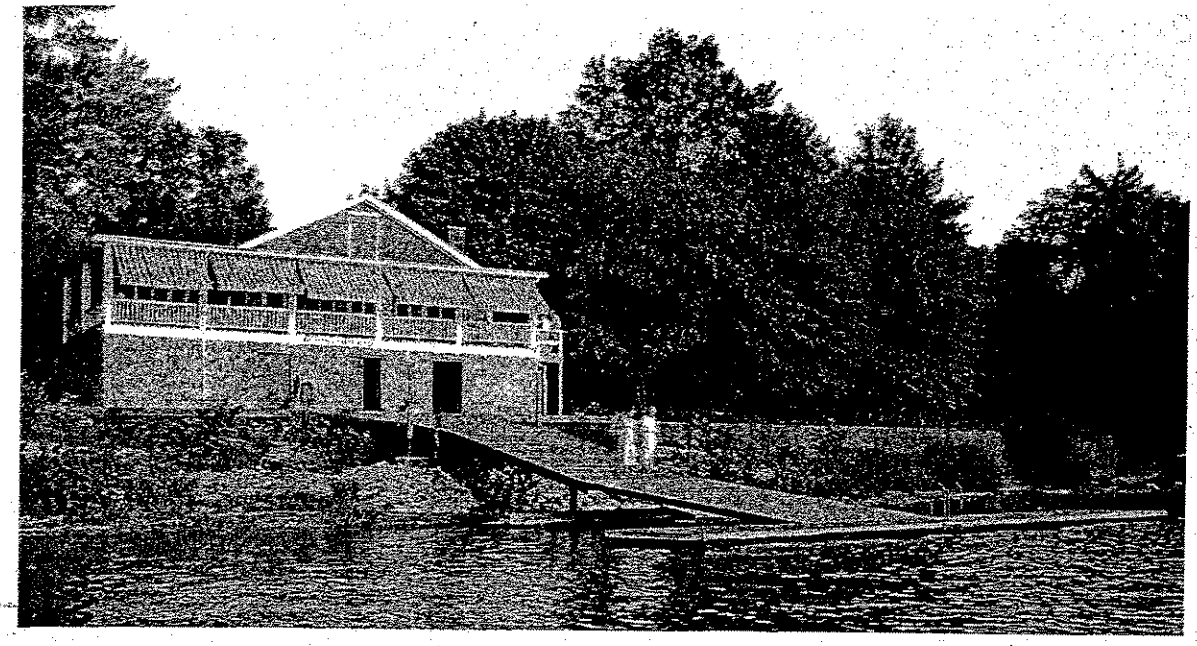


Figure 2 Sylvan Canoe Club, 132 Arch Street, Verona, PA. Concrete sea wall supports property river frontage and dock. River eddy causes shallows that end at dock line parallel to shore.

Photo of the concrete block building on Nine Mile Island, taken during the summer of 1973.

Photo of the remnants of the concrete block building on Nine Mile Island, taken in October of 2002. Building lost due to gravel dredging induced shore line slumping.

Response to Sylvan Canoe Club

Potential impacts of dredging on hydrology and shorelines are discussed under Alternative 2 of the FEIS. Over the past 20 years, several permit restrictions have been implemented to reduce their impacts including offsets from the 6-foot depth contour, restrictions in back channel areas, and larger offsets from islands. The FEIS presents further adaptive management controls to mitigate potential impacts of dredging on shoreline stability.

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Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222

Reference: Allegheny River Mining

Dear Mr. Rogalla:

I am writing in response to the proposed river mining on the Allegheny River. I belong to a Canoe Club that is 100 years old in 2004, Sylvan Canoe Club, and I do not want to see this club eventually ending up in the river. I grew up on the Ohio River and have seen the effects of both river and land mining. My family farm has lost ACRES of land to river mining. I have heard that there is no substantial evidence that exists that demonstrates the effects of river mining. I can provide pictures of our riverbank 40 years ago and now. There is significant evidence that the riverbank collapses as sand and gravel is taken out of the river. Once sand and gravel is taken out of the middle, where else does it get the 'fill' than from the banks of the river? Sylvan is located right on the river. Maybe not now, or 10 years from now, but I can guarantee that we will lose our seawall and eventually our club to the river. Please do not let this happen to the many historic Canoe Clubs along the Allegheny River between Verona and Oakmont, especially in front of the Sylvan Canoe Club.

Sincerely,

Leslie Schall

Leslie Schall
644 5th Street
Verona, PA 15147

Recd
11/6/2002

Response to Schall

Please see the Sylvan Canoe Club Response regarding potential effects of dredging on shorelines and hydrology.

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A PETITION OF

THE RESIDENTS OF THE VILLAGE OF CLINTON, SOUTH BUFFALO TOWNSHIP, COUNTY OF ARMSTRONG, PENNSYLVANIA, REQUESTING REVIEW OF THEIR CONCERNS BY THE U.S. ARMY CORPS OF ENGINEERS, THIRD DISTRICT, REGARDING SECTIONS 10 AND SECTION 404, PERMIT APPLICATIONS FOR SAND AND GRAVEL DREDGING ON THE ALLEGHENY AND OHIO RIVERS, PENNSYLVANIA, FROM MILE 0 TO MILE 69.5.

THE UNDERSIGNED, RESIDENTS, PROPERTY OWNERS AND TAXPAYERS OF THE TOWNSHIP OF SOUTH BUFFALO, COUNTY OF ARMSTRONG, RESPECTFULLY REQUEST THAT THE CORPS OF ENGINEERS TAKE INTO CONSIDERATION AT THE HEARING TO BE HELD BY IT, ON SEPTEMBER 4, 2002, AND IN THE ISSUANCE OF ANY PERMITS THEREAFTER, THE REQUEST OF THE UNDERSIGNED THAT DREDGING BE PROHIBITED FROM MILE 34 OF THE ALLEGHENY RIVER AND NORTHWARDLY THEREFROM, TO LOCK NO. 6 ON THE ALLEGHENY RIVER. IN SUPPORT THEREOF, WE ASSERT AS FOLLOWS:

1. ***The Impact on Natural Resources. In addition to the mussel sampling in Pool #6, we request specific testing and samplings in the area of Mile 34 to Lock #6. Recent discovery of certain species of turtles in that area which has not been dredged are persuasive of the fact that dredging that was conducted elsewhere has affected the fish life where the dredging has been conducted. The Petitioners also bring to the attention of the Corps of Engineers the unreported diesel spill, which occurred in the late summer of 2001;. immediately south of Murphy's Island, and above the Schenley Marina, wherein thousands of gallons of diesel fuel spilled into the river; as a result of which visual effects of the spillage in the form of dead fish which were noted, and fuel odors remained for days. While the Corps of Engineers has in the past assumed that there are substantial economic benefits from the processing of sand and gravel from the Allegheny River, this***

Rec'd 10/29/2002

balance must be weighed against the substantial economic disadvantages occasioned to the owners of property in the Clinton vicinity. Petitioners acknowledge that there are indeed other dwellings, camp sites, docks and other activities along the entire Allegheny Rive; nevertheless, the Village of Clinton is unique as may be judged by the substantial investments the residents there have made in their properties. These properties have consistently been owned by individuals, rather than institutional owners, i.e. railroads, etc. The owners have invested substantially in the improvement of the properties, carry mortgages on those properties and reside in what is known is a Residential-1 District of South Buffalo Township. This Residential District is the highest form of zoning in South Buffalo Township; the economic effect upon the owners of property in this area, as a result of the dredging, will be substantial, and is directly foreseeable.

2. *Aesthetics Aesthetics need not be mentioned since it must be quite obvious that anyone who has observed a dredge and its operation can describe the scene in one word, that being "ugly". While the owners of properties have invested substantial amounts in the improvement of their riverside properties in attractive docks, decks, patios, gardens, swimming pools and ponds for fish life, the presence of a dredge 100-200-300 yards from those property lines destroys all of the aesthetic qualities that now exist.*

3. *Flood Hazards The channel along Clinton varies from a depth of 32 feet to 50 feet in some areas; the continued dredging of an even deeper channel will cause serious increases in the water flow during high waters, and will be disastrous to the property owners in time of flood. While it may be argued that the dams protect against flood, the property owners in Clinton have already experienced a rise of at least 30 feet in the flooding of January and July of 2000. With faster flows the banks will erode at an enormous rate.*

4. *Land use People reside in the Clinton Area on a full time basis, unlike the inhabitants of other shelters along the Allegheny River, excluding obviously, locations such as River*

Forest, etc. It is year-round residency; there are more than three (3) doctors and other business professions and occupations are represented by the residents. The use of their residences, while dredging is occurring, makes it not only minimal, but intolerable as well. The conduct of the activities of the dredgers (in the past it has been on a 24 hour basis, even though the Permits allowed only 8-10 hour operations) seriously hamper and impair the ability of those residents to sleep, and rise at reasonable morning hours, since the evenings and nights are noise filled, and the operation of the barges and dredge itself near these residents' properties makes it worrisome and hazardous as well. Doctors who are on early call for surgery are affected; others who also are entitled to employment are not able to sleep and to perform reasonably well in their occupations as a result of the noise and constant activities. The use of their premises in the recreational manner is affected, and in a most dangerous and hazardous manner, in that these are families who reside there, and the use of their river facilities is constantly a danger to them, even though the dredging is not immediately or directly in front of their residences. In addition, there is a sea plane base license in effect which was granted by the FAA, and the Civil Aeronautics Administration, which authorizes the landing of float planes in that area (Mile 34 to 35.5).

5. *Shore Line Erosion and Accretion This has already been addressed, but the testimony of the undersigned who were residents in the area when dredging occurred in the early 1980's can well testify to the subsidence of their banks and shores following those dredging activities.*

The rights of property owners and the needs and welfare of the people of this area must be taken into consideration. For the reasons referred to above, and for other concerns, such as the loss of their water wells, must be taken into consideration. The water quality of the river in that area must be guarded, since not only is there coal mining activities conducted above Lock No. 6, but the constant danger of dredging into a coal seam in that area is a distinct possibility.

The writers of this Petition wish also to incorporate the response of the Department of Environmental Resources to the Impact Study which was provided by the Corps of Engineers in the past, and which resulted in the issuance of permits to Davison Sand and Gravel Company, in this area. The Department of Environmental Resources cited numerous bases for the discontinuance of the dredging, and also challenged the Corps of Engineers regarding its biased disregard of the disadvantages which were recited by the DER, but ignored by the Corps.

We, the residents of this area, believe that the Corps of Engineers' duty, is to consider the impact of these dredging activities on all of those people who reside on the shores of the Allegheny River, to protect them from the arrogant and possessory manner in which dredging operations have been conducted in the past, to evaluate the zoning regulations of the area in which they reside, and the impact on their living conditions and needs. In the past, regulations which presumably would limit dredgers to certain distances from the shore or from the channel have not been effective, and dredgers knowingly and willfully and grossly violate those limitations. Hours of operation and manners of operation, days of operation, etc., have been grossly and manifestly violated; depths of dredging have been grossly violated, since there is no manner in which residents along the shore bank can determine those depths, and finally, the disastrous consequences which may result from these violations in the form of the destruction and desolation of the river, its fish and wild life, including the beautiful Eagles which have been seen soaring in the Clinton Area,and the destruction of property value which will result, cannot be measured. It is inconceivable to us that work on a highway or a bridge may be suspended for years, even decades, because of the existence of a certain species (human) or genus of fish or wild life, yet the needs of the species which have created the beauty along the river are ignored..

Respectfully submitted,

1. Harold L. Burton
2. Harry D. Carson Jr
3. [illegible]
4. [illegible]
5. Loretta N. Gatto

6. B. O. Burton
7. Robert H. Kohlmeyer
8. Marjorie J. Kohlmeyer
9. [illegible]
10. William Trinder
11. Teresa A. Findon
12. Wilbert S. Woods
13. Garland Woods
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Response to Clinton, PA

(1) Potential impacts of dredging on biological resources are discussed under Alternative 2 of the FEIS. Alternative 3 includes several adaptive management controls to mitigate these effects.

(2) The FEIS recognizes that property owners live along the river and that aesthetic as well as ecological aspects of the study area need to be maintained. Adaptive management processes are included under Alternative 3 to mitigate potential noise and nuisance impacts associated with dredging.

(3) Under existing permits (Alternative 2), the applicants are granted site-specific permits to dredge within specified river miles and at specified set-backs from shorelines or islands (150 feet from the 6-foot depth contour). Up until the early 1980s, set-backs from shore were not routinely required in permits. The Final EIS recognizes the importance of these set-backs and, under Alternative 3, identifies situations where larger set backs may be necessary such as when the bank is unstable and/or the 6-foot depth contour is at or close to the shoreline. Enforcement of required permit conditions is an important aspect of permit implementation as mentioned in the FEIS.

(4) Please see Response (2) above.

(5) Please see Response (3) above.

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John R. Luke Esquire
37th Floor, One Oxford Centre
Pittsburgh, PA 15219

October 28, 2002

Albert H. Rogalla
Corps of Engineers
Pittsburgh District
Morehead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: **Public Notice No. 02-M3**

Dear Mr. Rogalla:

I am writing in accordance with the Public Notice referred to above, which involves the proposed dredging from Mile 0 to Mile 69 along the Allegheny River. That Notice provides that interested parties are invited to state any objections which they may have to the proposed work, and since I am a property owner along the Allegheny River, I believe that I have sufficient interest to state the objections which I raise hereafter. I have reviewed the Impact Study prepared by Tetra Tech, Inc., of Owings Mills, Maryland, and wish to discuss that report first. My initial inclination is that Tetra Tech, Inc. is no more than an employee of the applicants who wish to dredge the river. I would hope that the Corps of Engineers recognizes the bias and interest which is revealed throughout the report, and of course, is slanted in favor of the persons who employed them to conduct the study. I recall fully the comments of the Department of Environmental Resources to the Impact Study presented 20 plus years ago, wherein the Department consistently and flatly alleged that the report was replete with bias and appeared to have been written by the applicants themselves rather than the Corps of Engineers or the Engineers who conducted that study. In any event, please consider the following:

1. E-1-P-ES1 discusses the increase of 15 to 35% of the depth of the river. The current area in Clinton is 30 feet, and in most places, and in particular fronting my property, and the properties of my immediate neighbors is 60 feet. The channel is wide, and accordingly, I would suggest to you that the impact of dredging in that area would substantially and most certainly result in subsidence of the bank of the river and the property which I own and which my neighbors own. In addition, the depth, I understand, controls the flow, and a more concentrated flow of water in flooding or semi-flooding conditions will result in the substantial erosion of the banks

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of the river in that area. It has already been dredged to its full extent; the only consequences of further dredging will not be beneficial by any means, but most emphatically would be detrimental to the property owners. Property owners are not the only ones who will suffer, however.

