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Steve Bargsten
North Coast Regional Water Quality Control Board
5550 Skylane Blvd
Santa Rosa, CA
via e-mail (attachment)

July 3, 2008

SUBJECT: Public Notice for Water Quality Certification and/or Waste Discharge Requirements, Bed Rock Products, Inc./Gualala Redwoods, Inc. Gualala River Instream Gravel Extraction (WDID# 1B07144WNSO) Sonoma County – comments

Dear Mr. Bargsten:

Please consider the following comments and attached documents concerning 401 certification of the Gualala River instream gravel extraction permit. I have previously notified and commented to the RWQCB, on behalf of Friends of the Gualala River, about actual and potential impacts of unauthorized (state, federal permits lacking) gravel mining on the Gualala River by the applicant, and have requested compliance inspections. I have also commented on the Sonoma County Permit and Resource Management Department (PRMD) Negative Declaration for gravel mining (see attached document), which failed to assess and mitigate potentially significant impacts, and relied on inadequate and outdated survey data. Friends of the Gualala River (FoGR) retained a qualified expert in North Coast fluvial hydrology and geomorphology, Dennis Jackson, to provide critical review comments (see attached document) on the Negative Declaration and permit application. Please carefully review the comment history for this project, particularly the CEQA deficiencies regarding baseline information, underestimation of potentially significant impacts, and mitigation.

Along with Friends of the Gualala River, I support well-regulated, scientifically sound, and adequately mitigated gravel mining authorization for the Gualala River. I do not oppose gravel mining *per se* on the Gualala River. I remain highly skeptical and critical, however, of the superficial environmental analysis, inadequate baseline data, and woefully defective mitigation planning for the proposed Gualala River gravel extraction operations. Because of past experience with the unauthorized (state, federal permits lacking) 2006 gravel mining impacts to the riparian zone of the Wheatfield Fork, I am particularly skeptical of the applicants' future compliance with terms and conditions of gravel mining authorizations, and the ability of regulatory agencies to monitor, inspect, and enforce them.

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I would like to direct your attention to two fundamental concerns regarding baseline conditions and surveys, as they affect impact assessment and mitigation. The most basic is the reliance on “average” estimated sediment budgets for the project area as a whole to develop limitations for gravel extraction. The lower Gualala River has undergone a highly significant threshold change in the extent and maturity of riparian woodland vegetation, and riparian understory vegetation, since the previous authorization of gravel mining. The Wheatfield Fork and South Fork reaches upstream of gravel mining sites have been transformed since 2000 from mostly mobile, sparsely vegetated, disorganized gravel bars, to dense, tall, consolidated maturing stands of riparian willow-alder woodland 3 to over 5 m in height that withstand extreme floods, such as those of 2005. These maturing willow-alder stands are trapping and stabilizing highly significant amounts of gravel, sand, and silt, evident in stratified deposits exposed in adjacent channel scarps. The widespread maturation and spread of riparian woodland upstream of mining sites is associated with conspicuous beneficial changes in channel morphology (incision, coarsening of bed; single-thread channel prevalence) and improvement of salmonid habitats. These threshold ecological changes are also indicative of a significant change in local sediment budgets, making older estimates of sediment outdated and unreliable, particularly if outdated “average” budgets are applied to specific reaches that are no longer recharging sediment at previous rates because of upstream riparian sediment trapping and stabilization.

Please carefully inspect the extent and maturation of riparian vegetation, and associated channel conditions, through remote sensing imagery and through field surveys.

The failure to address reach-specific changes in sediment budgets can, and I believe has, resulted in excessive local extraction rates that have destabilized bars and channels, resulting in channel avulsion, as at Valley Crossing. Recurrent mining at fixed locations is permanently destabilizing bars and precluding recovery of channel morphology and riparian vegetation succession. Please see the attached comments on this matter from Dennis Jackson, and myself. The fixed locations of mining sites are creating obvious permanent open scars in the riparian corridor, maintaining local channel instability, excessive solar heating of the river bed (‘hot spots’), precluding riparian vegetation succession (torrent sedge, willow, alder) that would otherwise trigger river recovery mechanisms (bank stabilization and cohesion, sediment trapping, shading, channel incision and shaded pool formation).

I urge the RWQCB to require the following basic conditions and mitigation measures in its authorization:

1. Annual reach-specific (not average multi-year, multi-location) surveys to estimate gravel recharge (percent recharge since previous episode of mining) and total gravel volume. The interval of surveys should in no case be longer than the interval of mining in any one reach.
2. Restriction of extraction volumes not to exceed annual reach-specific recharge rates within a single gravel mining interval. “Floating” gravel extraction elevations based on seasonally variable water level elevations should be prohibited.

3. Complete protection of existing perennial/woody riparian vegetation succession in all stages (torrent sedge, willow, alder succession), with monitoring for compliance; enforcement of protection by RWQCB staff inspection.
4. Require pre-mining biological surveys for fish (particularly steelhead), amphibians, herpetofauna, plants (rare plants and overall vegetation conditions) by qualified expert biologists in the spring/early summer months before mining episodes. Use biological survey data of the current year to establish protective buffer or exclusion zones to protect sensitive fish, wildlife, and plant resources (not just narrow localities of listed species).
5. Compensatory mitigation for self-perpetuating exclusion of riparian woodland succession in mining reaches, at a minimum 1:1 replacement ratio (area, linear extent), within affected reaches. Compensatory mitigation should consist of (a) permanent exclusion of timber harvest within 2 mature tree height distance of the 100 yr floodplain along stream lengths proportional with those affected by mining; (b) closure and reclamation of mining sites that fail to recharge sediment within 3 years, followed by active restoration (riparian revegetation) if natural succession fails to occur.
6. Require annual monitoring and reporting, including fixed-perspective ground photography and aerial photography as well as physical survey data

Finally, I request that the RWQCB condition its 401 certification to be consistent with the terms and conditions of the incidental take statement of the NMFS biological opinion. Because Sonoma County has been unreliable and insufficiently staffed in executing its responsibilities for monitoring, inspection, and compliance/enforcement actions for gravel mining, I urge the RWQCB to take the lead in this role.

Respectfully submitted,



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Cc: Friends of the Gualala River, Gualala
Coast Action Group, Point Arena
U.S. Army Corps of Engineers, Regulatory Branch (P. Straub), San Francisco
National Marine Fisheries Service, Santa Rosa

Attachments: Dennis Jackson PRMD comments 2007; Baye PRMD comments 2006, 2007