GENERAL PERMIT (GP) POA-2014-00055-M1 Mechanical Placer Mining Activities within the State of Alaska

AUTHORITY: The District Engineer (DE), Alaska District, U.S. Army Corps of Engineers (Corps), proposes to reauthorize the Regional General Permit (GP) POA-2014-00055 as RGP-08, for Mechanical Placer Mining Activities in the State of Alaska, under Section 404 of the Clean Water Act (CWA). (Public Law 95-217, 33 USC 1344 et seq.)

SUBJECT: This GP authorizes miners to place dredged and/or fill material into waters of the United States (U.S.), including wetlands and streams, for the purpose of mechanical placer mining within the State of Alaska, under the terms and conditions of the GP.

CHANGES FROM PREVIOUS GP (POA-2014-00055):

- Now includes waiver process for 1,500-foot limit on stream diversions/relocations
- Now excludes work in and/or affecting *anadromous* streams
- Now excludes operations in Alaska Department of Environmental Conservation (ADEC) Impaired Waters (Categories 4a, 4b, and 5)
- Now excludes provision for default permit authorization

NOTE: Words in <u>italics</u> are defined in the Appendix: Definitions, Acronyms, and Abbreviations.

- **I. ACTIVITIES COVERED BY THE PERMIT:** *Mechanical placer mining* activities that involve placement of dredged and/or *fill material* into *waters of the U.S.* Including, but not limited to:
- Mechanized land clearing; construction of berms or dams; stockpiles
- Stream *relocations* (permanent); Stream *diversions* (temporary)
- New mine features constructed in wetlands, such as airstrips, camps, roads within the mining operation, and culverted crossings of streams or wetland areas
- Permanent access roads and road extensions outside the mining operation
- Reclamation activities
- Exploration activities for placer mining, such as side cast or discharge of dredged and/or fill material for exploratory drill pads, trenches, holes, and bulk samples
- II. LIMITS OF THE GP: If operation exceeds the limits of the GP, or if Corps review indicates that your operation may have a greater than minimal impact on the environment regardless of size, you may be required to obtain an Individual Permit. (33 CFR 325.2(e)(2)).
- This GP authorizes up to 5 acres of wetland/water disturbance at any time

- 1,500 linear feet of stream diversions/relocations in a year (unless waived)
- **III. ACTIVITIES NOT COVERED BY THE PERMIT:** Some of these activities may require a different type of Department of the Army (DA) permit issued by the Corps. Contact the Corps to determine whether a permit is required.
- Activities in or affecting anadromous fish streams or ADEC's Impaired Waters.
- <u>Temporary mining roads</u> for the purpose of moving mining equipment, where such roads are constructed and maintained in accordance with best management practices (BMPs), are exempt from the CWA (33 CFR 323.4 (a)(6)). A temporary road has a limit of **three years**.
- <u>Recreational Mining</u>: use of hand tools such as a pick, shovel, pan, and/or rocker box do not require DA authorization. Addressed in Special Public Notice 94-10, September 13, 1994.
- <u>Commercial Gravel Operations</u> located at a placer mining site but operated for the sole purpose of gravel sales.
- Suction dredge mining: use of suction device to remove bottom substrate from a
 water body and then discharge the material from a sluice box for the purpose of
 extracting gold or other precious metals.
- Mining/working in Navigable Waters of the U.S.
- Hard Rock or Coal Mining: process of removing metals or elements within rock.

IV. TERMS AND CONDITIONS FOR THE GP (33 CFR Part 325.4)

Due to the substantial diversity of geographic and environmental conditions within Alaska, the Terms and Conditions are intentionally less prescriptive. The intent is to allow flexibility in how operations comply with the 404(b)(1) Guidelines of the Clean Water Act, including timely reclamation of sites, by inclusion of project-specific special conditions as needed. It is ultimately the responsibility of operators to ensure compliance with the Terms and Conditions. Failure to meet the Terms and Conditions may result in corrective compliance measures or enforcement action.