2. ES-4 – The primary conditions which were reported in that study refer to 150 foot from the shoreline prohibition of dredging, 1,000 foot prohibition from public water intakes, should not be within the zone of public wells, supply wells, mussel sampling and buffer restrictions, noise abatement and violation of local zoning ordinances. The report itself states that "There is substantially significant adverse effects (such as incidental taking on individual or its habitat) to mussels, etc." It states that Pool 5 requires rigorous sampling protocol, and discusses the effect of noise and the adverse effects since the noise level will exceed 50 to 70 decibels. The report suggests moving locations, limiting night time operators and enhancing soundproofing. If this is the opinion of the proponents of the dredging, and Petro Tech is definitely a proponent, what might the actual results be?

   a. As regards 150 ft. shoreline limitation, I can tell you that this is rarely observed by the dredgers. Some of my neighbors have told me of times that they have raised complaints regarding the proximity of the dredge, only to find that when the inspectors eventually arrive, the dredge has already moved. The barges which accompany and are necessary for the dredging operation extend width-ward across the river so that very limited space is available for passage, and one cannot observe the rules of the Pennsylvania Fish and Game Commission which require boats to remain at least 100 feet from each other.

   b. As regard 1,000 ft. from public water intake, I can advise you of the following. Last summer, approximately August 10th to the 20th, there was a substantial diesel leak from the Hanson dredge immediately above the Schenley Marina. It was so intense that boaters there were fearful of even lighting a cigarette. The odor lingered for weeks. I have reviewed the files at your office but I was not able to find anything that relates to that matter, even though I personally and my neighbors as well, complained repeatedly over the weekend and the following week of the incident. I do not know how many gallons of diesel fuel was spilled, but I assure you that it was plentiful. Essentially, no public water intake could be protected from this threat. However, I recognize that the Corps is committed to the dredging, but I submit to you that it should not occur in an area such as Clinton.

   c. Clinton has no public water for drinking purposes. All of the water there is supplied by wells, including my well, which is approximately 36 feet to 40 feet deep. It is inconceivable to me

that the dredging will not affect that well. I am advised that the well consists of an under ground river which runs adjacent to the Allegheny River. Whether or not this is so, we have observed in the area where the dredging is conducted the constant and consistent silt conditions which remain for months following.

d. The mussel sampling protocol speaks for itself in that even the company which conducted the study recognized that rigorous sampling protocol was required, and I have not been able to find any studies of the company's relating to this matter. If there is something present in your office I would appreciate being given the opportunity to review it.

e. Noise abatement near residential areas and violation of local zoning ordinances should definitely be considered by you. The Allegheny River in the Clinton area is abutted by South Buffalo Township and Gilpin Township and Park Township. Each of these municipalities has zoned areas in question as R-1, meaning Residential Areas. I and my fellow property owners have had our homes there for many years, have paid mortgages on the properties, raised children and sent them to the local schools, and paid numerous and burdensome taxes which are needed for governmental purposes. To allow a commercial activity such as the dredging in the area violates every concept of zoning law. There are several doctors who reside in that area who must rise early to attend their humane duties serving the public, and to allow the dredging which has been a 24 hour a day type of dredging is not only unfair, but it is absolutely inequitable and unlawful. I would advise you that the residents are prepared to challenge this activity being conducted in a residential area; however, we look to you, the Corps of Engineers as representing our interest as well, and we respectfully request that you take these matters into consideration in your determinations. As to the noise abatement, it is farcical to believe that the noise emanating from the dredge can be abated in any manner that would be reasonably suited to the locale. Fifty to 70 decibels is hardly an acceptable level, and abating noise in the manner suggested by moving locations, and limiting night-time operations and using enhanced soundproofing is more than farcical, and almost idiotic.

f. Finally, the report states nothing about the aesthetics and the quality of life, not only of the fish and wild life which inhabit the river, but the persons who reside along the river as well. I would implore you to observe the appearance of the dredge, and the accompanying barges which serve them. There is only one group of persons who would find their appearance to be residential or compatible with the beauty of the river, and that would have to be the dredgers themselves. We would ask that you use your own judgment in observing the appearance of the equipment that is

being used, and the barges as well. We respectfully urge you to prohibit them from being used in the Clinton area. We recognize that there indeed may be a need for the sand and gravel that is extracted, but we ask you at what price will this continue.

There are other concerns and questions which we would submit. We would ask why would the Corps of Engineers suggest that sludge from the Monongahela power plants that were being built be transferred to the deep channels of the Allegheny that had already been dredged. I believe that the Corps refers to the 60 ft. depths as being "dead areas", and that nothing would survive there, i.e., therefore requiring the depositing of the sludge and silt. Our area is already dredged. Secondly, why is it that the entire Pool 6 and areas beyond have been declared as preserved and restricted areas to be preserved for environmental purposes when the areas between those primitive restricted areas are in the northerly portion of the river and the portion of the river extending southwardly to Pittsburgh is not equally protected.

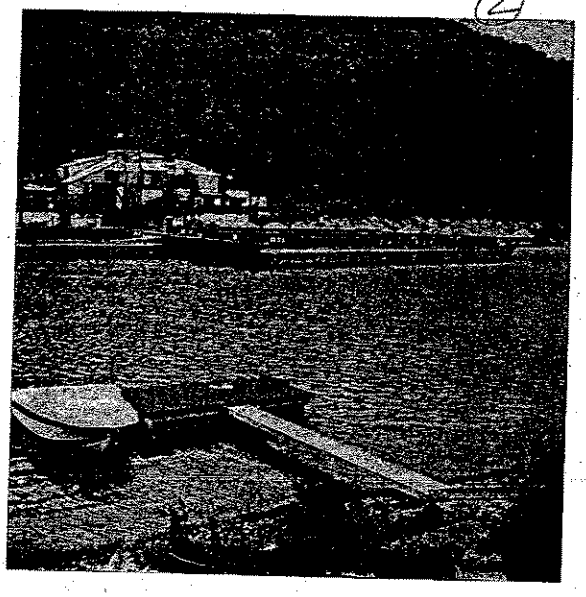
Finally, you noted in your Public Notice that "all factors which may be relevant to the proposal be considered including the cumulative effects thereof;" Among those are conservation, economics, aesthetics, general environmental concerns, wet lands, historic properties, fish and wildlife values, flood hazards, land use, navigation, shoreline erosion and excretion, recreation, water supply conservation, etc." It concludes with, "In general, the needs and welfare of the people." While you may have received 1,000 letters which were preprinted and circulated by the dredging companies and signed by their employees, the welfare of the people in the Clinton area requires your intercession for their protection. Almost each of the concerns which you recite in the Public Notice and which I have quoted, are violated by the dredgers on a consistent basis. Economics, aesthetics, environmental concerns, fish and wildlife values, flood hazards, shoreline erosion and excretion, recreation, water supply and conservation, water quality, considerations of property ownership…all are concerns of the people of Clinton, all are issues which the dredgers ignore and violate on a consistent basis, and we respectfully request that you prohibit the dredging in this area.

Very truly yours,

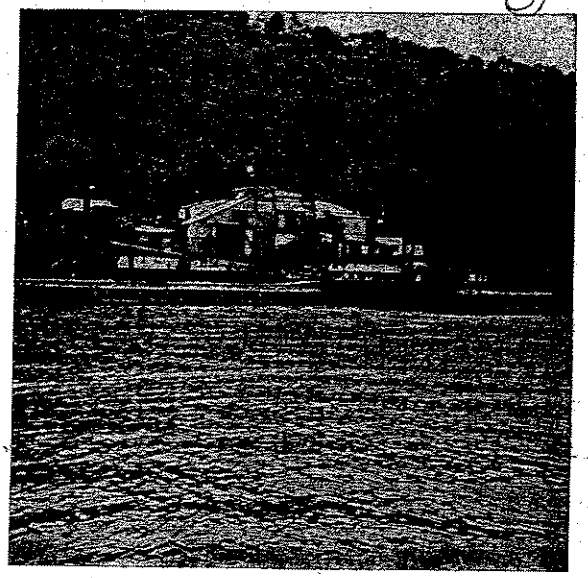
JOHN R. LUKE, ESQUIRE

P.S. Enclosed are photos, they being: 1) Photo of barges and dredge (hardly residential) against the backdrop of the Allegheny; 2) Past practice of dredgers conducting activities within 50 feet of the shoreline, and 3) Picture of the "beautiful Allegheny" and the attractive barges along the Clinton shoreline some years ago. Residential monstrosities that must be addressed by the Corps.

2



3



Response to John R. Luke

(1) Please refer to Clinton, PA Response (3) regarding set-backs from shorelines.

(2) The Corps understands the need for proper enforcement of permit restrictions. Comment noted.

(3) The FEIS recognizes the potential for noise impacts due to dredging and incorporates adaptive management controls under Alternative 3.

(4) The FEIS recognizes that property owners live along the river and that aesthetic as well as ecological aspects of the study area need to be maintained. Adaptive management processes are included under Alternative 3 to mitigate potential noise and nuisance impacts associated with dredging.

(5) Previous proposals to fill certain dredged areas in the Allegheny River with material from the Monongahela River have been withdrawn. Therefore, this issue is not discussed in the EIS.

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10 River Forest Drive
Freeport,PA
16229

October 31,2002

U.S.Army Corps of Engineers
Pittsburgh District
1000 Liberty Avenue
Pittsburgh
PA 15222-4186

To Whom It May Concern:

We are solidly opposed to river dredging. We feel that digging 30-70 feet deep is detrimental in many ways.

The gravel mining destroys habitat for fish, water mussels, and many other organisms, including some endangered and threatened species. Contaminated sediment present at the bottom of the Ohio and Allegheny Rivers could be disturbed by the mining resulting in toxins in the sediment being released into the water. These toxins include heavy metals, PCBs, and chlordane (a now banned pesticide). Both water quality and drinking water could be affected. The Army Corps should not assume that companies engaged in river mining would go out of business if the mining was banned, as land based mining is economically viable.

We disagree with the EIS study, and feel it is skewed by the fact that it was paid for by the dredging and associated industries.

We believe the rivers should be preserved. We support their use for recreation and a healthy environment for aquatic life and people in general.

Sincerely yours,

Kathleen S. Susa

rec'd 11/14/2002

Response to Susa

(1) Please refer to Clinton, PA Response (1) regarding potential biological impacts of dredging.

(2) Please refer to PADEP Response (5) under Specific Comments regarding potential for resuspension of sediment toxics.

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251 Fairview Road
Pittsburgh, PA. 15238
November 5, 2002

Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Bulding
1000 Liberty Ave.
Pittsburgh, PA
15222

Subject: Gravel dredging in the Allegheny River

The Allegheny River pool, between the Highland Park Dam and the #3 Dam at Harmerville should be absolutely free of gravel dredging. No pool on the Allegheny River has more residential housing on the river. There are more boat clubs and marinas in this pool than any other pool on the river. There are more recreational boats docked in this pool than any other. This portion of the Allegheny is more focused on recreational and residential use than any other pool.

The presence of gravel dredging in this pool would be a noisy poluting safety hazard. More people would be offended by gravel dredging in this pool than in any other on the Allegheny. It's scenic quality would be threatened and businesses that focus on river receation would be at risk.

Every decision is a mix of risk and reward. By allowing gravel dredging in this Allegheny River Pool, the reward is low cost gravel, sold at the market price and a subtantial increase in barge traffic. The risks include;

- The presence of a huge noisy dredge that will disturb many residential and recreation focused people.
- Water polution. (The reasons why dredging is blocked on the Hudson River are the same reasons why dredging should be blocked in the lower portions if the Allegheny. The only difference between the two rivers is the type of pollution that dredging will release.
- River bank slumping.
- A significant threat to river safety.
- A threat to the environment.

The risks far outweigh the rewards.

Please do not license gravel dredging in this pool.

Respectfully yours,

Robert Y. Ball

Robert Y. Ball

rec'd
11/7/2002

Response to Ball

(1) The FEIS recognizes that property owners live along the river and that aesthetic as well as ecological aspects of the study area need to be maintained. Adaptive management processes are included under Alternative 3 to mitigate potential noise and nuisance impacts associated with dredging.

(2) The issue of sediment contaminant resuspension with dredging is summarized in Chapter 3 of the FEIS under "Water Quality" and potential effects of dredging in this regard are discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to help mitigate these risks.

For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed.

(3) Please see the Sylvan Canoe Club Response regarding potential effects of dredging on shorelines and hydrology.

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X-Sender: g_scott@pop.mindspring.com
X-Mailer: QUALCOMM Windows Eudora Light Version 3.0.6 (32)
Date: Wed, 06 Nov 2002 13:09:48 -0500
To: pittcwa@cleanwater.org
From: pam_scott@mindspring.com
Subject: CELRP-OR-F: "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania"

Dear Clean Water Action-- Please deliver my letter below to the Army Corps, as I understand that they have requested that no comments be made through their e-mail system. --Pamela Scott, Pennsylvania Certified Pesticide Applicator

TO: Mr. Albert H. Rogalla, United States Army Corps of Engineers, Pittsburgh District, Moorhead Federal Building, 1000 Liberty Avenue, Pittsburgh, PA 15222-4186

FROM: Pamela Scott, Pennsylvania Certified Pesticide Applicator and Allegheny County resident

RE: CELRP-OR-F: "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania"

DATE: Wednesday, November 6, 2002

I am opposed to commercial sand and gravel mining in the Allegheny and Ohio Rivers. They are our public resources and should be protected from further industrial damage.

The DEIS is incomplete and lacks adequate, recent sampling of water quality, sediment contamination, fish tissue, dissolved oxygen, turbidity, and suspended solids in dredged and non-dredged areas of the river.

Gravel and sand mining will destroy habitat for fish, fresh water mussels, and many other aquatic and terrestrial organisms, including some endangered and threatened species.

Contaminated sediment present at the bottom of the Ohio and Allegheny Rivers will be disturbed by the mining and could release toxins in the sediment into the water. These toxins include heavy metals, PCBs, and chlordane (a now banned pesticide). Both water quality and drinking water could be affected.

The Army Corps should not assume that companies engaged in river mining would go out of business if the mining was banned, as land mining is economically feasible.

Thank you for the opportunity to comment as a public citizen.

Sincerely,
Pamela Scott
134 Markham Drive
Mt. Lebanon, PA 15229-1008

Response to Scott

(1) Please refer to EPA Response (1) under Environmental Consequences regarding data relied on in this EIS.

(2) Please refer to Clinton, PA Response (1) regarding potential biological effects of dredging.

(3) Please refer to PADEP Response (5) under Specific Comments regarding potential for resuspension of sediment toxics.

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November 6, 2002

William Lawrence, III
120 Oakville Drive
Pittsburgh, PA,
15220-4413

Albert H. Rogalla
US Army Corps of Engineers,
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE Draft Environmental Impact Statement
and Section 10 & 404 Permit Applications
for Sand & Gravel Dredging on the
Allegheny and Ohio Rivers, PA.

Dear Sirs:

Three (3) Alternatives

1. I think the choice of these three pure choices -- no dredging, dredging (basically under present mineral limiting conditions), and sole reliance on land based extraction sets up straw men. The choice of less dredging supplemented as it already is by land based surface and deep mines (such as limestone mines) should have been carefully examined and weighed.

2 At a minimum, dredging should be further restricted by creating sanctuary

Rec'd 11/18/02

stretches or segments along the rivers. These would protect the highest quality areas, based on their physical qualities, not just on the happenstance of whether they harbor sensitive organisms such as mussels at the moment they are sampled. I do not have the information required to designate all candidate areas but some are suggested below.

3 The major candidate areas, based on information from local county Natural Heritage Inventories, would seem to be the areas immediately downstream of the navigation dams and locks. These generally are the best oxygenated segments of the rivers given the aeration caused by water going over the dams. They also represent the areas that most resemble in flow, depth etc, the original condition of the river before it was canalized and ponded. Therefore they represent some of the best opportunities for a return to a relatively natural riverine ecology and biota. Other areas might include the stretches of river where streams flow into the river, often creating ~~sand~~ bars and other exceptional habitat.

4. These additional no dredge areas, since the accidental refuges created by restrictions near private outtakes

have been greatly reduced by allowing the owners of the outlaks to waive the restrictions, are also needed to compensate for this loss of habitat.

5. Increased setbacks from shore and islands should be imposed. Most islands have erosion problems. The disappearance of much of Murphy's Beach on the Allegheny River after dredging for sand and gravel appears to be connected with increased erosion after the sand and gravel were removed.

6. Enforcement activities by the Corps or DER would also be beneficial.

7. The credibility of the EIS process was damaged because:
   a. The former head (Colonel) of the Pittsburgh Corps of Engineers was a active principal in the consulting firm preparing the EIS.
   b. The applicants were paying the consultant. This might have been OK if the money had been given to an independent party such as EPA Region III to fund the study.
   c. I believe the applicants also chose the consultant, an experienced firm, but a

p4 William Lawrence

firm with long and close ties to waterway connected industries.

d. There are other very experienced and qualified consultants who could have done the EIS with much more credibility with the wildlife, fisheries and environmental community. The Philadelphia Academy of Sciences' very large limnology department comes first to mind. In addition to their credibility with environmentalists, they have done alot of contracted work for businesses, particularly electric power companies (plants), and independent agencies such as the Delaware River Basin Commission.

Sincerely

William Lawrence

William Lawrence III
120 Oakville Drive
Pittsburgh, PA 15220

Response to Lawrence

(1) The FEIS includes a new alternative as well as more information regarding the blending of dredging and other sources of aggregate in the region. Please refer to EPA Response (1) under Alternatives for further clarification of this issue.

(2) The third alternative in the FEIS is designed to protect high quality habitats in the study area.

(3) The possibility of higher quality areas directly downstream of dams and in relatively shallow areas is discussed in Section 3 and under Alternative 2 of the FEIS. Under Alternative 3, such areas could be restricted from dredging pending results of mussel surveys and other information supplied by resource agencies.

(4) Please refer to Response (3) above.

(5) Alternative 3 of the FEIS includes increased set-backs from shorelines and islands on a site-specific basis. This alternative also includes a starting minimum depth restriction and adaptive management to help mitigate potential effects on shoreline areas.

(6) Comment noted.

(7) The Corps reviewed all aspects of the EIS process, including preparation of EIS documents. The Corps believes that the FEIS is accurate and objective in its results and conclusions.

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Response to James Swast

Comments noted.

