Friends of Living Oregon Waters (FLOW)

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Sent by E-Mail on May 30, 2005 at 8:45 PM and via Postal Mail to Ms. Lisa Grudzinski, U.S. Army Corps of Engineers, email: lisa.a.grudzinski@nwp01.usace.army.mil

U.S. Army Corps of Engineers
CENWP-OP-GE (Ms. Lisa Grudzinski)
2201 North Broadway, Suite C
North Bend, OR 97459-2372

Re: Comments on Corps of Engineers Action ID: 199500281; Rogue River Jet Boats, Inc.

Friends of Living Oregon Waters (FLOW), P.O. Box 2478, Grants Pass, Oregon, 97528, is an IRS-determined 501(c)3 organization comprised of hundreds of individuals dedicated to advocating for the protection and restoration of Oregon's waters. FLOW uses legal oversight, monitoring and public education to help protect *Oregon Waters* from the impacts of pollution and development. FLOW monitors the ecological health and management of all Wild and Scenic Rivers in the state of Oregon including the Wild and Scenic Rogue River. FLOW members use and enjoy the waters of the Lower Rogue River including the area being proposed for impacts by the permit application. FLOW members use the Lower Rogue River to raft, hike, swim, photograph, view wildlife and birds, study, and find solitude. It is essential that the project is in compliance with federal and state environmental law. This includes the National Wild and Scenic Rivers Act, Oregon Scenic Waterways Act, Clean Water Act, National Environmental Policy Act, and Endangered Species Act.

For the reasons stated below FLOW recommends denial of the permit application:

1. The Rogue River was one of the eight original rivers included under the Wild and Scenic Rivers Act as a protected component. The primary objectives of the Act are to preserve the free flow of component rivers and to protect the outstandingly remarkable values of the river that led to their designation. The U.S. Army Corps of Engineers (ACOE) should "protect and enhance" the outstandingly remarkable values of the Rogue River as designated by Congress. These values include: Natural Scenic Qualities, Fisheries Resource, and Recreational Opportunities.

For instance, the fisheries element of the outstandingly remarkable values needs to be analyzed concerning the potential dredging impacts including: direct harm to species; loss or degradation of spawning beds and juvenile rearing habitat; migration blockages; channel widening and shallowing; loss of hydrologic and channel stability; loss of pool/riffle structure; increased

turbidity and sediment transport; increased bank erosion and/or stream bed downcutting; and loss or degradation of riparian habitat. The impacts can extend far beyond the excavation site, and recovery time can take decades. Increased suspended sediments from dredging can adversely affect salmonid fishes. The size of the sediment particles and tidal current velocities typically affect the duration of sediment suspension in the water column. Larger particles, such as sand and gravel, settle rapidly, but silt and very fine sediment may be suspended for several hours. Suspended sediments can adversely affect migratory and social behavior and foraging opportunities (Bisson, P.A and R.E. Bilby, 1982.Avoidance of suspended sediment by juvenile Coho salmon. N.Amer. J. Fish. Manage. 2: 371-374.; Berg L. and T.G. Northcote 1985. Changes in territorial, gill- flaring, and feeding behavior in juvenile Coho salmon following short-term pulses of suspended sediment. Can. J. Fish. Aquat. Sci. 42:1410-1417).

2. It is required that management of the Rogue River Wild and Scenic Corridor include actions that will be in compliance with the comprehensive river management plan developed pursuant to the Wild and Scenic Rivers Act, by acting to "protect and enhance" the wild and scenic river corridors' "outstandingly remarkable values." It is not enough for the Corps to merely rely on the brief WSRA Section 7 analysis provided in a Forest Service (Jetboat SUP) decision document that will be under appeal before the close of the Forest Service appeal period. Analysis of the impacts of the proposal should be in the context of a NEPA analysis with public comment, specific to the proposal to dredge at Illahe. The public is very concerned about this proposal and protection of the river's ORVs should be subject to public and expert analysis.

3. Under the Wild and Scenic Rivers Act, the ACOE must administer the corridor of the Rogue River protected under the Act by protecting and enhancing the outstandingly remarkable values for which the river was originally designated. 16 U.S.C. §1281(a)(1985). "Primary emphasis" must be given to "protecting [the river's] esthetic, scenic, historic, archaeologic, and scientific features." Id. Activity in the corridor may only be approved if the activity does not "substantially interfere with public use and enjoyment of its values." Id. The proposed river dredging threatens to diminish recreational use of that section of the Rogue River corridor, the natural scenic quality of the area, and the fishery values of the Rogue River. This section of the Act is interpreted as stating a "nondegradation and enhancement policy for all designated river areas, regardless of classification." See U.S. Departments of Interior and Agriculture, National Wild and Scenic Rivers System; Final Revised Guidelines for Eligibility, Classification, and Management of River Areas ("Interagency Guidelines"), 47 Fed. Reg. 39454, 39458 (1982).