A. GENERAL CONDITIONS (GCs):

- 1. Management of mine operations:
 - a. Mine operations must be managed to avoid *erosion* of dredged and/or *fill material* from the mine operation into adjacent waters of the U.S., including diversions and relocations.
 - b. Vegetation, woody materials, topsoil, peat, and other organic overburden must be separated from non-pay and mineral overburden and stored individually for use in reclamation.

c. Water management features in wetlands must be designed to slow, collect, direct, filter, and/or retain water at the site and prevent sedimentation of adjacent waters of the U.S. This includes but is not limited to settling ponds, bedrock drains, ditches, filters, natural vegetation, or other features to manage water on-site.

2. Management of stream channel diversions and relocations:

a. Stream channel *diversions* and *relocations* must be constructed and maintained to withstand periods of high flow.

b. Channel *relocations*:

- i. Must be constructed to approximate the original channel dimensions and blend with the upstream and downstream connections. If the original dimensions are unknown or the channel will be shortened, it must include additional instream structures that effectively slow the rate of water flow and prevent excessive erosion.
- ii. Banks must be reconstructed to a height and grade approximating the original bank and matching the upstream and downstream connections. The banks must be reinforced with natural structures along sections subject to higher water velocity (e.g., outside curves, narrow reaches) to prevent excessive *erosion*.
- iii. *Floodplain* must be constructed to an elevation, width, and grade approximate to the original *floodplain* that allows high seasonal water events to easily flow over the bank and spread into the *floodplain*.

3. Reclamation is required of all operations:

a. Mine features must be reclaimed with advancement of the mining operation to ensure no more than 5 acres of disturbance to waters of the U.S. at any time.

b. Recontouring:

- i. Pits, exploration drill holes, trenches, ditches, and *diversions* must be backfilled and stabilized.
- ii. Areas must be reshaped and graded to conform to adjacent landforms, control drainage, and prevent excessive *erosion*.
- iii. All stockpiled materials must be used in reclamation.
- iv. Organic material must be spread over recontoured tailings.
- v. Compacted areas must be ripped, tilled, or broken up.
- c. The site must be reclaimed to allow for surface water retention to promote *revegetation* and encourage formation of wetlands.
- 4. Operators must follow all conditions listed in their Section 401 Water Quality Certification from the Alaska Department of Environmental Conservation and their Fish Habitat and/or Fish Passage Permit(s) from the Alaska Department of Fish and Game.

- 5. Each year operators must submit the Corps Annual Report directly to the Corps (see contact information below) by December 31. Incomplete reports or unsuccessful reclamation may result in non-compliance actions.
- 6. GP authorizations may be transferred from one responsible party to another by submitting a letter of request, or email, to the appropriate Corps office or by sending transfer documentation to ADNR for posting to their website. Note, the terms and conditions of this general permit, including any special conditions, will continue to be binding on the new responsible party.

B. SITE INSPECTIONS, COMPLIANCE, AND ENFORCEMENT: (33 CFR Part 326)

- 1. The Permittee must keep a copy of the permit at the *mine site* for review. The Notice of Authorization must be visibly posted at the *mine site*.
- The Permittee must allow the DE to inspect the activity to ensure work is being or has been conducted in accordance with the terms and conditions of this GP. Refusing access for inspection of the authorized activities is considered noncompliance.
- 3. Failure to obtain a permit, or to comply with the terms of this GP, may result in an enforcement or non-compliance action, such as a suspension of work or revocation of the permit. The Corps and the Permittee will first work to reach a voluntary mutual solution such as obtaining a permit, removal of dredged and/or fill material, or other structures or directed restoration. Next, the Corps may issue an administrative order requiring compliance. In certain cases, imposition of penalties is provided for under Section 301 of the CWA (33 USC 1319).