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ESS INSURANCE GROUP

Charles (Chip) Echnoz
Edward L. Echnoz
Donald J. Scalzott
Walter H. Schutzman

August 29, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Morrehead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement
On Commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

With respect to the recent Draft Environmental Impact Statement on dredging for sand and gravel in the pooled sections of the Allegheny and Ohio Rivers, it is essential that the U.S. Army Corps of Engineers is under the realization that:

- The cost of producing aggregate product from the river enables local highway construction and repair companies to be competitive in the local marketplace.
- The production of aggregates from our rivers enables hundreds of individuals in the trucking business to produce an income and provide a living for their families.
- The production of aggregates from our rivers enables local building contractors to properly formulate concrete and asphalt construction.
- Countless other suppliers and vendors are also positively impacted by the production and dredging of aggregates on our river.

I have reviewed the Environmental Impact Statement in great detail and was very impressed about the comprehensive study and the information compiled by surveys, divers, sonar, etc. We are hopeful that the U.S. Army Corps of Engineers also finds the study comprehensive and continues to permit aggregate river production.

Thank you for the opportunity to provide you with this information.

Sincerely,

Chip

Charles "Chip" Echnoz

rjm

ECHNOZ, SCALZOTT & SCHUTZMAN INSURANCE GROUP
316 FIRST AVENUE, 3RD FLOOR - P.O. BOX 955 - KITTANNING, PA 16201 - (724) 548-5178 - FAX (724) 548-1371

Response to ESS Insurance Group

Comments noted.

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R. D. #7 Box 145
Kittanning, PA 16201
August 30, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

I am writing to register my support for the continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is my thought that the Environmental Impact Statement demonstrates that the dredging is conducted in such a way that the aquatic life and the riverbeds and shorelines are protected.

I have attached a newspaper article that shows a picture of a 54 1\2 inch 52 pound muskie that was caught on January 9, 2002, between Lock 7 and Lock 8 on the Allegheny River which is the area where Glacial Sand & Gravel Company is located. It is my honest belief that if there was any environmental damage from dredging in that pool of the Allegheny River this muskie wouldn't be as big as it is. Mr. Wagner released his fish with the intent of it growing bigger.

Our area of Western Pennsylvania depends on river dredging to supply aggregates necessary for building our homes and our roads in an affordable way. The employees and the vendors and customers of Glacial Sand & Gravel Company have been dependent on the dredging of the Allegheny River for a number of years.

It is my belief that Glacial Sand and Gravel Company and the other dredging companies should be able to continue their operations. The Environmental Impact Statement states that they are operating in an environmentally sound manner. Any unnecessary restrictions on the dredging companies would create hardships on the families and it would have a strong impact on the construction and maintenance projects in our area.

Please make the right choice and renew the permits for river dredging.

Thank you for taking time to read my letter.

Sincerely,

Yvonne M. Maus

Yvonne M. Maus

Angler releases large musky

TRIBUNE-REVIEW

Howard Wagner of Fombell RD2 in Beaver County will tell you, "Since 1978, all I've fished for are muskies."

But who would think that last month on the Allegheny River that Wagner would come up with his largest catch.

"It was 54½ inches long, had a girth of 28 inches and weighed 52 pounds," Wagner said.

Fishing roundup

The fish was released.

The Pennsylvania record musky was caught in 1924 from Conneaut Lake. It weighed 54 pounds, 3 ounces.

Wagner, who is 53 and operates the Fish Education Center, fishes all over North America for muskies. He was trying his luck above Kittanning when he made his recent catch.

"I caught it on a Crane Bait, a crankbait made by Bill Crane of Friendly, W.Va.," Wagner said.

"I've caught 1,300 legal muskies over the years and released them all except three which died during hot weather in August. I got them mounted. I didn't waste them," he said.

Wagner's other top catches were two 54¾-inch muskies caught at Kinzua Reservoir and in Canada. "But they didn't weigh as much as the Allegheny River musky," he said.

If you care about musky fishing, then check out Wagner's Fish Education Center. "We cater to musky fishermen," he said. The phone number is 724-452-4464.

Howard Wagner of Fombell RD2 holds a 54½-inch, 52-pound musky caught from the Allegheny River in Armstrong County.

Response to Yvonne Maus

Comments noted.

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RIVER SALVAGE CO., INC.
1290 Maple Street
Crescent, PA 15046
Telephone: 724-457-3031

August 26, 2002

Mr. Al Rogalla, Chief
Regulatory Branch
U.S. Army Corps of Engineers
1000 Liberty Avenue
Pittsburgh, PA 15222

Dear Mr. Rogalla,

This letter concerns the recently released draft Environmental Impact Statement on Commercial Sand and Gravel dredging in the Allegheny and Ohio Rivers within Pennsylvania.

As you know, we are a marine contractor engaged in various construction, demolition, barge and boat salvage, marine vessel repair and dredging in the Ohio River system. We periodically perform various work for dredging firms that work in the Ohio River System. We state this simply to indicate that we have more than passing knowledge of dredging firms operations and are aware of the rigorous review, which includes surveys, off sets restrictions, etc., for individual dredging areas which must be completed prior to initiations of commercial sand and gravel dredging operations within Pennsylvania.

As a contractor, we are also very much aware of the high quality of sand and gravel dredged from the Allegheny and Ohio Rivers. Further or unnecessary restrictions on commercial sand and gravel dredging will severely affect currently on going and may delay future construction projects as material costs rise and availability falls.

We believe that the Draft Environmental Impact Statement clearly shows that sand and gravel dredging, as it is currently conducted, should continue.

We urge the Corps to complete the EIS and permit process as quickly as possible and reauthorize sand and gravel dredging as it is currently performed.

Sincerely,

Alvin J. Stein
President

Response to River Salvage Co., Inc.

Comments noted.

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Southwestern Pennsylvania Commission

Regional Enterprise Tower
425 Sixth Avenue, Suite 2500
Pittsburgh, PA 15219-1852
Telephone: 412.391.5590
Fax: 412.391.9160
E-Mail: comments@spc9.org
www.spcregion.org

Officers:
Butler County
James L. Kennedy
Chairman
Greene County
Dave Coder
Vice-Chairman
City of Pittsburgh
Eloise Hirsh
Secretary-Treasurer

Executive Committee:
Allegheny County
James C. Roddey
Armstrong County
James V. Scahill
Beaver County
Charles A. Camp
Fayette County
Ronald M. Nehls
Indiana County
Bernie Smith
Washington County
John Bevec
Westmoreland County
Tom Balya
At-Large
Gealy W. Wallwork
Governor's Office
Henry Fisher
PA Dept. of Transportation
Larry King
PA Dept. of Community and Economic Development
Ellen G. Kight
Executive Director
James R. Hassinger

August 2, 2002

Mr. Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

This letter is in response to the U. S. Army Corps of Engineers' request for a letter regarding comments related to requirements of Executive Order 12372 and the regional relevance of the fund.

The Southwestern Pennsylvania Commission (SPC) is leading the way in regional economic development, business retention and broad-based programs that promote the growth and vitality of our region. SPC is the cooperative forum for regional collaboration, planning, and public decision-making. SPC develops plans and programs for public investments; satisfies federal and state requirements for transportation, economic development, and local government assistance programs; and, operates with public involvement and trust.

Creating an adequate infrastructure to service successful growth of southwestern Pennsylvania is key to creating regional wealth. The Draft Environmental Impact Statement considers applications to the Corps for new permits for continued commercial sand and gravel dredging in the Ohio River. This project will be beneficial to the regional economy. This project would be consistent with the goals of the region's comprehensive economic strategy.

Sincerely,

James R. Hassinger, Ph.D., AICP
Executive Director

AR Mcd
Linda 8/5/2002
File/PN

Response to Southwestern Pennsylvania Commission

Comments noted.

N:\General Use Data\JDiamond\dredgers EIS\RESPONSES\Responses to SPC.doc

Schneider Downs

Certified Public Accountants and Business Advisors

Schneider Downs & Co., Inc.

1133 Penn Avenue
Pittsburgh, PA 15222
412/261-3644
FAX 412/261-4876

One Columbus, Suite 1500
10 West Broad Street
Columbus, OH 43215
614/621-4060
FAX 614/621-4062

http://www.sdcpa.com

August 22, 2002

Mr. Albert H. Rogalla
Chief/Regulatory Branch
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Public Notice No. 02-M3
Application No. 199660730

Mr. Rogalla:

For the reasons stated below, approval of Section 10 and Section 404 permit applications for dredging in the specified areas of the Ohio River and Allegheny River is the right decision:

- According to the environmental impact studies performed in 1980 and 1998 to determine the effect of dredging on the freshwater mussel habitat, there has been no evidence produced that the removal of river aggregate impairs the conditions of the freshwater mussel.

  On the other hand, the studies have shown that the presence of mussels is similar in areas that were undredged, dredged recently, and dredged long ago, and also suggested that the post-dredging environment is **more** hospitable to aquatic life than before removal.

- Studies also indicate there were many factors other than dredging that were responsible for the population decline of freshwater mussels in the relevant areas. First, it was the building of dams during the early stages of the industrial revolution in this area led to the slowing-down of the natural rapid currents in which mussels thrive.

  Additionally, industrial production along the shores of affected areas during the first half of the twentieth century was accompanied by the increase in the use of industrial chemicals that found their way into nearby waterways. Furthermore, marine life introduced to this area from other regions, have thrived in local waters at the expense of native species. For example, zebra mussels found in ballast water of foreign vessels have spread in local waterways and pose a serious threat to the future of native mussels.

- If dredging were stopped, the production of asphalt could be effected as well. Dredging the Ohio River and the Allegheny River for gravel and sand to be used in the production of concrete and asphalt is environmentally superior to other means of acquiring these necessary components. The most effective anti-skid asphalt contains river aggregates, for which other sources cannot be found in this area.

  If dredging were stopped, these materials would have to be obtained from remote locations and transported here by truck. Instead of loading one bargee with 850 tons of gravel and sand, 40 heavily loaded rigs travelling via highways and local streets would be required to transport the same load. As the permits in total seek the removal of 4.5 million tons of river aggregates, this means that an extra 400,000 truck trips would be required per year. Carbon monoxide and nitrous oxide emissions from trucks are 10-20 times that of towboats and barges.

- Finally, economic considerations mandate the approval of the permits. First, the dredging industry directly employs about 200 locally. Shutting down the industry puts these workers out of work, along with an estimated 200 more who are indirectly affected. Between $35-$70 million would be lost if the dredging industry were shut down.

  Second, the added costs of transporting the ingredients necessary to build and maintain our transportation infrastructure, office buildings and homes from distant suppliers would be borne by local taxpayers. Third, the extra 400,000 trips over our highways and roads by 22-ton trucks if dredging were prohibited would no doubt contribute to the deterioration of a highway system already known for its substandard condition.

For the reasons stated above, I urge you to approve the permit applications for the dredging of the Ohio River and Allegheny River.

Very truly yours,

Raymond W. Buehler
President

RWB/mah
Ref: 18500

F:\USERS\MAH\RWB\SnyderDredgingLtr.doc

Response to Schneider Downs

Comments noted.

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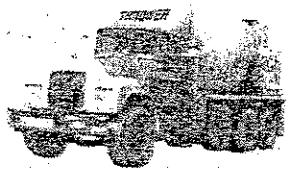
JOHN W. THROWER INC.



Ready Mixed Concrete
Sand - Gravel - Cement

409 SAXONBURG BLVD.
SAXONBURG, PA 16056

PHONE (724) 352-9421
FAX (724) 352-9512

Mr. Albert Rogalla
U.S Army Corps of Engineers
William S Moorhead Federal Building
1000 LibertyAve.
Pittsburgh, PA 15222-4186

Sept. 5, 2002

Dear Mr. Rogalla,

I am writing this letter in the hope that you will consider renewing the river dredging permits.

I have been in the concrete business for 43 years and have purchased from Glacial Sand & Gravel, approximately 225,000 ton of sand & gravel per year. In that time they have been able to meet my needs. However, if they are no longer permitted to dredge from the river, the supply of material will run short. It will have to be obtained from other sources, which will prove costly, thus causing the price of concrete to increase. This will cause the Building Industry to raise prices, and possible see the building of commercial buildings and new homes decreasing.

I have 58 employees with a payroll of 1,600,000 in the year 2001. With less business, many employees will have to be terminated, causing an increase in unemployment and perhaps causing many companies to go out of business.
There are many other companies larger than ours and this will be affecting all of them in the same way.

I sincerely hope you will consider all this and elect to renew the Dredging permits.

Sincerely:

John Thrower

John Thrower
President.

Response to John W. Thrower, Inc.

Comments noted.

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Silhol
Builders Supply Co.

100 UNION STREET
BRIDGEVILLE, PA 15017
412-221-7400
FAX 412-221-5817

20 August 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pa. 15222-4186

Reference: River dredging permits renewal

Dear Mr. Rogalla:

I have reviewed the draft Environmental Impact Statement. It is clear that this study indicates that river dredging as currently conducted is compatible with the goals of industry, environmentalists and outdoorsmen.

As a business that relies on sand and gravel production from our rivers I view the availability of these products as critical to the success of my business and the continued employment of my 35 employees. The failure to allow dredging of the valuable resources provided by the rivers of our area would have severe consequences on all individuals in this geographic location for numerous reasons. The cost to the construction industry and thusly to every individual both in taxes for road construction or for home ownership and commercial construction would be significant.

Currently recreational and commercial users of our waterways receive a significant financial benefit because of user paid dredging as permitted by the Corps. The alternative is to have greater taxpayer financed dredging in which all citizens must subsequently pay an increased tax burden to support our navigational needs, cannot be dismissed.

It is incumbent upon review of the draft Environmental Impact Statement that the Corps supports the study for what it states and permits dredging for the good of the entire region.

Sincerely,

Richard A. Teodori
President

Rec'd 8-26-02

Response to Silhol Builders Supply Co.

Comments noted.

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WHITE ENTERPRISES

POST OFFICE BOX 410 – KITTANNING, PA 16201-0410

September 19, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft EIS on Commercial Sand & Gravel Dredging

Dear Mr. Rogalla:

With respect to the above captioned Draft Environmental Impact Statement on dredging for sand and gravel in the pooled sections of the Allegheny and Ohio Rivers, I feel it is essential that the U.S. Army Corps of Engineers give serious consideration to the following circumstances:

- The cost-efficiency of river aggregate production enhances contractors' ability to complete regional highway construction and other infrastructure development projects in a highly cost effective fashion. This ultimately creates enhanced opportunities for additional improvements to regional roadways, water and sewer infrastructure and building construction projects in our area that might not otherwise be possible.

- River aggregate production generates ancillary employment to hundreds of individuals in transportation and related service industries, thereby allowing their families to enjoy a quality standard of living while contributing significantly to the health of the region's overall economy and the strength of its tax base.

- The production of aggregates from our rivers enables area home developers to properly formulate the concrete and asphalt used in their construction projects and assists in assuring the quality of those products. Countless other suppliers and vendors are similarly impacted positively by the dredging and production of aggregates on our rivers.

Office: (724) 545-9331
Fax: (724) 548-5195
E-mail: whiteenter@alltel.net

Having been a land-based producer of construction aggregates here in western Pennsylvania for almost 45 years and as a previous highway superintendent of Armstrong County, my perspective on this issue is somewhat unique and grounded in decades of field experience from varied viewpoints. I have also been active in economic development efforts in the county for many years and find the river aggregate industry to be an essential component in the attraction of new companies to the area and the retention of existing businesses. Our river aggregate producers have been consistently supportive of locally based initiatives and unfailingly generous in their contributions to area projects and organizations. On balance, they replace far more than they remove.

But most germane to this discussion is the fact that I have treasured the magnificent beauty of the Allegheny River for my entire lifetime. In addition to residing in a home that includes river frontage and allows my family and me to appreciate the Allegheny's scenic wonders on a daily basis, I'm a life-long fisherman whose personal experience indicates that fishing is actually *improved* as a result of the river aggregate producers' activities. Moreover, I've been an avid boater for better than four decades and could not, in good conscience, recommend any course of action that I thought might be deleterious to the health of our regional river system.

I have reviewed the Environmental Impact Statement in great detail and am very impressed by the comprehensive nature of the study and the wealth of substantive data compiled from surveys, divers, sonar, etc., and effectively presented therein. I am confident that the document fairly and accurately reflects the reasonable objective of striking a prudent balance between environmental protection and the preservation of a vigorous regional economy. I am hopeful that the U.S. Army Corps of Engineers continues to permit aggregate river production by adopting Alternative 2.

Thank you for the opportunity to present this information for your consideration.

Sincerely,

James W. White
President

Response to White Enterprises

Comments noted.