4. The dredging proposal presents a range of conflicts between the proposed action and the objectives the Wild and Scenic Rivers Act. Forthcoming NEPA analysis must address the affirmative mandates of the Wild and Scenic Rivers Act.

5. Further, it is recommended that extraction operations be judged in the context of their spatial, temporal, and cumulative impacts; and that potential impacts to habitat be viewed from a watershed management perspective.

6. The proposed dredging of the Wild and Scenic Rogue River would have a significant effect in its intensity. Intensity is evaluated in part by the "unique characteristics of the geographic area, such as proximity to… wild and scenic rivers." 40 C.F.R. §1508.27(b)(3). The proposed project

activity would be located within the wild and scenic river corridor therefore NEPA analysis must evaluate the significance of the operations in light of its activity within the corridor.

7. NEPA requires the preparation of an environmental impact statement or EIS if substantial questions are raised whether the proposed action may have a significant effect upon the human environment (Save the Yaak Committee v. Block, 840 F.2d 714 (9th Cir. 1988); Foundation for North American Wild Sheep v. USDA, 681 F.2d 1172, 1178 (9th Cir. 1982)). In deciding whether an agency's decision not to prepare an EIS, pursuant to NEPA, is appropriate, the "responsible agency must have 'reasonably concluded' that the project will have no significant adverse environmental consequences." (San Francisco v. United States, 615 F.2d 498, 500 (9th Cir. 1980).

8. The dredging is being proposed as an “annual” event. When the rate of gravel extraction exceeds the rate of natural deposition over an extended time period, a net loss occurs due to the cumulative loss of gravel (Oregon Water Resources Research Institute [OWRRI] 1995. Gravel Disturbance Impacts on Salmon Habitat and Stream Health. A Report for the Division of State Lands. Vol. 1: Summary Report. 52 pp. Vol. 2: Technical background report. 225 pp.).

A federal action is significant where it “is related to other actions with individually insignificant but cumulative significant impacts.” 40 C.F.R. § 1508.27(b)(7). The consequence of several “actions [that] will have cumulative or synergistic environmental impacts… must be considered together.” Kleppe v. Sierra Club, 427 U.S. 390, 410, 96 S.Ct. 2718, 2730, 49 L.Ed. 2d 576 (1976). The agency must perform a cumulative impact analysis that includes “other past, present, and reasonably foreseeable future actions.” 40 C.F.R. § 1508.7. Environmental analysis should analyze the cumulative effects of dredging activities in conjunction with other activities (mining, logging, road construction, in-stream gravel removal) in the watershed.

Cumulative effects are defined in 50 CFR 402.02 as “those effects of future State or private activities, not involving Federal activities that are reasonably certain to occur within the action area of the Federal action subject to consultation”.

For example, cumulative impacts on anadromous fish habitat caused by multiple extractions and sites along a given stream or river are compounded by other riverine impacts and land use disturbances in the watershed. FLOW recommends that this dredging operation be judged from a perspective that includes their potential adverse cumulative impacts (Kondolf 1997; see also Council on Environmental Quality, Office of Federal Activities 1997 and U.S. EPA 1999 for general cumulative impact guidance).

9. Instream dredging can directly impact salmonids by degrading and simplifying spawning and rearing habitats, increasing turbidity and decreasing substrate stability thereby influencing lower trophic levels upon which salmonids depend on for food (Spence, B.C., G.A. Lomnicky, R.M. Hughes, and R.P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, Oregon.)

Instream dredging typically alters channel geometry, including local changes in gradient and width-to-depth ratios. Local scouring and erosion can occur as a result of increased water

velocity and altered sediment load associated with dredging. Changes in channel stability can also cause a loss of riparian vegetation. Channel bed incision can occur upstream or downstream from a dredging operation (Kondolf, G.M. 1994. Geomorphic and environmental effects of instream gravel mining. Landscape and Urban Planning. 28: 225–243). The premise that instream dredging can be accomplished without affecting the channel may ignore downstream bed load requirements for channel maintenance and the complex physiochemical and biotic responses to changes in bed load (Meador, M.R. and A.O. Layher, 1998. Instream sand and gravel mining: Environmental issues and regulatory process in the United States. Fisheries. 23 (11): 6-13). The majority of the bedload in a river is transported during high flows, particularly floods. Multiple factors can slow water velocity in streams and rivers including decreasing gradient, widening of the channel, and friction of transporting bedload across the streambed. In cases where the bedload is lost upstream due to instream dredging, water velocity does not decrease as quickly and as a result the water picks up sediment and new bedloads by eroding banks and removing gravel from other deposits including downstream gravel bars and salmonid spawning beds. This situation is referred to as "hungry water" (Kondolf, G.M. 1997. Hungry water: effects of dams and gravel mining on river channels. Environmental Management. 21 (4): 533–551).