C. EXPIRATION (33 CFR 325.2):

1. This permit expires October 31, 2025.

Operations that have a Corps authorization and are ongoing by the expiration date of the GP, have an additional 12 months to operate under the terms and conditions of this GP. The Permittee must also notify the Corps of his/her intent to continue mining.

V. RE-EVALUATION, MODIFICATION, SUSPENSION, AND REVOCATION (33 CFR 325.7):

- 1. The DE may re-evaluate the GP and/or any individual authorization under the GP at any time or as circumstances warrant.
- This GP may be modified, suspended, or revoked at any time by issuing a Public Notice if the DE finds that the individual or cumulative effects of the authorized activities have an unacceptable adverse impact on the environment or on the Public Interest.

VI. LIMITS OF THIS AUTHORIZATION AND TO FEDERAL LIABILITY (33 CFR Part 325, Appendix A):

- **A. LIMITS OF THE AUTHORIZATION:** This permit does not grant any property rights or exclusive privileges, does not authorize any injury to the property or rights of others, and does not authorize interference with any existing or proposed Federal Project.
- **B. LIMITS TO FEDERAL LIABILITY:** The Government does not assume liability for:
- Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- Damages to permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- Design or construction deficiencies associated with the permitted work.
- Damage claims associated with any future modification, suspension, or revocation of this permit.
- **VII. HOW TO APPLY:** The Corps of Engineers, Alaska District will accept the Application for Permits to Mine in Alaska (APMA) with all Corps required questionnaires, as a Pre-Construction Notification, pursuant to 33 CFR 320.1 (c).
 - A. COMPLETE APPLICATION (33 CFR 325.1 (d)): an application is complete and can only be processed when all the following information is submitted:

Note: Operations solely on federal lands and under 5 acres are *non-reporting*.

- 1. Description, timeline, and location of the operation for each year of the APMA.
- 2. Current and legible drawings, sketches, or figures with plan views, crosssections, and dimensions, including the following:
 - a. Cuts, settling ponds, processing plants, berms, and roads
 - b. Stream *diversions* and *relocations* (including time period used)
 - c. Stockpiles: pay material, overburden, and organic material
 - d. Access roads: identify new and pre-existing roads
 - e. Camps and airstrips
- 3. Submit Corps Questionnaires to provide information, not in APMA
- 4. Signature and current contact information.

B. APPLICATION PROCESS:

 Use the Alaska Department of Natural Resources, Division of Mining (ADNR-Mining) website to submit an APMA, and then submit the required Corps Questionnaires directly to the Corps.

- 2. There is no application deadline; however, to ensure that you receive a permit in time to begin operations, submittal of Corps Questionnaires by January is encouraged.
- 3. Note: The APMA is not a Corps permit. To be certain that you obtain a Corps permit, contact one of our offices directly.

FOR THE DISTRICT COMMANDER

Ryan H. Winn

Chief, North Section Regulatory Division

Alaska District Corps of Engineers

Corps of Engineers Regulatory Division Alaska District Office

P.O. Box 6898

2204 3rd St. Suite #201E JBER, Alaska 99506-0898

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30 October 2020

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APPENDIX A: DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Definitions

<u>1987 Corps of Engineers Wetland Delineation Manual</u>: The federal delineation manual, dated January 1987, used in the CWA, Section 404 Regulatory Program for the identification and delineation of wetlands. The manual requires evidence of wetland vegetation, soils, and hydrology in order to determine that an area is a wetland. http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf

There are different procedures for conducting onsite delineations, by collecting field data, and offsite determinations, from aerial and site photos.

<u>2007 Alaska Regional Supplement to the Corps Wetland Delineation Manual</u>: The federal regional guidebook to identifying wetlands in Alaska.

http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/erdc-el_tr- 07-24.pdf

<u>Anadromous</u>: referring to a fish or fish species that spends portions of its life cycle in both fresh and salt waters, entering fresh water from the sea to spawn. In Alaska, examples of *anadromous* fish species include *anadromous* forms of Pacific trout and salmon of the genus *Oncorhynchus*, Arctic char, Dolly Varden, smelts, and sturgeon.

