Public Notice

US Army Corps
of Engineers

Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Public Notice Number: 200175040
Date: March 14, 2001
Comments Due: April 13, 2001

In reply, please refer to the Public Notice Number

TO WHOM IT MAY CONCERN:

SUBJECT: Application for a Department of the Army permit under authority of Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge 34,795 cubic yards of dredged and fill material into the Blue River and Beaver Creek and their adjacent wetlands, for a stream restoration and fish habitat improvement project as shown in the attached drawings. The project will impact **3.37 acres** of wetlands which includes the deposition of fill material into **0.26 acre** for step-pools in created channels, and the excavation and inundation of **3.11** acres. The applicant proposes to discharge 17,300 cubic yards of dredged and fill material into the Blue River for the river restoration, 15,370 cubic yards of dredged material into the ponds on Beaver Creek to reshape the shoreline, and 2,125 cubic yards of fill material into wetlands adjacent to the Blue River and beaver Creek to create and enhance the fishery. The project also proposes to excavate 51,430 cubic yards of material from waters of the United States including 14,000 cubic yards from the Blue River, and 37,430 cubic yards from existing ponds on Beaver Creek. The excavation of material from waters of the United States does not require a Department of the Army permit. Restoration work on the remainder of this ranch upstream of the Yust Reach was completed under Department of the Army permit numbers 199475467, 199675062, and 199975064.

APPLICANT: Mr. Perry Handyside, Blue Valley Ranch, Galloway, Incorporated, 6921 Highway 9, Post Office Box 1120, Kremmling, Colorado 80459

LOCATION: Along the Blue River south of Kremmling in Section 32, Township 1 North, Range 80 West, and Sections 5 and 6, Township 1 South, Range 80 West, Grand County, Colorado. This project is on the northern most reach of the Blue River on the ranch which is a reach that Blue Valley Ranch recently purchased from the Yust's. The project is known as the Yust Reach Habitat Improvements.

PURPOSE: The purpose of the project is to create a "premier quality fishing habitat along a 4,650 foot reach of the Blue River (Yust Reach) and continue the river restoration work on the Blue Valley Ranch property. The current river conditions consists of a wide shallow channel with relatively high velocities. There is a lack of instream cover and excessive bank erosion. The oxbow stream channel work restores flows to these existing oxbows to create a spring creek type habitat with reduced velocities in the oxbows when the main channel experiences high flows. These oxbow channels not only create sections of channel to fish during high water but also create refuge water for the resident fish to escape high water. They also create excellent wildlife habitat for a wide variety of species including waterfowl, wading birds, and amphibians. The purpose of the dredging of the existing ponds is to remove accumulated sediment to restore adequate depth for winter holding water and to reduce eutrophication. They also propose to enhance the channel of Beaver Creek that connects the ponds (550 feet) and the lower reach from Pond 1 to the confluence. The purpose of this work is to

improve the fishery on the lower reach, and to create a quality stream channel connecting the ponds on the upper reach.

PROJECT DESCRIPTION: This project is segmented into 4 categories: **Blue River Restoration, Oxbow Channel Restoration, Existing Pond Excavation,** and **Beaver Creek Enhancement.**

1. Blue River Restoration: The focus of the river work is to create prime fish habitat, improve channel hydraulics for sediment transport, and to reduce stresses on the stream banks. The work includes the construction of rock cross-vanes, J-Hook structures, placement of rock clusters underwater, creation of a floodplain bench, reshaping the channel, and constructing two diversion structures to provide flows for the oxbow channels. The main channel will be reshaped to decrease the width/depth ratio (bankfull width/mean bankfull depth) and deepen scour holes and glides to improve fish habitat. The cross-vanes will be used to decrease mean velocity and increase mean depth. Analysis of channel shear stress and bed material entrainment by the applicant's hydrologist, Mr. David Rosgen, indicate the channel will maintain sediment transport and that the scour holes will not fill with sediment. The proposal includes the construction of 4 cross-vane structures with large diameter rock (3.5 to 4.5 feet diameter). The cross-vanes will increase depth and flatten the channel slope which reduces velocities along the stream bank. This slower velocity reduces erosion and has the added benefit of providing fishing along the banks. One of the cross-vanes is designed to replace and existing irrigation diversion that supplies a ditch used by he applicant and the downstream landowner.

The project also includes the construction of 10 J-Hook vanes as shown on the attached plans. The vanes are designed to provide bank stabilization at the base of steep shale banks and at the outside banks of river bends. The J-Hook vanes extend into the channel at the appropriate slope and angle from the bank which directs flows away from the bank. This reduces bank erosion and creates slower water above the structure and eddy pools below. Three of the hook vanes were modified to extend across the entire channel width raising the stage and creating a seam of slower moving water on the inside of a river bend. Small rock clusters will be constructed to create additional in-stream structure for fish habitat.

