Public Notice

US Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Public Notice Number: SPK-200575044-DC
Date: August 12, 2008
Comments Due: September 12, 2008
In reply, please refer to the Public Notice Number

SUBJECT: The U.S. Army Corps of Engineers, Sacramento District, (Corps) is evaluating a permit application to construct a number of grade control structures in the form of cross-vanes and J-hooks along with the several vortex sediment extractor tubes (V-SET) for the purpose of gravel extraction and river reclamation, which would result in impacts to approximately 5,000 linear feet (4.5 acres) of the Animas River. This notice is to inform interested parties of the proposed activity and to solicit comments. This notice may also be viewed at the Corps web site at http://www.spk.usace.army.mil/regulatory.html.

AUTHORITY: This application is being evaluated under Section 404 of the Clean Water Act for the discharge of dredged or fill material in waters of the United States.

APPLICANT: Mr. Kyle High
Oldcastle SW Group, Inc
Four Corners Materials (FCM)
6699 County Road 521
Bayfield, Colorado 81122
(970) 247-2172

LOCATION: The project site is located on the Animas River, north of Durango, Sections 2 and 11, Township 36 North, Range 9 West, La Plata County, Colorado, and can be seen on the Hermosa USGS Topographic Quadrangle.

PROJECT DESCRIPTION:

Background Information

Four Corners Materials, whose in-stream mining permit expired in 2004 (DA# 199575400), has applied for a Department of the Army permit to mine gravel from within the Animas River at a site known as the Bar-D Pit. Two public notices for this project have been issued; March 23, 2005 and December 4, 2007. As a result of the comments received during these public notice periods, FCM has proposed a modification to the project. To view the original public notices under archives please visit our website at http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/PNs/archive.html.

Gravel mining has occurred continuously within the Animas River from Bakers Bridge to Trimble Lane since the mid-1970s. A number of operators over the years have held permits to extract material from within the river. The last Department of the Army (DA) permit for mining within the Animas had expired on November 30, 2004. The cumulative impacts of these operations are described below. In the early 1990s, two Animas River floodplain studies were published which resulted in the issuance of two Letters of Map Revision (LOMRs). The field survey data referenced in these studies was collected in 1990 and is commonly referred to in this notice as

the 1990 Channel Invert Survey.

Currently the river channel upstream of the Bar-D Pit is incising. An independent study has shown that the river immediately upstream of the Bar-D pit has experienced as much as 6 feet of incision between 1993 and 2003 (Letter from Mary Gillam to Mr. Wallace Erickson, dated March 27, 2007). The upstream land-owner along with a number of other individuals and agencies has expressed concerns regarding this incision. As a result, the Corps of Engineers has conducted an analysis based upon survey information provided by the applicant. Within the analysis the Corps addressed two potential risks: 1) if too much material is extracted from within the river, the land upstream will continue to experience unnatural rates of erosion and incision; 2) if mining does not occur and the river aggrades back to its pre-1990 levels, the floodplain size could be altered, which may affect residents who have relied on the LOMRs when building their homes or structures. As a result of these risks, the Corps' report recommended that the applicant either cease mining activities until the river aggrades to match the 1990 Channel Invert Survey or install a grade control structure at an elevation to match the 1990 Channel Invert Survey elevation. According to the hydrologist that performed the analysis, a correctly installed grade control structure should prevent further incision upstream without affecting the floodplain, thereby allowing the applicant to continue mining operations.

Site Characteristics

The project site is located within an aggrading braided reach of the Animas River. Within this reach, the channel slope begins to decrease and velocity lowers as the river exits steeper reaches (#1 and #2) to the north. The bulk of the river's course load (gravel) is deposited. As the river proceeds into downstream reaches, it begins to meander significantly and further loses velocity until it reaches the City of Durango where channel slope increases again and velocity picks up.

Purpose and Need

The basic project purpose is to mine gravel. The overall purpose of the project is to mine gravel in a sustainable manner which minimizes negative effects on the Animas River and allows FCM to continue running a successful business.