10. Extraction of alluvial material from within or near a stream bed has a direct impact on the stream's physical habitat parameters such as channel geometry, bed elevation, substrate composition and stability, instream roughness elements (large woody debris, boulders, etc.) depth, velocity, turbidity, sediment transport, stream discharge, and temperature (Kondolf 1997; OWRRI 1995; Meador and Layher 1998). OWRRI (1995) states that: Channel hydraulics, sediment transport, and morphology are directly affected by human activities such as gravel mining and bank erosion control. The immediate and direct effects are to reshape the boundary, either by removing or adding materials. The subsequent effects are to alter the flow hydraulics when water levels rise and inundate the altered features. This can lead to shifts in flow patterns and patterns of sediment transport. Local effects also lead to upstream and downstream effects. Altering these habitat parameters can have deleterious impacts on instream biota, food webs, and the associated riparian habitat (Spence et al. 1996; Brown, A.V., M.M. Lyttle, and K.B. Brown. 1998. Impacts of gravel mining on gravel bed streams. Trans. Amer. Fish. Soc. 127: 979-994).

11. Instream gravel operations disrupts the preexisting balance between sediment supply and transporting capacity, and can result in channel incision and bed degradation (Kondolf 1997; Meador and Layher 1998). This is partly because gravel "armors" the bed, stabilizing banks and bars, whereas removing this gravel causes excessive scour and sediment movement (OWRRI 1995; Kondolf 1997). Degradation can deplete the entire depth of gravel on a channel bed, exposing other substrates that may underlie the gravel, which would reduce the amount of usable anadromous spawning habitat (Kondolf 1997; OWRRI 1995). Thus, gravel removal not only impacts the extraction site, but also may reduce gravel delivery to downstream spawning areas (Brown et al. 1998).

12. Instream gravel operations can cause increases in suspended sediment, sediment transport, water turbidity, and gravel siltation (Kanehl, P. and J. Lyons. 1992. Impacts of in-stream sand and gravel mining on stream habitat and fish communities, including a survey on the Big Rib River, Marathon County, Wisconsin. Wisconsin Depart. Nat. Resour. Res. Rep. 155, Madison,

WI. 32 p.); OWRRI 1995; Kondolf 1997). Brown et al. (1998) also note that the fine material can travel long distances downstream as a plume of turbidity while the gravel is being removed, and during floods, turbidity is likely to be higher than normal for even longer distances downstream due to the higher flow rate and increased entrainment of sediments as a result of channel deformation. Fine sediments in particular are detrimental to salmonid redds (nests) because (1) blockage of interstitial spaces by deposited silt prevents oxygenated water from reaching the incubating eggs within the redd, as well as the removal of waste metabolites; (2) embryos or sac fry can be smothered by high concentrations of suspended sediments that enter the redd; and (3) emerging fry can become trapped if enough sediment is deposited on the redd (Reiser, D.W. and R.G. White. 1988. Effects of two sediment size-classes on survival of steelhead and Chinook salmon eggs. N. Amer. J. Fish. Manage. 8: 432-437). High silt loads may also inhibit larval, juvenile and adult behavior, migration, or spawning (Kanehl and Lyons 1992; OWRRI 1995).

13. Operation of heavy equipment in the channel bed can directly destroy spawning habitat, rearing habitat, the juveniles themselves, and macroinvertebrates, and produce increased turbidity and suspended sediment downstream (Kondolf 1994). Additional disturbances to redds may occur from increased foot and vehicle access to spawning sites, due to access created initially for gravel extraction purposes (OWRRI 1995). Also, heavy equipment is powered by diesel fuel and lubricated by other hazardous petroleum products, leading to the potential for toxic chemical spills. Petroleum-based contaminants, such as fuel, oil, and some hydraulic fluids, contain harmful polycyclic aromatic hydrocarbons.

14. Instream roughness elements, including the gravel itself, play a major role in providing structural integrity to the stream or river ecosystem and provide critical habitat for salmonids (OWRRI 1995; Collins, B.D. and D.R. Montgomery. 2002. Forest development, wood jams, and restoration of floodplain rivers in the Puget Lowland. Restoration Ecol. 10:237-247). These elements are important in controlling channel morphology and stream hydraulics, in regulating the storage of sediments, gravel and particulate organic matter, and in creating and maintaining habitat diversity and complexity (OWRRI 1995).

Summary

FLOW has significant concerns about the implications of dredging the Wild and Scenic Rogue River for jetboat passage. The proposed dredging is not consistent with federal and state law for Wild and Scenic Rivers and State Scenic Waterways. The permit application should either be initially denied or be subject to the full analysis requirements set forth in the National Environmental Policy Act and other environmental laws.

Respectfully submitted,

/s/ Joe Serres

Joe Serres, President, Board of Directors
Friends of Living Oregon Waters (FLOW)