<u>At any time</u>: Areas of wetland disturbance and/or length of stream diversion or relocation can never exceed the limits (unless waived) of the RGP during any point (this includes during a single day), until such time as they are successfully reclaimed.

<u>Diversion</u>: A stream channel diversion may remain in place for up to two (2) years, after which it must be reclaimed, or it is considered a relocation.

<u>Erosion</u>: Dispersal of soil particles by wind or water. For the purpose of this GP, *fill material* must not show signs of erosion, such as gullies, head cuts, caving, block slippage, or sloughing beyond the mine site and into waters of the U.S.

<u>Fill material</u>: Material placed into waters of the U.S. that has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a waterbody. Examples of "fill material" include rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure in waters of the U.S. The placement of overburden, slurry, tailings, or similar mining-related materials" is included in the definition of "discharge of fill material" regulated under Section 404 of the CWA. (Final Definition of Fill, 2002)

<u>Floodplain</u>: Land area adjacent to a stream that is subject to flooding during moderate to high flows. One way to define a floodplain is to observe the extent of water overtopping the streambanks during high water events.

<u>Mechanical placer mining</u>: The removal of gold or other precious materials from alluvial gravels using mechanized equipment.

<u>Mine Site</u>: All features of a mining operation covered under "Section I. Activities Covered by the Permit".

<u>Minimization</u>: measures to reduce impacts to waters of the U.S., including wetlands. Examples include, but are not limited to: constructing a drainage ditch around the mine operation to collect and redirect overland flow away from the mine operation; stockpiling topsoil separately from inorganic overburden for use in reclamation; constructing settling ponds to collect sediment laden water within the mine site; and using an old creek channel for a stream relocation.

<u>Minimization Plan</u>: 33 CFR 325.1 (d)(7) A descriptive statement that explains how an applicant plans to avoid and *minimize* impacts to waters of the U.S.; it also explains why compensatory mitigation should not be required.

Navigable Waters: Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) Navigable waters of the U. S. are those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. (33 CFR Part 329.4)

<u>Ordinary high water mark</u>: The line on the shore established by the fluctuations of water, and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (33 CFR 328.3(e) and RGL 05-05)

<u>Relocation</u>: A stream channel relocation is a permanent realignment including creation of a stable bank, stream bed, and floodplain connectivity that is similar with respect to upstream and downstream conditions.

<u>Restoration</u>: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic *functions* to a former or degraded aquatic resource.

<u>Revegetation</u>: Activities that include, but are not limited to, natural revegetation, and use of locally available materials, including native seeds, dormant woody cuttings, transplanting, or other methods.

<u>Successfully reclaimed</u>: When an operator has reclaimed an area so that all of the following steps have been accomplished:

- Reclamation must be approved by the Corps to be considered complete
- Backfill of pits, recontouring, and respreading organics to conform to adjacent landforms, initiate *revegetation*, control drainage, and *minimize erosion*
- Successfully reclaimed areas are no longer a part of the active mining operation
- Stream channel diversions have been backfilled, with berms removed, and organics respread
- Stream channel relocations are constructed to be on track to satisfy floodplain connectivity, be of appropriate length and other dimensions to manage water movement without excessive erosion of bed or banks, and *revegetation* has been initiated

<u>Uplands</u>: There is no regulatory definition of uplands, except that they do not satisfy wetland criteria. An upland is missing at least one of these criteria: wetland vegetation, wetland soils, or hydrology during the growing season.

On mine sites, uplands may include old tailings, camps, roads or airstrips. These areas may have been *wetlands* that were filled under a prior GP or before the CWA. *Mine sites* may also include naturally occurring upland areas that do not satisfy wetland criteria.

<u>Waters of the United States</u>: Include all waters listed at 33 CFR Part 328.3. For the purposes of this GP, this includes *wetlands* and perennial (year-round) and intermittent (seasonal) streams that have a downstream connection to navigable waters.