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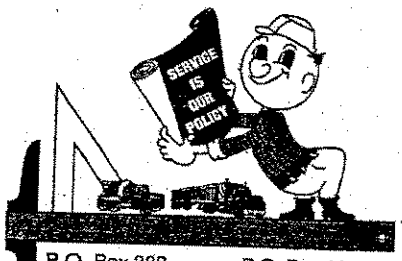

P.O. Box 388
Parkway Drive
DuBois, PA 15801
814-371-3111

P.O. Box 68
Bantam Ave.
Butler, PA 16003
724-283-3111

September 9,2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Subject Draft Environmental Impact Statement on commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

I am writing to express support for the preservation of sand and gravel dredging on the pooled sections of the Allegheny and Ohio Rivers. My company, DuBrook, Inc., operates concrete ready-mix operations in the Greater Pittsburgh market as well as in more rural sections of Central Pennsylvania. DuBrook, Inc. We obtain our aggregate products from both river and land based quarries, so I already have some idea of the negative impact a decision to cease dredging operations would have on the construction associated businesses in the Pittsburgh Region.

The Greater Pittsburgh Area has experienced a very nice comeback after the collapse of the steel and oil activity that once predominated. Obviously a continued growth results in more revenue in the general economy as well as local, state, and federal governments.

While there are a host of reasons that have contributed to this, I believe reasonably priced construction prices has played a major role. It is my belief that we have an obligation to continue to provide our customers with reasonably priced products while preserving our environment.

Based on the information I have read, (from both sides), continuing the dredging on the Allegheny and Ohio Rivers does not negatively impact the aquatic life or the eco-systems in these bodies of water. In fact the information in the EIS document verifies the industry's position that dredging for sand and gravel is being conducted in a way that is likely to continue to protect the aquatic life and the physical conditions of the riverbeds.

There is no question that the price for customers to ship any other product through the locks and waterways would increase if the dredging operations were shut down. Not only would the price of aggregate used in the construction industry increase dramatically, but any other commodity being shipped by water would also realize a significant increase since the cost of lock, dam, and waterway operation would be spread over a smaller business base. Since it would take about 30 trucks hauling for each barge of material, traffic, air pollution, and accelerated wear and tear on our highways would significantly increase. The comprehensive studies that have been done over the past several years do not seem to me to support a move to curtail or discontinue the dredging operations.

In summary, the availability of river aggregate is very important to highway and infrastructure construction, providing economic benefits to the Pittsburgh Region. The dredging operations account for about half of the aggregate used in the region. The information in the EIS not only outlines the important issues, but also indicates that dredging does not negatively impact the aquatic life or eco-systems in the river system. There is already a good protocol, (Environmental Impact Study of 1980), outlining methods of operation and restrictions on dredging operations. Operating under these guidelines addresses the environmental concerns and allows dredging to continue to positively impact the economic issues and keeps our waterways operating in a competitive position. I trust the Army Corps of Engineers will support the position of continuing dredging operations on the Allegheny and Ohio Rivers.

Sincerely:

Larry Marteney

Larry Marteney, General Manager
DuBrook Incorporated

Response to DuBrook, Inc.

Comments noted.

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Pennsylvania
Aggregates and Concrete
Association

3509 North Front Street • Harrisburg, PA 17110-1438

Mr. Albert H. Rogalla
Chief, Regulatory Branch
US Army Corp. of Engineers
1000 Liberty Avenue
Pittsburgh, PA 15222- 4186

September 4, 2002

Re: **Public Notice Number 02-M3:** Notice of Public Hearing and Availability of the Draft Environmental Impact Statement/Section 10 and Section 404 Permit Applications for Sand and Gravel Dredging on the Allegheny and Ohio Rivers, Pennsylvania.

Mr. Rogalla:

The Pennsylvania Aggregates and Concrete Association is a Commonwealth of Pennsylvania registered non-profit trade association representing over 200 corporations, companies and individuals involved with the extraction of aggregates, production of ready-mix concrete, cement manufacturing, agricultural limestone and slag production. PACA is based in Harrisburg, PA and was created when two previous trade associations [Pennsylvania Aggregates Association and Pennsylvania Ready Mixed Concrete/Sand and Gravel Association] merged in 1982.

The Department of Environmental Protection reported in year 2000 that the aggregate extraction operations in Pennsylvania produced 132,000,000 tons of industrial minerals. PACA members were responsible for more than 90,000,000 tons in 2000 or about 70% of the total state production. Several hundred thousand tons of "industrial minerals" were also "dredged" from the Ohio/Allegheny rivers that year [2000].

The economic implications of your agency's proposed **Alternative 1, "cessation of commercial dredging"** or **Alternative 3, "using land-based operations or importation of sand and gravel from other locations"** are tremendous. Not only would those proposals deprive the Commonwealth of a much needed and valuable resource but the economics of any alternative solution such as trucking this much needed resource from land based sites located through out the western part of Pennsylvania are astronomical when compared to the efficiencies of current dredging operations.

phone 717.234.2603 • fax 717.234.7030 • web site www.pacaweb.org

The Pennsylvania Department of Transportation is perhaps the largest consumer of "industrial minerals" in Pennsylvania. They utilize these aggregates in the maintaining, re-building and construction of new highways and bridges critical to the transportation needs of the Commonwealth.

Consider the following issues, possible solutions and greatly increased expenses if the proposed **Alternative # 1 or 3** is your agency's final course of action.

Economic Contributions to the Local Economy:

- More than 210 workers are directly employed in commercial river dredging in the Pittsburgh region.
- Annual wages and salaries average about $31,000 for all employees involved in the dredging operations.
- Revenues from the sale of river-based aggregate are approximately $30 million per year.
- Government revenue for business and income taxes exceeds $8 million per year.
- 75% of river sand and gravel production is used within 30 miles of the point of Pittsburgh.
- Total PA production of sand and gravel is about 15 million tons, with western PA dredging companies producing over 25% of the total.
- The dredging companies pay a royalty fee to the PA Fish and Boat Commission of $0.30 per ton (royalty rate in 2002). This translates into a potential royalty in 2002 to PA Fish and Boat Commission of approximately $1.2 million.

Impacts to Local Economy - If Commercial River Dredging is Eliminated:

- The above 7 points would be erased and those economic contributions eliminated from the Pittsburgh industrial region.
- Immediate short fall in locally available aggregate due to ceasing river-based production.
- Prices for materials to replace those lost by the termination of commercial dredging would nearly triple, due to increased production costs and increased transportation costs.
- Disruptions in supply/demand relationships would occur, putting additional jobs at risk.
- Aggregate makes up 90 to 95 percent of asphalt and concrete. The current price of asphalt is about $30 per ton, it could conceivably increase to $90 per ton; the current price of concrete is about $70 per cubic yard, it could conceivably increase to $200 per cubic yard.
- Increases would occur in the cost for highway construction and reconstruction projects, borne by the state, local governments, school districts and ultimately, the taxpayer.
- Major road rehabilitation and construction projects could be delayed due to the limited availability of equal quality aggregate materials from land based sources.

- Residential builders and consumers would face increased prices and lowered availability of concrete and asphalt products.

Impacts on the Locks and Dams - If Commercial Dredging is Terminated

- The Port of Pittsburgh (encompassing the three rivers) is the largest inland port in the US containing over 40 river terminals handling in excess of 50 million tons of cargo. The river system provides industry with substantial cost savings, due to the low cost of transporting bulk commodities via barge verses rail and truck transportation. Locally, average river transportation provides an $8.80 per ton cost savings over the use of truck transportation. Also, river barges and towboats produce less air pollution than trucks carrying the same product.
- River aggregate accounts for 98% of traffic in Pools 8 & 9 on the Allegheny River; 57% of traffic on Pool 7; and 50% of traffic on Pools 2-5. River aggregate accounts for 13% of traffic on Ohio River.
- Elimination of sand and gravel dredging would greatly reduce commercial traffic on the rivers and increase the cost of operation and maintenance of the Locks and Dams (by the ACOE) on a per ton volume basis. ACOE could be forced to eliminate normal operations of the navigation system.

Alternative impacts caused by meeting Greater Pittsburgh's demand for sand and gravel – If Commercial Dredging is Terminated

- Terminating commercial river dredging would offer little to no environmental benefit to the Allegheny and Ohio Rivers as two extensive Environmental Impact Studies (1980 and 2002) show minimal short-term and no long term negative environmental impact as a result of commercial river aggregate dredging.
- In the immediate term, aggregate demand would quickly out-strip local supply.
- In the immediate term, it is estimated that approximately 50 quarries would need to significantly expand production and reserve base by 30 percent each. Some of these quarries are over 200 miles from Pittsburgh.
- In the longer term, it is estimated that approximately 20 new greenfield quarries would need to be developed. Some of these quarries would be over 250 miles from Pittsburgh.
- Cost to expand existing quarries and capital for new quarries would increase aggregate costs.
- Total dollar increase for aggregate to replace the existing 4 million tons of river dredged sand and gravel to the Pittsburgh market would increase by millions of dollars per year.
- In PA, the typical new quarry permit / approval process takes 5 or more years.
- Elimination of river dredging and transportation of aggregate by barge will lead to greatly increased truck traffic on area highways and secondary roads.
- About 30 trucks are needed to move the same amount of aggregate as one barge, adding hundreds of trucks to area roads daily, increasing air and noise pollution and posing additional congestion and safety problems.

- The variable price factor for bulk commodities such as aggregate is transportation. Aggregate is a low unit cost – high transportation cost commodity.
- Trucking of bulk materials is typically paid on a per ton-mile basis. For example, current trucking cost averages $0.90 for first mile and $0.09 for each additional mile. For example, for a 50 mile haul - $5.31 per ton trucking cost; for a 100 mile haul - $9.81 per ton; for a 150 mile haul - $14.31 per ton; for a 200 mile haul - $18.81.
- Currently, there are aggregate sources [not sand and gravel] located in the 50 to 80 mile distance from the present river dredging operations. Assuming a very simple cost model based on the preceding ton-mile costs; to haul roughly 4 million tons of aggregate 50 miles by truck would cost $21,240,000 more than the current dredging operations. If the aggregates have to be hauled by truck from the 80 mile away source, the cost expands to $32,040,000 over current dredging costs. This is a per year cost not a one time event. NOTE: These costs apply only if the aggregate material can be obtained from these current operating land based aggregate sources.
- Currently, the market is experiencing limited truck capacity. Typically, aggregates are hauled in tri-axle trucks with 22-ton capacity per truck. There is insufficient available excess capacity to haul approximately 4 million tons into the Pittsburgh Region. This requires about 360,000 round-trip truck trips annually. Currently there is a strong demand for bulk material trucks, primarily due to increased truck demand to haul coal. Existing trucking companies have none to little current excess capacity. If the aggregate comes from a quarry, it has to be trucked - not barged.

Mr. Rogalla, this concludes PACA's presentation. I would hope that **Alternative # 2** is the only reasonable and economic choice available to your agency after you have gathered and listened to the public comments from this evening and subsequent written submissions. Thank you for this opportunity.

Sincerely,

James D. Sells
President

Response to Pennsylvania Aggregates and Concrete Association

Comments noted.

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We received 48 of the type of letter that follows:

DATE 8-19-02

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging

Dear Mr. Rogalla,

I am a member of the aggregate industry and I writing to express my opinion concerning the Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging. I urge the Corps to accept Alternative 2 and to reissue the Department of the Army Permits for continued sand and gravel dredging.

The EIS demonstrates that dredging, as currently regulated by the Pa Department of Environmental Protection and the US Corps of Engineers, has minimal if discernible impact on aquatic life in the rivers. In the past 25 years or so, the rivers have drastically improved, all during the presence of regulated commercial dredging. Dredging is currently restricted from the prime aquatic habitats along the shorelines and islands. Dredging is conducted only after extensive mussel surveys have established that no threatened or endangered species of mussels and no significant mussel resources are present.

The EIS proves that dredging can continue in an environmentally sound manner. Do not eliminate an established industry that provides vital economic services to our region.

Eliminating or curtailing commercial dredging will have devastating effects on the region's economy and construction industry. If dredging were eliminated:

- Aggregate demand would quickly and vastly out pace local supply.
- Prices for material to replace river aggregate would sky rocket, due to increased production costs, increased transportation costs, and disruptions in supply / demand relationships.
- Replacement aggregate would need to be trucked into the region, adding hundreds of trucks to area roads daily, increasing air and noise pollution, and posing additional congestion and safety problems.
- Hundreds of good paying jobs would be eliminated.

Replacing river aggregate is not an easy task:

- It is estimated that 50 quarries would need to expand production and reserve base by 30% each, and possibly 20 new greeenfield quarries would need to be developed.
- In Pennsylvania, the typical new quarry permit / approval process takes 5 years or more.

- The ability to increase quarry size or to develop new greenfield quarries is limited by:
  - The environmental permitting process and regulations imposed on opening and operating a quarry.
  - County and municipal land use and zoning ordinances that may limit operations and expansions.
  - The degree on public opposition to quarry expansion and development, that typically leads to legal action.

In conclusion, please do not eliminate or curtail commercial sand and gravel dredging. The industry continues to provide vital and basic construction products that are needed in Western Pennsylvania for concrete, asphalt and general building construction. The aggregate is obtained and utilized locally, without the need to import replacement products.

The EIS demonstrates that the economic and social benefits obtained from commercial dredging outweigh any minimal negative environmental affects. If dredging were eliminated, the regional demand for aggregate must be obtained from other means. Potentially significant adverse environmental effects could occur from importation of aggregate into Western Pennsylvania.

I again urge the Corps to accept Alternative 2 and to reissue the Department of the Army Permits for continued sand and gravel dredging.

Respectfully submitted,

James Black
Sign Here

Print name and address below

James Black
515 White Cloud Rd.
Apollo, Pa. 15613

Response to James Black

Comments noted.

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We received 12 of the type of letter that follows:

DATE August 21, 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging

Dear Mr. Rogalla,

My business is a consumer of river aggregate products in Western Pennsylvania, primarily for use in concrete, asphalt or general construction. As such, I wish to express my opinion concerning the Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging. I urge the Corps to accept Alternative 2 and to reissue the Department of the Army Permits for continued sand and gravel dredging.

The EIS proves that dredging can continue in an environmentally sound manner. Do not eliminate an established industry that provides vital economic services to our region.

Eliminating or curtailing commercial dredging will have devastating negative effects on the region's economy and construction industry. If dredging were eliminated:

- Local jobs would be eliminated and millions of dollars in personal income would be lost.
- Aggregate demand would quickly and vastly out pace local supply, causing immediate shortfalls in locally available aggregate.
- Prices for material to replace river aggregate would quickly increase, due to increased production costs, increased transportation costs, and disruptions in supply / demand relationships. It is estimated that the cost of concrete and asphalt could nearly triple.
- Increases would occur in the cost of highway construction projects in the region, borne by state and local governments and ultimately by the taxpayer. These projects could be delayed, due to the lack of equal quality replacement materials within budget parameters.
- Overall, construction costs could increase by tens of millions of dollars annually.
- Residential builders, remodelers and general consumers could face highly increased prices and lowered availability of concrete and asphalt products.
- Replacement aggregate would need to be trucked into the region, adding hundreds of trucks to area roads daily, increasing air and noise pollution, and posing additional congestion and safety problems.

As a construction related business, I know that if commercial dredging were terminated, alternative impacts caused by meeting western Pennsylvania's demand for sand and gravel would occur, including:

- Existing quarries would need to expand production and reserve base, and/or new greenfield quarries would need to be developed. In Pennsylvania, this is an extremely difficult and time-consuming effort, with no guarantees that additional aggregate could be produced.
- Aggregate supply problems will occur relating to the timing of quarry expansion or development.
- In Pennsylvania, the typical new quarry permit / approval process takes 5 years or more.
- The ability to increase quarry size or to develop new greenfield quarries is limited by:
  - The availability of capital for investment in property and equipment.
  - Physical, legal and environmental constraints imposed on development projects.
  - The environmental permitting process and regulations imposed on opening and operating a quarry.
  - County and municipal land use and zoning ordinances that may limit operations and expansions.
  - The degree on public opposition to quarry expansion and development, that typically leads to legal action.

Please do not eliminate or curtail commercial sand and gravel dredging. Doing so would offer little to no environmental benefit to the rivers, while creating other negative impacts. The industry continues to provide vital and basic construction products that are needed in Western Pennsylvania for concrete, asphalt and general building construction.

The EIS demonstrates that the economic and social benefits obtained from commercial dredging outweigh any minimal negative environmental effects. If dredging were eliminated, the regional demand for aggregate must be obtained from other means. Potentially significant adverse environmental effects could occur from importation of aggregate into Western Pennsylvania.

I again urge the Corps to accept Alternative 2 and to reissue the Department of the Army Permits for continued sand and gravel dredging.

Respectfully submitted,

POSTY TRUCKING COMPANY, INC.

Joyce L. Fulton (Mrs.)
President

384 Old Curry Hollow Road
Pittsburgh, PA 15236

Response to Posty Trucking Company, Inc.

Comments noted.

