



United States Department of the Interior



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To: All District Managers, Field Managers, and Deputy State Directors

From: State Director

Subject: Placer Mining Baseline Environmental Information Guidance and Reclamation Effectiveness Monitoring for Alaska Placer Mined Streams

Program Area: Mining Law Administration, Surface Management

Purpose: The purpose of this Instruction Memorandum (IM) is to provide guidance to BLM personnel on the baseline environmental information needed from Alaska placer mining operators for successful stream reclamation and guidance on Reclamation Effectiveness Monitoring (REM) for Alaska placer mined streams. This guidance is intended to ensure that Alaska mining operations are in compliance with existing federal laws and regulations, as outlined in the BLM 2012 Surface Management Handbook.

The Bureau of Land Management (BLM) manages approximately 119,000 miles of streams in Alaska, some of which are affected by placer mining. Placer mining is defined as mining in alluvial deposits for minerals, such as gold, and often involves the diversion or alteration of the stream environment. Pursuant to the regulations at 43 CFR 3809, mining must not cause unnecessary or undue degradation (UUD) which is defined in 43 CFR 3809.5¹ as, among other things, compliance with the performance standards found at 43 CFR 3809.420. These

¹ The definition for UUD for pre-2001 plans is located at 43 CFR 3809.0-5(k) in the 1981 regulations. The 1981 regulation's definition of UUD included, but was not limited to, "failure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas." The 1981 regulation's reclamation requirements (3809.1-3(d)) are the same as the specific performance standards listed in the current regulations at 3809.420, and include the rehabilitation of fisheries and wildlife habitat. The 1981 regulations state in subpart 3809.3-2(b) "failure to reclaim areas disturbed by operations under 43 CFR § 3809.1-3 of this Part is a violation of these regulations."

performance standards require operators to reclaim their mine site. Reclamation includes, but is not limited to, the rehabilitation of fisheries and wildlife habitat, the placement of growth medium, and the establishment of self-sustaining revegetation.

Baseline information is important for evaluating placer mining operations that include direct or indirect stream channel impacts and for determining whether the reclamation performance standards would be satisfied. The BLM has established detailed baseline environmental information requirements that represent the minimum information necessary for the BLM to adequately analyze potential environmental impacts.

Successful stream reclamation is critical to meeting the requirements for rehabilitation of fisheries and wildlife habitat. Determining when the reclamation requirement is met has been based largely on qualitative measures, creating uncertainty and unclear expectations between the BLM and the operator. To address this situation, this IM presents a framework for how stream reclamation and rehabilitation of fisheries will be evaluated. The Reclamation Effectiveness Monitoring (REM) approach provides a common suite of metrics that the BLM will use to determine when stream reclamation is complete and when the reclamation bond may be released. By using the REM approach, the BLM can ensure clear and measurable stream reclamation objectives are included in the operator's approved reclamation plan.

Policy/Action:

Baseline Environmental Information

This IM establishes a policy that all new Plans of Operations and proposed modifications affecting perennial streams² in Alaska include specific baseline environmental information as provided for in 43 CFR 3809.401(c).

The BLM may require additional baseline environmental information, depending on the complexity of the site and potential resources affected. Attachment 1, *Placer Mining Baseline Environmental Information Guidance*, provides details about the required data components for the operator-provided baseline environmental information.

Reclamation Effectiveness Monitoring

This IM requires BLM personnel to ensure that certain affected plans contain reclamation objectives related to stream recovery. This IM provides a functional framework to evaluate the physical, chemical and biological recovery of streams following reclamation for existing and new Plans and Notices affecting perennial streams. The specific policy requirements are outlined in Attachment 2, *Reclamation Effectiveness Monitoring (REM) for Placer Mined Streams*.

Monitoring Plans and Release of Financial Guarantees: All new and modified Plans of Operations must include a monitoring plan that at a minimum incorporates reclamation progress monitoring by the operator. Monitoring Plans should include provisions for operators to provide annual site photos of reclamation progress (43 CFR 3809.401(b) (4)). These

²"Affecting perennial streams" is defined as mining or exploration activity in or within 100 feet of a perennial stream channel, or the construction of stream bypasses or diversions. Surface disturbing activities within 100 feet of streams have an increased potential for adversely impacting stream habitats and water quality based on a literature review on the efficacy of various riparian buffers widths.

photographs and any other operator-submitted information should be reviewed by the BLM Interdisciplinary Team to determine if it is reasonably likely that the reclamation objectives outlined in the Plan are being met and whether a field visit to measure site conditions is warranted. Determining when to measure reclamation success for Notice level operations will be primarily reliant upon BLM site inspections and data review by the BLM Interdisciplinary Team.

Authorized Officers should not release financial guarantees until reclamation is achieved, including meeting the reclamation requirements outlined in the BLM-approved Plan of Operations and the 3809 regulations³.

Timeframe: The baseline information policy is effective for new Plans of Operations affecting perennial streams to be implemented in 2016 or beyond. Operators requesting a modification (excluding minor modifications) to existing Plans would also be required to submit this information prior to new disturbance affecting perennial streams. This phased approach allows operators to collect this information during the summer and fall of 2015 in preparation for new or modified Plan submittals during the following winter. The REM policy is effective immediately and applies to existing and new Plans of Operations and Notices.

Budget Impact: There will be a budget impact associated with this IM. In the short-term, BLM will need to educate mining operators about these situation-specific baseline environmental information requirements. In the instances where the operator chooses to provide the baseline environmental information at the time of Plan submission, the BLM expects to realize budget efficiencies due to improved effectiveness of processing and review. Operators that do not wish to incur the expense of providing the baseline environmental information can request assistance from the BLM authorized officer; however, this may delay the processing of the submitted plan for two or more field seasons based on workload and staff availability. It is anticipated that this policy will improve BLM's ability to more accurately evaluate the potential impacts and develop measures to ensure the prevention of UUD, which may eventually result in the reduction of costs associated with the monitoring and evaluation of failed reclamation efforts.

This guidance will improve efficiencies for implementing the 43 CFR 3809 regulations, since defining measurable reclamation objectives will reduce the need for repeated field visits and qualitative assessments of reclamation, which have contributed to inconsistent reclamation results and operator confusion. Based on 2009-2012 data, BLM Alaska reviews and approves an average of 6 Plans of Operations per year. Currently, there are approximately 35 Plans of Operations which involve authorized or potential in-stream operations or diversions.

Background: None

Manual/Handbook Sections Affected: This IM is in conformance with the 43 CFR 3809 Surface Management Handbook.

³ The pre-2001 regulations required rehabilitation of fish and wildlife habitat as a reclamation requirement (see 43 CFR 3809.1-3(d)) while the current regulations include rehabilitation of fish and wildlife habitat as a reclamation performance standard (see 43 CFR 3809.420).

Coordination Alaska State Office (Division of Resources) coordinated with the Fairbanks and Anchorage District Offices, as well as the Washington Office (Division of Solid Minerals).

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Signed by:

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2 Attachments

Placer Mining Baseline Environmental Information Requirements (12pp)
Reclamation Effectiveness Monitoring (REM) for Placer Mined Streams (18pp)