<u>Wetland</u>: Area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. (33 CFR 328.3(b))

<u>Wetland disturbance</u>: Area of disturbance in <u>wetlands</u>, measured dimensionally, for example: "x" linear feet by "x" linear feet, and in acres. The wetland disturbance includes all activities and mine features constructed by placing fill into wetlands. See Section I, "Activities covered by the permit"



Department of Environmental Conservation

DIVISION OF WATER

Wastewater Discharge Authorization Program

555 Cordova Street Anchorage, Alaska 99501-2617 Main: 907.269.6285

Fax: 907.334.2415 www.dec.alaska.gov/water/wwdp

October 30, 2020

US Army Corps of Engineers, Alaska District Attn: Colonel Phillip J. Borders P.O. Box 6898 JBER, Alaska 99506-0898

Re: General Permit – Mechanical Placer Mining Activities within the State of Alaska POA-2014-055-M1 (RGP-08), Statewide Waters

Dear Colonel Borders:

In accordance with Section 401 of the Federal Clean Water Act of 1977 and provisions of the Alaska Water Quality Standards, the Department of Environmental Conservation (DEC) is reissuing the enclosed Certificate of Reasonable Assurance for placement of dredged and/or fill material in waters of the U.S., including wetlands and streams, associated with placer mining activities within the State of Alaska.

DEC regulations provide that any person who disagrees with this decision may request an informal review by the Division Director in accordance with 18 AAC 15.185 or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. An informal review request must be delivered to the Director, Division of Water, 555 Cordova Street, Anchorage, AK 99501, within 20 days of the permit decision. Visit http://dec.alaska.gov/commish/review-guidance/ for information on Administrative Appeals of Department decisions.

An adjudicatory hearing request must be delivered to the Commissioner of the Department of Environmental Conservation, PO Box 111800, Juneau, AK 99811-1800; Location: 410 Willoughby Avenue, Suite 303, Juneau within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived.

By copy of this letter we are advising the U.S. Army Corps of Engineers of our actions and enclosing a copy of the certification for their use.

Sincerely,

James Rypkema

Program Manager, Storm Water and Wetlands

Enclosure: 401 Certificate of Reasonable Assurance

cc: (with encl.)

Jason Brewer, USACE, Anchorage Nicholas Lucore, USACE, Anchorage Audra Brase, ADF&G/Habitat, Fairbanks Fairbanks USFWS Field Office Matt LaCroix, EPA, AK Operations

STATE OF ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION CERTIFICATE OF REASONABLE ASSURANCE

In accordance with Section 401 of the Federal Clean Water Act (CWA) and the Alaska Water Quality Standards (18 AAC 70), a Certificate of Reasonable Assurance, is issued to the US Army Corps of Engineers, Alaska District (Attn: Colonel Phillip J. Borders) at P.O. Box 6898, JBER, Alaska 99506-0898 for placement of dredged and/or fill material in waters of the U.S. including wetlands and streams in association with placer mining activities within the State of Alaska.

The General Permit (GP) authorizes miners to place dredged and/or fill material into waters of the U.S., including wetlands and streams, for the purpose of mechanical placer mining within the State of Alaska, under certain terms and conditions. The GP authorizes up to five acres of wetland/water disturbance at any time and up to 1,500 linear feet of stream diversion or relocation in a year, unless waived by the Corps of Engineers.