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We received 1,077 of the type of letter that follows:

Date 9/4/02

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla,

Please register our support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is our belief that the draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

Western Pennsylvania depends on river dredging to supply aggregate essential for construction in a cost-efficient way. Unnecessary or severe restrictions on dredging will create shortages of this vital resource that will impact construction schedules and substantially increase project costs.

The EIS demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally sound manner.

The right choice for the Corps is to renew the permits for river dredging.

Sincerely,

Robert E. Walsh
Signature

Print Name and Address below:

ROBERT E. WALSH
9312 OLD PERRY HWY
PGH PA 15237-4951

Response to Robert E. Walsh

Comments noted.

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420 Ridge Road
Valencia, Pa. 16059
November 4, 2002

Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pa. 15222-4186

Dear Mr. Rogalla:

Please accept my comments on the June, 2002 "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania".

The EIS identifies a number of ways in which our rivers have already been damaged by dredging. It acknowledges that if dredging continues "unavoidable adverse environmental effects" will occur. The mitigation strategies mentioned in the EIS are largely untested and their effectiveness in minimizing future damage is not known.

There are enough land based aggregate deposits to meet all the needs of the Pittsburgh region. They are under-utilized only because of the heavy reliance on river dredging. It is not in the public interest to allow dredging to degrade our rivers when viable, reasonable alternatives exist. Dredging can and should be phased out over the next few years to allow these alternate sources to be brought into production. Every other area of this state and country uses aggregates and the vast majority obtain them from land based sources. What most areas do not have is first class rivers whose economic contributions to the region will continue to grow if we preserve the recreational opportunities they offer.

Dredging causes irreversible changes to the rivers. It should be stopped before irreparable damage occurs and future generations look at our actions in the same light as we look back on those who allowed coal mining to permanently degrade so many miles of streams in Western Pennsylvania. The EIS should be the instrument that leads to a planned, rational movement away from river mining to less damaging land based aggregate sources.

Sincerely,

Charles Brethauer

Charles Brethauer

Rec'd
11/6/2002

Response to Brethauer

(1) The FEIS includes a new Alternative 3 that relies on adaptive management to modify restrictions as more information is obtained.

(2) The FEIS discusses the fact that land-based sources exist and that these will become more competitive in all likelihood as dredging sources are reduced over time.

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Dear Sirs; To Whom, It May Concern

I was seven years old when we moved into Clinton in the year 1927 because my Father was first and a coal Miner but when the built the dam and Lock #6 which is 3/4 of a mile up river from Clinton, my Father was a War I Veteran and so was able to get a Job as Lock Tender when the Lock and Dam was Completed.

I can remember when I was growing up we were fishing in the river. I can remember also that they were dredging then for sand and gravel. and a lot of people from Clinton at that time was their livehood. At the same time that they were dreging in the Middle of the river they were also placing gravel along the banks of the river to keep the earth from Washing away and preserving the shore line. That is the part that I am most Concerned about.

rcd
11/5/2002
R

The other part I don't like to hear is that they are thinking about dumping sludge from the Mon. River into the deep holes in the Allegheny River. That don't sound good at all.

So far they are staying away from the village of Clinton and operating below Clinton but we can still hear them operating and I don't think those folks like that.

Please stay away from the shore line or banks of the River.

Thank You,

Arthur S. Woods
115 Olivia St.
Freeport, Pa
16229
Telephone # 724-295-3778

Response to Woods

(1) Please see the Sylvan Canoe Club Response regarding potential effects of dredging on shorelines and hydrology.

(2) Previous proposals to fill certain dredged areas in the Allegheny River with material from the Monongahela River have been withdrawn. Therefore, this issue is not discussed in the EIS.

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Alice and Jim Miller
4325 Jackson Court
Murrysville, PA 15668

Members of:
Sylvan Canoe Club
132 Arch Street
Verona, PA 15147

Albert Rogalla
US Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222

Dear Mr. Rogalla,

We have been given your name as a representative of the Army Corps of Engineers to air our concerns of the future dredging that is to take place on the Pittsburgh Rivers, specifically the Allegheny River in the Verona, PA basin.

We belong to the Sylvan Canoe Club in Verona that was begun in 1904. Our original building is still being used and houses the only canoe and kayaking organization on this part of the river. The club is fronted along the riverbank by a high concrete wall, which is our only defense against the **NATURAL** rise and fall of the waters along the Allegheny. Hence our concern about your dredging project especially the very probable possibility of this wall being undermined by this project.

Our local rivers, after many years of industrial pollution have now reached a stage hospitable to many recreational uses. Along with out own sport of canoeing/kayaking, other sports offer opportunities for fishing, water skiing, boating etc. This year a new sport of dragon boat racing has been introduced to our area. Towards the downtown area the riverfronts are now the location for beautifully designed shopping, entertainment and recreational areas. There is a lot to be lost here on our rivers with this projected river mining.

Another concern is a major one. There seems to be absolutely no liability or responsibility on behalf of the dredging companies to possible property damage to the riverfront. To allow dredging companies the unrestricted use of our rivers without proper indemnity bonds to protect property rights is incomprehensible.

Yes it is profitable for gravel companies, but what thought or concern has been given to the long term effects of such a project to the **NATURAL** basin, which exists now? We are natural boaters since we do not pollute air or water and how will you leave us upon completion in one month, 1 year or decades? Will our wall still stand? Can our facility remain intact for decades to come? We need assurance, documentation and guarantees that our facility and wall will remain unscathed by you allowing for this greedy rape of our rivers.

Rec'd
11/5/2002

We understand that this letter must be received by November 7th but how will we know that this will not affect our club, wall, and members? Is there a deadline to guarantee that our wish to stop this dredging will be noticed and documented? The Army Corps of Engineers with all their rules and regulations have no enforcement capabilities to protect us from illegalities from the dredging companies. We sincerely hope you give serious consideration to these concerns. There is a lot to be lost to the public versus small profit gains for a few. We need answers before this project gets underway. We have lovely rivers lets not destroy and desecrate what we know and have.

Sincerely,

Alice Miller
Jim Miller

Response to Miller

(1) Please see the Sylvan Canoe Club Response regarding potential effects of dredging on shorelines and hydrology.

(2) The Corps understands the need for proper enforcement of permit restrictions. Comment noted.

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Robert & Sherrel Hughes
4079 Circle Drive
Pittsburgh PA 15101

November 5, 2002

Mr. Albert H. Rogalla
US Army Corp of Engineer, Pittsburgh Dist.
1000 Liberty Ave.
Pittsburgh PA 15222-4186

Re: Notice No. 02-M3
Application #199660730

Dear Mr. Rogalla

My wife and I oppose dredging for sand and gravel in the Allegheny and Ohio Rivers. The reason we oppose it is due to the negative environmental impact dredging will have on our rivers.

The rivers should be allowed to come back to the way they should be. The rivers are a regional treasure and play an important part in attracting and keeping people here. Clean waterways attract recreational boaters, fishermen and sightseers. To allow dredging our rivers is plainly counter productive and not a good environmental decision.

Why should three privately owned companies be allowed to put at risk the whole regions future for such a small amount of money and little or no consequences for any negative effects.

We strongly urge that you do not allow this to go forward.

Sincerely

Robert & Sherrel Hughes

Rec'd
11/7/2002

Response to Hughes

Comments noted.

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November 5, 2002

Mr. Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corp of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Application # 199660730
Notice # 02-M3

Dear Mr. Rogalla,

I am writing in response to the US Army Corp of Engineers invitation for interested parties to respond with any objections to the proposed dredging work regarding Application # 199660730.

The proposed dredging on this particular pool of the Allegheny (Pool #2) raises several safety concerns:

Firstly, the Steel City Rowing Center located in Verona operates summer rowing camps for youths, and as a rowing practice facility for several high school and collegiate rowing teams, i.e, Winchester Thurston School, and Chatham College. The approval of the permit for dredging will certainly increase barge traffic and station gravel dredging equipment in this pool which will create river obstacles for these rowing campers and students. The approval of the dredging permits may jeopardize both the bodily and educational welfare of our student citizens.

Secondly, there are several clubs on this same part of the river that offer regular river outings for Blind Outdoor Leisure Development. These are days when club members volunteer their time to take sight impaired individuals from BOLD out on the river for outings of canoeing, water-skiing and swimming. The approval of the permitting may jeopardize the community service that these clubs perform for disabled citizens.

The above categories are notwithstanding the safety of all recreational boaters in this pool, canoers, kayakers, and certainly boaters traversing back and forth, locking

Rec'd
11/7/2002

through from the upper Allegheny River, through pool 2 to Point State Park for city activities (Steeler games, Pirate games, Three Rivers Regatta, Three Rivers Arts Festival, etc...).

The Allegheny River is a federal waterway to be enjoyed safely by all of our nation's citizens. Why should dredging operations be approved which may result in injury to our citizens?

Also, I oppose the dredging because it will have a negative impact on jobs and businesses, as well as a negative impact property values. Why should we jeopardize existing jobs and commerce of our citizens by lessening the beauty and perhaps ecological value of the Allegheny River?

I also find it disconcerting that the ecological and environmental studies presented by the US Army Corp of Engineers at the September 4 public hearing were funded by the proponents. How do we really know our drinking water will be safe? Also disconcerting is the fact that the US Army Corp of Engineers will receive compensation for each ton of gravel that is removed.

I trust that you will find that the weight of citizen safety, recreation, business commerce and ecological issues outbalance any small benefit of approving Application # 199660730.

Thank you.

Jody Risinger
200 Hunt Road
Pittsburgh, PA 15215

cc: Senator Rick Santorum
Honorable Melissa Hart
Honorable William J. Coyne
Honorable Mike Doyle
Honorable Frank Mascara
James Roddey, Executive Officer Allegheny County
Mayor Thomas Murphy

Response to Risinger

(1) Please see Steel City Rowing responses.

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George M. Dimeling
200 Hunt Road
Pittsburgh, PA.
15215

November 6, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA.
15222-4186

Re: Application # 199660730
Notice # 02-M3

Sir,

I write to express my strong opposition to the proposed dredging permit.

We are recreational boaters in Pool #2 of the Allegheny River. Pool # 2 is the most densely occupied recreational pool on the Allegheny. The placement of dredging equipment and the necessary barges in this pool will significantly narrow the navigable waters and create major safety problems. The proposed permit will turn a regional asset into a hazard area.

We are through our membership in various clubs equitable landowners on the Allegheny River. We oppose the permit as landowners as it will have a negative effect on land values. Dredging is unsightly and not compatible with a scenic and recreational area. Pool #2 has seen the largest investment of private capital in developing the waterfront for housing, restaurants, marinas, and recreational facilities. It would be complete folly to permit a mining operation that would reduce, if not destroy, much of the value and jobs that private capital has created.

rec'd
11/6/2002

Pool # 2 is the source of water supply for hundreds of thousands of businesses and residents. While the risk of harming that water supply might appear to be low, the consequences would be disastrous. The safety of the water supply far outweighs the merits of the permit for dredging.

In summary, the proposed dredging permit constitutes and assault on the citizen's safety, recreation, investment, and water supply. Only the most torturous and callous logic would lead to approval.

Sincerely,

George M. Dimeling

CC: Honorable Melissa Hart

Honorable William J. Coyne

Honorable Mike Doyle

Honorable Frank R Mascara

Senator Rick Santorum

Response to Dimeling

(1) Please see Clinton, PA responses regarding concerns about dredging impacts on boaters, recreation, and aesthetics.

(2) This issue is summarized in Section 3 of the FEIS under "Surface Water Quality" and potential effects of dredging in this regard are discussed under Alternative 2. Specific adaptive management options are presented under Alternative 3 to help mitigate these risks.

For most of the project area, sediment contamination is not likely to present a risk to either public or ecological health because: (1) the sediment particle size is coarse (sand or gravel) and does not easily accumulate contaminants and (2) much of the project area has very few significant inputs of contaminated material. In several resource agency stakeholder meetings during preparation of the EIS, resuspension of contaminants from dredging, tow boat prop wash, or other means, was considered to be a relatively minor issue in the project area, and therefore qualitatively addressed.

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411 Seventh Avenue – Suite 1402A
Pittsburgh, PA. 15219
~~15215~~

November 6, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA.
15222-4186

Re: Application # 199660730
Notice # 02-M3

Sir,

I write to express my strong opposition to the proposed dredging permit.

An asset like the Allegheny River should not be defaced by dredging. The river is an ecosystem which should be protected and not abused. Sand and gravel are needed but should be procured in a less environmentally destructive manner. I am not an expert in this matter, but with all the billions of tons of sand and gravel that has already been dredged, cannot there be some type of recycling? As with other recycling it may be more expensive in the short run but when weighed against the harm to such an asset as the Allegheny it would be a bargain.

The proposed dredging permit constitutes an assault on the citizen's safety, recreation, environment, investment, and water supply. Only a manifest disregard of nature for the sake of profit could lead to approval.

Sincerely,

Sanford Kelson

rec'd
11/7/2002
h

Response to Kelson

Recycling, as an alternate source of aggregate, was evaluated in the FEIS and is not currently a viable option for a variety of reasons according to PennDOT as indicated in Section 2 of the FEIS.

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Subject: DEIS River Mining Comments
Date: Thu, 7 Nov 2002 10:54:10 AM Eastern Standard Time
From: Silber828
To: Silber828
Cc: lrp.sandgraveleis@usace.army.mil

COLONEL RAYMOND SCROCCO
US ARMY CORPS OF ENGINEERS
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222

NOVEMBER 7, 2002

DEAR COLONEL SCROCCO:

AS SOME GOVERNMENT AGENCIES (USFWS, PAFBC) HAVE COMMENTED REPEATEDLY OVER THE PAST SEVERAL YEARS, THE ENVIRONMENTAL IMPACT STATEMENT ON COMMERCIAL SAND AND GRAVEL MINING IN THE ALLEGHENY AND OHIO RIVERS IS HOPELESSLY BIASED IN FAVOR OF THE VIEW THAT RIVER MINING SHOULD CONTINUE WITHOUT ANY ADDITIONAL RESTRICTIONS. THE INDIVIDUALS AND THE COMPANY THAT DRAFTED THE EIS HAVE A CONFLICT OF INTEREST IN THAT THEY ARE PAID CONSULTANTS TO THIS INDUSTRY AND BENEFIT FROM THE CONTINUED EXISTENCE OF RIVER MINING. AS WAS REQUESTED EARLIER, THE CORPS SHOULD HAVE INITIATED A NEW, UNBIASED EIS PROCESS WITHOUT THE INVOLVLEMENT OF COMPANIES SUCH AS TETRA TECH THAT HAVE SUCH A CLEAR CONFLICT OF INTEREST.

AS ONE EXAMPLE OF TETRA TECH'S RESEARCH AND SHODDY INVESTIGATION, THEY MAKE THE CLAIM IN THE HYDROLOGY (?!) SECTION UNDER ENVIRONMENTAL CONSEQUENCES THAT THE CESSATION OF SAND AND GRAVEL MINING (UNDER ALTERNATIVE 1) WOULD PREVENT THE PITTSBURGH SYMPHONY FROM TRAVELING TO KITTANNING RIVERFRONT PARK DUE TO THE CLOSURE OF UPSTREAM LOCKS. ARE WE TO BELIEVE THAT ONE OF THE JUSTIFICATIONS FOR CONTINUED RIVER MINING IS TO ALLOW THE SYMPHONY TO TRAVEL TO KITTANNING ON THE GATEWAY CLIPPER? INCLUSION OF SUCH STATEMENTS UNDERSCORES OUR CONTENTION THAT THE PRODUCTION OF THE THE EIS WAS NOT UNDERTAKEN BY A COMPETENT, UNBIASED AUTHOR.

FURTHER, THE CONTENTION IN THAT THE ADOPTION OF ALTERNATIVE ONE, CESSATION OF RIVER MINING, WOULD RESULT IN "SIGNIFICANT ADVERSE IMPACTS TO CHILDREN (SIC) SAFETY" IS BASED ON ONE ANECDOTAL ACCOUNT OF AN INJURY AT A QUARRY OUTSIDE THE REGION. SUCH JUSTIFICATIONS LEAVE THE IMPRESSION THAT THE AUTHORS OF THE EIS INTENDED TO CLAIM THAT PROTECTING ENDANGERED MUSSEL SPECIES WOULD LEAD TO THE DEATHS OF CHILDREN IN QUARRIES, AND THAT THOSE WHO ARE CONCERNED ABOUT THE IMPACTS OF RIVER MINING CARE MORE ABOUT RARE MUSSELS THAN CHILDREN. SUCH A CLAIM IS WITHOUT MERIT AND MORE WORTHY OF A RUSH LIMBAUGH TALK SHOW THAN A SERIOUS SCIENTIFIC DOCUMENT. THE MARYLAND QUARRY WHERE THE SIX-YEAR-OLD DIED DIDN'T EVEN HAVE A FENCE AROUND THE PROPERTY. THIS WAS THE ONLY EXAMPLE GIVEN OF A MINOR BEING INJURED IN A QUARRY ACCIDENT.