At two locations on this reach the river is cutting into a steep shale bank creating an excessive sediment supply. The applicant proposes to construct a floodplain bench along these two areas that creates a 10-12 foot wide riparian area to replace barren shale banks. The bench will be constructed with the top elevation slightly above the bankfull stage. The bench and J-Hook vanes will stabilize the banks and provide better trout habitat.

2. Oxbow stream channels: In the meadows are the remnants of side channels or the main channel that no longer receive flows. Side channel habitats are an important component of a river system as they provide refuge from high flows for both adult and juvenile fish, and the adjacent wetlands often provide habitat for young-of-the-year. The wetlands also provide many other important functions. These remnant channels are currently emergent wetlands dominated by sedges (**Carex utriculata).** The applicant has agreed to modify the project design to minimize wetland conversion to stream channel and maximize the creation shallow water wetlands adjacent to the new channel. They propose to excavate a channel to provide depths of 3 to 4 feet with deeper sections below step pools. Grade control will be created by the construction of a series of rock and sod structures that create the additional depth and reduce velocities. These structures resemble beaver dams in form and function. For the Upper Oxbow, a section of an old railroad grade will be removed to provide access for flows into the channel.

The excavation of the channel will be limited to 34% of the width of the wetland which varies from 50 to 75 feet in the Upper Oxbow and between 20 and 100 feet in the Lower Oxbow. The remaining 66% of the

wetland will be inundated with less then 2 feet of water by the grade control structures, ranging from 2 feet near the channel to several inches at the edge of the wetland. The wetland impacts for this portion of the project (1.98 acres) count the entire area inundated, including the area inundated by less than 2 feet of water. The area covered by the deep water channel which will no longer remain vegetated wetlands will be 0.62 acre. The area covered by water at depths of 2 feet or less is 1.24 acres. This area will remain wetlands but will convert to a shallow marsh. This project should help to enhance the water quality functions of this wetland system by providing more reliable flows to the wetlands allowing them access to the river water for interaction, although there will be a loss of acreage, we believe the water quality and wildlife values functions will actually increase. Another benefit of this project is the additional wetland creation that occurs in the meadows. Recharging the meadows with constant flow of water creates additional saturated soil conditions within upland portions of the meadow through sub-irrigation. This has occurred in the upper reaches of the river project on this ranch and will occur at this location. The acreage is unknown and cannot be totaled and counted as mitigation credit.

3. Existing Ponds Excavation: Beaver Creek is a tributary to the Blue River. There is a series of man-made ponds constructed on Beaver Creek by the previous landowners, and the upper ponds were used as a private fish hatchery. The applicant proposes to deepen the ponds to create better fish habitat and winter holding water. Only the open water of the ponds will be excavated and dredged material will be used to create a more natural shoreline. There are not any wetland impacts associated with pond excavation as all work will occur in open water. The pond excavation at Ponds 1 and 2 (lower ponds) will remove 23,000 cubic yards of material and deposit 9,880 cubic yards of material to form peninsulas or irregular shorelines. The upper ponds (ponds 3-6) will have 14,430 cubic yards of material removed and 5,490 cubic yards of material deposited to form irregular shorelines. The balance of dredged material will be removed to an upland disposal site.

4. Beaver Creek Enhancement: The applicant proposes to improve fish habitat in Beaver Creek in the lower section downstream of Pond 1, between Ponds 5 and 6, and between Ponds 4 and 5. They propose to excavate the channel to a width of 12 to 15 feet with an maximum depth of 4 feet. Grade control structures will be used to create pools and reduce velocities. These structures will spread water over a maximum width of 30 to 40 feet but only 12-15 feet will be open water channel. The remaining width will be at depths less than 1.5 feet which will maintain vegetated wetlands. This portion of the project impacts 0.63 acre of wetlands through excavation and inundation which includes the areas inundated by only 1.5 feet of water.

ALTERNATIVES: Alternatives for the river work include more conventional bank stabilization techniques of rip-rap but this would not create better fish habitat. Different types of structures could be employed to provide the fish habitat and grade control including typical rock drop structures, vortex weirs, single rock vanes, and bendway weirs. The no action alternative does not accomplish the project purpose and does not have any ecological benefits. Alternatives to the oxbow work include simply directing flows into the area with an excavated channel. Without the grade control structures the velocities at high water would eliminate the refuge habitat and the fishing would be similar to the main channel. The no action alternative does not accomplish the project purpose of creating a spring creek fishery in this reach but it does maintain the wetlands in the existing condition. Alternatives for the pond excavation work include deeper excavation which then creates and excess of material, or shallower excavation which does not optimize the trout habitat particularly winter holding water. The deposition of dredged material could be eliminated but then the ponds would remain with their linear artificial shorelines.