Changes from the previous GP: The GP includes the following changes from the previous GP (POA-2014-055) issued in 2016:

- Now includes waiver process for 1,500-foot limit on stream diversions/relocations
- Now excludes work in and/or affecting anadromous streams
- Now excludes operations in Alaska Department of Environmental Conservation (ADEC)
 Impaired Waters (Categories 4a, 4b, and 5)
- Now excludes provision for default permit authorization

Activities covered by the GP: The GP covers the following mechanical placer mining activities that involve placement of dredged and/or fill material into waters of the United States:

- Mechanized land clearing, construction of berms or dams, stockpiles
- Stream relocations (permanent), stream diversions (temporary)
- New mine features constructed in wetlands, such as airstrips, camps, roads within the mining operation, and culverted crossings of streams or wetland areas
- Permanent access roads and road extensions outside the mining operation
- Reclamation activities
- Exploration activities for placer mining, such as sidecast or discharge of dredged and/or fill material for exploratory drill pads, trenches, holes, and bulk samples

Activities excluded from the GP: The GP excludes the following:

- Activities in or affecting anadromous fish streams
- Operations in ADEC Impaired Waters (Categories 4a, 4b, and 5)
- Temporary mining roads for the purpose of moving mining equipment, where such roads are constructed and maintained in accordance with best management practices (BMPs), are exempt from the CWA (33 CFR 323.4 (a)(6)). A temporary road has a limit of three (3) years
- Recreational Mining: use of hand tools such as a pick, shovel, pan, and/or rocker box do not require Department of the Army (DA) permit issued by the Corps authorization. Addressed in Special Public Notice 94-10, September 13, 1994

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- Commercial Gravel Operations located at a placer mining site, but operated for the sole purpose of gravel sales
- Suction dredge mining: use of suction device to remove bottom substrate from a water body and then discharge the material from a sluice box for the purpose of extracting gold or other precious metals
- Mining/working in Navigable Waters of the United States
- Hard Rock or Coal Mining: process of removing metals or elements within rock

A state issued water quality certification is required under Section 401 because the proposed activity will be authorized by a U.S. Army Corps of Engineers, General Permit (GP) POA-2014-00055-M1 (RGP-08) for Mechanical Placer Mining Activities in the State of Alaska, under Section 404 of the Clean Water Act (CWA) and a discharge of pollutants to waters of the U.S. located in the State of Alaska may result from the proposed activity. Public notice of the application for this certification was given as required by 18 AAC 15.180 in the Corps Public Notice POA-2014-055-M1 (RGP-08) posted from April 9 to May 11, 2020. The proposed activity is located throughout the State of Alaska.

The Department of Environmental Conservation (DEC) reviewed the application and certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the CWA and the Alaska Water Quality Standards, 18 AAC 70, provided that the following additional measures are adhered to.

- Reasonable precautions and controls must be used to prevent incidental and accidental discharge
 of petroleum products or other hazardous substances. Fuel storage and handling activities for
 equipment must be sited and conducted so there is no petroleum contamination of the ground,
 subsurface, or surface waterbodies.
- 2. During construction, spill response equipment and supplies such as sorbent pads shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze, or other pollutant spills. Any spill amount must be reported in accordance with Discharge Notification and Reporting Requirements (AS 46.03.755 and 18 AAC 75 Article 3). The applicant must contact by telephone the DEC Area Response Team for Central Alaska at (907) 269-3063, Northern Alaska at (907) 451-2121, Southeast Alaska (907) 465-5340 during work hours or 1-800-478-9300 after hours. Also, the applicant must contact by telephone the National Response Center at 1-800-424-8802.
- 3. Construction equipment shall not be operated below the ordinary high-water mark if equipment is leaking fuel, oil, hydraulic fluid, or any other hazardous material. Equipment shall be inspected for leaks and recorded in a log daily. If leaks are found, the equipment shall not be used and pulled from service until the leak is repaired.
- 4. All work areas, material access routes, and surrounding wetlands involved in the construction project shall be clearly delineated and marked in such a way that equipment operators do not operate outside of the marked areas.
- 5. Excavated or fill material, including overburden, shall be placed so that it is stable, meaning after placement the material does not show signs of excessive erosion. Indicators of excess erosion include: gullying, head cutting, caving, block slippage, material sloughing, etc. The material must be contained with siltation best management practices (BMPs) to preclude reentry into any waters of the U.S., which includes wetlands.