BESIDES THESE OBVIOUS ATTEMPTS TO PREJUDICE THE READER AGAINST CESSATION OF RIVER MINING, WE QUESTION THE RANGE OF ALTERNATIVES PRESENTED. THERE ARE REALLY ONLY TWO ALTERNATIVES GIVEN IN THE EIS: STOP RIVER MINING ENTIRELY AND IMMEDIATEDLY ALONG THE ALLEGHENY AND OHIO OR MAKE NO ADDITIONAL RESTRICTIONS ON THE MINING AND ALLOW MINING IN POOL 6 OF THE ALLEGHENY TO RESUME AS WELL. NO OTHER REASONABLE ALTERNATIVES OR COMBINATIONS WERE PRESENTED SUCH AS: 1) RESTRICT MINING TO POOLS THAT DO NOT HAVE SUBSTANTIAL MUSSEL POPULATIONS

AND/OR RELATIVELY LOW AMOUNTS OF MINEABLE RESERVES SUCH AS POOL 5-9 IN THE ALLEGHENY, 2) RESTRICT THE DEPTH OF THE MINING TO A LEVEL (NOT BELOW 30 FEET) WHERE VIOLATIONS OF STATE DISSOLVED OXYGEN STANDARDS WOULD NOT OCCUR, 3) PHASE OUT RIVER MINING OVER A 5-YEAR PERIOD TO ALLOW TIME FOR THE AGGREGATE INDUSTRY TO SUPPLANT RIVER AGGREGATE WITH NEW SOURCES, 4) ALLOW THE SALE OF SRL E GRAVEL ONLY FOR PROJECTS THAT ARE CERTIFIED TO REQUIRE IT, AND NOT ALLOW THE MINING OF ANY NON-SRL E GRAVEL TO OCCUR. 5) INCREASE ROYALTY PAYMENTS TO COVER ALL COSTS OF RIVER BOTTOM RESTORATION.

FURTHER, THE DEIS OMITS ANY DISCUSSION OF THE COST OF REMEDIATING THE DAMAGE THAT IS BEING DONE BY THE EXTRACTION OF MILLIONS OF TONS OF RIVER BOTTOM EACH YEAR. EARLIER THIS YEAR, THE PITTSBURGH DISTRICT AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION SUPPORTED A PLAN TO DUMP 1.6 MILLION TONS OF DREDGE SPOILS FROM THE LOWER MONONOGEHELA PROJECT INTO HOLES AND TRENCHES CREATED BY SAND AND GRAVEL MINING OPERATIONS IN THE ALLEGHENY RIVER. YET THE DEIS OMITS ANY DISCUSSION OF THE NEED TO FILL THESE HOLES AND TRENCHES BACK IN. IF THE HOLES AND TRENCHES NEED TO BE FILLED IN, THEN THIS MUST BE INCLUDED IN THE EVALUATION OF WHETHER TO PERMIT SUCH ACTIVITIES. ABOVE AND BEYOND THE ECOLOGICAL AND HEALTH ISSUES OF DUMPING CONTAMINATED DREDGE SPOILS FROM THE MON INTO THE ALLEGHENY UPSTREAM OF DRINKING WATER INTAKES FOR HUNDREDS OF THOUSANDS OF PEOPLE, NO COST ANALYSIS OF FILLING IN THE HOLES AND TRENCHES IS MADE IN THE DEIS. YET DEP STAFF RESPONSIBLE FOROVERSEEING THE DUMPING AND MINING OPERATIONS HAVE CONCEDED THAT THE COST OF FILLING IN THE HOLES AND TRENCHES WOULD SURELY EXCEED THE ROYALTIES PAID TO STATE, AND MAY WELL EQUAL THE MARKET VALUE OF THE AGGREGATE ON A PER TON BASIS. THIS REVEALS THAT THE COMMONWEALTH IS FAILING TO SATISFY ITS PUBLIC TRUST RESPONSIBILITY TO PROTECT OUR SHARED PUBLIC RESOURCES. THE FACT THAT THE DEIS OMITS MENTION OF THE FACT THAT PITTSBURGH DISTRICT OFFICIALS AND PA DEP OFFICIALS BELIEVE REMEDIATION IS NECESSARY IS FURTHER PROOF THAT THE DEIS IS AN INCOMPLETE AND SEVERELY BIASED DOCUMENT.

ANOTHER KEY QUESTION THAT IS NOT ADDRESSED IS WHAT WILL HAPPEN WHEN ALL THE MINEABLE RESERVES ARE DEPLETED. BASED ON THE 1981 DER STUDY AND THE RATE OF REMOVAL SINCE THAT TIME, WE ESTIMATE THAT ONLY 10-20 YEARS OF RIVER MINING REMAIN UNTIL ALL MINEABLE DEPOSITS ARE GONE. THE EIS POSITS THAT THE LIFE CYCLE OF THE INDUSTRY IS 25-35 YEARS AT BEST. EITHER WAY, THE REGION WILL BE FORCED TO FIND ALTERNATIVE SOURCES OF AGGREGATE WITHIN A GENERATION. IT IS ALSO LIKELY THAT SINCE THE LAST EIS WAS PERFORMED 20 YEARS AGO, THE VAST MAJORITY OF THE SAND AND GRAVEL IN THE RIVERS WILL BE DEPLETED BEFORE ANOTHER EIS ON THIS SUBJECT IS UNDERTAKEN. BEFORE PRIVATE HANDS ARE ALLOWED TO ENRICH THEMSELVES AT THE PUBLIC TROUGH, AGENCIES SUCH AS THE CORPS OF ENGINEERS SHOULD DO MORE TO SAFEGUARD OUR COMMON RESOURCES BEFORE THEY ARE IRRETRIVEABLE DEPLETED OR DEGRADED.

THE FOLLOWING ARE A LIST OF MORE TECHNICAL OBJECTIONS TO THE FINAL DRAFT EIS:

* DO COMPANIES PROVIDE CUSTOMERS WITH NOTICES ENCOURAGING THE CONSERVATION OF TYPE A SAND OR SRL E GRAVEL AS PERMITS STIPULATE?
IF SO, WHAT PROOF IS THERE?

* WHAT PERCENTAGE OF RECREATIONAL BOATS WOULD BE IMPACTED BY THE LOSS OF LOCKS AND DAMS IN THE UPPER ALLEGHENY POOLS. WHAT SIZE DRAFT WOULD BE REQUIRED TO NAVIGATE THIS SECTION IF IT WAS FREE-FLOWING?

* WHY WAS NO ESTIMATE GIVEN AS TO THE NUMBER OF JOBS THAT WOULD BE CREATED BY INCREASED QUARRYING UNDER ALTERNATIVE 3?

* WHAT EXACTLY IS NALCO 8873 FLOCCULATE, AND WHAT EVIDENCE IS THERE THAT THIS CONTAMINANT HAS NOT IMPAIRED EITHER HABITAT OR DRINKING WATER QUALITY?

* WHAT PROCEDURES ARE IN PLACE TO ENSURE THAT 5 FEET OF SAND AND GRAVEL ARE LEFT ON THE BOTTOM PER DEP REGULATIONS? WHAT EVIDENCE IS THERE THAT THIS 5 FEET OF AGGREGATE REMAINS IN AREAS AFTER MINING?

* ON WHAT BASIS IS RAIL TRANSPORT OF AGGREGATE EXCLUDED FROM CONSIDERATION?

* WHY DOES TABLE 3-6 CONTAIN NO INFORMATION ON THE PERCENTAGE OF SAV (SUBMERGED AQUATIC VEGETATION) COVERAGE IN ALLEGHENY POOLS 7-9

* WHY IS THE CLOSURE OF LOCKS CONTEMPLATED IN SECTION 4.1.9.3 WHILE REMOVAL OF DAMS IS NOT?

* WHY IS THE RESUSPENSION OF CONTAMINANTS SUCH AS PCB'S AND CHLORDANE IN TO DRINKING WATER SUPPLIES CALLED "MINOR ADVERSE IMPACT TO SEDIMENTS" THE IMPACT IS TO PEOPLE NOT SEDIMENTS. WHY IS THE OPENING OF QUARRIES QUALIFIED AS A SIGNIFICANT IMPACT TO CHILDREN WHILE NO ASSESSMENT IS MADE OF THE POTENTIAL IMPACT OF HIGHER LEVELS OF TOXINS IN DRINKING WATER FOR CHILDREN AND ADULTS?

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Response to Silber 828

(1) Please refer to EPA Response (1) under Alternatives regarding the selection of modified alternatives in the FEIS. Alternative 3 now includes several additional controls and adaptive management to ensure that aquatic resources are further protected and maintained.

(2) Previous proposals to fill certain dredged areas in the Allegheny River with material from the Monongahela River have been withdrawn. Therefore, this issue is not discussed in the FEIS.

(3) Applicants are no longer required by PADEP to provide notices to customers regarding use of Type A sand and SRLE gravel because the applicants have little control over how their products are used. This is also true for quarries.

(4) The possible loss of recreational boating in the upper Allegheny, due to lock closures if dredging ceased, is uncertain at this time. Available current bathymetric data from those pools is insufficient to determine river depth if free-flowing.

(5) The analysis concerning job losses does take into account that some of the projected shortfall in aggregate material would be made up by land-based producers within the ROI. Thus, section 4.1.9.3 describes both the gross loss in jobs (dredging only) and the net loss in jobs (dredging job loss minus employment gains from expanding land-based operations). The projected increase in employment at these non-dredging operations is relatively modest because >50% of the replacement aggregate material would be imported from outside the ROI.

(6) Laboratory toxicity testing of this product indicates that the Nalco and similar approved products are not toxic to sensitive EPA indicator species.

(7) Current technology can not feasibly dredge greater than about 50 feet deep. Available geological information indicates that the sediment bed is between 30 and 100 feet thick or more in the study area.

(8) Rail transport is not an efficient means of transporting aggregate due to the high weight/volume ratio of aggregate. Also, the quarried or dredged material needs to be transported to locations where it can be placed in rail cars. Barging is a much less expensive and more efficient means of transporting large quantities of material within the study area.

(9) Extensive SAV maps are currently unavailable for Pools 7-9 in the Allegheny River. Available dive sampling information and other observations suggest that SAVs are limited to shoreline areas and are not extensive in these pools. Alternative 3 discusses the ecological importance of SAVs and includes specific mitigation controls to avoid dredging such areas.

(10) Removal of dams on the Allegheny River would require a separate NEPA process, as such a project could have many ramifications.

(11) Please refer to PADEP Response (5) under Specific Comments regarding sediment toxics.

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801 Hill Street
Sewickley, PA 15143
November 7, 2002

Mr. Albert H. Rogalla
U. S. Army Corps of Engineers, Pittsburgh District
Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: CELRP-OR-F: "Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging Operations in the Allegheny and Ohio Rivers, Pennsylvania

Dear Mr. Rogalla:

I am a resident of a community along the Ohio River and am deeply concerned about the impacts that river dredging may have on the ecosystem of the rivers. Any industrial activity that may threaten our public resources should be subject to the most thorough level of scrutiny.

Instead, the Army Corps has issued a Draft Environmental Impact Statement (DEIS) and based a recommendation for continued river dredging on inadequate data. Specifically, there is an absence of recent sampling of water quality, sediment contamination, fish tissue, dissolved oxygen, turbidity, and suspended solids in dredged and non-dredged areas of the river.

Without more complete sampling data, the true impacts of the dredging activity cannot be properly assessed. We run the risk that dredging activity will harm habitat for fish, fresh water mussels, and many other aquatic and terrestrial organisms, including some endangered and threatened species. Moreover, I am concerned that contaminated sediments from the river bottoms will be disturbed by the dredging and disperse heavy metals, PCBs, and chlordane (a now banned pesticide) into our water.

In recent years, local water quality has improved and the variety of aquatic life inhabiting our rivers has increased. Local residents in my community both fish and kayak in the Ohio River. Before we allow an activity that could both threaten water quality, river life and our citizens' enjoyment of these waters, more study is needed. Therefore, I oppose full-scale, continued sand and gravel dredging as the preferred alternative.

Sincerely,

Joan Miles

Response to Miles

(1) Please refer to EPA Response (1) under Environmental Consequences regarding data sufficiency.

(2) Please refer to PADEP Response (5) under Specific Comments regarding potential impacts of sediment toxics.

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BECKWITH
Machinery Company

CAT

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

Please register my support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is my belief that the draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

Western Pennsylvania depends on river dredging to supply aggregate essential for construction in a cost-efficient way. Unnecessary or severe restrictions on dredging will create shortages of this vital resource that will impact construction schedules, and substantially increase project costs.

The EIS demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally sound manner.

The right choice for the Corps is to renew the permits for river dredging.

Sincerely,

Bob McElroy

Bob McElroy
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

Pittsburgh
4565 Wm. Penn Hwy.
Murrysville, PA 15668-2016
724/327-1300

Altoona
Wye Switches, Rt. 22
Duncansville, PA 16635
814/696-0201

Clarion
Route 66 & I-80
Shippenville, PA 16254-8946
814/226-4601

Clearfield
1307 Old Town Road
Clearfield, PA 16830
814/765-1611

Cranberry
100 Smith Drive
Cranberry Twp., PA 16066
724/776-1400

Erie
5898 Station Road
Erie, PA 16510
814/898-3388

Somerset
166 Industrial Park Road
Somerset, PA 15501-3471
814/445-7915

Clarksburg
Route 76E & Route 50
Bridgeport, WV 26330
304/842-2222

AR Acked 11/7/2002

BECKWITH
Machinery Company

CAT

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

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Sincerely,

Rodger Miller

Rodger Miller
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

BECKWITH
Machinery Company

CAT

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

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Sincerely,

Martin Lamneck

Martin Lamneck
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

BECKWITH
Machinery Company

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

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Please register my support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is my belief that the draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

Western Pennsylvania depends on river dredging to supply aggregate essential for construction in a cost-efficient way. Unnecessary or severe restrictions on dredging will create shortages of this vital resource that will impact construction schedules, and substantially increase project costs.

The EIS demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally sound manner.

The right choice for the Corps is to renew the permits for river dredging.

Sincerely,

Sean Donoghue

Sean Donoghue
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

BECKWITH
Machinery Company

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

Please register my support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is my belief that the draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

Western Pennsylvania depends on river dredging to supply aggregate essential for construction in a cost-efficient way. Unnecessary or severe restrictions on dredging will create shortages of this vital resource that will impact construction schedules, and substantially increase project costs.

The EIS demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally sound manner.

The right choice for the Corps is to renew the permits for river dredging.

Sincerely,

Carl Powischill

Carl Powischill
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

BECKWITH
Machinery Company

CAT

November 5, 2002

Mr. Albert Rogalla
U. S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

Please register my support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is my belief that the draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

Western Pennsylvania depends on river dredging to supply aggregate essential for construction in a cost-efficient way. Unnecessary or severe restrictions on dredging will create shortages of this vital resource that will impact construction schedules, and substantially increase project costs.

The EIS demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally sound manner.

The right choice for the Corps is to renew the permits for river dredging.

Sincerely,

Wayne Jaeckle
Beckwith Machinery Company
100 Smith Drive
Cranberry Twp., PA 16066

Response to Beckwith Machinery Company

Comments noted.

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THE RIVER TERMINAL
OPERATOR'S ASSOCIATION
Port Of Pittsburgh District

November 5, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

On behalf of the Pittsburgh River Terminal Operator's Association I am corresponding with you to register our organization's strong support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. I am aware of the numerous testimonials and other written materials submitted for the Army Corps of Engineers consideration which chronicle the long history of dredging in these rivers and the valuable and vital nature of the deposits which are dredged to the highway and municipal construction projects in this region. Quite simply, the sand and gravel dredged from these rivers represent the highest grade and least expensive aggregate for use as the basis for concrete and asphalt. If the ongoing dredging operations are discontinued, a tremendous cost would be borne by industry in this region. Moreover, there is a significant economic benefit to the river terminal and towing industries in the three rivers area as a result of the dredging operations. Current conditions challenge the local river terminals and river towing operations to maintain a profitable business and loss of the aggregate business would create additional hardships.

Of course, the issue which faces the Corps of Engineers in its consideration of whether or not to renew the existing dredging permits relates to the potential for adverse environmental impact and aquatic life, riverbeds and shorelines along the affected rivers. Upon review of the draft Environmental Impact Statement (EIS), it is my belief that this extensive and scientifically sound study demonstrates no significant impact to the environment by virtue of the dredging at issue. The draft EIS establishes that commercial sand and gravel dredging as it is currently conducted can be pursued in an environmentally safe manner which, based upon current regulations and instructions adequately protect aquatic life, the riverbeds and shorelines.

