



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**CORPS OF ENGINEERS, OMAHA DISTRICT**  
1616 CAPITOL AVENUE  
OMAHA NE 68102-4901

February 3, 2010

District Commander

Carol Campbell  
Assistant Regional Administrator, Ecosystems Protection and Remediation  
U.S. Environmental Protection Agency Region 8  
1595 Wynkoop Street  
Denver, Colorado 80202-1129

Dear Ms. Campbell:

The U.S. Army Corps of Engineers, Omaha District (Corps) has reviewed the concerns expressed in your agency's letters dated 13 May 2009 and 15 May 2009. We appreciate your review of our preliminary draft Feasibility Study and Environmental Impact Statement (preliminary FS/EIS). As our aim is to ensure open communication, the Corps has worked to regularly coordinate with its federal and non-federal partners, including the EPA, throughout the conduct of the Chatfield Reallocation Study. The subject letters sent by the EPA convey several concerns pertaining to the study. The key concerns are discussed below.

Clean Water Act Compliance

The EPA mentioned in their letters that the preliminary FS/EIS does not provide sufficient information to establish compliance with Clean Water Act (CWA) Section 404(b)(1) guidelines based on the fact that the document does not contain a complete 404(b)(1) analysis and the belief that the preliminary proposed action is not the Least Environmentally Damaging Practicable Alternative (LEDPA).

Because the document reviewed by the EPA is preliminary, not all analysis had yet been completed, including the 404(b)(1) evaluation. When the preliminary FS/EIS are completed and ready for public review, the document will demonstrate that the recommended plan is in compliance with Guidelines by ensuring a complete evaluation of the effects of the proposed discharge, as well as a thorough public review process.

While implementation of the CWA under the Regulatory program ensures compliance for proposed projects under its purview by applying the guidelines developed jointly between the EPA and the Corps (40 CFR 230), Civil Works proposed projects apply the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (P&G). While separate processes, it is our opinion that there is no overarching conflict in addressing water resource development projects through either approach; this opinion is based upon the flexibility of the language contained within the CWA regulations and additional guidance provided to Districts to insure prudent implementation of these programs.

One difference that exists in application of the Guidelines between the Civil Works process and that of the Regulatory process is the timing of when mitigation is considered in the project development process. Guidance for the Regulatory program is provided in a 6 February 1990 Memorandum of Agreement (MOA) between the EPA and the Department of the Army Concerning the Determination of Mitigation Under the Guidelines, i.e. the LEDPA. Mitigation is not to be considered in identifying the LEDPA, but is added to the LEDPA only after it has been identified. However, as stated in the purpose, "This MOA is specifically limited to the Section 404 Regulatory Program." In contrast, the Civil Works program must apply the P&G in the development of alternatives, and must consider appropriate mitigation as an integral component of each alternative plan.

With regard to practicability, the analysis must include alternatives "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." We believe application of the P&G methodology for this analysis provides a comprehensive approach in the determination of practicability.

#### Range of Alternatives

The EPA identified a concern that the preliminary FS/EIS inappropriately constrained the alternatives analysis given the purpose and need statement contained in the document. The statement of purpose and need is important in determining the range of alternatives to be evaluated in the preliminary FS/EIS. In the case of this study, the purpose and need is currently stated "to increase availability of water, sustainable over the 50-year period of analysis, in the greater Denver area so that a larger proportion of existing and future (increasing) water needs can be met." In this context, we believe the preliminary FS/EIS evaluates an adequate range of alternatives for meeting the stated purpose and need to which our agency is responding, and does not unnecessarily constrain the alternatives to reallocated storage within Chatfield. In identifying the purpose and need, the Corps was very deliberate in not focusing only on storage alternatives, as the underlying need is not storage, but water supply. In fact, components of the other alternatives being compared in detail include surface storage in sandpits, continued reliance on non-tributary groundwater, and the construction of a new surface storage. In addition, a broad range of other alternatives were also considered, but eliminated from further study.

It should be noted that any alternative evaluated in our study will only provide for a portion of the overall need in the Denver Metropolitan area. There will be many other water supply projects pursued in future years in order to meet growing water supply demand. In this light, it is very practical to closely consider taking advantage of the opportunities that Chatfield might provide in meeting part of this demand. These opportunities include, but are not limited to: 1) Chatfield is an existing facility; 2) Chatfield exists directly on the main tributary of the South Platte, ideally suited for capturing flows, and 3) Chatfield sits relatively high within the basin, allowing gravity flow delivery of water.

### Sufficiency of Mitigation

As we mentioned above, the document reviewed by the EPA is preliminary and does not contain all of the components that the completed product will. One of the pieces not yet completed in the preliminary FS/EIS is the mitigation plan; however, we believe that sufficient mitigation is likely available to compensate for the ecological values impacted by the recommended plan. The Corps is working closely with the U.S. Fish and Wildlife Service, Colorado Department of Wildlife, and other stakeholders in this effort. It is worth noting that the current planning effort for mitigation is taking a systems approach, both looking to the effected watershed and considering existing regional conservation and recovery plans that have been developed by others to identify the most appropriate mitigation sites. In addition, rather than utilizing a basic unit of measure (such as acres), the mitigation plan will use an ecologically based unit to measure impacts, and demonstrate how those values will be replaced via plan implementation.

### Water Quality

The EPA mentions that it does not believe the preliminary FS/EIS adequately address the project's potential to exacerbate existing water quality concerns in Chatfield Reservoir. Regarding the concern over phosphorus loading, a worst-case/best-case assessment was completed, using a detailed localized analysis. A range of hypolimnetic depths were considered in order to capture the range of all possible anaerobic conditions that might occur in Chatfield, since anoxic conditions lead to mobilization of constituents bound to reservoir sediments, particularly phosphorus. While the EPA's concerns appear to be focused on the scenarios where there is a significant increase in the hypolimnetic zone, there appears to be more evidence to accept the best-case scenario based on the fact that anoxia seems to be a rare phenomenon in Chatfield. Likewise, the *E. coli* analysis provides a worse case scenario, and likely oversimplifies the issue, and overestimates the potential increase that would truly be expected. The Corps plans to revise this analysis in order to more realistically explain the expected relationship of a reallocation with water quality.

Again, thank-you for taking time to review our preliminary FS/EIS. We look forward to working closely with you to resolve any issues you may have. In the spirit of cooperation, we would like to meet with you very soon to discuss these issues and our planned direction to complete this study. Eric Laux is the Chatfield Reallocation Study project manager and the main point of contact for the study. You may contact him directly at (402)995-2682 if you have any questions or concerns. He will soon be in contact to discuss timing of such a meeting. I am also providing a copy of this letter to Humberto L. Garcia Jr. and Larry Svoboda from your agency.

Sincerely,



Robert J. Ruch  
Colonel, Corps of Engineers  
District Commander