Nature of Activity

FCM has designed a gravel extraction plan that utilizes a restored and stabilized section of the river with a vortex sediment extractor tube to remove a portion of the gravel bed load from the river and deposit the sediment into an adjacent pond. The basic design of the proposed aggregate mining operation involves restoring a section of the Animas River from the present braided river system, characterized by a high width to depth ratio, to a single channel with a depth, width, and sinuosity based on the characteristics of a healthy river system. FCM plans a phased approach that balances economics with impacts to the river system. The first phase of the project will involve the construction of a single meander wavelength and pond as shown in Figure 12 of the proposed design. This phased approach allows FCM to spread capital costs over several years and the flexibility to obtain aggregates as river conditions allow. A channel approximately 1,400-1,600 feet long, 100-104 feet wide with an average depth of seven feet will be constructed using a pool-riffle system illustrated in Figure 18 of the proposed design. A portion of the material removed from the channel construction will be used to construct the flood plain benches. A combination of large rocks and vegetation will be used to reinforce the cut banks of the reconstructed river channel.

The proposed vortex tube will consist of a 36" diameter smooth wall pipe that will be buried in the lowest portion of the reconstructed channel at an angle of 45 degrees relative to the river banks. The top of the tube will

be placed at the bottom of the channel with three 16 inch wide by 25 foot long slots to allow sediment to enter the tube. Side wings will be welded to the pipe to provide a smooth consistent surface for sediment to enter the pipe. Since the tip of the tube will be located at the bottom of the river channel, there is minimal hazard to recreationalists.

Grade control for the reconstructed channel will be maintained using a series of cross-vane structures. The purpose of the cross-vane structures is to provide grade control, maintain sediment transport capacity, stabilize stream banks, keep the lower width to depth ratio intact, provide fish habitat, and allow for safe passage of recreational boaters.

The pond shown in Figure 12 represents the maximum size proposed for this design. Please note that the tonnage and cubic yards are reversed in the schematic drawings for the ponds. The actual size and depth will be determined based on the type of excavation equipment used to remove sand and gravel from the pond. This determination has not been made and is dependent on equipment availability. The pond will be excavated during the initial phase of the project with some of the material removed from the site and a portion used to construct the floodplain benches.

According to the applicant, the benefits of the river restoration and V-SET system to mine gravel at the Bar-D Pit are as follows;

1) Removal of valuable aggregate products from the Animas River with minimal disturbance to the river system.
2) A renewable source of aggregates close to an existing processing facility at Trimble Road minimizing traffic and fuel costs.
3) A stable river section that prevents further head cutting both up and down stream from the Bar-D operation.
4) Improved riparian and fish habitat.
5) A monitoring program that quantifies “excess sediment” removal rates and prevents aggrading and degrading conditions upstream, within the pit boundaries, and downstream.
6) Reclamation completed before mining occurs.

Mining Plan

The mining plan will consist of material removed during the construction of the river channel and pond and then periodic mining of the pond as the vortex tube deposits sediments from the river. Initial construction is planned for December 2008 when low water conditions will allow for construction and diversion of the river. During construction, some of the coarser material will be removed from the site and replaced with soils suitable for the establishment of vegetation. After construction is completed, the pond will be mined periodically to remove sediment and ensure that the vortex tube remains operational. It is anticipated that during spring runoff, the system will be monitored and excavated as needed. Because the system is dependent on runoff, FCM is requesting a flexible mining schedule. Mining activities are also anticipated for late fall when heavy rains can cause high runoff events and deposit sediment into the pond.

Materials excavated from the pond will be stockpiled in the area surrounding the pond and allowed to drain. When sufficient material has been dried and stockpiled, it will be hauled to the Trimble Lane facility for processing.

An important aspect of the mining plan is that once the channel restoration has been completed, there will be no mining in the active river channel. This aspect eliminates headward down cutting and water quality issues

associated with mining in an active river channel. The only time the applicant will have to re-enter the river channel in the restored section is to perform maintenance operations if needed and to gain access to ponds located along the western bank, if built.

If an inadequate amount of sediment is being captured by a single V-SET system or drought conditions occur in the basin, then an additional pond may be installed and the restored channel extended, which will be part of future phases. This phased approach ensures a steady supply of aggregates and will extend the restored river reach. The project includes four separate stream reconstruction phases eventually extending the entire length of the permit area (approximately 5000 linear feet) and a total of three pond excavations could occur in the permit area depending on the river flow conditions. The project also involves the construction of a temporary crossing to remove material from ponds located on the western river bank.

River Morphology Monitoring Plan

Monitoring is an important component of the proposed river restoration/V-SET system. Experience with similar projects has shown that modifications are necessary in response to river conditions. FCM will continue yearly cross-sectional measurements along established sections of the river to evaluate changes in channel morphology. This survey data will be analyzed to evaluate the impacts of restoration activities at the Bar-D on other reaches of the river. In addition to the surveys, the bed load sampling is planned to evaluate the efficiency of the V-Set system on removing sediment from the river. As noted, FCM wants to remove the "excess sediment" and not create a sediment starved river downstream of the Bar-D Pit.