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- 6. Include the following BMPs to handle storm water and total storm water volume discharges as they apply to the site:
 - a. Divert storm water from off-site around the site so that it does not flow onto the project site and cause erosion of exposed soils;
 - b. Slow down or contain storm water that may collect and concentrate within a site and cause erosion of exposed soils;
 - c. Place velocity dissipation devices (e.g., check dams, sediment traps, or riprap) along the length of any conveyance channel to provide a non-erosive flow velocity. Also place velocity dissipation devices where discharges from the conveyance channel or structure join a water course to prevent erosion and to protect the channel embankment, outlet, adjacent stream bank slopes, and downstream waters.
- 7. Fill material (including dredge material) must be clean sand, gravel or rock, free from petroleum products and toxic contaminants in toxic amounts.
- 8. Any disturbed ground and exposed soil not covered with fill must be stabilized and re-vegetated with endemic species, grasses, or other suitable vegetation in an appropriate manner to minimize erosion and sedimentation, so that a durable vegetative cover is established in a timely manner.
- 9. Operational Best Management Practices for Placer Mining:
 - a. The flow of surface waters into the plant site shall be interrupted and these waters diverted around and away from incursion into the site.
 - b. Drainage waters within the plant site must be collected in treatment ponds or otherwise prevented from discharging pollutants into waters of the U.S.
 - c. Berms, including any pond walls, dikes, low dams, and similar water retention structures shall be constructed in a manner such that they are reasonably expected to reject the passage of water.
 - d. Measures shall be taken to assure that pollutant materials from disturbed areas will be retained in storage areas and not discharged or released to the waters of the U.S.
 - e. Discharges must be managed to prevent resuspension of sediments, excessive erosion of the streambank or streambed, or downstream flooding.
 - f. The permittee shall take whatever reasonable steps are appropriate to ensure that, after the mining season, all unreclaimed mine areas, including ponds, are in a condition that will not cause degradation to the receiving waters over those resulting from natural causes.
 - g. Petroleum products must be properly managed during storage, refueling, and operation to prevent spillage into surface waters or groundwater. Any spills must be cleaned up using materials, such as sorbent pads and booms, and reported.

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10. Other Considerations:

- a. All solid waste and foreign debris must be eliminated by removal to an off-site DEC-approved facility or by burning (if a paper product). Waste, in this paragraph means all discarded matter, including, but not limited to: human waste, trash, garbage, litter, oil drums, petroleum, ashes and discarded equipment. Hazardous waste must not be disposed of on-site, but instead must be hauled out for disposal in a DEC-approved disposal site.
- b. All greywater and human waste must be disposed of in a pit, or containment (port-a-potty) that can be transported to allow for disposal at a DEC-approved disposal site. If a pit is used, it must be located at least 100 feet from the ordinary high-water mark of the nearest surface waterbody and four (4) feet above the high groundwater table, and back-filled prior to leaving the site. Prior to installing a septic system check with the DEC office in Fairbanks (Tonya Bear, 907-451-2177, Tonya.Bear@alaska.gov; or 907-451-2109, http://dec.alaska.gov/water/wastewater/engineering/ for plan review requirements.
- c. If activity includes discharges of process wastewater, dewatering water, or drainage waters from open-cut mines or mechanical dredges, permittees shall obtain additional discharge coverage from an appropriate Alaska Pollutant Discharge Elimination System (APDES) permit. For further information, contact the DEC Mining Section (Nick Dallman, 907-451-2142, Nick.Dallman@alaska.gov, or http://dec.alaska.gov/water/wastewater/mining/.
- 11. For further information on impaired waters and the most current approved 303(d) Listed Waterbodies see: http://dec.alaska.gov/water/water-quality/impaired-waters/
- 12. Operators shall consult the Alaska Department of Fish and Game (ADFG) or the state

 <u>Anadromous Waters Catalog</u> to determine fish status and appropriate riparian area width for streams at the site.

Date: October 30, 2020

James Rypkema, Program Manager

Storm Water and Wetlands

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