The shorelines created will become riparian and portions wetlands at the lower elevations. The no action alternative maintains the shallow ponds that do not provide adequate fish habitat. Alternatives to the Beaver Creek channel work include the use of grade control structures without widening the channel but this does not improve the fish habitat of this reach to the extent of the proposed action. Other alternatives would be to reduce the overall amount of channel excavation and redesign the structures to decrease the width of

inundation. The no action alternative would maintain the existing channel conditions but would not improve the fishery.

AREA DESCRIPTION: The project area is a riparian habitat of the lower Blue River. The area contains cottonwood stands, irrigated hay meadows, willow and alder wetlands along the river, and the oxbow wetlands that are dominated by sedges (**Carex utriculata)**. The terrain rises steeply from the river terraces to sagebrush covered uplands. The eastern edge of the river is bordered by steep bluffs including the steep shales bluffs that reach the rivers edge in two locations. The flows in the river are controlled by releases from Green Mountain Reservoir located several miles upstream.

ADDITIONAL INFORMATION: The applicant proposes to mitigate for the wetland impacts of this project through the creation of wetlands on other portions of the ranch. After the permitting for the first phase of this project, the applicant reduced the impacts to wetlands during construction. The applicant created 4.25 acres of wetlands during the first phase of the restoration which included actual design and construction of wetlands. In addition, the recharging of the meadows upstream through the first phase creation of channels in the hay meadows has created an additional 10.78 acres through sub-irrigation. This mitigation acreage has been documented in a report by the applicant's wetland consultant by comparing the pre-project wetland boundaries with the post project wetland boundaries in specific areas. Shallow monitoring wells were installed to document wetland hydrology and plant communities were assessed. As of the fall of 1998, the applicant had impacted 2.83 acres of wetlands for the first 3 phases and created 15.03 acres. There is a balance of 12.2 acres. The applicant wishes to apply that mitigation to the proposed 2.43 acres of impact from this project. The total wetland impact from all phases is 5.26 acres (2.83 + 3.37) with 15.03 acres created providing a 2.4:1 ratio (created:impacted). Applying the 3.37 acres of impact from this project would leave a balance of wetlands created on the ranch of 8.83 acres. This does not include the additional wetlands that will be created due to sub-irrigation from this project.

In addition, the applicant plans a massive planting effort for this reach to restore riparian plant communities. After discussions with the Corps of Engineers concerning the lack of large willow wetlands in this reach, the applicant proposes to construct a willow wetland in the meadows adjacent to the Upper Oxbow channel. Detailed plans have not been developed as the riparian planting plans are being developed but the applicant proposes to include several species of willow and develop plans to maintain adequate wetland hydrology.

The applicant has requested water quality certification from the Colorado Department of Public Health and Environment, Water Quality Control Division in accordance with Section 401 of the Clean Water Act. Written comments on water quality certification should be submitted to Mr. Phil Hegeman, Planning and Standards Section, Colorado Department of Public Health and Environment, Water Quality Control Division, 4300 Cherry Creek Drive South, Denver, Colorado, 80222-1530, on or before **April 13, 2001**.

The Colorado Department of Public Health and Environment, Water Quality Control Division also reviews each project with respect to the anti-degradation provision in state regulations. For further information regarding anti-degradation provision, please contact Mr. Hegeman at the Colorado Department of Public Health and Environment, Water Quality Control Division, telephone (303) 692-3575.

The latest published version of the National Register of Historic Places and its monthly supplements have been reviewed and there are no places either listed or recommended as eligible which would be affected. This activity would not affect any other threatened or endangered species or their critical habitat in or near the project area. Since the pond work includes some repair and rehabilitation of the dams, we will initiate consultation with the U.S. Fish and Wildlife Service on the evaporative losses from the ponds due to that depletion of water effects on the Endangered fish species in the Colorado River. The District Engineer has

made this determination based on information provided by the applicant and on the Corps' preliminary investigation.

Interested parties are invited to submit written comments on or before **April 13, 2001**. Any person may request, in writing, within the comment period specified in this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed 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 proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain 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.

For activities involving 404 discharges, a permit will be denied if the discharge does not comply with the Environmental Protection Agency's Section 404(b) (1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria, a permit will be granted unless the District Engineer determines it would be contrary to the public interest.

The Corps of Engineers 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 of Engineers 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 the 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.

Written comments on this permit application should be submitted to the District Engineer at the address listed above. Please furnish a copy of your written comments to the attention of Mr. Michael Claffey, Northwestern Colorado Regulatory Office, U.S. Army Engineer District, Sacramento, 402 Rood Avenue, Room 142, Grand Junction, Colorado 81501-2563. For further information, please contact Mr. Michael Claffey, at telephone number (970) 243-1199, extension 13, or e-mail mclaffey@spk.usace.army.mil.

Michael J. Walsh
Colonel, Corps of Engineers
District Engineer

Enclosures: Drawing(s)