Therefore, on behalf of the River Terminal Operators' Association, I wish to voice our encouragement for the Corps to renew the pending river dredging permits.

Sincerely yours,

Robert Boyde Sr.

Robert Boyde, Sr., President
River Terminal Operator's Association

PENNSYLVANIA CHAMBER OF BUSINESS AND INDUSTRY
Fighting For Business On Capitol Hill
417 Walnut Street
Harrisburg, PA 17101-1902
717 255-3252 / 800 225-7224
FAX 717 255-3298
http://www.pachamber.org

Floyd W. Warner
President

October 8, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

The Pennsylvania Chamber of Business and Industry (The Chamber) is submitting the following comments regarding the draft Environmental Impact Statement (EIS) concerning the impact of dredging of sand and gravel from sections of the Allegheny and Ohio Rivers.

The Pennsylvania Chamber of Business and Industry is the largest, broad-based business association in the state, representing over 10,000 businesses. We have followed the progress of the EIS process over the past few years and reviewed the executive summary of the draft EIS. We believe that the research conducted was extensive and that the draft EIS describes, in a most comprehensive manner, the impact of dredging on the two rivers. The Chamber congratulates the Corps of Engineers (ACOE), the Pennsylvania Department of Environmental Protection (PADEP), the U. S. Fish and Wildlife Service (USFWS) and the Pennsylvania Fish and Boat Commission (PAFBC) for their efforts.

The Chamber concludes that the draft EIS demonstrates that dredging, as regulated by the ACOE and PADEP, does not threaten aquatic life nor does it negatively impact the condition of the beds and banks or the water quality of the two rivers.

In addition, the Chamber is aware of the positive impact of the availability of river sand and gravel on the construction industry in Western Pennsylvania, in terms of the high quality of the resource as well as the efficient, environmentally positive method by which it is transported. River barge transportation is an environmentally sound option for moving material by reducing the need for increased truck traffic on the highways. While substitutes exist, the maps contained in the draft EIS clearly demonstrate that land-based quarries are, to a large extent, far from user sites and would require thousands of additional trips

Rec'd
10/11/2002

by heavy trucks to meet the demand. The Chamber believes that use of river barges would be an efficient and effective means to transport the material while reducing the need for road travel.

Finally, the Chamber strongly supports the concept that regulations on businesses be based on significant public needs and credible scientific data. To further limit or restrict commercial dredging based on the facts contained in the draft EIS would send an alarming and negative signal to businesses in Pennsylvania, that our regulations might not be based on the facts alone.

In conclusion, the Chamber encourages the Corps to adopt Alternative 2 as described in the draft EIS, and allow river sand and gravel to continue to be available to the region.

Sincerely,

FLOYD WARNER
PRESIDENT

FW/sr

c: Mark Snyder

Response to PA Chamber of Business and Industry

Comments noted.

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Pennsylvania Asphalt Pavement Association

Ronald J. Cominsky, P.E.
Executive Director

3540 North Progress Avenue • Suite 206
Harrisburg, Pennsylvania 17110-9637
Tel: 717-657-1881
Fax: 717-657-0687
Email: papa@pahotmix.org
http://www.pahotmix.org

August 23, 2002

Mr. Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Public Notice No. 02-M3
Notice of Public Hearing and Availability of the Draft Environmental Impact Statement/Section 10 and Section 404 Permit Applications for Sand and Gravel Dredging on the Allegheny and Ohio Rivers, Pennsylvania

Dear Mr. Rogalla:

The Pennsylvania Asphalt Pavement Association (PAPA) is an organization representing individuals, partnerships, firms and corporations having common interests related to the hot-mix asphalt paving industry. PAPA represents over 95% of the asphalt businesses in Pennsylvania. Approximately 95% of the highways in Pennsylvania are asphalt. This includes the highways in western Pennsylvania. Approximately 95% of asphalt mix compositions are comprised of fine and coarse aggregate. Therefore, the asphalt pavement industry utilizes huge quantities of locally available aggregate such as commercially dredged river gravel.

The cessation of commercial dredging (Alternative 1) or the use of land-based operations or importation of sand and gravel from other locations (Alternative 3) will have a huge economic impact locally on our industry as well as the sand and gravel suppliers and other attendant businesses.

Gravel aggregate has high skid resistant qualities in asphalt pavements. The cessation of this critical supply of safety-related material will have severe impact on both PENNDOT's and the Pennsylvania Turnpike's projects. Importation of gravel aggregate or other quality aggregate will not only substantially impact the aggregate availability, but could also increase the cost per ton of hot-mix asphalt from $30-$35 per ton to $85-$90 per ton, or more than double the price per ton. These increases will be passed directly on to the costs for highway construction, reconstruction and maintenance borne by the state and local governments. Eventually the costs will be paid by the taxpayer.

The Commercial River Dredging Industry in western Pennsylvania consists of four companies, Glacial Sand and Gravel, Tri-State River Products, Hanson Aggregates PMA and Lane Construction, who operate dredges on the Allegheny and Ohio Rivers. The dredges typically operate from March through December and are docked during the winter.

The companies produce approximately 4 million tons of natural sand and gravel annually. The commercial dredgers fulfill a large percentage of the regional demand for the hot-mix industry in western Pennsylvania. In addition, PAPA views the commercial dredging providing the following economic contributions to the local economy in western Pennsylvania:

- More than 210 workers are directly employed in commercial river dredging in the Pittsburgh region; another 200 or more workers are employed in asphalt and concrete production using river aggregates.
- Government revenue for business and income taxes exceeds $8 million per year.
- 75% of river sand and gravel production is used within 30 miles of the point of Pittsburgh.
- Total PA production of sand and gravel is about 15 million tons, with western PA dredging companies producing over 25% of the total.
- The dredging companies pay a royalty fee to the PA Fish and Boat Commission of $0.30 per ton (royalty rate in 2002). This translates into a potential royalty in 2002 to PA Fish and Boat Commission of approximately $1.2 million.
- Dredging creates spin-off economic stimulus through the purchase of goods and services, including machinery, energy, repair and transportation services.

The following is PAPA's estimate to the impact to the local economy if commercial dredging is terminated:

- Jobs would be lost locally due to direct and indirect losses in the commercial dredging industry.
- Additional jobs could be lost statewide due to the spiraling price impacts of eliminating river aggregates.
- Total business output for the region would drop by millions of dollars.
- Government revenue from business and income taxes could be reduced by more than $8 million.
- Royalty payments to the PA Fish and Boat Commission would cease.
- Immediate short fall in locally available aggregate due to ceasing river-based production.
- Prices for materials to replace those lost by the termination of commercial dredging would nearly triple, due to increased production costs and increased transportation costs.

- Disruptions in supply/demand relationships would occur, putting additional jobs at risk.
- Increases would occur in the cost for asphalt highway construction and reconstruction projects, borne by state and local governments and ultimately by the taxpayer.
- Overall, construction costs could increase by tens of millions of dollars annually.
- Major road rehabilitation and construction projects could be delayed due to lack of availability of equal quality replacement materials and budget parameters.
- Residential builders, remodelers and consumers could face highly increased prices and lowered availability of asphalt products.

Furthermore, opening of new quarries or expanding existing facilities is an extremely expensive task. Permitting processes typically exceed five years or more. Quite often legal constraints related to environmental concerns, land-use limitations, and zoning restrictions cause lengthy delays in the permitting process. Typically quality of life concerns expressed by local residents impede the permitting process.

Therefore, the Pennsylvania Asphalt Pavement Association strongly recommends that U.S. Army Corps of Engineers, Pittsburgh District, adopt Alternative 2 which permits obtaining sand and gravel from the Allegheny and Ohio Rivers by continuation of commercial dredging. PAPA requests that these written statements become part of the official testimony of this Public Notice.

Sincerely,

Ronald J. Corminsky, P.E.
Executive Director

RJC/ml

Response to PAPA

Comments noted.

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WEBSITE: www.fordsteel.com

August 26th, 2002

Mr. Albert Rogalla
U.S. Army Corp of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Mr. Paul Rassel
P.O. Box 54
Maryland Heights, MO 63043-9054

Dear Mr. Rogalla,

Since 1979, I have worked for Ford Steel Company, located in St. Louis, Missouri. Ford Steel Company is a steel supplier to the mining industry worldwide. I have a direct financial interest as to the continuation if dredging in the Allegheny and Ohio rivers, but I also have an environmental interest. I too want clean rivers. I also want aggregate producers to continue to provide needed jobs and affordable aggregates to the Pittsburgh region. I feel that too often activist groups, such as the Clean Water Action Group, use their environmental prejudice and not facts to determine their opposition regarding environmental issues.

My background if as follows. I graduated in 1979 from Ball State University with a Bachelor of Science in Natural Resources, "Water Quality Option". As I had earlier stated, I have worked in the mining field since 1979 and I am familiar with the issues regarding river dredging. I have always taken environmental issues seriously. I have read the Executive Summary of the Environmental Impact Statement. I find the information within the summary report, supports the continuation of dredging in specified areas within the Allegheny and Ohio rivers. I believe that it demonstrates that dredging has been conducted in environmentally safe ways to protect the aquatic wildlife and to minimize adverse effects.

Thus, I would like to register my support that renewal permits be issued , and that dredging in the specified regions of the Allegheny and Ohio rivers be allowed to continue. As the Environmental Impact Statement indicated, I believe that dredging has caused no long term envirnomental impact to our river's ecosystems. If dredging was haulted, the economic impact on the Greater Pittsburgh region on the other hand could be substantial. The loss of jobs, the loss of royalty revenue and the increased cost of aggregates could very easily result in increased taxes to an already overtaxed region.

Please consider the facts of the EIS and not the activist misinformation in your decision to renew permits for river dredging.

Sincerely,

Paul J. Rassel

BRANCH OFFICE: ELKO, NEVADA 89801
PHONE: (775) 738-8883 • TOLL FREE: (800) 939-3673 • FAX: (775) 738-0155

Response to Ford Steel Company

Comments noted.

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Box 56, RD# 3, Shippenville, PA 16254 Phone: (814) 226-4100
436 Riggs Road, Somerset, PA 15501 Phone: (814) 443-2867
25912 Route 19, Cambridge Springs, PA 16403 Phone: (814) 796-6735

October 16, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement on Commercial Sand & Gravel Dredging

Dear Mr. Rogalla,

I have reviewed the Environmental Impact Study concerning the dredging of sand and gravel in the Allegheny and Ohio Rivers. I am very impressed with the amount of detailed and comprehensive information found in the study. But, I would like to add a few additional items for the U.S. Army Corps of Engineers to consider:

1) The economic impact to the numerous businesses which support the dredging companies effort to cost effectively dredge the sand and gravel from the rivers.

   Anderson Equipment Company, alone, is the recipient of annual revenue in excess of over $1,000,000.00 from the companies directly involved with the dredging of the rivers.

2) The amount of necessary and additional infrastructure (build/repair) associated with over the road hauling from land based quarrying activity if dredging the rivers is disallowed.

3) Permit issuance problems for new land based quarrying activity. The amount of money and time needed for current permit applications is staggering and getting worse. What will happen with an influx of new applications to help cover the demand for an additional 4.2 million annual tons of land based aggregate if the rivers cannot be dredged?

4) River aggregate quality, in most cases, is impossible to match for road surface quality.

5) Do you want to be directly linked to increasing taxes to every citizen in The Commonwealth of Pennsylvania?

   The taxpayer is getting more for less with river dredging. River Dredging is cheaper than Land Based Quarrying. More projects to update/improve roadways and infrastructure are afforded without increasing taxes to accommodate the increased mining costs of land based quarrying.

6) The negative social and economic impact to the recreational users of the Allegheny River.

   Vital monies generated from use taxes keep the lock and dams along the Allegheny River open for recreational use. This recreational use funds the tourism industry of the entire Allegheny River valley. What will happen to this industry if the lock and dams are only occasionally or never open?

Rec'd
10/18/02

As a responsible businessman, community provider, and taxpaying citizen of The Commonwealth of Pennsylvania, the comprehensiveness of the aforementioned study begs me to ask you to continue to allow the dredging of Sand and Gravel from the Allegheny and Ohio Rivers.

Thank you for the opportunity to bring these many issues to your attention.

Sincerely,

Lee E. Miller
Account Executive / Somerset Branch Manager

Response to Anderson Equipment Company

Comments noted.

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Kimball
L. Robert Kimball & Associates
Architects and Engineers
Corporate Headquarters: 615 West Highland Avenue, Ebensburg, PA 15931 Phone: 814-472-7700 Fax: 814-472-7712
www.lrkimball.com E-Mail: aande@lrkimball.com

October 7, 2002

Mr. Albert H. Rogalla
US Army Corps of Engineers
Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement
On Commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

We are writing to express support for continued dredging of sand and gravel in the Allegheny and Ohio Rivers. Our firm provides architectural and engineering services to both governmental and private clients. We have designed a wide range of projects in Western Pennsylvania. We feel that the infrastructure improvements required for economic growth in our region will depend on the continued availability of the good quality, competitively priced aggregates and sand supplied by the dredging industry.

The draft Environmental Impact Statement is extremely comprehensive and clearly demonstrates that dredging operations can be conducted in a manner that protects riverbeds and shorelines as well as aquatic life. We urge you to continue to grant permits for river dredging.

Sincerely,

R. Jeffrey Kimball, P.E.
President and Chief Operating Officer

RJK/dlr

10/8/2002

Armstrong Educational Trust

81 Glade Drive - Kittanning, PA 16201 - Phone: (724) 543-2599 - Fax: (724) 545-6127

September 24, 2002

Mr. Albert Rogalla
U.S. army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

The Armstrong Educational Trust Board of Directors is submitting their support for continued dredging of sand and gravel in pooled sections of the Allegheny and Ohio rivers. We have reviewed the Environmental Impact Study and find the research to be very extensive and supported by other organizations within the region. The EIS demonstrates that dredging is conducted in ways that do not harm the rivers and their ecosystems.

We are aware of the impact of the availability of sand and gravel to supply aggregate essential for highway construction in a cost-efficient manner. Western Pennsylvania could be adversely affected if dredging is not permitted and aggregate is not readily available.

We encourage the U.S. Army Corps to adopt Alternative 2 as described in the draft EIS and permit sand and gravel to continue to be available to the region.

Sincerely,

Patricia L. Kirkpatrick

Patricia L. Kirkpatrick
Executive Director

rec'd
9/26/2002

Response to Armstrong Educational Trust

Comments noted.

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H. Wayne Miller
545 Dendron Dr.
Coraopolis, PA 15108

September 28, 2002

U.S. Army Corp of Engineers
Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222

Gentlemen:

I am writing in response to your request for comments on the subject of sand and gravel dredging on the Allegheny and Ohio Rivers in Pennsylvania. I have given much thought and consideration to the subject. I will preface my statements by saying that my opinions may be considered by some to be less than objective. I do not think that any concerned person can be totally objective.

My life has been 64 years of experience living, working, and enjoying recreation on and in various bodies of water. I have lived in Warren, Pa. where the Allegheny River and the Conawango Creek meet. This was more than ten years before the Kinzua Dam was built. My family and I camped, fished and canoed there. We lived on Lake Chautauqua in New York, where we enjoyed the same. I have water skied on the Allegheny and Ohio in the late 50's and as recently as the 80's. My family presently enjoys all the recreation provided by the Kinzua Reservoir a flood and navigation dam which has been critically important in protecting our river properties in western Pennsylvania.

My work experience for the last 40 years has also been in and around the water. In 1960, I was fortunate to start a career with Dravo Corporation's Keystone Division. My entry-level position was materials tester on the company's sand and gravel dredges, located on the Ohio River. This was at a time in which the rivers were still very polluted by uncontrolled waste from every source imaginable.

For the next 35 years I worked in quality control and testing for Dravo and spent countless hours on dredges, barges, towboats, as well as in concrete plants, aggregate storage facilities and on construction projects up and down the Allegheny, Monongahala and Ohio Rivers. I can say that I have personally witnessed vast improvements in water quality and aquatic life.

During that time our company supplied river sand and gravel for some of the largest projects in the tri-state area. We also provided the same sand and gravel for your homes and roadways.

I would like to give an example to illustrate the importance of having a source of economical aggregate to create the volume of filler in concrete for a vital structure needed by our county, as well as each and every person who lives here. We are all aware of how critical the need is for sewage treatment. Anyone who has experienced sewage backup caused by a simple clogged drain or an even more serious problem from flooding will appreciate the following example.

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h

In the 1970's ALCOSAN embarked on a major expansion which required 250,000 cubic yards of cast-in-place concrete. This concrete was easily transported from a ready-mix concrete supplier who was located within minutes of the project. The sand and gravel was dredged from the Ohio River. Now lets get to my example.