Water Quality Monitoring

Water quality monitoring has been performed annually at the site from 1997 through 2004. Monitoring reports have consistently indicated that downstream parameter concentrations are not significantly higher than upstream concentrations. The project includes the submittal of water quality monitoring reports annually to appropriate governmental agencies.

ADDITIONAL INFORMATION:

Alternatives

Off-site

The material used in the manufacture of concrete and asphalt must meet durability specifications and be economical to transport. Nearby upland areas have been searched by FCM for alternative supplies of resources. Except for deposits on old river terrace remnants, the rock type available within practical haul distances is predominantly composed of relatively soft sedimentary rocks completely unsuitable for the intended use as construction material. Whereas, aggregate material in the river bed consists largely of durable igneous metamorphic rocks transported from other sources higher in the drainage basin, and it meets the required specifications. Additionally, unlike most alluvial material in the river, upland sources of aggregate are not "clean". The material contains large amounts of silt and clay and requires washing before the rock can be used. Considerable quantities of water are necessary for this purpose and are often not readily available or obtaining the required amounts of water makes utilization of these sites costly and impracticable. One other issue raised by the high silt content present in these deposits is siltation of down gradient resources and site-runoff control. Finally, an upland source of material is non-replenishable; therefore, continual relocations to new supply sites would be required for continued mining, which would pose much more environmental degradation than maintaining a

sustainable aggregate mining operation at its current location.

A second off-site alternative would be to mine material from the riparian floodplain areas outside of the active river channel in the same general vicinity as the Bar-D Pit. This alternative has other environmental impacts not inherent to mining deposits directly from the river channel. Many floodplain areas along the Animas River have mature riparian vegetation and wetlands that would be destroyed by mining, in addition to the disruption of wildlife habitat. Typically, riparian and wetland vegetated areas are cleared, excavated, and converted to open water. Since the adjacent areas have high groundwater levels, permanent ponds or lakes invariably form. Therefore, a commercial gravel operation would not only remove important riparian vegetation but also create large lakes and evaporation from such impoundments is considerable. In this area, the net annual evaporative loss is approximately 1.3 to 1.5 acre-feet per acre of pond surface. This depletion would cause an adverse affect to two Federally-endangered fish species located within the San Juan Basin.

On-Site

On-site alternatives include direct mining within the river similar to activities that have occurred in the past. This alternative includes relocating the low flow channel to one side of the pit to excavate gravel within the active channel. After the completion of excavation, the low flow channel will be relocated to the center of the active channel. This activity involves drastic continual modifications of the geomorphology of the river on an annual basis.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification, as required under Section 401 of the Clean Water Act from the State of Colorado is required for this project. The applicant has indicated they have applied for certification.

HISTORIC PROPERTIES: The Corps will initiate consultation with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act, as appropriate.

ENDANGERED SPECIES: The project will not affect any Federally-listed threatened or endangered species or their critical habitat that are protected by the Endangered Species Act.

The above determinations are based on information provided by the applicant and our preliminary review.

EVALUATION FACTORS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the described activity, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the described activity will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people. The activity's impact on the public interest will include application of the Section 404(b)(1) guidelines promulgated by the Administrator, Environmental Protection Agency (40 CFR Part 230).

The Corps is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SUBMITTING COMMENTS: Written comments, referencing Public Notice SPK-200575044-DC must be submitted to the office listed below on or before September 12, 2008

Kara Hellige, Project Manager
US Army Corps of Engineers, Sacramento District
Sacramento Office
799 E 3rd Street, #2
Durango, Colorado 81301
Email: kara.a.hellige@usace.army.mil

The Corps is particularly interested in receiving comments related to the proposal's probable impacts on the affected aquatic environment and the secondary and cumulative effects. Anyone may request, in writing, that a public hearing be held to consider this application. Requests shall specifically state, with particularity, the reason(s) for holding a public hearing. If the Corps determines that the information received in response to this notice is inadequate for thorough evaluation, a public hearing may be warranted. If a public hearing is warranted, interested parties will be notified of the time, date, and location. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act. If you have questions or need additional information please contact the applicant or the Corps' project manager Kara Hellige, 970-375-9452, kara.a.hellige@usace.army.mil.

Attachments: 15 drawings