A cubic yard of concrete in this case was made up of three main ingredients cement, gravel and sand. The following are the quantities required in pounds:

	1 CUBIC YARD	**250,000 CUBIC YARDS**
** PORTLAND CEMENT	570	142,500,000 (71,250 tons)
RIVER GRAVEL	1750	437,500,000 (218,750 tons)
RIVER SAND	1300	325,000,000 (162,500 tons)

** Portland Cement is made from limestone and silica (one source is river aggregate)

This means that if we did not have a local supply of aggregate for this project, we would have had to barge in from a foreign source 381,250 tons, which equates to approximately 381 barges or approximately 13,335 trucks.

I will not continue with the impact of that amount of material coming from an outside source. That subject has been covered thoroughly. I will say that this is only ONE VITAL PROJECT that has more of an impact on our environment than river dredging will ever have. Think long and hard about MILLIONS OF GALLONS OF RAW SEWAGE dumping into your rivers.

Please accept this opinion from someone concerned for the future of his and your grandchildren, as well as, their grandchildren. Conservation and environmental control starts at home.

For those who would speak against river dredging. I ask: "What are our alternatives?"

Respectively submitted

H. Wayne Miller

H. Wayne Miller

HWM/lam

Pennsylvania Coal Association
212 North Third Street • Suite 102 • Harrisburg, PA 17101

(717) 233-7900
(800) COAL NOW (PA Only)
(717) 231-7610 Fax

GEORGE ELLIS
President

October 9, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

RE: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

The Pennsylvania Coal Association ("PCA") is submitting the following comments regarding the draft Environmental Impact Statement (EIS) concerning the impact of commercial dredging of sand and gravel from sections of the Allegheny and Ohio Rivers.

PCA is the principal trade association representing the interests of the Pennsylvania bituminous coal industry in the state. PCA's coal producing member companies produce more than 80% of the bituminous coal mined in Pennsylvania annually and produced more than 74 million tons of bituminous coal in 2001. PCA is aware that the Corps of Engineers has been engaged in the preparation of an EIS over the past two years and is familiar with the contents of the draft EIS. We believe that the research conducted was extensive and that the draft EIS assesses, in a comprehensive manner, the impact of commercial dredging on the two rivers. PCA applauds the Corps of Engineers, and the positive contributions of the other stakeholders in the process.

PCA believes that the draft EIS demonstrates that dredging, as currently regulated by the Corps and PADEP, does not threaten significant harm to the environment or negatively impact aquatic life, the condition of the beds and banks of the water quality of the two rivers.

In addition, PCA believes river transportation by barge is an environmentally and economically sound option for moving minerals, commodities and other material and reduce the need for increased truck traffic on the highways. PCA members utilize the river transportation system to transport coal to customers and PCA supports activity which enhances the viability of river navigation, including commercial dredging.

rec'd
10/16/2002

Finally, PCA strongly supports the concept that regulation of the extractive industries take into account a broad balance of public needs and interest and that such regulation be based on sound technical information. Based on our evaluation of the draft EIS, PCA believes that commercial dredging should continue under the current regulatory regimen.

In conclusion, PCA urges the Corps to adopt Alternative 2 as described in the draft EIS, and allow the positive contributions of river sand and gravel dredging to continue to be available to the region.

Sincerely,

George Ellis

George L. Ellis
President

Response to COAL

Comments noted.

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PCMA
pennsylvania
concrete masonry
association

P.O. Box 4
Lebanon, PA 17042-0004
phone: 717-279-6346
fax: 717-272-5147
e-mail: jlboyer@nbn.net
www.pacma.com

October 18, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

The Pennsylvania Concrete & Masonry Association is submitting the following comments in regard to the draft Environmental Impact Statement (EIS) concerning the impact of dredging of sand and gravel from sections of the Allegheny and Ohio Rivers.

The Pennsylvania Concrete Masonry Association was formed in 1969 as a trade association dedicated to support, promote and expand the use of concrete masonry and other related products within the state.

The Association's staff has followed the progress of the EIS process over the past few years and reviewed the executive summary of the draft EIS. We find the research conducted was extensive and believe the draft EIS describes, in a most comprehensive manner, the impact of dredging on the two rivers. The Association congratulates the Corps of Engineers (ACOE), the Pennsylvania Department of Environmental Protection (PADEP), the U. S. Fish and Wildlife Service (USFWS) and the Pennsylvania Fish and Boat Commission (PAFBC) for their efforts.

The Association concludes that the draft EIS demonstrates that dredging, as regulated by PADEP, does not threaten aquatic life nor does it negatively impact the condition of the beds and banks or the water quality of the two rivers.

As the leading organization in Pennsylvania advocating the use concrete masonry, the Association is well aware of the positive impact of the availability of river sand and gravel on the construction industry in Western Pennsylvania, in terms of the high quality of the resource as well as the efficient, environmentally positive method by which it is

AR rec'd 10/22/2002

PCMA
pennsylvania concrete masonry association

P.O. Box 4
Lebanon, PA 17042-0004
phone: 717-279-6346
fax: 717-272-5147
e-mail: jlboyer@nbn.net
www.pacma.com

transported. There is little doubt that river barge transportation produces significantly less air pollution than heavy trucks while doing no damage to local highways. While substitutes exist, the maps contained in the draft EIS clearly demonstrate that land-based quarries are, to a large extent, far from user sites and would require thousands of additional trips by heavy trucks to meet the demand. It is the Association's position that transferring the transportation of sand and gravel from river barges to large trucks could be justified only in the case of serious and verifiable threats to the river systems. The draft EIS does not detail any such threats.

Finally, the Association strongly supports the concept that regulations on businesses be based on significant public needs and credible data. Restricting dredging based on the facts contained in the draft EIS would send an alarming and negative signal to businesses that regulations might not be based on the facts alone.

In conclusion, the Association encourages the Corps to adopt Alternative 2 as described in the draft EIS, and allow river sand and gravel to continue to be available to the region.

Sincerely,

Janet L. Boyer
Executive Director
PA Concrete Masonry Association

Response to PCMA

Comments noted.

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ARMSTRONG COUNTY
DEPARTMENT OF PLANNING AND DEVELOPMENT
402 Market Street - Kittanning, PA 16201
(724) 548-3223 - (724) 548-3224 - (724) 545-7050 FAX
email: idc@armstrongdpd.org

ARMSTRONG COUNTY, PA
The Best Thing Next To Pittsburgh

October 16, 2002

Mr. Albert H Rogalla
U.S. Army Corp of Engineers
Pittsburgh District
Moorhead Federal Building
1000 Liberty Ave.
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

In response to Public Notice 02-M3, {Notice of Public Hearing and Availability of the Draft Environmental Impact Statement / Section 10 and Section 404 Permit Applications for Sand and Gravel Dredging on the Allegheny and Ohio Rivers, Pennsylvania} the Armstrong County Industrial Development Authority has reviewed the above mentioned document and supports the published findings. Furthermore, the regulated activities described within Alternative #2 are consistent with the long range economic goals and objectives of the Commission.

Mineral extraction has historically been a major economic generator within Armstrong County and western Pennsylvania as a whole. We believe through the regulated practices described within the document, these activities will continue to ~~produce viable, positive economic impacts. It should also be noted that the economic~~ impacts extend far beyond Armstrong County and Western Pennsylvania. Development activities associated with all types of infrastructure improvements i.e. roads, water lines, sewer lines and buildings rely on these dredged materials, which in turn have a multiplying effect on economic development. For these reasons we support the continued permitting of these operations.

Should you have any questions or require additional information, please do not hesitate to contact either Rich Palilla or Mike Coonley at one of the numbers listed above.

Sincerely,

James R. Drenning

James R. Drenning
Chairman

Rec'd
11/27/2002

Response to Armstrong County

Comments noted.

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COMMONWEALTH OF PENNSYLVANIA
OFFICE OF ATTORNEY GENERAL
HARRISBURG, PA 17120

MIKE FISHER
ATTORNEY GENERAL

16TH FLOOR
STRAWBERRY SQUARE
HARRISBURG, PA 17120
(717) 787-3391

November 1, 2002

Mr. Albert H. Rogalla
Chief, Regulatory Branch
U.S. Army Corps of Engineers
Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

I am pleased to write this letter of support on behalf of commercial river dredging in Western Pennsylvania.

I understand that the recently-completed Environmental Impact Statement issued by the Pittsburgh District Office of the U.S. Army Corps of Engineers for sand and gravel dredging on the Allegheny and Ohio Rivers confirms that dredging has a minimum impact on aquatic life and the composition of the river systems. Moreover, as a lifelong resident of Western Pennsylvania, I am concerned about the impact that non-renewal of the federal permits permitting river dredging will have on the sand and gravel industry in our region.

One of the most vital operations historically performed on the Allegheny and Ohio Rivers has been commercial river dredging. These operations, which have been taking place for many years, are a vital source of aggregate which is essential in formulating concrete and asphalt for use in highway construction and repair.

Commercial river dredging has been a prime source of economic growth and development in the region for many years. Failure to renew the federal permits or the imposition of prohibitive restrictions upon river dredging would not serve any useful purpose, but would instead create shortages of aggregate, negatively impact highway construction and repair schedules and increase the cost of such projects.

I urge the U.S. Army Corps of Engineers to renew the federal permits allowing for continued commercial river dredging in Western Pennsylvania.

Thank you for the opportunity to voice my concerns.

Very truly yours,

Mike Fisher

Mike Fisher
Attorney General

MR Rec'd 11/5/2002

Response to Mike Fisher, Office of Attorney General

Comments noted.

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WATERWAYS ASSOCIATION OF PITTSBURGH

P.O. BOX 48 • IMPERIAL, PA 15126
Ph. (724) 695-0269 Fax (724) 695-2873
E-mail: WAPgh@cs.com

October 30, 2002

Mr. Albert H. Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

Please register the support of the Waterways Association of Pittsburgh for continued dredging of sand and gravel in the Allegheny and Ohio rivers. After studying the Draft EIS, we believe the results confirm that dredging as regulated by the Pennsylvania Department of Environmental Protection, has a minimum impact on aquatic life, riverbeds and shorelines of the river system.

The Waterways Association of Pittsburgh is comprised of sixty companies conducting commerce on Pittsburgh's three rivers. Elimination of sand and gravel dredging would greatly reduce commercial traffic on the rivers and therefore increase the cost of operating and maintaining the locks and dams on a per-ton volume basis. This reduction could lead to closure of the Allegheny River locks and dams. Closing or reducing operation of these locks and dams, especially on the Allegheny River, will reduce use of the rivers by industry, as well as recreational boaters, fishermen, and others.

The river system provides local and regional industries with substantial savings, due to the low cost of transporting raw materials, intermdiate goods, and final products by barge versus land-based vehicles such as rail or trucks. Business revenue is generated to the firms supplying services to the cargo and recreational activity on the river system. According to a study conducted by the Port of Pittsburgh Commission in 1996, waterway cargo activity in the ten county Port of Pittsburgh Commission District generated nearly 120,000 jobs, or 12 percent of the total private sector employment of the District.

The correct choice fbr the Corps of Engineers is to renew the permits for river dredging.

Sincerely,

Gabriel Centofanti

Gabriel Centofanti
President

rec'd
11/5/2002

Response to Waterways Association of Pittsburgh

Comments noted.

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BECKWITH
Machinery Company

CAT

August 29, 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Re: Draft Environmental Impact Statement on Commercial Sand and Gravel Dredging

Dear Mr. Rogalla:

On behalf of Beckwith Machinery Company, an employer of over 600 people in western Pennsylvania, please register our support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is our belief that the Draft Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as riverbeds and shorelines.

Our region depends on river dredging to supply aggregate to the construction industry in a cost-efficient way. Eliminating or restricting the recovery of this natural resource would increase the cost of publicly funded construction projects throughout our region. Increasing the cost of these projects means that fewer projects could be done with the same amount of money. The results would be fewer improvement projects would be completed in our area as well as a cutback in construction-related jobs throughout western Pennsylvania.

The Environmental Impact Statement demonstrates that commercial sand and gravel dredging, as it is currently conducted, can continue in an environmentally-sound manner.

We urge the Corps to renew the permits for river dredging.

Sincerely,

Tom Schachner

Tom Schachner
Pittsburgh Sales Manager

TJS/rbm

Pittsburgh
4565 Wm. Penn Hwy.
Murrysville, PA 15668-2016
724/327-1300

Altoona
Wye Switches, Rt. 22
Duncansville, PA 16635
814/695-3201

Clearfield
1307 Old Town Road
Clearfield, PA 16830
814/765-1611

Cranberry
100 Smith Drive
Cranberry Twp., PA 16066
724/776-1400

Erie
3896 Station Road
Erie, PA 16510
814/898-3368

Lantz Corners
3105 Route 219
Kane, PA 16735
814/778-6250

Somerset
169 Industrial Park Road
Somerset, PA 15501-3411
814/445-7915

Clarksburg
Route 76E & Route 50
Bridgeport, WV 26330
304/842-2222

Response to Beckwith Machinery Company

Comments noted.

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GOLDEN TRIANGLE CONSTRUCTION

GENERAL CONTRACTORS

Golden Triangle Construction Company, Inc.
40 Pattridge Lane •Imperial, PA 15126-9614
Phone (724) 695-1600 •Fax (724) 695-1611

August 23, 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

Golden Triangle Construction is a Heavy Highway Construction Company that has been in Western Pennsylvania for over 50 years and we employ seasonally approximately 250+ people in our area.

We utilize sand and gravel in our concrete production practically on a daily basis. We depend on river dredging to supply aggregate and sand which is essential for our construction in a cost-efficient way. Having unnecessary or severe restrictions on dredging will create a substantial increase in project costs and shortages of these vital resources that will impact our construction schedules that are already difficult to meet.

We are registering our support for continued dredging of sand and gravel in the Allegheny and Ohio rivers. It is our belief that the Environmental Impact Statement demonstrates that dredging is conducted in ways that protect aquatic life as well as the riverbeds and shorelines.

The right choice for the Corps is to renew the permits for river dredging. The EIS demonstrates that commercial sand and gravel dredging, at it is currently conducted, can continue in an environmentally sound manner.

Sincerely,

Bindy Bucci
Vice President

Rec'd 8-26-02 MM

Response to Golden Triangle Construction

Comments noted.

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Oliver Schaub
134 Lakeshore Drive
Butler, PA 16001

September 3, 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla:

I write to you as a person concerned about the future of dredging on the Allegheny River for sand and gravel.

I grew up along the river in the little town of Templeton, where my father, grandfather and I spent many hours fishing.

My mind recalls so many happy memories from those days, as we caught bass and other species of fish.

Through the day, my father worked for Davison Sand & Gravel Company, latter to be known as "Pioneer". My mother and I would listen to his stories of this work on the "digger", as he called it. Many times we fished where my father's company removed the sand and gravel and caught even larger fish. My dad would say it was because of the depth of the river.

My father worked for Pioneer thirty years, two of my uncles worked twenty-five years each for the same company, my brother has been employed by Glacial Sand & Gravel Company forty years, and I have been with Glacial Sand & Gravel thirty-six years. This comes to a total of one hundred and fifty-six years our families have benefitted by employment of dredging companies.

While I no longer live in Templeton, I am not far away, living in Butler, Pennsylvania, and still close enough to the Allegheny River to take advantage of some great fishing with my sons and grandchildren.

I trust you will sense what I am attempting to tell you. There is no reason to stop dredging the Allegheny River. Many peoples lives will be affected if you do, and fishing goes on regardless.

The best choice for all, is that the Corps of Engineers renew the permits for dredging. This will protect many jobs, and should you tour our area Mr. Rogalla, you will find every job is needed to help the economy.

In closing, I have been closely associated with river dredging for fifty years or more in ways which I have tried to explain to you. I truly see the Allegheny River in good shape today.

Sincerely,

Oliver Schaub

Oliver Schaub

Response to Oliver Schaub

Comments noted.

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September 3, 2002

Mr. Albert Rogalla
U.S. Army Corps of Engineers
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Dear Mr. Rogalla,

I am writing you in support for continued dredging of sand and gravel from the Allegheny and Ohio Rivers. I am a businessman and an avid sportsman who has grown up next to the Allegheny River and have lived in the Armstrong County area all of my life.

I believe the sand and gravel in the Allegheny and Ohio Rivers are a very important natural resource to our region and banning dredging would have a devastating affect on our local economy. I have reviewed the recent Environmental Impact Statement (EIS) and feel that dredging is done in ways that protect aquatic life as well as the riverbeds and shorelines.

I believe the right choice for the Corps of Engineers is to renew the permits for river dredging.

Sincerely,

James P. Swast
RR# 3 Box 291-E
Kittanning, PA 16201